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THE MILK DEALER

MODERN DAIRY CO

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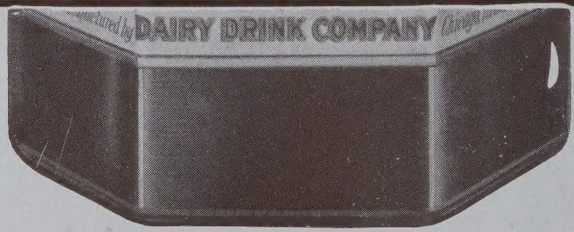
olume 16 OCTOBER, 1926 Number 1

NO BENZOATE - NO CHEMICAL PRESERVATIVE
CHOCOLATED
Dairy Drink
12 FL. OZ.
PRICE 35¢
FOUNTAIN BRAND
SYRUP

Actual size of handy glass container, sealed tight and ready to pour. Retails at 35c, a most generous value. Adds the final touch to a dainty dessert — housekeepers should keep a jar handy at all times. Its mellow richness makes incomparable frostings, sundaes, chocolate milk, malted milks and other delicacies.

Dairymen can handle this product *with profit!*



There's a market for this tasty, luscious syrup in convenient package form as well as in the chocolate milk drink you deliver.

Dairymen the country over are finding that Chocolated Dairy Drink Syrup brings additional business. It makes customers of those who don't drink milk, and those who do, because of the many delightful recipes based on it.

Have you seen the "milk-cap" booklet? It's a real business builder. Send for free copy with sample of syrup.

DAIRY DRINK COMPANY
4830 S. Turner Ave., Chicago

CHOCOLATED
Dairy Drink

Formerly "400"

Write us or ask our jobbers

A. H. BARBER-GOODHUE CO.
Chicago, Ill.
J. G. CHERRY CO.
Cedar Rapids, Iowa

NATIONAL DAIRY EQUIPMENT CO.
Utica, New York
STEVENS-ADAMS-CYR CO.
Charlestown, Mass.

H. A. SHELLENBERGER SUPPLY CO.
Salt Lake City, Utah
CORLL DAIRY SUPPLY CO.
Youngstown, Ohio

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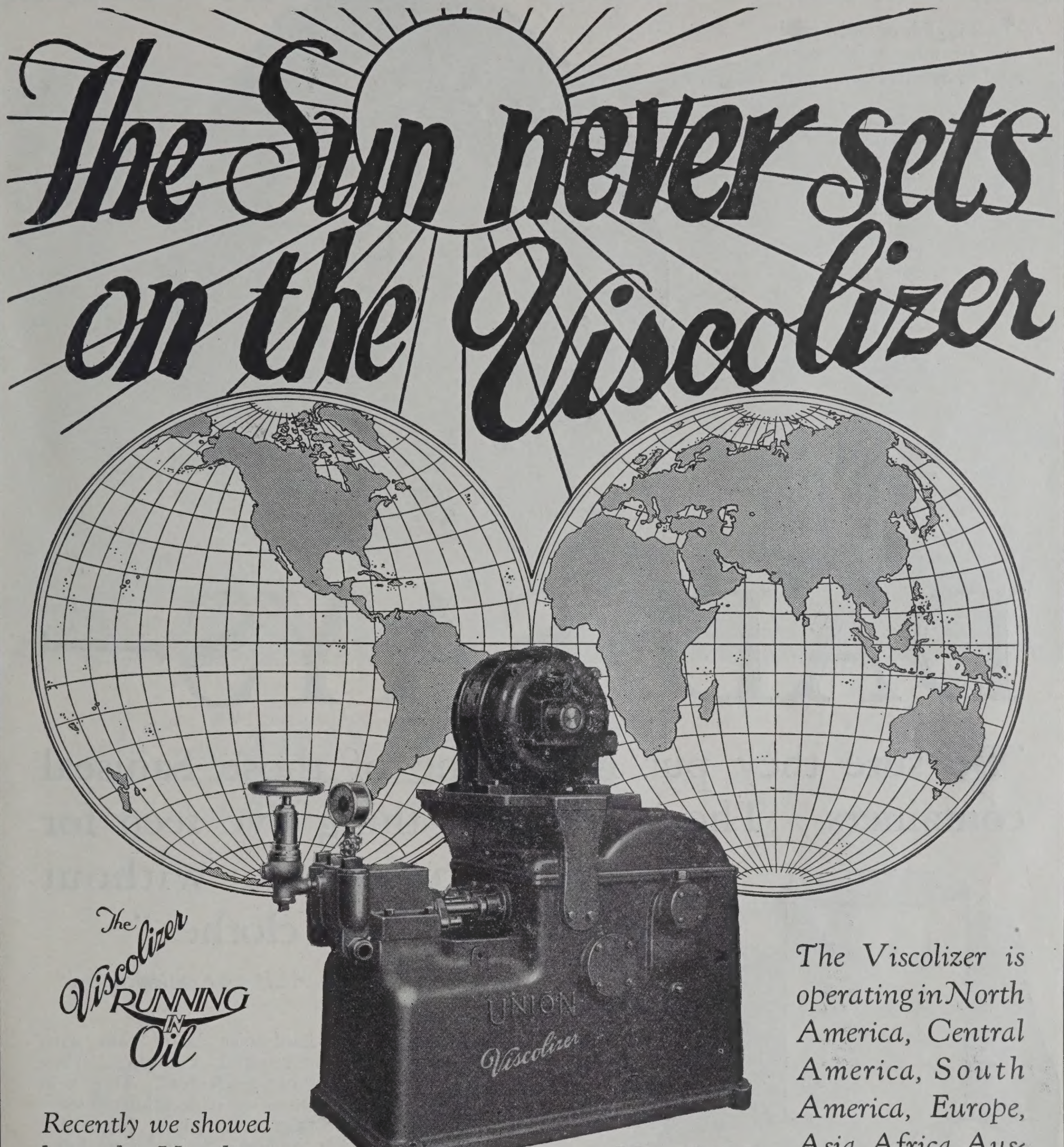

The Sun never sets
on the Viscolizer
UNION
Viscolizer
The Viscolizer RUNNING IN Oil

Recently we showed how the Viscolizer covered the United States and Canada.

No. 800
Made in Sizes 200 to 800 Gallons Per Hour . . . . Belt and Motor Drive.

The Viscolizer is operating in North America, Central America, South America, Europe, Asia, Africa, Australia, and in fact all over the world.

There Are More Viscolizers in Use Than All Other Similar Machines Combined.

WRITE FOR DESCRIPTIVE LITERATURE

DISTRIBUTION DIRECTED BY

JOHN W. LADD CO. **CHERRY-BASSETT CO.**

AND SOLD BY LEADING DAIRY SUPPLY HOUSES EVERYWHERE

646757

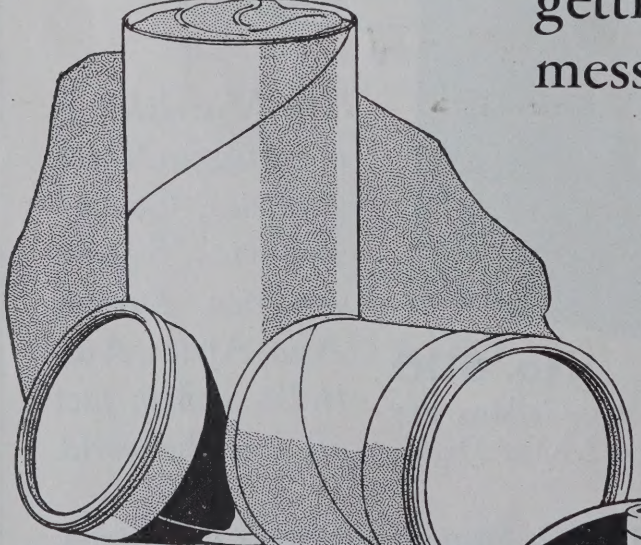
*All liquids or moist products are most safely packaged in Saniseal Containers.

Ice Cream
Fountain Drinks
Coffee
Soup
Delicatessen
Syrup
Molasses
Cheese
Butter
Lard
Oysters
Hamburger
Salads
Cream
Milk

DAD SAYS—

"Be sure they put it* in one of those Saniseal containers. They're the best thing I've seen for getting stuff home without messing up your clothes."

— how ALL your customers feel

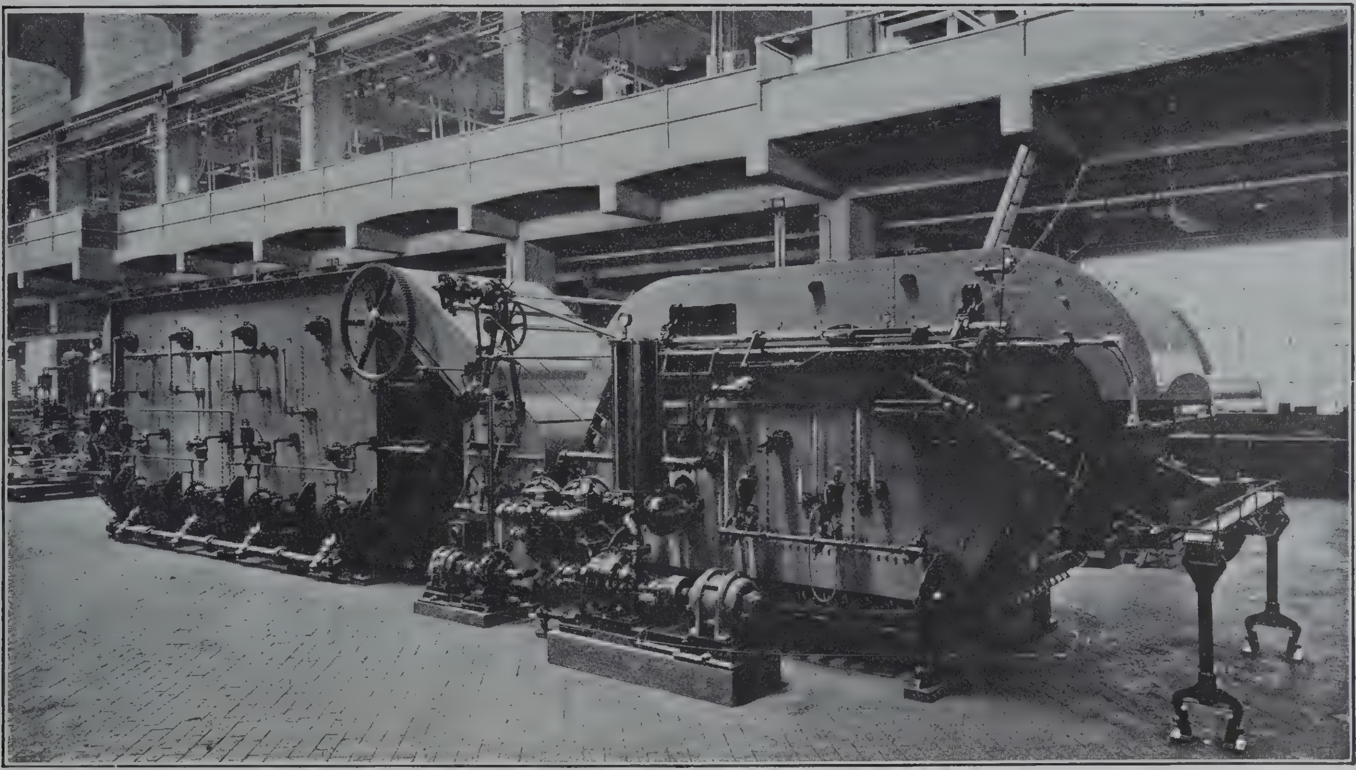


SANISEALS are hard-finish board cans with *moulded* — not crimped — closures. They *can't* leak! Every can guaranteed. They help make steady customers out of occasional ones—increasing your sales and profits. Write for name of nearest jobber. Smith-Lewis Fibre Can Corp., 554 Bostwick St., Lowville, N. Y.

New York City
Cincinnati, O.
Boston, Mass.
Baltimore, Md.

SANISEAL

Sanitary fibre containers for liquid, moist or dry products



The "ARISTOCRAT" of BOTTLE CLEANERS

Let us explain the mechanical details to you and how this Aristocrat of Bottle Cleaners is saving money for the most prominent of milk plants.

Where Tasks are Large and Economy Paramount

In milk plants where highly centralized distribution requires the largest kind of bottle washing arrangements, The Barry-Wehmiller Bottle Washer is on the job.

Its selection is not only due to its ability to wash more bottles and wash them better and more thoroughly within a given time and space, but it also does this for less money.

Barry-Wehmiller Machinery Company

4660 West Florissant Avenue
ST. LOUIS, MO. :: :: :: :: U. S. A.

11 ADVANTAGES of DRINKING MILK IN FACTORIES

By M. O. MAUGHAN

1. Helps the employees do their work with *greater ease.*

2. Helps the employees do a *greater amount* of work each day, thereby *increasing their earning power.*

3. Helps them work *more regularly,* resulting in larger pay checks throughout the year.

4. Helps the employees do their work with *greater accuracy and efficiency.*

5. *Helps build up those who are undernourished,* and who should take added nourishment in order to continue their work.

6. *Reduces doctor bills* because of improved health.

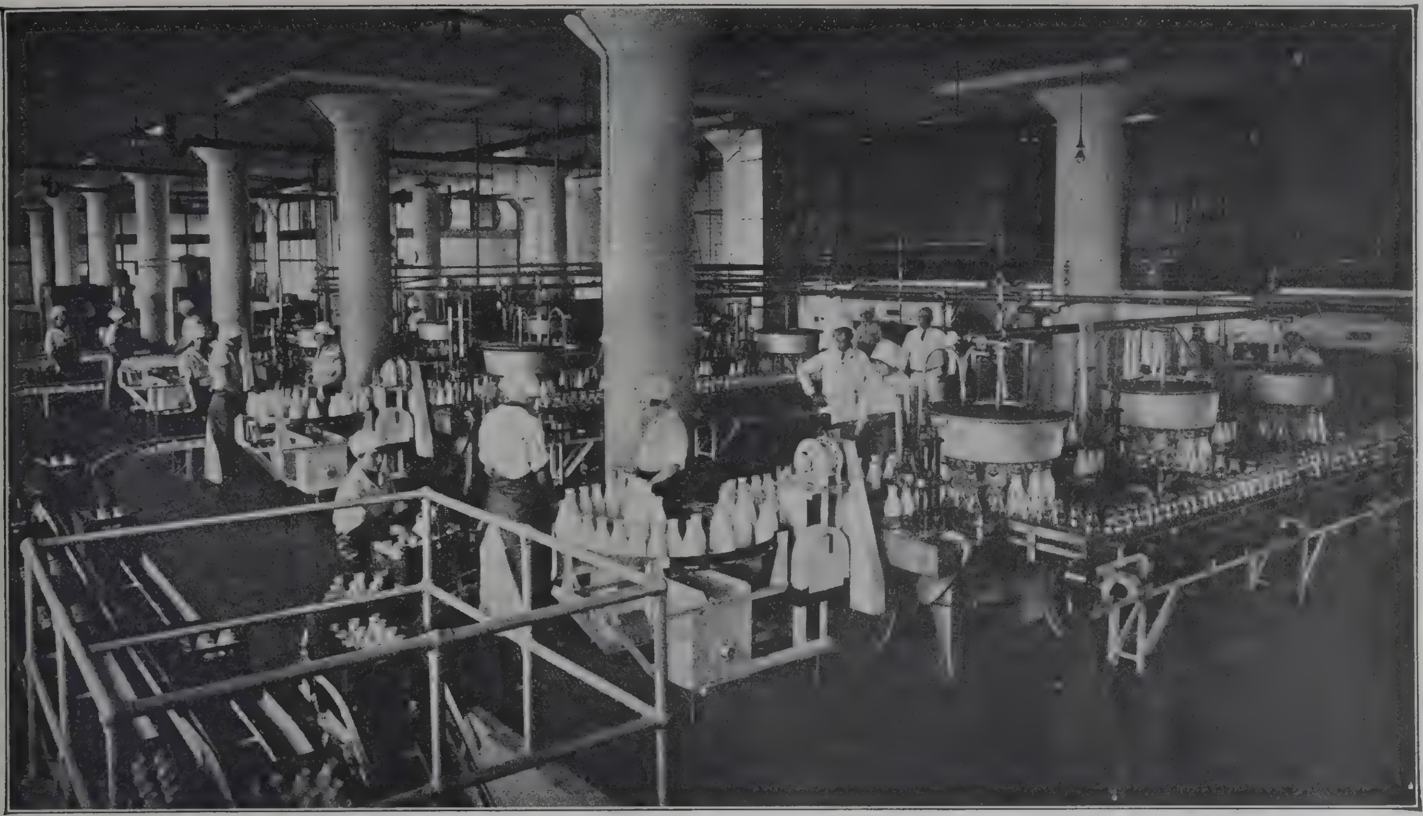
7. *Helps build factory morale,* thereby developing a better attitude toward their work, with less desire to watch the clock and to slow up and neglect their work when fatigued in mid-morning and mid-afternoon.

8. Serves as a *partial protection against poisoning* to those whose work involves handling paints, chemicals, etc.

9. *Reduces number of accidents* because milk steadies the nerves.

10. Results in the men feeling better at the end of the day's work so that they can *better enjoy their evenings* in recreation and with their families.

11. *Results in an increased consumption of milk in the home,* because the message of the goodness of milk is carried home from the factory.



A Wonderful Achievement in Milk Plant Engineering

HERE was a problem that required real engineering skill. The soaking and washing of the bottles is done in the basement—two floors below the bottling room.

Clean bottles at the rate of 480 per minute are delivered and distributed to the fillers in this room.

Three Large YUNDT MILWAUKEE AIR BRUSH MILK BOTTLE WASHERS

automatically feed these nine type L Milwaukee Fillers. All operations are synchronized to harmonious operation of the various units. Everything is controlled automatically.

What Yundt engineers and Yundt Milwaukee Air Brush Milk Bottle Washers have done for the Pevely Dairy Co. in this plant at St. Louis, Missouri, they can do for you. The size of your problem is no obstacle. A small problem receives equal consideration.

It's the Air Brush

◆

If you don't know about it, ask us.

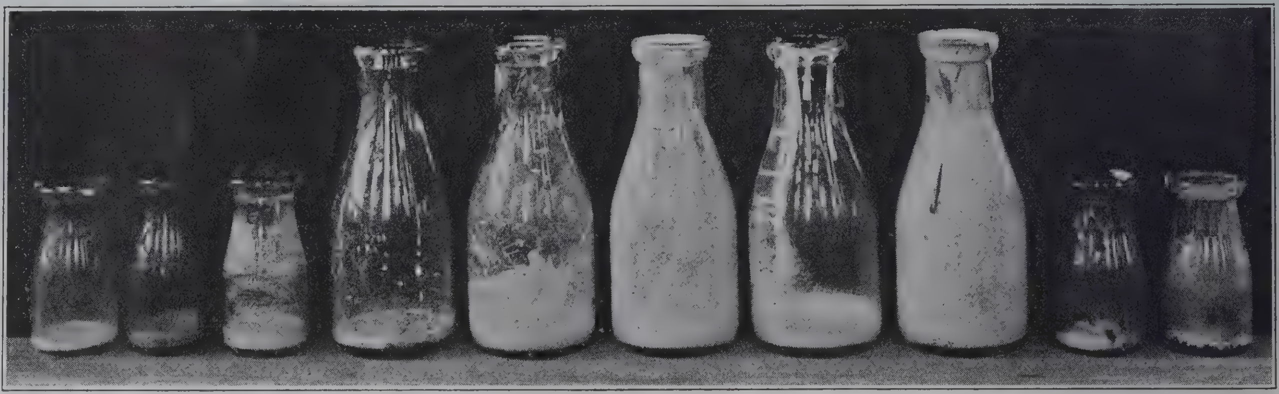
Manufactured and Sold by

MICHAEL YUNDT COMPANY

MILWAUKEE, WISCONSIN U. S. A. WAUKESHA, WISCONSIN

? - ? - ? - ? - ?

Here is a photo of several milk bottles as they came back to the dairy. Thousands of bottles like these, containing sour milk, butterfats, dirts, etc., which will not drain out by gravity, are returned to every dairy daily. A record made for one day's run in a plant where approximately 15,000 bottles are washed per day showed that over 256 pounds of this dirt, refuse, etc., still remained in the bottles when they were fed into the washing machine. Tests also showed that these substances could not be flushed from the bottles by merely giving them a light rinsing with hydrant water.



Do you think that these contaminating and objectionable deposits should be carried into the soaking tanks of the bottle washer and allowed to accumulate for weeks?

Under such conditions can an alkali solution continue to be a clean and sanitary washing medium?

Can such a solution maintain a uniform degree of alkali strength without continually adding large quantities of alkali to it?

Can a bottle containing a quantity of this dirt, butterfat, etc., receive the same chemical treatment from the alkali solution as one that enters the solution free from these deposits?

We dare say that the unanimous answer to these questions is NO. Then why use bottle washers which operate under these very conditions?

The CLEVELAND BOTTLE WASHERS are the only machines that remove all deposits from the bottles before they enter the soaking compartments.

The CLEVELAND METHOD of treating bottles not only means sanitary and efficient washing and sterilizing but also means a great savings in alkali, which amounts to hundreds of dollars per year.

The CLEVELAND BOTTLE WASHER insures you of the most modern, efficient, and economical method of washing and sterilizing bottles.

Built in all sizes and to meet every condition. Write for full particulars.

THE UNION ENGINEERING CO.

Cuyahoga and W. 4th Street CLEVELAND, OHIO

THE FASTEST WAY TO COVER A MILK ROUTE

No milk tray handled more than once!

This latest model Ward Electric has been designed especially to fill the needs of retail house-to-house milk delivery. It not only saves time over the "horse that knows the route," but will deliver the milk at less cost.

Loaded to full capacity the truck will hold 46 trays of milk—42 in the main compartment at the rear, and 4 in the front alongside of the driver. The average route does not carry more than 35 trays stacked as shown in Figure X. This leaves exposed for the driver, the two front rows of trays.

Driving from the dairy to the route the salesman rides in a seated position. Having arrived at his route, he detaches the seat, leaving the space between both doors entirely clear.

The driver begins his deliveries by emptying the two trays on the front battery box, and leaves the empties right where they are. He then empties the two front rows of trays in the main part of the body, rows No. 1 and No. 2, Figure A. He then stacks these empty trays in the rear compartment, specially designed for this purpose, leaving his load as indicated by Figure B.

Next he empties the two front rows again and stacks them in the rear compartment, Figure C. Again the two front rows are emptied and stacked in the rear, leaving the operation as shown in Figure D.

Now the driver empties the first row on the floor (1) and leaves these empties just where they are, the rear compartment now being entirely filled.

The driver now takes three full trays from the top of the last row and places them on the top of the empties in the front, as shown in Figure E, and proceeds to empty the trays.

The final operation consists of moving the last row of trays forward on top of the battery box and the empty row of trays, and placing them in position shown in Figure F.

This now leaves 9 full trays of milk exposed for delivery without further movement.

You will note that the entire operation has been achieved without moving any full tray of milk or empty tray more than once. This is one reason for the speed and efficiency of this method of delivery, made possible by the body design of the truck.

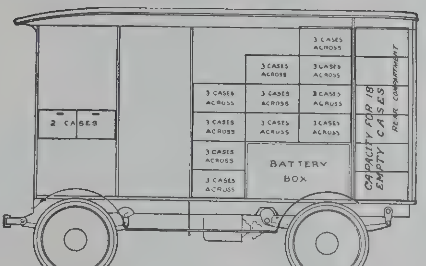

3 CASES ACROSS
2 CASES
BATTERY BOX
CAPACITY FOR 18 EMPTY CASES
REAR COMPARTMENT

FIG X

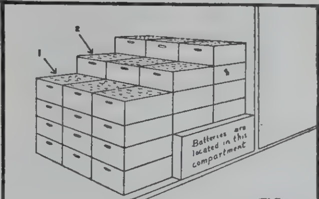

1
2
3
Batteries are located in this compartment

FIG. A

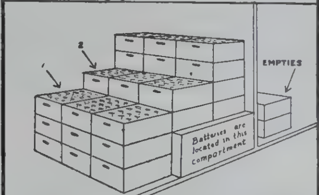

1
2
EMPTIES
Batteries are located in this compartment

FIG. B

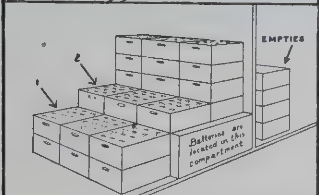

1
2
EMPTIES
Batteries are located in this compartment

FIG. C

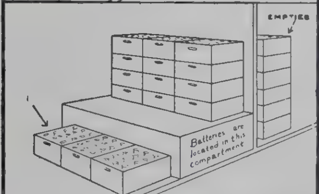

1
EMPTIES
Batteries are located in this compartment

FIG. D

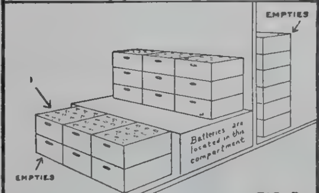

1
EMPTIES
EMPTIES
Batteries are located in this compartment

FIG. E

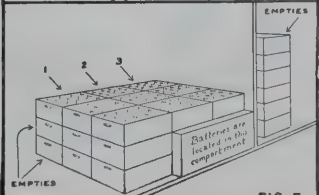

1
2
3
EMPTIES
EMPTIES
Batteries are located in this compartment

FIG. F

You will note that not only has no tray been handled more than once but no trays need be left on the street to be called back for after the remaining trays in the wagon have been emptied.

Another contribution to speed is the Ward patented cut-in step. From Figure Y you will see that this cut-in step enables the driver to operate the truck from a standing position on the step. The controller lever, being on the left side of the steering wheel, enables the driver to operate it with his right knee or by hand. When he stops he merely shuts off the current and applies his right foot to the brake. In starting again he has only to place his foot on the trigger, which releases the brake, and then switch on the current.

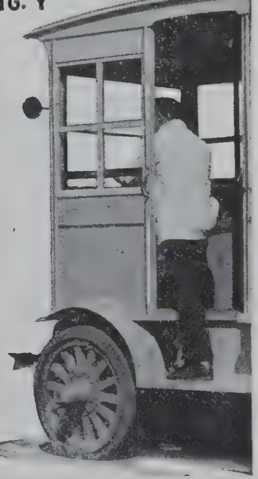
In actual stop-watch tests against "horses that know the routes," this truck saves from 15 minutes to one and a half hours a day. Quick pickup and its wonderful handiness in operation are reasons for this.

The important savings made possible by replacing your horses and wagons with electric delivery vehicles deserves your careful consideration. Certainly you will want to have the facts about electric delivery—write for the Ward Electric catalog today.

WARD MOTOR VEHICLE CO.
MOUNT VERNON, N. Y.

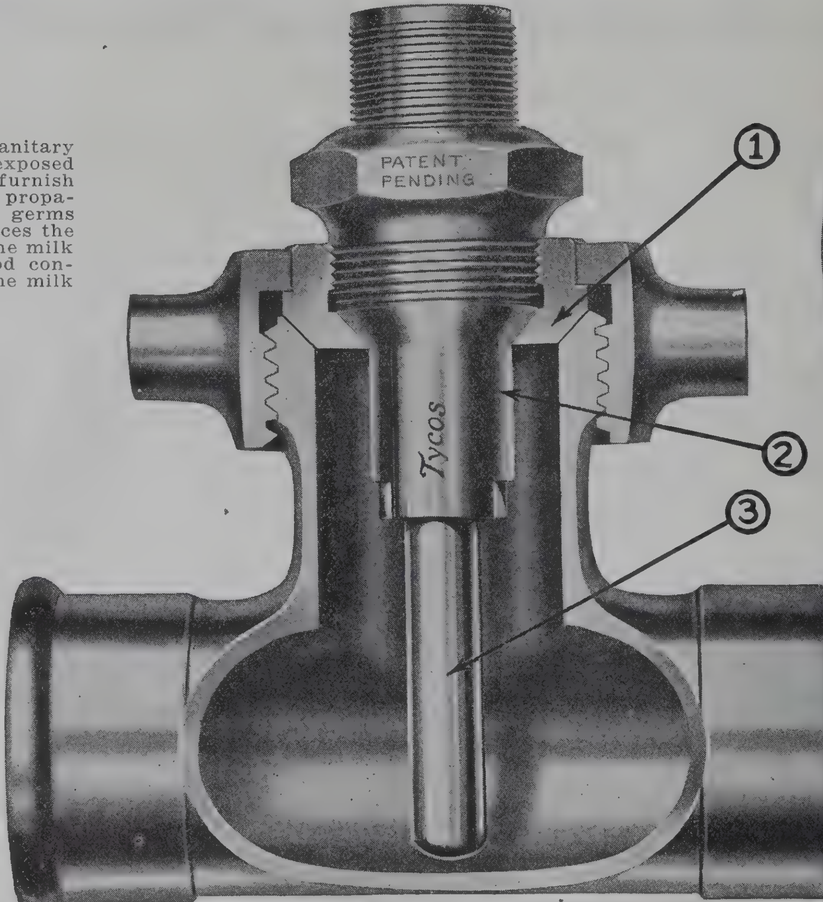
New York Philadelphia Boston Baltimore Buffalo
Detroit Chicago St. Louis San Francisco Los Angeles

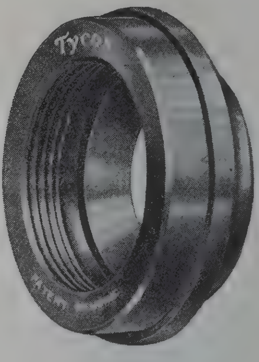
FIG. Y



New *Tycos* Sanitary Method of Applying Thermometers and Regulators to the Milk Line

Prevents unsanitary pockets and exposed threads which furnish such excellent propagating places for germs and bacteria. Places the bulb directly in the milk line insuring good contact even when the milk line is not full.





The Ferrule

Thermometer or regulator bulb installed in milk line, using the *Tycos* Sanitary Ferrule

1— *Tycos* Ferrule available for use with sanitary fittings as adopted by the International Association of Milk Dealers and interchangeable with *Tycos* Instruments for indicating, recording and controlling temperatures.

2—Eliminates any threads or pockets which otherwise would be exposed to the milk flow, presenting a smooth, sanitary surface, easily cleaned. No place left for the growth of bacteria.

3—Bulb is not pocketed, as usually was the case prior to the development of this method of installation since the bulb of the instrument is brought down into the flow of milk, insuring good contact.

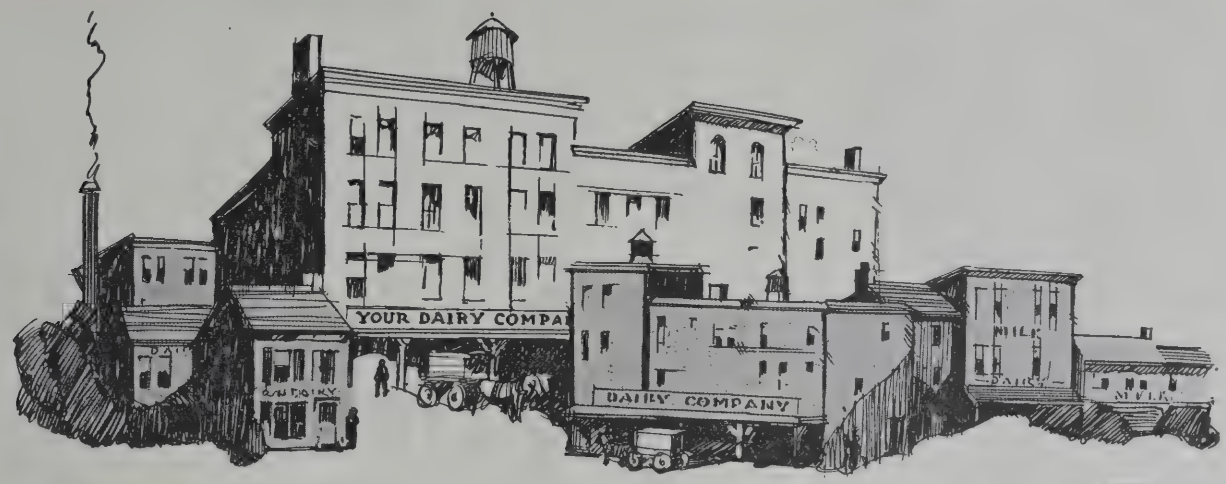
SEND FOR MILK PLANT CATALOGS 500-A AND 500-F.

Taylor Instrument Companies
ROCHESTER, N. Y., U. S. A.

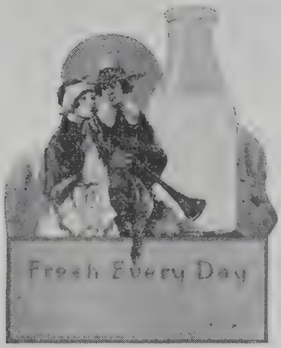
Canadian Plant
Tycos Building
Toronto

Manufacturing Distributors
in Great Britain
Short & Mason, Ltd., London

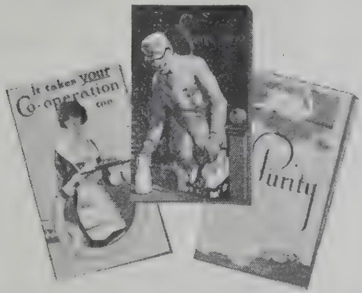
Tycos Temperature Instruments
INDICATING - RECORDING - CONTROLLING


YOUR DAIRY COMPA
DAIRY COMPANY
MILK
DAIRY

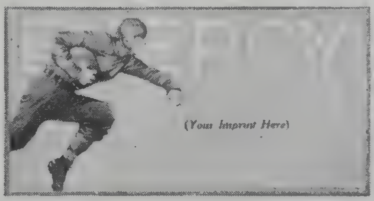
Giving YOUR BUSINESS a Personality —


Fresh Every Day

ON the loading platform of your plant it is "*your milk*"—is it still "*your* milk" when it reaches the homes of your customers or is it just "milk"?

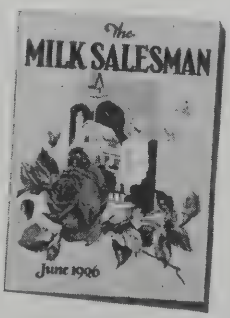

It takes your Co-operation
Purity

The answer to that question depends entirely on whether you preserve your identity clear through to the homes you serve. And it's a mighty important question because millions of gallons of milk flood the cities of this country every day. And if you're spending money to get good milk and to give good service, you can't afford to submerge the personality of your business in the daily Niagara of milk that pours out over the country.


(Your Imprint Here)

That's what advertising is for.

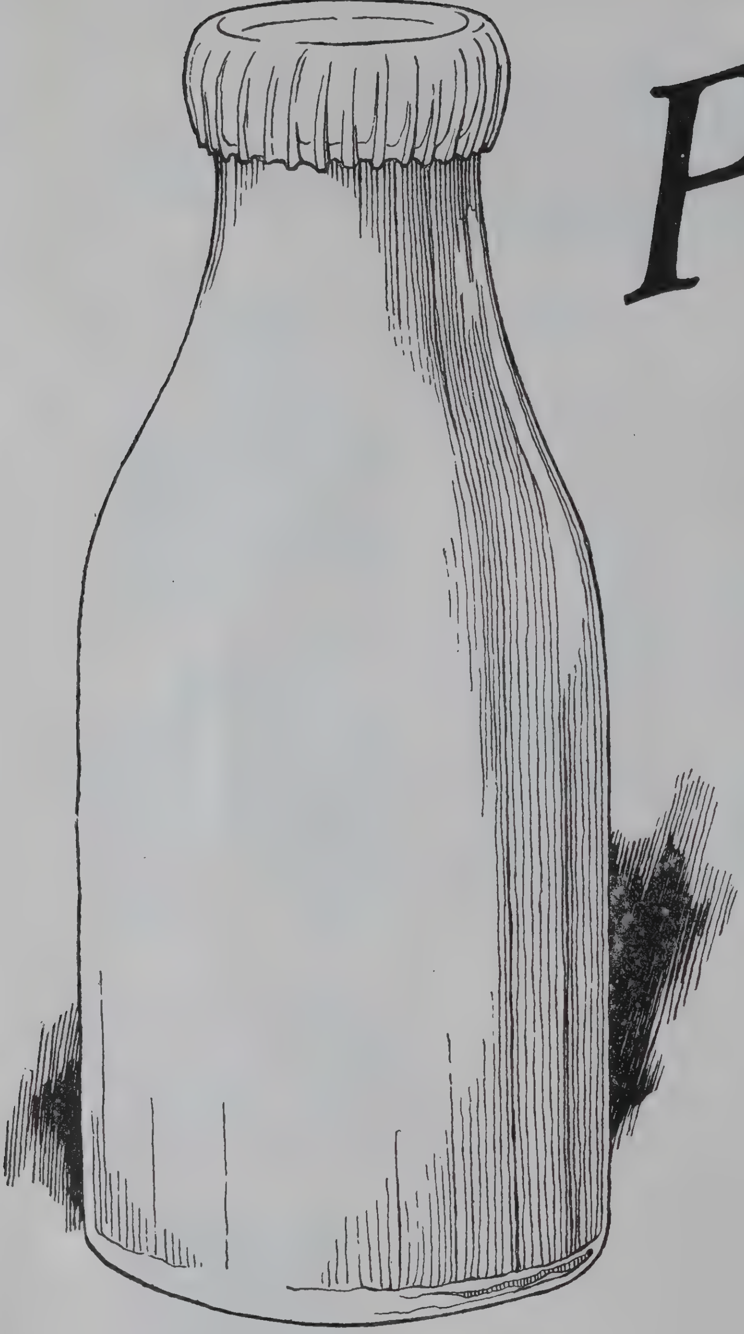
Never mind now about education. The purpose of advertising isn't to educate—it's to sell goods. And you can use it, if you like, to make *your* milk stand head and shoulders above the common level.


The MILK SALESMAN
June 1926

Let us tell you how we are helping other dealers do this job. We've had a lot of experience in the milk business. We know the milk man's message and the milk man's market. Maybe we can help you. Drop us a card.

THE FARRAR ADVERTISING COMPANY

108 FULTON BUILDING :: :: :: PITTSBURGH, PENNA.



Protection!

THE Westlake one-piece sanative seal affords the most perfect protection to the contents of a milk bottle that has ever been devised.

It is a moulded cap made to shape in the AMF Automatic Milk Bottle Sealing Machine from discs of 5-ply spruce paper. The cap grips the under-side of the lip of the bottles tightly all around, making an absolute seal, and since it cannot be knocked off in handling or jarred loose it completely protects the milk against contamination from unclean hands, dirty ice or animals.

Yet a simple turning and lifting movement enables the customer to remove the cap. It may be replaced loosely as a temporary dust cover, but cannot be re-tightened and used as a seal again, thus protecting the consumer against tampering without instant detection.

The Westlake Sanative Seal requires no wires or other equipment to keep it in place.

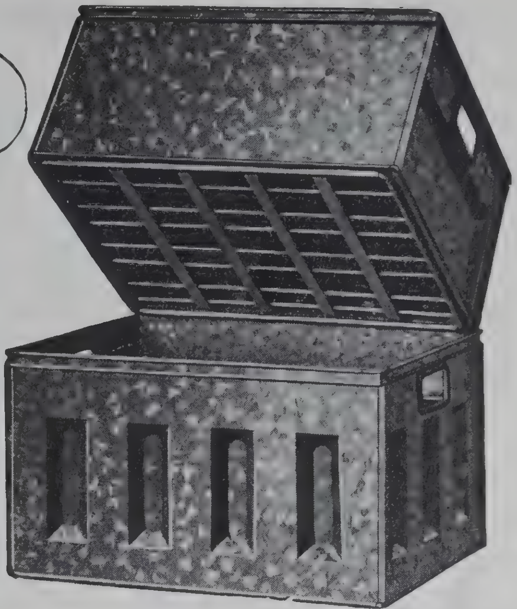
Write for complete descriptive literature and prices.

The Lakewest Corporation

Division of

AMERICAN MACHINE & FOUNDRY CO.

5520 Second Avenue **BROOKLYN, N. Y.**



More Years of Service at Less Cost Per Case

CLIPPER CASES

are a standardized product completely made of steel and sold at a standardized price.

Their correctness of original design is proven by the fact that through 20 years of manufacture they have never changed, never found need for addition or subtraction.

Repairs are an unknown quantity to the average user of Clipper Cases. Their one-piece metal construction for sides and ends and the manner in which division wires are fastened gives them indefinite life without repairs. A hammer to smooth out a kink now and then is all that is needed to keep Clipper Cases in shape.

Clipper Cases absorb no moisture and consequently they are not subjected to the effects that result from wood swelling, warping and drying out.

Clipper Cases have no projecting stacking irons, yet you can set them ten high and truck them around your plant and the stack will stay rigid and never sway.

These Jobbers Sell CLIPPER CASES

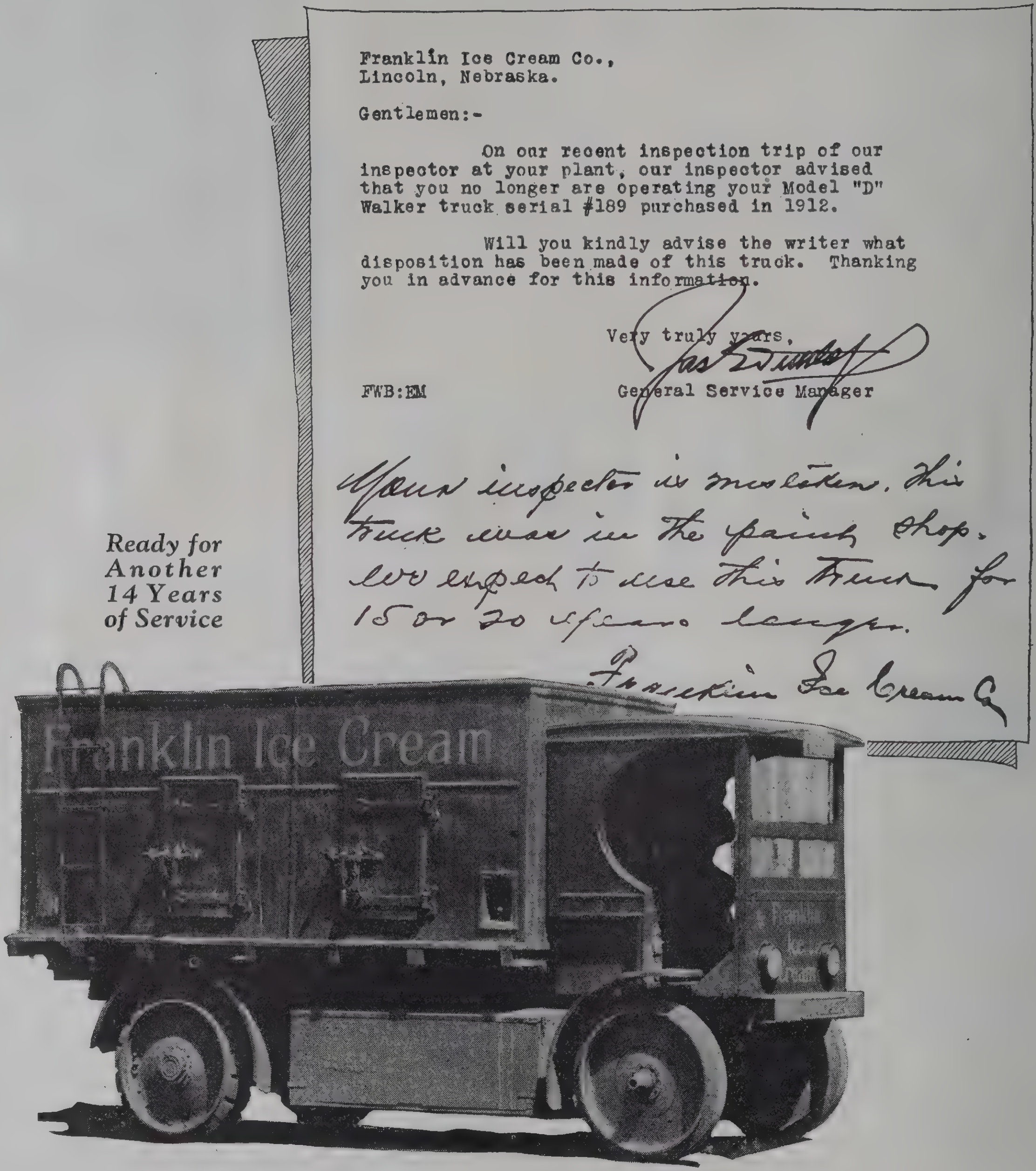
J. G. Cherry Co.	Cedar Rapids, Ia. St. Paul, Minn.
Meyer-Blanke Co.	Birmingham, Ala. Dallas, Tex. St. Louis, Mo.
Haines-Carpenter Dairymen's Co.,	St. Louis, Mo.
Miller-Lenfesty Supply Co.	Jacksonville, Fla. Miami, Fla. Tampa, Fla.
N. A. Kennedy Supply Co.	Kansas City, Mo.
Apothecaries Hall Co.	Waterbury, Conn.
Teague Hardware Co.	Montgomery, Ala.
Gowing-Dietrich Co., Inc.	Syracuse, N. Y.
John W. Ladd Co.	Detroit, Mich. Cleveland, Ohio Columbus, Ohio Cincinnati, Ohio
A. L. Davis' Son	Binghamton, N. Y.
Cherry-Bassett Co.	New York, N. Y. Syracuse, N. Y. Baltimore, Md. Philadelphia, Pa. Pittsburgh, Pa
E. K. Owens Hardware Co.	Susquehanna, Pa.
National Dairy Equipment Co.	Utica, N. Y.
Hagan's Dairy Supply House	Greensboro, N. C.
Chester Dairy Supply Co.	Chester, Pa.
M. G. Newell Co.	Greensboro, N. C.
Oakes & Burger Co.	Cattaraugus, N. Y.
Ft. Wayne Dairy Equipment Co.	Ft. Wayne, Ind.
Thompson-Bremer & Co	1750 Carroll Ave., Chicago, Ill.
John Pico	New Orleans, La.

The first cost is all, and that is low.
To conserve your profits use Clipper Cases.

The Defiance Pressed Steel Co.

DEFIANCE, OHIO

This Letter Tells the Story



Franklin Ice Cream Co.,
Lincoln, Nebraska.

Gentlemen:-

On our recent inspection trip of our inspector at your plant, our inspector advised that you no longer are operating your Model "D" Walker truck serial #189 purchased in 1912.

Will you kindly advise the writer what disposition has been made of this truck. Thanking you in advance for this information.

Very truly yours,

General Service Manager

FWB:EM

Your inspector is mistaken. This truck was in the paint shop. We expect to use this truck for 15 or 20 years longer.

Franklin Ice Cream Co

Ready for Another 14 Years of Service

For truck quality that is still earning profits for you after first cost has been entirely depreciated off your books, build your city fleet of Walker Electrics, in which every unit from bumper to tail light is time tested. Write today for new folder—"What They Say, not What We Say."

WALKER VEHICLE COMPANY
CHICAGO

WALKER ELECTRIC TRUCKS

LOWEST TRUCKING COST ON CITY ROUTES

L. P.

More Clean Sterile Cans Per Hour at *Less* COST

Setting the Nation's Can Washing Standards for Efficiency and Economy

Machine values are determined by results obtained—not by the cost of materials and involved labor. Results are measured by the factors of *satisfactory performance, capacity per hour, cost of operation, durability and dependability.* And all of these, in the final analysis, are judged by comparison with other competitive machines.

Because L.-P. machines are washing, sterilizing and drying cans *better, faster* and *at less cost* than any other machines on the market, plus durability and dependability—they have justly earned their position at the top and have established can washing standards by which all other machines are now being compared.

Before selecting a can washer, just compare results point by point with L.-P. machines. Consider the condition of the delivered cans and operating costs (including labor required for equal capacities); consider the items of floor space, convenience of operators and flexibility of operating capacities.

As the buyer you are entitled to and should get the maximum values for your money. As the manufacturers of L.-P. can washers we invite the most critical comparisons on every point vital to washing efficiency and economy. Our sales are rapidly increasing because buyers are more insistent on results.

There is an L.-P. machine to fit the requirements of every creamery, milk and ice cream plant, regardless of size. Let us tell you what our machine will do for you.

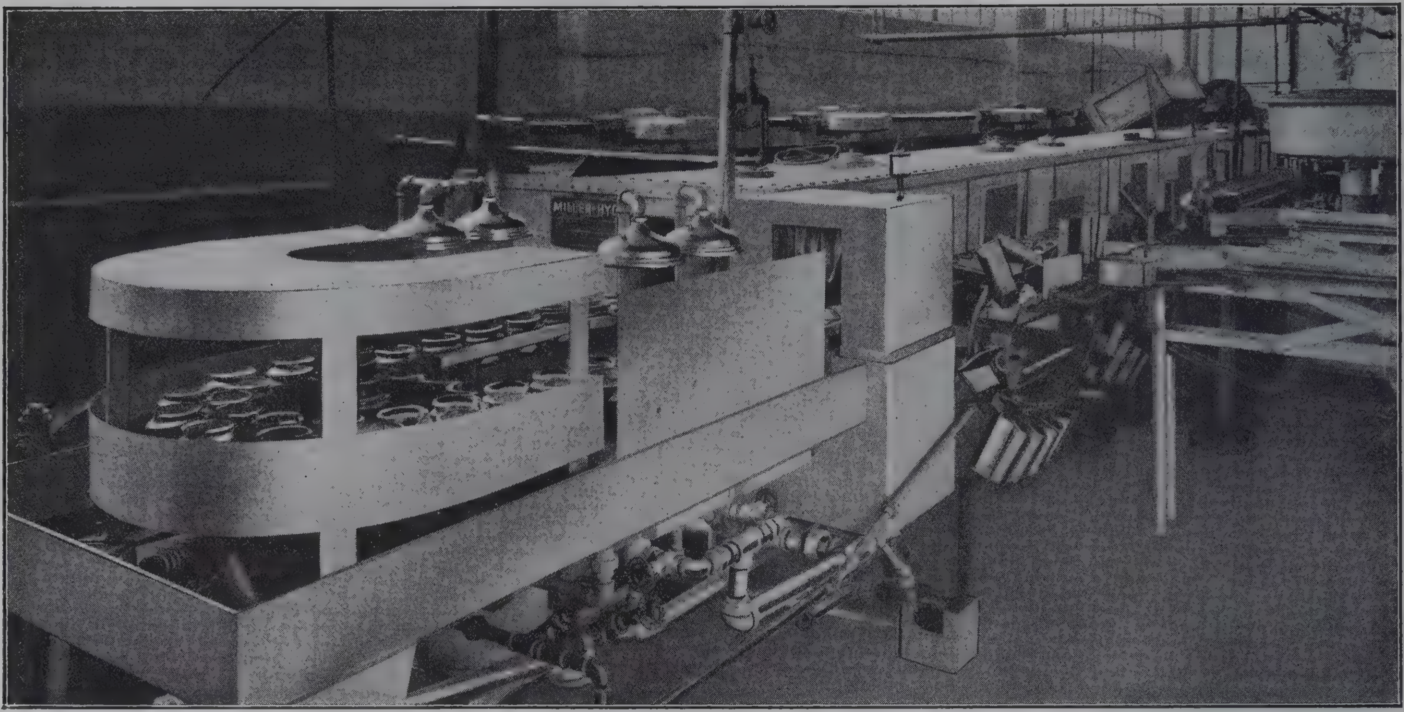
washers and driers

THE LATHROP-PAULSON COMPANY

2459 W. 48th Street

There Is An L.-P. Representative Near You

Chicago, U. S. A.



View of a Miller installation at the Roberts Dairy, Omaha, Nebraska

World Wide Leadership Proves Its Superiority

THE MILLER HYDRO is the accepted standard of bottle washing machinery in every civilized country where beverages are sold. Over three thousand leading bottlers and brewers are the jury who settled this . . . . who pronounced the Miller Hydro flawless and perfect in operation

The same efficient machines, identical in principal, and with a cup arrangement that permits handling any size or shape milk bottles, are available to dairies, regardless of capacity.

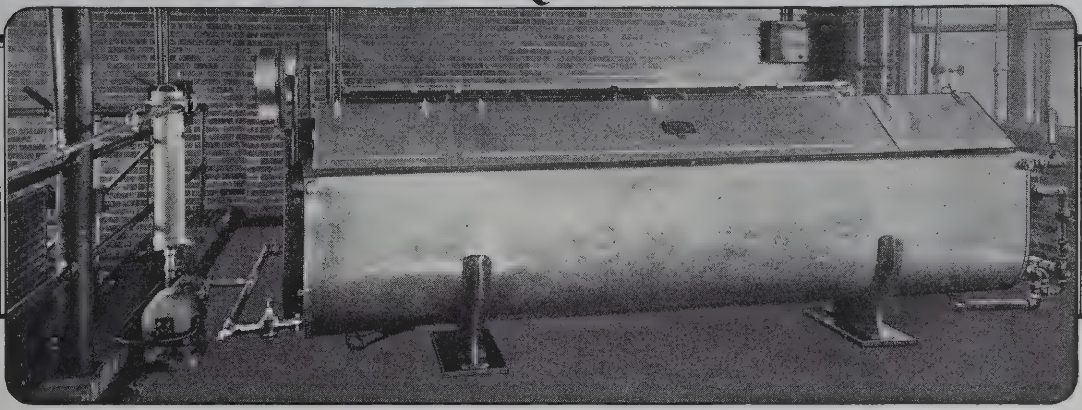
The Miller Hydro Dairy Models speed up production; cut every overhead item in two; and give a steady stream of chemically sterile bottles without even the possibility of breakage. The continuity of operation with but one operator, in addition to the tremendous saving in labor, positively insures the correct timing of pasteurization.

Write us today for catalog and names of large dairies who have tested the Miller Hydro under every condition. Without obligation on your part . . . . let us supply full and complete information.

THE MILLER MANUFACTURING CO., Bainbridge, Ga.
Chicago Office: 1305 Monadnock Block New York Office: 105 West 40th St.

from Dirty
The MILLER-HYDRO
Bottle Washer and Sterilizer
ONE CONTINUOUS OPERATION
to Clean

Another user of Pure Nickel DAIRY EQUIPMENT



Pure Nickel-lined Burrell-Simplex Spray Pasteurizers in E. E. Blain Dairy Co., Cleveland, O., manufactured by D. H. BURRELL & CO., INC., OF LITTLE FALLS, N. Y.

E. E. BLAIN DAIRY · CLEVELAND, OHIO

WHERE BACTERIA COUNT IS UNIFORMLY LOW

OLD-TIMERS in the dairy business know how much better the results are when modern equipment is used as compared with results secured when dairy products are handled in old-fashioned equipment. They know, for instance, that pure Nickel equipment turns out a purer product at a lower cost.

The E. E. Blain Dairy of Cleveland, writes—"Our milk has a fine flavor and our bacteria counts are uniformly low."

Users of pure Nickel dairy equipment confirm what most dairymen already know: that Pure Nickel

—safeguards purity
—promotes economy
—is easily cleaned
—lasts longer in hard service.

Pure Nickel is rust-proof and corrosion-resisting. It is strong and tough with no coating to chip, crack or wear off.

If you are asking yourself "how can I produce a better product at a lower cost" we suggest that you secure further information about pure Nickel. Ask your manufacturer or write direct.

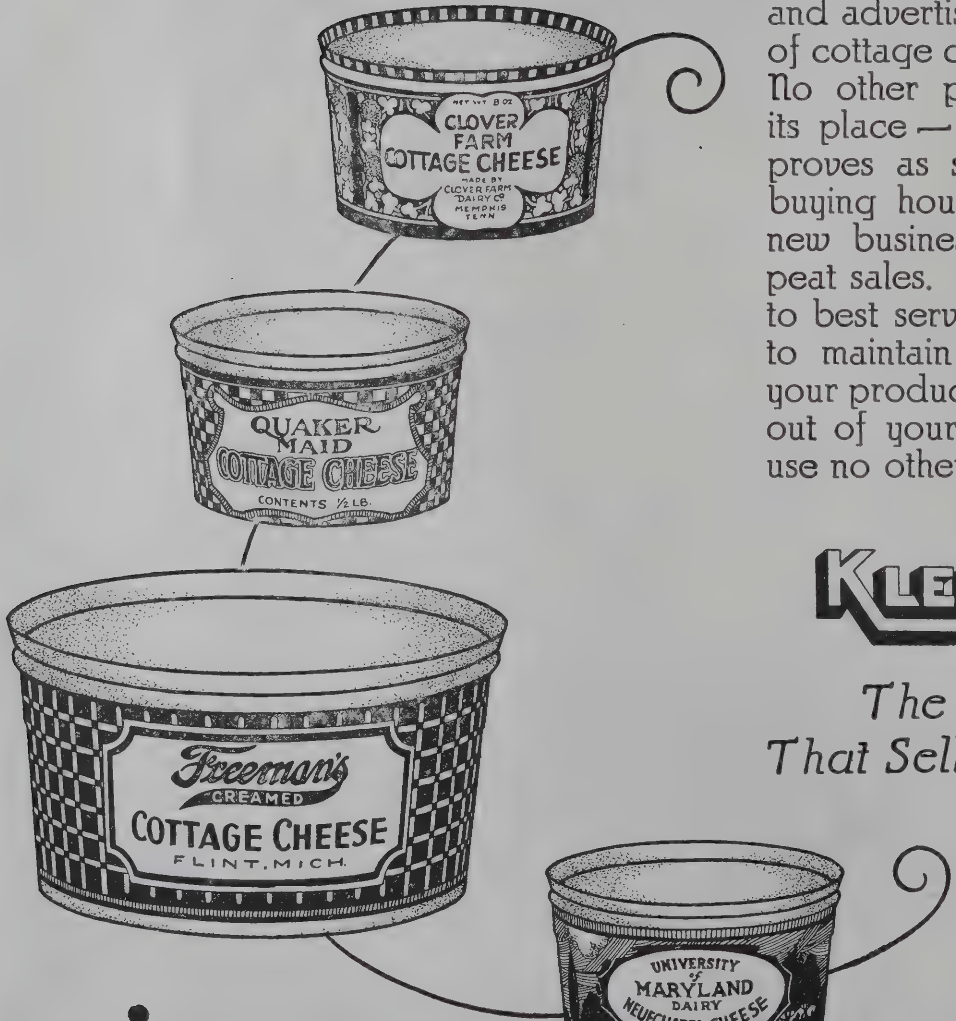
View of E. E. Blain Dairy Co., Cleveland, O., where pure Nickel equipment is insuring purity with economy

SEND FOR "LIST B" OF NICKEL AND MONEL METAL LITERATURE

THE INTERNATIONAL NICKEL COMPANY, 67 WALL STREET, NEW YORK CITY.

This package is the most powerful sales builder you can employ

This package has been an important factor in the development of the cottage cheese business. For sixteen years it has maintained its leadership—it is the most powerful sales and advertising aid any maker of cottage cheese can employ. No other package can take its place — no other package proves as satisfactory to the buying housewife. It creates new business and forces repeat sales. If you are seeking to best serve your customers, to maintain the goodness of your product, to get the utmost out of your business you will use no other than the


NET WT 8 OZ
CLOVER FARM COTTAGE CHEESE
MADE BY CLOVER FARM DAIRY Co MEMPHIS TENN
QUAKER MAID COTTAGE CHEESE
CONTENTS ½ LB.
Freeman's CREAMED COTTAGE CHEESE
FLINT, MICH.
UNIVERSITY of MARYLAND DAIRY NEUFCHATEL CHEESE

KLEEN KUP

*The Package
That Sells Its Contents*

Mono Service Co.
NEWARK NEW JERSEY

TO the progress of the dairy industries of today and tomorrow the Dairy Industries Exposition of 1926 has unquestionably contributed.

To the ideals of basic healthy economic development, of modern management practice, of increased efficiency in handling of materials, production and distribution, for and within the dairy products industries, this Association in its own interest is committed.

DAIRY AND ICE CREAM
MACHINERY AND SUPPLIES
ASSOCIATION, INC.
1328 Broadway New York City

THE
MILK DEALER

PUBLISHED THE FIFTEENTH OF EACH MONTH BY
THE OLSEN PUBLISHING COMPANY
H. P. OLSEN President and Manager
LESTER S. OLSEN Vice-President
E. K. SLATER, Secretary and Editor
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"BUTTER, CHEESE & EGG JOURNAL" and "THE ICE CREAM REVIEW"

FIFTH AND CHERRY STS. MILWAUKEE, WISCONSIN

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Requests for CHANGE OF ADDRESS must be received not later than the 10th of the month to insure delivery of that particular month's issue at New Address. **Old Address** as well as **New Address** must be given us as all records carried by us are "Geographically arranged" and not "Alphabetically arranged."

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Payable in Advance.

OFFICIAL ORGAN OF
The International Association of Milk Dealers
Dairy Products Association of Kentucky, Inc.

OCTOBER, 1926

BULLETIN *of* EVENTS

International Association of Dairy & Milk Inspectors—Fifteenth annual convention, Bellevue-Stratford Hotel, Philadelphia, Pa., October 25, 26 and 27, 1926. Secretary, Ivan C. Weld, Pennsylvania Ave. at 26th St., Washington, D. C.

Pacific Slope Dairy Show—Will be held at the Civic Auditorium in Oakland, Calif., on November 13 to 20, inclusive, 1926. Robert E. Jones is secretary-manager, 1404 Franklin St., Oakland.

Indiana Manufacturers of Dairy Products—Annual meeting at Claypool Hotel, Indianapolis, December 14, 1926. R. L. Hammond, 306-307 Chamber of Commerce Bldg., Indianapolis, general secretary.

Michigan Allied Dairy Association—Annual convention and exposition to be held at Jackson on February 7 to 11, 1927. Exhibit will be staged at Fair Grounds, five blocks from Hotel Hayes, which will be convention headquarters. Secretary, Lloyd H. Hughes, 1815 Franklin St., Detroit.

Dairy Products Association of Kentucky—Final meeting of the spring and summer season will be held in Cincinnati, O., on Wednesday, April 21, at the Gibson Hotel. Carlton Ball, 206 Republic Bldg., Louisville, is general secretary.

"ONE of the greatest fallacies of the milk industry is the continual hammering of those who should know better in tearing down the structure of it by non-constructive advertising concerning the qualities of milk. Why is it that those engaged in the business of selling milk continually hammer on such points as "impure milk," "clean milk," and others along the same strain that have a decided negative effect on the consumer?

An alleged advertising man, who is in the business of selling advertising material to milk dealers, receives the embossed pewter for having the zero thought of the month. The prize goes for the weighty thought incurred in preparing and attempting to sell a card with the following reading material: "Milk is more immediately absorbed by the system than any other food. If impure, therefore, it does more harm, and does it more quickly than most foods. * * You are sure of a clean, pure milk supply when you patronize our dairy."

The selling appeal of such an advertisement is nil. Certainly, it does not create a desire to drink milk, from the food standpoint, or any other; it does nothing to show the wonderful qualities of milk. It does, however, create the impression that milk is, in most cases, a dangerous food, and for this reason it will cause people to shy from using milk.

What other industry has had such an immense amount of detrimental advertising that the dairy industries have been the unwilling recipient of? It is true, that milk is not always as it should be, but such cases are constantly decreasing, so that at the present time, milk from most plants is "pure." (The word "pure" is not ours, for we are still uninformed as to the meaning of "pure" milk). Destructive advertising of the type quoted above will never do anything toward the advancement of the milk industry.

In other industries, there have been many cases of food poisoning, but, aside from an occasional mention in the papers when enough people are incapacitated the majority of us never become aware of such occurrences. Canned goods have been known to sicken and even cause fatal results to those using the products, but no one can recall an instance of one manufacturer in the canning industry advertising that his goods were "pure" and "clean" and would not cause food poisoning.

The milk industry has had more than its share of destructive advertising. It is time for everybody within the industry to use some reason in their publicity work, for it is far better that no advertising be done rather than the kind that shakes the confidence of the people in the product. A constructive policy is needed for the industry, and a law against the wiseacres who are destroying its standing.

◆

IT WAS a glorious convention in Detroit this month. Men interested in selling milk and milk products gathered from everywhere. They worked, planned and played. They got a better conception of the magnitude of their industry and its importance to society. They are better business men, better citizens as a result of their investment in time and money.

To say that it was the best convention of the International Association of Milk Dealers ever held is putting it mildly indeed. That organization always holds the "best" convention because each one is an improvement over the ones that have gone before.

The International Association of Milk Dealers is a wonderful trade organization. It has gained its place among similar trade associations because it is a working institution. The men behind it are not content with holding conventions. They are working and planning twelve months in the year to advance their industry. The annual convention is just an incident in the year's activities—a sort of clearing house, a time when everybody gets fresh enthusiasm for another year's work. The association is well officered, always has definite ob

MID Ag
v.16

jectives in view and is always well supported by its members. Why? Because they believe in it.

Yes, it was a wonderful convention and we have pointed out some of the reasons for it. The next one will be still better for the same reasons.

* * *

"MY MILK business, plant, machinery, equipment and all, including rolling stock, is worth twenty-five thousand dollars," said a milk dealer the other day. "Yet I wouldn't take $100,000 for it."

"You count in a lot for good-will, eh?" suggested a friend.

"Good-will—oh, yes, something for good-will, but not that much," he replied. "I have something worth a very great deal. I know good-will is vastly important, but I have something that I believe to be even more important. They are a half dozen of the best driver-salesmen you can find anywhere. It has taken me fifteen years to get just the right combination and then train them properly, and during that time I was ready to get out of the business a dozen times; to just throw up my hands and holler, 'Through!' at the top of my voice. But now that I have the right combination I know half the battle is won. I believe now I am going to make some money.

"Oh, I know it sounds funny to hear a man say, after fifteen years in business, that he expects to make some money, but that's a fact. Why, there are people in this town who think I am rich, and they would be very much surprised to know that last month I made two trips to my bankers—one to get a note renewed and another to get another loan.

"But now, for the first time in my life, I am sold on the milk business. I thought this happened to me several times. Once, when a lot of new machinery came upon the market and I fought it off till I couldn't any longer, I took it on and then decided by troubles were over, for that new machinery made it possible for me to handle far more business than I ever dreamed possible. Then I found out there was something lacking yet.

"Better rolling stock came upon the market, and pretty soon, when I found I could cover more routes than I ever did before—far more—I just felt it in my bones that I was ready to ride high and make some money. But still there was something lacking. Then I found out what it was; I found out that no one single force can make a milk business successful; it takes all-round development. No matter how good your machinery and your rolling stock may be, if you haven't the right kind of men handling them, you're sunk. A dumbbell on the top of a $2,000 milk conveyance can make your business look like ten cents.

"Yes, sir, I have the combination now. The right kind of driver was my missing link, and now it is complete and I am going to make some money. That's how firmly I believe in good drivers."

It's his story, and we are passing it along to you for whatever interest it may be. You don't have to agree with him altogether, but if you are wise, you won't say he is wholly wrong. Not altogether.

VISITORS to the Detroit convention took advantage of the opportunity to visit the Dairy Industries Exposition. They were unanimous in their approval of its beauty and completeness. Everything to delight and instruct the milk distributor was there. It was almost bewildering in its variety and magnitude. "It's as good as a college education" one enthusiastic delegate claimed. Anyway, he voiced the general sentiment.

The men who put on the exhibition are to be congratulated. They builded well and it goes without saying that they were encouraged to build even bigger next time. The Dairy and Ice Cream Machinery and Supplies Association made a real contribution to the development of the dairy industry.

* * *

SPEAKING before the annual convention of the American Grocery Manufacturers' Association, Assistant Secretary of Agriculture R. W. Dunlap, discussing food law enforcement, said:

> Your business, like every progressive American business, depends on retaining public confidence. The business of the United States has been built upon this basis. It has grown because people have had confidence in its integrity and in the principles of service which it professed. The requirements that have been enacted into law are not arbitrary ones. They are based on the same principles of service that American business professes. The weakening of them or even the attempt to weaken them will mean suspicion and distrust on the part of the public. This is something that American business cannot afford, nor do its best representatives have any desire to permit such to develop. The business man who looks for steady, consistent profits and for the development of his industry over a long period of years realizes that the results at which he aims can be accomplished only through the support of the public.

We are sure that men in the milk bottling and distributing business will endorse the sentiments expressed in the above. The enforcement of city milk ordinances has given the public a degree of confidence in milk that could not have been builded in any other way. These ordinances are sometimes impractical and sometimes dishonestly or inefficiently enforced, but time generally irons out all their bad features. The result in the long run is a strengthened confidence in the milk supply

* * *

"THIS is the hardest, most grinding and most nerve-wracking business in the world." Sounds like a quotation from a milk dealer's earnest speech to a friend, doesn't it? You're wrong; it's a newspaper quotation from a delegate to the laundry owners' national convention, just recently held. It made us chuckle, and we resolved then and there to pass along this little bit of information for whatever peculiar comfort it may be to our readers.

Funny, but it does make us feel good when we stop and reflect that we, after all, aren't the most down-trodden people in the world. No matter how much of the milk of human kindness may flow in our breasts, no matter how sympathetic and considerate we may be about fellow human beings, it does sort of give a fellow a little cheerful feeling to know that other men in trade have their troubles and that they are just as bothersome as ours—possibly much more so. Who knows?

Convention Breaks Records at Detroit

Largest Attendance in History at Twentieth Annual Convention of International Association of Milk Dealers

THE convention of the International Association of Milk Dealers, which was held at Detroit, October 6-8, was not a convention as the ordinary attendant would look upon one. For, from the time that the gavel announced the opening of the first session until the final business session, which went far into the night of October 8, the time was consumed in matters pertaining to the welfare of the milk industry.

Approximately one thousand members of the association attended the meetings in the automobile city, which not only marked the largest attendance of any convention held by the association, but it is also safe to say that the delegates displayed greater enthusiasm and exhibited a greater attention to meetings than in any other of the previous nineteen sessions of the association.

Kullman Elected President.

F. H. Kullman, vice-president of the Bowman Dairy Co. of Chicago, was elected president of the association. Mr. Kullman was the past vice-president of the association, and because of the illness of the president, S. O. Dungan, it has been his lot to assume the presiding chair of the association frequently during the last year. Mr. Kullman will now take the chair in his own right and, from the experience that he has gained, he is well qualified to direct the affairs of the association.

Other officers elected were: P. D. Fox, Borden's Farm Products Co., New York, vice-president; W. B. Wanzer, Sidney Wanzer & Sons, Chicago, treasurer; R. E. Little, Chicago, executive secretary. In addition to F. H. Kullman, W. J. Kennedy, A. F. Bird, L. A. Van Bomel and K. V. Lipscomb, who have served as directors during the past year, four new men were elected to the board. They are: P. D. Fox, W. B. Wanzer, S. M. Ross and J. M. Carruthers.

From the Past President

Past President S. O. Dungan, who is recuperating at Leesburg, Ind., listened to the program which was broadcast from the convention banquet room at Detroit. A message addressed to him over the radio was heard by him, and he addressed the following message to the convention in session:

"We heard every word of Oscar's greeting. Touched us deeply. Very much appreciated."

MR. AND MRS. S. O. DUNGAN.

Another received later in the evening was:

"We are hearing every word of your program and enjoying it immensely. You certainly are a noisy bunch. The first sound we heard was Charlie Hood's voice and his inimitable laugh. Love to everybody."

Reports Adopted.

In the closing business meeting, the report of the committee on the standardization of equipment was adopted. In their report, the committee told of the work that they had accomplished with the manufacturers of thermometers in obtaining a standard spud for glass lined tanks. It was brought out that all of the manufacturers had approved of the specifications as laid down by the committee.

Another report of much interest to the milk industry, was that of the committee working on the standardization of milk bottles. According to the report, the manufacturers of milk bottles have practically standardized on three sizes of bottles. In the report, it was brought out that the present type of half-pint bottle has been a source of inconvenience to the industry, and an endeavor will be made on the part of the association to increase the size of the base of the bottle.

The report of the committee working with the agricultural colleges to place greater stress on the merchandising of milk was also approved by the convention. In the report it was shown how the association

HIRE STAND
MAJESTIC
TRUNKS

Some of the Delegates to the Convention of the International

could be of benefit in improving merchandising methods by acting in closer co-operation with the colleges and through scholarships.

Aim at Medical Schools.

Calling upon Dr. E. V. McCollum, as the authority of the statement, the committee on resolutions took a slap at the medical schools for their laxity in giving recognition in their curricula of the wealth of facts pertaining to the vitamine content of foods, and the importance of vitamines in promoting health, growth and prevention of certain diseases.

In the resolution, which was adopted by the convention, the committee pointed out that Dr. McCollum thought it was within the province of the International Association of Milk Dealers to initiate this work in gaining recognition.

Other important resolutions adopted were:

WHEREAS, The question of efficient and proper commercial pasteurization of milk and milk products is of vital importance to the industry and public health, and in view of the present unsettled condition in regard to temperature and holding time,

BE IT RESOLVED, THEREFORE, That the plant management section recommend to the executive committee that a careful study be made of commercial pasteurization for the purpose of collecting and establishing authentic data and scientific facts which will be available to the members of the association.

* *

WHEREAS, It is generally conceded that pasteurization consists of heating milk to a temperature not lower than 142 degrees F., and holding same at this temperature for thirty minutes,

THEREFORE, BE IT RESOLVED, That the International Association of Milk Dealers, in convention assembled, recommends that the Committee on Standardization of Equipment of International Association of Milk Dealers, investigate this matter, using such assistance as it may deem necessary to determine what types of equipment will provide that all the milk in any part of the equipment is held at a temperature of not less than 142 degrees F. for not less than thirty minutes.

F. H. KULLMAN,
Newly Elected President.

Many Interesting Subjects.

Those attending the convention had a wealth of enlightening and informative subjects upon which to listen. As in the past, general subjects of interest to all were assigned to the general section; while those interested in matters pertaining to the laboratory, to the plant, to accounting, to production and to sales and advertising had an opportunity to hear papers and discuss their angle in separate meetings. It would be hard to say if there has been more talking in the Book-Cadillac Hotel in its short history, but certainly there has never been discussions that have been of greater interest to the listeners, or have there been more constructive subjects discussed.

Members of The International Association of Milk Dealers went to Detroit to discuss their business and to learn from others. The sessions started early in the morning and they lasted into the night. However, they know the old adage anent all work and no play, and those arranging the convention realized that pleasant memories of the "City of Straits" by the visitors would be as essential as the knowledge that they carried away in regard to their business. Accordingly, they arranged a banquet on the second night of the convention that caused those attending to forget surplus, breakage, and the other bugaboos of the operation of a milk plant. It would be trite and inexpressive to say that each one at the banquet enjoyed it immensely, but suffice to say indigestion is either unknown among members of the milk industry, or the committee arranging the banquet met everyone's liking.

Excellent Program.

After the banquet, a program was arranged. However, before proceeding with the entertainment, a message of greeting was broadcast to S. O. Dungan, president of the association, by C. O. Ewing. Mr. Dungan has been ill for some time past and is now recuperating at Leesburg, Ind. He later wired that he heard the greeting and all of the program, which was broadcast.

With a seemingly inexhaustible supply of stories,

TEN PAY PLAN
SHOPPE

Association of Milk Dealers at Detroit, October 6, 7 and 8.

James Schermerhorn started the program and set a standard for entertainment that appeared difficult to maintain, but those who had doubts regarding the ability of the rest of those on the program after the nationally known humorist has finished, did not reckon with the talent that is available among ranks of those working in the milk plants of Detroit, for the entire program was composed of talent from the local plants, and had not their connections been printed on the program, the delegates would have been none the wiser that they had not been selected from the theatrical profession.

The committee in charge of the entertainment left nothing undone, for after the excellent program offered to the banqueters, a dance that lasted far into the morning was given, but if there was any sign of weariness on the part of those who participated in the evening's festivities at its conclusion it was not evident to the casual observer. Truly, one need but little further evidence that milk makes a hardy and robust people.

Dairy Industrial Exposition a Winner

Biggest Display of Dairy Plant Equipment and Supplies Ever Staged Wins Approval of the Industry. Over 9,000 Delegates Register

A GLITTERING display of brass, nickel, copper and glass. A display that gladdened the heart of anyone connected with the dairy industries. Such was the immense display of machinery, equipment and supplies at Convention Hall at the Dairy Industries Exposition, which was held at Detroit, Oct. 6 to 14.

To the man who has grown up with the industries, the exhibits, no doubt, brought back memories of the material that he had to work with in the past. One kindly old chap was seen to look on the display with amazement, and then a far-away look stole into his eyes. Perhaps he was thinking of the labor-saving and product-improving tools that are available to those in the industries at the present time, and those that he had in bygone days. Perhaps he was thinking of the strides that the dairy industries have taken within a short period of years, and the exemplification of the strides as shown by the displays. Perhaps he was thinking of a few years back, when the displays on such occasions were few, and the attendance did not run into the thousands.

Changing Times.

All of these thoughts could enter the mind of the "old-timer," for the exposition of machinery, equipment and supplies was huge. It was by far the largest display of dairy equipment ever shown, and no one would have thought a few years ago that there would be over 300 exhibits, valued at approximately one million dollars, displayed at one time under a single roof.

Perhaps the average layman would not think that

Views in the Different Halls at the First Dairy Industries Exposition.

the exhibits were beautiful, but to those engaged in the industries they were wonderful and exceeded anything that has ever been staged. Every possible piece of equipment, machinery and supplies known and used in the industries were shown, and to the lover of machinery and mechanical finery the display was as inspiring as the work of the old masters to the artist. For he was in the very midst of things for increasing the efficiency and improving conditions where he worked and the product which he manufactured. It was an education that he will not be apt to forget. It was an opportunity for him to meet the manufacturers (whom he found to be fine chaps) and through their explanations of the goods that they had on display to learn of all types of equipment. It was an opportunity for him to learn something of the tools used by all of the dairy industries. In brief, it was an opportunity for him to gain a cross-section of the dairy industries.

Large Number of Innovations.

As usual, there was the great number of innovations and improvements that are brought out at this time, and although it may have been due to the great number of products on display, it seemed that there was a greater number of new things being offered to the industries.

Every available foot of floor space was taken by the exhibitors, and those who know the tremendous size of Convention Hall can gain a very good conception of the massive proportions that the exposition assumed. Many who were unable to decide until late whether they would have an exhibit were forced to take any small space that could be spared by exhibitors, and in no instance could an opinion be found that did not voice approbation of the exposition. Certainly, it was a great success from every standpoint, and the feeling seems to be for a continuance of the present policy.

On the whole, the exposition was well managed. Every exhibit was in position on the opening day, and the machinery of operation ran smoothly until the end. Each day the halls were promptly cleared at closing time, and all of the rules of the exposition were lived up to by the exhibitors. One night was devoted to those on the outside who wished to visit the hall.

Manager Everett and his corps of assistants may well feel proud of the success of the First Dairy Industries Exposition.

Wanted—Silent Deliveries

The Merry Jingle of the Milk Bottle May Be Music to the Delivery Man, But Not to the Apartment Dwellers

RECENTLY, one of the large newspapers editorialized somewhat facetiously concerning the complaint made by some of the members of the "Gold Coast" in the city of Chicago, in reference to the noise made by the milk wagons on their early morning deliveries. The editorial went on to state that these suburban residents were making bitter complaints and were agitating a movement for noiseless wagons and silent horseshoes.

The writer of the editorial poured out his sympathy for the complainants who were unable to concentrate on their bridge game, due to the early morning racket, and others who could not go to sleep, inasmuch as the noise began about the time that they were ending another day. On the whole, the matter was treated very lightly, and, aside from a bit of humorous reading matter, it is quite safe to say that very few gave the matter further thought. However, it does give rise to a pertinent matter that should be given consideration by every milk dealer; for, seemingly, there are many complaints concerning the noise made by the men making night deliveries—some of them being complaints arising from some who are such believers in the adage "that one hour of sleep before midnight is worth two after," that they even go so far as to put it to practice.

Perhaps, had not the writer of this started the day with a grouch against all milk delivery men, he would feel inclined to smile with the others who read the editorial in the newspaper and dismiss the matter as lightly as most of them. However, he was disturbed, while not absorbed in four no-trump or in honors, and neither had he been interested in learning what time the sun appeared in the East. To put it plainly, he had been wrapped in the sleep of the innocent for some hours when he was rudely awakened. Not by the iron shod feet of a delivery horse, but instead by the leaden footsteps of the milk delivery man.

A thump, thump, thump, accompanied by the unmusical jingle of milk bottles against each other in the carrier. A servidor is opened, the empty bottles clank into the carrier, the full bottles are put into the servidor—none too softly—the door of the servidor is slammed shut, and the thump, thump to the next apartment where the performance is repeated. Some time later, we hear him make his last delivery in the building, and we turn over hoping that we would be more successful than Macbeth. Forty-five minutes later we arrived at the stage where we were on the verge of proving that our conscience was clearer than the Shakespearian character, when we were brought out of our pleasant haze by a thump, thump, thump, very much like the first, only heavier. Again the business of rattling milk bottles and slamming of doors; while we softly cursed and berated our luck that we were not living out in the great open spaces where early morning deliveries are unknown, and milk is taken on the hoof.

Why go into the terrors and agonies of that night? Three companies deliver milk in our apartment, and by some fiendish chance, each delivery man makes his deliveries one hour apart from the other—and, seemingly, each tries to outdo the preceding one in noise.

Seriously, with the great number of people that are living in apartment buildings, there is room to improve conditions regarding milk delivery from the standpoint of the annoyance that it causes this class of dwellers. It is unreasonable to expect that the delivery man can distribute the milk as noiselessly as a second-story worker, but certainly many of them can take more precautions in the elimination of noise. Undoubtedly, few people will appreciate the effort that a man makes in this respect, inasmuch as he will be unaware that the man is making an effort to extend service to this extent. However, let him be awakened by a careless employee who delights in the early morning music of the milk bottle, and the deliveryman will conclude that silence is the best form of appreciaton.

Electric Trucks Reduce Delivery Costs

Current Costs Less Than Horse Feed and Tires Cost Less Than Horseshoes

By C. L. PRUHN*

IN A RECENT article published in this magazine under the caption of "Trucking Electrically and Otherwise" I dealt with the most practical and economical type of delivery equipment to use on various kinds of routes showing the various fields in which the horse-drawn vehicle, the gasoline truck and the electric truck could be operated to the best advantage from an economical standpoint. In this article I will deal with the advantages of the electric truck in two similar types of work, the delivery of milk and ice cream.

It is a very fortunate circumstance that the usual delivery route of the milk dealer and ice cream dealer is so practical to the use of electric trucks. We know the many ordinances complied with in the handling of milk and ice cream and the many precautions taken so that these products reach the consumer as pure and good as possible. We all know that the most essential item in keeping the good will of our customers is the purity and wholesomeness of our product. The electric truck is the cleanest and most sanitary type of delivery equipment known and as I said it is most fortunate for the milk dealer and the ice cream dealer that their usual delivery route is of such length and requires so many stops that we find by comparative analyses the electric truck the most efficient and economical type of equipment to use on most of these routes. I mean by this that the cost of operation is less on the electric truck for this work than any other type of delivery and that the electric truck will do as much if not more work of this type in a day than any other piece of delivery equipment.

How many firms using horse-drawn vehicles in their delivery equipment figure their delivery costs accurately. The failure of executives to figure these costs properly is taking thousands of dollars out of their profits each year. How many include every item that should be figured which are—

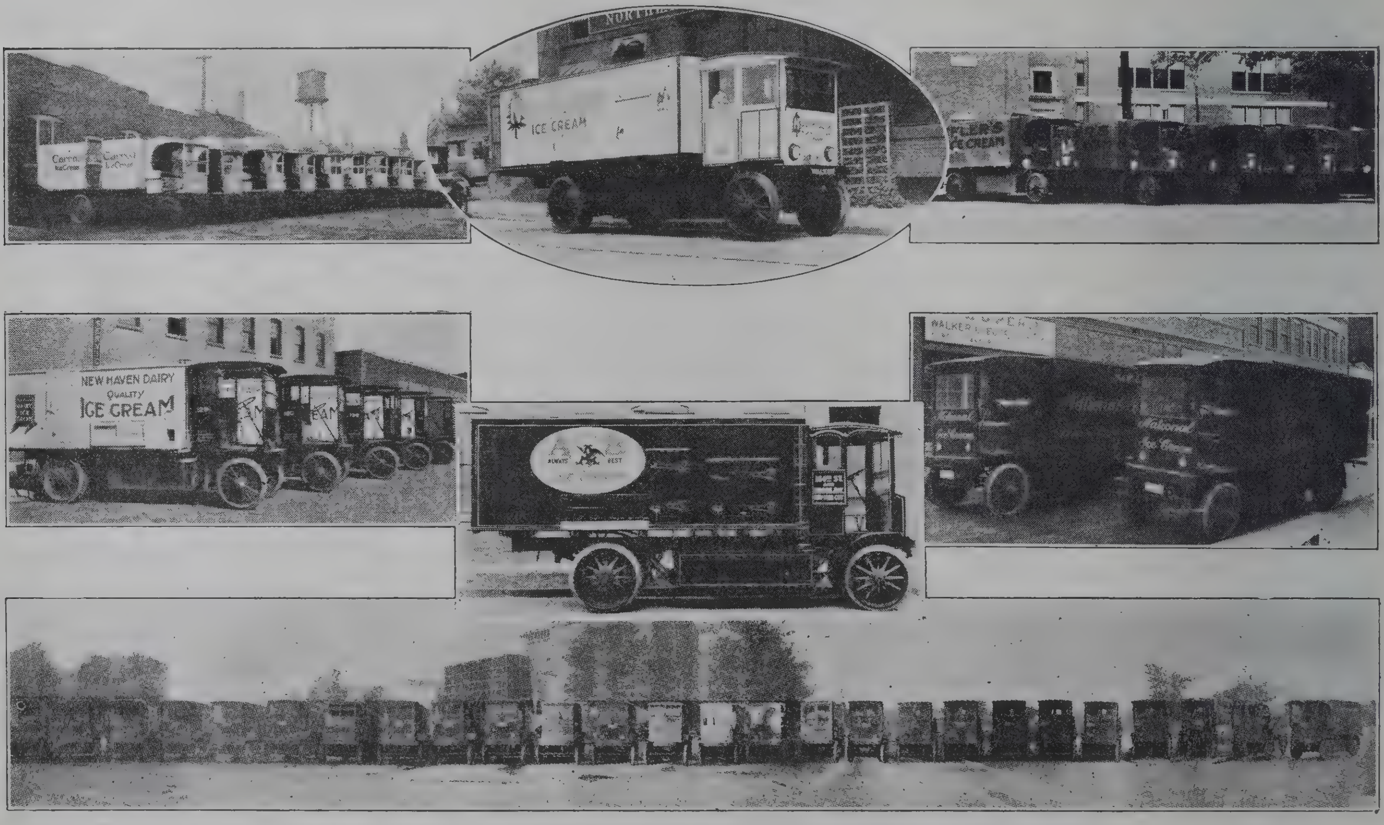
—the investment in land, in stables, wagon sheds, harness rooms, hay lofts, etc.
—the investment in horses, wagons and harness, taking into consideration that the average life of horses in delivery services is five years (only four years in very large cities).
—the interest on investment and the upkeep and depreciation on the buildings.
—the replacement cost of horses.
—the upkeep and depreciation on wagons, harness, etc.
—the number of miles he can and cannot travel.
—the loads he can and cannot haul.
—the cost of feed, bedding, shoeing and care (for the horse eats and has to be looked after whether he works or not).
—the number of extra horses required to take care of the extreme heat of summer and blizzards of winter, sickness.

It costs less for current for an electric than it costs to feed a horse covering the same mileage and it costs less for tires than it costs to keep a horse in shoes doing the same work.

We must not forget that horses have to be fed and cared for whether they work or not—on Sundays, holidays and when not in use due to dull seasons.

From the insurance standpoint electrics cost less than horses and wagons doing the same work when we take into consideration the insurance on buildings required for housing as well as the equipment itself.

Take into consideration the amount of space required for horses and wagons as compared to that required by



Trucks in use by ice cream manufacturers in various parts of the country.

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* Assistant manager, Automobile Bureau, New York Edison Company.

electric trucks. In doing away with a stable you do away with fire risks, contaminating odors and dirt.

The executive who is operating electric trucks on short city routes with many stops is paying bills for actual work done as when the electric truck stops in traffic all its operating costs stop. It is impossible in a working day where so much time is occupied in making deliveries and stopping in traffic congestion to cover any greater distance than the electric truck has capacity for or even in some large cities where traffic is unusually congested to cover any greater distance than you could on a bicycle or pushing a push cart.

The electric truck has its distinct field in transportation and wherever it is performing work which is within its operating radius it is a much more economical proposition to operate, is more reliable due to freedom from street breakdown and does not necessitate as many days out of service during a year due to lost time for repairs. However, aside from the cost of operation the electric truck is as sanitary a type of delivery equipment as is known to use in the delivery of food products and the man handling the electric truck who is your personal representative with the public can keep his own personal appearance neater and cleaner than the man operating any other type of delivery equipment.

The main reasons why an electric truck is more economical to operate than other types of delivery equipment are:

1. Reliability.
2. Simplicity of construction.
3. Long life.
4. Low insurance rates.
5. Few repairs.
6. Easier on tires.

Ice Cream Delivery.

The electric truck is admirably suited to the delivery of ice cream, in most cases due to these reasons:

1. Sanitary and free from odor.
2. Clean to protect the personal appearance of driver.
3. In most cases fairly long stops are made at points of delivery as in unloading ice must be dug out to remove containers of ice cream. This loss of time limits daily mileage.
4. Practically all city routes in the ice cream business are very short due to the necessary amount of ice and salt carried which leaves a limited amount of space for the product itself.

Inasmuch as the city routes are well within the field of electric truck work, therefore, from a cost standpoint the electric truck is more adaptable for the work than any other type of truck for reasons I have already cited.

Due to the ability of the electric truck to cover more mileage than horses in this work the capacity per vehicle can be increased by the use of electric trucks and therefore fewer electric trucks can do the work done by a greater number of horse-drawn units.

Wholesale Milk Delivery.

The electric truck we find adaptable as a type of delivery equipment for the same reasons given in ice cream delivery work.

In summer an average of 60 to 70 cans of milk are carried to each load and it requires 4 or 5 cakes of ice which weigh 300 pounds each to keep this milk at proper temperature. Each 40 quart can of milk weighs 110 pounds. Case goods are also carried on these routes. Each case of milk properly iced weighs approximately 75 pounds and very often 25 or 30 cases are carried on a load. These are quite heavy loads and the resultant hard work on horses makes it necessary to keep in work many spare horses. With these necessary spare horses and the advantages in saving of stable space the electric truck is more economical to operate than the horse-drawn unit and when we consider the additional work possible by the use of electric trucks and the resultant fewer pieces of delivery equipment necessary to operate we find the electric truck much more economical than the horse-drawn unit.

In comparison with other delivery trucks we find the electric truck more economical to operate in this work for the same reason as given in the ice cream delivery work. An average route in this kind of work generally takes from 8 to 9 hours to cover due to length of time lost by delivery stops and traffic congestion.

Retail Milk Delivery.

In large cities where apartment houses mean short routes which sometimes in extreme cases cover only 2 or 3 blocks I believe the horse-drawn unit to be the most economical to operate. It is, however, possible to show economy by the use of electric trucks in cities such as New York where by using electric trucks branches which must be operated when using horse-drawn units can be eliminated.

Electric trucks do, however, show to advantage in suburban towns and smaller cities where the route mileage is greater and the stops farther apart. Generally speaking, in this type of work it costs a trifle more to operate one electric truck than a single horse wagon but the electric truck on this type of route is capable of doing 20 per cent more work thereby cutting down the number of routes and with these fewer routes bringing the points per route up to a higher figure which will show real economy.

The horse advocate always speaks of the advantages of the trained horse being able to follow the route and so assist the driver. This is true but isn't there another side to this to be considered? Mr. Driver goes into Mr. Smith's house with the usual delivery and his horse continues alone down the block, expecting Mr. Driver to go along the back yards with his carrier and meet him four or five houses down the street. Mrs. Smith happens to be giving a party that afternoon and wants two extra bottles of cream so Mr. Driver has to go down four or five houses to reach his wagon and retrace his steps to Mr. Smith's house to deliver the extra order.

Saving in space of stable—here again is a factor and also the elimination of stable noises and odors.

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OHIO PLANT REMODELED.

The plant of the Hosler Dairy, Toledo, O., is being remodeled and modern equipment and refrigerating machinery is being installed.

The Hosler Dairy has enjoyed a steady growth since A. J. Hosler reopened his dairy plant at 522 Sandusky St., three and one-half years ago. Mr. Hosler has had wide experience in pasteurizing, bottling and distributing milk products and his chief aim was to procure and deliver a grade of milk above the average in quality, to comply with every rule of sanitation demanded by the division of health, and to give service to all that was absolutely reliable and dependable.

The fact that Hosler products are now being distributed on 15 routes throughout the city and that Hosler milk has a high average of butterfat are remarkable testimonials that A. J. Hosler has succeeded in carrying out his aims and policies.

The future of this concern looks bright, with a firm foundation to build on, its reputation as a distributor of rich milk and its certainty to continue the policies upon which the business has been founded.

The Hosler Dairy has adopted a clever and attractive slogan—"Buy and Try the Best by Test"—which can be seen on all advertisements and on its wagons and trucks.

WHY THE MILK INDUSTRY NEEDS NATIONAL ADVERTISING

By H. K. DUGDALE*

IT HAS been my pleasure and privilege during the past five or six years to have devoted most of my time to a careful study of the application of modern advertising and merchandising methods to the various branches of the dairy industry, particularly the business of milk distributing.

H. K. DUGDALE.

In an effort to arrive at worthwhile conclusions in connection with the milk business, however, I have not considered it alone, but always in relation to, and in comparison with, other businesses rendering an equally important and valuable service to the public.

There are no doubt many businesses in America today to which the great force of national co-operative advertising could be applied with beneficial results. But to my mind there are two important industries in which the need for national co-operative advertising is most marked, namely: The lumber business and the milk distributing business.

Let us consider the lumber business first,—because it may enable us to more clearly picture the need for, and the application of, national co-operative advertising in the milk business. While it is true that there are many different types of lumber, and as many different grades of each type, it is also true that the lumber business as a whole is very closely knit and well organized.

The question of national co-operative advertising has been under consideration in the lumber business for a long time. It is generally understood that such a campaign is contemplated for the near future. But in the meanwhile, what has happened? Various producers of various kinds of lumber have conducted national co-operative campaigns for the sole purpose of pushing to the front the particular kind of lumber in which they happen to be interested because they produce it.

For instance: The Oak Flooring people have conducted a national campaign. So have the Douglas Fir producers and likewise the Cypress growers. There have been others, each competing with the other in a certain clearly defined market.

In the meanwhile, manufacturers of various lumber substitutes have sprung up; have entered the national advertising arena, and have built up giant businesses, almost over night.

The business of manufacturing and marketing lumber substitutes has grown in the past few years at a much greater rate than has the lumber industry as a whole.

What do you think would have been the result if various branches of the lumber industry instead of engaging in competitive selling warfare had united in one gigantic campaign to sell to the country as a whole the idea of the outstanding value of lumber and the necessity of preserving one of America's largest and most important industries?

Milk Dealers Have Had Wrong Slant on Competition.

And now we come to the milk business! It is my firm conviction that the average local milk dealer has had the wrong slant on competition. He has been watching his local competitor and fearing him to the point where he has overlooked to a large extent the general competitors of the milk business as a whole. He has sought growth and expansion primarily at the expense of his competing local dealers in much the same way as the local commercial laundry used to seek business before the laundrymen were taught that the best and surest way to increase business was to increase and broaden the general demand for the service the laundry had to sell.

It is generally recognized that the Coca Cola Company is an outstanding success in the soft drink business of America. How far do you suppose the Coca Cola Company would have progressed if each bottler in each community ran competitive advertising in an effort to direct business to his particular shop instead of merely tying up with the one big national movement sponsored and conducted by the parent organization?

Some of my readers are probably beginning to ask the question—"Who are the milk dealers' competitors?" Just like the lumber dealers' competitors, the milk dealers' competitors are the manufacturers of products used instead of bottled milk, for example: Condensed, evaporated and powdered milk and various food products and drinks (including tea, coffee and other drinks consumed at meal times) most of which are nationally advertised and nationally distributed.

That is an important point to consider, and here is the reason.

When we consider the increase in population in America in the past ten years the increase in buying power of the American public and the increase in the consumption of bottled beverages, confections, drinks for household table consumption, substitutes for bottled milk, we are forced to admit that the business of the

Editor's Note:—Mr. Dugdale has for a number of years played an active part in the advertising and merchandising of products closely allied to the dairy industry. In the national campaign he has directed for The Stone Straw Company, Sealright Company, Incorporated, and Thatcher Manufacturing Company, he has sounded a new note in the national advertising of milk. In his numerous articles on dairy advertising he has constructively criticised hundreds of milk advertisements. His observations on the much discussed question of association advertising are well worth considering.

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* Vice-President, The Green & Van Sant Company; advertising counsel, Baltimore, Md.

milk dealer has not increased in proportion and is in fact way behind the procession.

Not only do I believe most firmly that the milk distributing industry has something to sell but I believe that it has more to sell than the distributor of any other food product, beverage, or table drink in America, and that national advertising in sufficient volume and with sufficient human appeal can be made to pay from the very start.

Selling the Milk Idea.

The average successfully planned advertising campaign has one or all of the following three things to do:

(1) To sell more of the thing advertised.
(2) To insure against a future decline in sales.
(3) To insure the advertiser his relative position in the field in which he operates.

Regardless of which one or more of these the milk industry is interested in accomplishing, it is nevertheless true that it must be done by selling the public the milk idea and in keeping them sold to that idea.

I have heard it said that "the public is a funny animal." If you analyze this thing called "the public" you will realize that there is nothing funny about it at all. The public is a very natural, normal human thing. It is merely you and I and our families and friends, **multiplied**. It is just humanity under a magnifying glass—humanity with all of its human feelings and emotions.

America is made up of average men and women. There is only one way to sell an average man or woman anything, namely: Tell him what it is going to DO for him, not merely what it is.

In the case of milk, the public must be told why they should drink milk instead of the other things they are are now drinking or eating or being urged to eat and drink. People drink milk when they are babies because nothing else is ever offered to them. They drink it when they are children because they are forced to, and unfortunately when they reach the age of reason, so called, they generally discard something that is actually good for them for something that is positively harmful.

Milk Dealers Render Great Public Service.

There is no doubt whatever in the mind of the forward looking American citizen but what the pioneers in the milk distributing business of America today have rendered and are rendering a great public service; that many of them are inspired and actuated by lofty ideals of service, and that the public generally would be in a pitiable situation if those things were not true.

But if the milk dealers of America were to conduct a campaign of national advertising built around their own greatness and permeated with talk about "great public service" and "idealism" they would fall far short of reaping the rich reward to which they would be otherwise entitled and would fail to pass on to the public the benefits which will accrue to it through a greater use of milk. Such a campaign will not make drinkers of stimulants switch to milk.

The great public service rendered by the nations' milk dealers should be touched upon but treated as an incidental. The purity, goodness and food value of milk, and the deliciousness of milk drinks and desserts should be presented as forcefully and attractively as are the similar attributes of other nationally advertised food products and drinks.

One of the large manufacturers of milk bottles has clearly demonstrated the effectiveness of national advertising (tied up to locally by individual dairymen) in increasing bottled milk sales and in developing a greater interest in bottled milk generally. In 1923 the Thatcher Manufacturing Company inaugurated a campaign of national advertising built around the slogan "A Bottle of Milk is a Bottle of Health." In connection with the national campaign appearing in two national magazines they issued large colored posters to be used by local dairymen on their wagons, in their windows, in windows of stores and restaurants where their milk was sold and served, in schools, office buildings, on billboards and elsewhere. They also encouraged the dairymen to tie up with the campaign by painting the slogan "A Bottle of Milk is a Bottle of Health" on wagons, tank cars, buildings, bill boards and wherever it was possible to display it to advantage.

The tie-up material was not generally adopted and used by the very large dairies in the big cities having their own advertising department, and having a well defined advertising policy already in active operation. But the fairly large and medium size dairy was quick to grasp the opportunity, with the result that in 1925 after the campaign had been in operation only two years, approximately 3,000 dairies made use of posters carrying the nationally advertised slogan.

Dairies using Thatcher's tie-up material reported in 1924 a 19 per cent increase in sales over 1923. And in 1925, they reported a 23 per cent increase over 1924, or a 46 per cent increase over 1923. This represents the average percentage of increase reported by all of the nearly 3,000 dealers using the material.

Putting Bottled Milk on a National Footing.

I cite this case merely to impress the fact that if a fairly modest campaign conducted by a private manufacturer can have this effect upon the sales and business of a small number of American dairymen, a national campaign of large proportions, enthusiastically supported by the milk industry as a whole, would put bottled milk upon a national footing such as it cannot otherwise attain.

In the case of Coca Cola, Postum, Welch's grape juice, Canada Dry, Carnation milk and a host of other nationally advertised products Mrs. Jones in Portland, Maine, and Mrs. Smith in Portland, Ore., are being told on the same day and in the same way why they should use them and where they may obtain them.

From no possible standpoint can the average local advertisements of bottled milk compete with the national advertising of milk competitors appearing in the national magazines circulating in the same locality. Milk must be nationalized through national advertising mediums so that everywhere the public will be urged in the same way to drink and to use it.

There may be certain localities from time to time in which conditions have arisen that have brought about a temporary distrust on the part of the public of the local milk distributing factors, but, generally speaking, the milk industry is highly regarded.

The industry has done nothing that has not been constructive and generally helpful to the public at large. Surely then, if it is to undertake a national campaign its attitude should not be a defensive one.

When more people everywhere are more thoroughly sold on milk and its place in their lives, there will be little room in their minds for suspicion of the industry that makes pure milk possible.

A constructive, offensive campaign, conducted nationally, will enable the milk distributing industry to successfully jump all of its selling and merchandising hurdles.

I repeat, that the milk industry is one of two great American industries that more surely needs national cooperative advertising than any others.

The Practical Sterilization of Milk Bottles by Chemical Disinfection

Results of Experiments in Cleaning Milk Bottles of Vital Interest to Every Man in the Milk Bottling Industry

By MILTON E. PARKER, S. B.*

IT IS the aim of certified milk purveyors and medical milk commissions to have all milk bottles and dairy utensils practically sterile before filling them with milk. In their endeavors to insure the sterility of such packages before use, the American Association of Medical Milk Commissions on June 26, 1923, adopted a set of "Methods and Standards for the Production and Distribution of Certified Milk" in which article No. 14 makes the following provisions for cleaning and sterilizing milk bottles and dairy utensils:

"The dairy building shall be provided with approved apparatus for the cleaning and sterilization of all bottles and utensils used in milk production. All bottles and utensils shall be thoroughly cleaned by hot water and sal soda, or equally pure agent, rinsed until the cleaning water is thoroughly removed, then exposed to live steam or boiling water at least 20 minutes, and then kept inverted until used, in a place free from dust and other contaminating influences."

This autoclaving of milk bottles and dairy utensils makes for a process that is of necessity, intermittent, slow and uneconomical. Furthermore, the life of dairy utensils is materially shortened by the corrosive action of the live steam upon the tin plate of milk cans and pails.

Dry heat is effective. The sterilization of dairy utensils can be readily attained by dry heat without the economic loss due to corrosion caused by steam sterilization. Hot air sterilizers can be kept sealed with the completion of the sterilization process and the contents withdrawn when ready to use, thereby reducing to a minimum subsequent contamination.

"Sterilization of milk bottles by steam insures the destruction of all pathogenic microorganisms." It has been suggested that efficient disinfection might be effectively applied in the stead of steam sterilization. In any event, efficient disinfection would have to mean practical sterilization. Thus the problem of efficient disinfection of milk bottles resolves itself into the possibilities of effective sterilization by chemical means.

There are many chemical disinfectants that are used but because of their corrosive action on metals, or poisonous character, their use is not practical in the automatic cleaning of milk bottles. The compounds such as sodium carbonate and sodium hydroxide or various combinations of these two with or without other cleaning substances are used extensively in the dairy industry for bottle cleaning. Potassium hydroxide is also used. These substances are particularly valuable because of two-fold function they fulfill. Their alkalinity has decided cleaning properties due to the ability to dissolve the casein and saponify the fat of any milk left in the bottles and also has marked disinfecting properties.

Rideal (1) states "The hydroxides of potassium and sodium exercise a sterilizing influence on bacterial growth if they are present in quantities of not less than two to five per cent; so do the carbonates in the preparation of five to ten per cent; the bicarbonates have hardly any action."

Park and Williams (2) state that sodium hydroxide will destroy anthrax spores in 45 minutes when a four per cent solution is used and in 10 minutes when a 30 per cent solution is used. The temperature factor is not given but apparently room temperature is referred to.

Hamilton (3) has found the phenol coefficient of sodium hydroxide is 12.

That the practical sterilization of milk bottles without the use of steam is possible was indicated, by the results obtained in a series of quantitative bacteriological examinations of bottles washed by a Meyer-Dumore bottle cleaner and of bottles washed by the same unit and autoclaved. It was revealed in tests extending over a period of a month that the sanitary conditions of bottles washed by the automatic cleaner alone compared favorably with the bottles washed by the same unit and then autoclaved.

For the purposes of these tests, quart bottles were used, 50 c.c. aliquots of sterile distilled water were added to cleaned bottles shortly after their removal from the washing unit. They were then capped with sterile pulp caps and after proper rinsing, the water was plated in one c.c. portions on duplicate plates of standard nutrient agar. Bottles that had been autoclaved after cleaning were also examined. All plates were incubated at 37 degrees C. for 48 hours.

In this series approximately 250 bottles were tested The average contamination of machine washed bottles was less than one bacterium per c.c.—the actual value being 0.8 bacterium per c.c. The average contamination of machine washed and autoclaved bottles was less than one bacterium per c.c.—the actual value being 0.2 bacterium per c.c.

These results, however, are only indications. They fail to demonstrate whether the method of automatic cleaning as usually practiced is efficient in destroying pathogenic organisms.

A bottle cleaner of three compartment type was used in the tests described and for other later experiments. This unit in practical operation provides for soaking the bottles first in alkali solutions followed by subsequent washings, brushings and rinsings inside and outside of each milk bottle. In their passage through the unit for the cleaning operations, the bottles first pass through two compartments of alkali solution and then through a compartment of fresh water. The temperatures used are 120 degrees F. in the first, 160 degrees F. in the second and 120 degrees F. in the third compartment. In all it takes 14 minutes for the bottles to pass through the three compartments, permitting four minutes exposure in each of the three compartments. The bottles are then brushed, hot water being supplied from one of the tanks and forced to a header and regulated by separate valves from the outside and inside brushes. The bottles then receive a preliminary rinsing followed by two final rinsings inside and out with hot water of about 80 degrees F. The final rinsing and cooling was done with water from a driven well cooling the bottles to about 50 degrees F.

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* Dairy Technologist, Walker-Gordon Laboratory Co., Plainsboro, N. J. Read before the Laboratory Section of the American Public Health Association at the fifty-fifth annual meeting, October 11-14, 1926, Buffalo, N. Y.

The fact that the soaking operation require four minute exposures at temperatures of 120 degrees F., 160 degrees F. and 120 degrees F. is of pertinent importance.

The Germicidal Efficiency of the Automatic Bottle Cleaner.

Six series of similar experiments were conducted upon bottles washed by the automatic bottle cleaner to ascertain the efficiency of the washing operations.

Quart bottles were contaminated with bovine fecal material and allowed to dry so that in most cases, the inner walls of the bottles were coated with such material that would not rinse off easily. The most instances, particles would stick to the inner surfaces of the bottles and vigorous brushing failed to loosen them. With each series of experiments, 35 bottles were used—30 of which were subjected to the cleaning operations of the automatic bottle washer and the remaining 5 were used for controls.

The cleansed and control bottles were each rinsed thoroughly with 50 c.c. portions of sterile water within an hour after the test bottles were cleaned by the automatic bottle cleaner. One c.c. portions of these rinse waters were plated in duplicate on eosin-methylene blue agar (Difco) and inoculated in duplicate with lactose fermentation tubes. The rinse water from the cleansed bottles was used directly for such purposes while that from the control bottles was diluted in the necessary proportions before plating and inoculating. The eosin-methylene blue agar and the lactose broth fermentation tubes were used so as to facilitate the ready detection of the colon bacilli. The differentiation of any apparent colon bacilli recovered on the eosin-methylene blue agar plates was made by conducting the "Completed Test" for the presence of members of the B. coli group as described in the "Standard Methods for the Examination of Water and Sewage—1920." The plates and fermentation were all incubated for 48 hours at 37 degrees C. Counts were made of the plates and growths and gas formation in the fermentation tubes were noted.

With each series of experiments, the temperatures and alkaline strength of the solutions in the soaking tanks of the bottle cleaner were noted and determined. A record was also kept of the time of exposure to these solutions. All such observations were recorded but space will not permit their reproduction.

The conclusions reached as the result of these experiments are as follows:

1. It was estimated (from the controls) that the contaminated bottles before washing contained more than 600,000,000 microorganisms per quart bottle of which number approximately 200,000,000 were colon bacilli (as determined by the methods described). The other types of microorganisms encountered consisted for the most part of sarcina, streptococci and molds.

2. In all, 190 contaminated bottles were cleansed by the automatic bottle cleaner and tested for the presence of the B. coli group. B. coli was recovered from four bottles. It was found, however, that when the contaminated bottles were exposed for four minute intervals in the solutions of each of the three soaking compartments having caustic strengths of 3.5 and 4. 5 per cent (as NaOH) in the first two compartments and fresh water in the third with temperatures of 120 degrees F., 160 degrees F. and 120 degrees F. respectively, no B. coli were recovered. (See foot-note.) When the concentrations of the detergent solutions were lessened or when the temperatures were decreased in the soaking compartments, it was possible to recover the B. coli in the four instances mentioned.

3. The average number of microorganisms contained in bottles washed under the conditions stated above did not exceed 110 per quart bottle although the initial contamination exceeded 600,000,000 microorganisms per bottle. The average number of microorganisms contained in bottles washed under the same conditions but subsequently autoclaved and stored before use did not exceed 65 per quart bottle. The types of organisms found in the cleansed bottles consisted of sarcina, hay bacilli and other types common to the atmosphere.

Another series of experiments was conducted to study the effect of various alkaline solutions upon B. coli. The alkaline solutions studied consisted of various concentrations of sodium hydroxide and sodium carbonate used separately and mixed together. A bovine strain of B. coli was employed as the test organism.

Five-tenths c.c. of 24-hour broth cultures of test organism was placed into solutions consisting of varying amounts of the alkalies so that the mixtures contained amounts ranging from one to six per cent by weight of the chemicals. Control tubes of sterile water were also inoculated with 0.5 c.c. of the 24-hour broth culture so as to study the effect of the heat agency alone. At intervals of two minutes, loopfuls of the mixtures were inoculated into 10 c.c. tubes of nutrient broth. The temperatures used were 72 degrees F., 100 degreee F. and 125 degrees F. The inoculated tubes were incubated at 25 degrees C. for 24 hours.

The results are shown in Table 1.

Table 1—A. The Effect of the Concentrations of Sodium Hydroxide and Sodium Carbonate at Various Temperatures Upon the Viability of B. coli.

		Concentrations of Solutions						
Time	Temp. of Solution	Water Control	1% NaOH	2% NaOH	3% NaOH	4% NaOH	5% NaOH	6% NaOH
2 Mins.	72° F.	X	X	X	X	X	X	X
4 Mins.		X	X	X	X	X	X	—
6 Mins.		X	X	X	X	—	—	—
8 Mins.		X	X	X	X	—	—	—
10 Mins.		X	X	—	—	—	—	—
12 Min.		X	X	—	—	—	—	—
2 Mins.,	100° F.	X	X	X	X	X	—	—
4 Mins.		X	—	—	—	—	—	—
6 Mins.		X	—	—	—	—	—	—
2 Mins.	125° F.	X	—	—	—	—	—	—
4 Mins.		X	—	—	—	—	—	—
6 Mins.		X	—	—	—	—	—	—

		Concentrations of Solutions						
Time	Temp. of Solution	Water Control	1% NaCO	2% NaCO	3% NaCO	4% NaCO	5% NaCO	6% NaCO
2 Mins.	72° F.	X	X	X	X	X	X	—
4 Mins.		X	X	X	X	X	X	—
6 Mins.		X	X	X	X	X	X	—
8 Mins.		X	X	X	X	X	X	—
10 Mins.		X	X	X	X	X	—	—
12 Mins.		X	X	X	X	—	—	—
2 Mins.	100° F.	X	X	X	X	X	—	—
4 Mins.		X	X	X	—	—	—	—
6 Mins.		X	—	—	—	—	—	—
8 Mins.		X	—	—	—	—	—	—
2 Mins.	125° F.	X	—	—	—	—	—	—
4 Mins.		X	—	—	—	—	—	—
6 Mins.		X	—	—	—	—	—	—
8 Mins.		X						
10 Mins.		X						
12 Mins.		X						
14 Mins.		X						
16 Mins.		X						
18 Mins.		X						
20 Mins.		X						

(X) = growth (—) = no growth

FOOT-NOTE—During the operation of the automatic bottle cleaner, there was a certain amount of mechanical transfer (carry-over) of alkalinity from one soaking compartment into another. Because of this fact, it was found necessary to provide caustic strengths of 4 and 4.5 per cent (as NaOH) in the first two soaking compartments in order to maintain the proper concentrations of detergent during washing of approximately 15,000 milk bottles of different volumes.

(Continued on page 106)

OAKLAND

IS READY FOR HER VISITORS

Pacific Slope Dairy Show to be held in Western City, November 13th to 20th Inclusive. You Are Cordially Invited.

By ROBERT E. JONES, *Secretary-Manager, Pacific Slope Dairy Show Association*

PLANS are maturing fast for the big Pacific Slope Dairy Show in Oakland, Calif., next month. An exceptionally strong program has been prepared and the entertainment features are being worked out in great detail, and in addition to the health and educational features, will include special programs nightly.

Robert Condee, president of the State Fair Board, and director of the George Junior Republic, is putting in much time and effort on the cattle show of the Oakland event. The George Junior Republic carried off some of the ribbons at both Pomona and Riverside and will have some fine entries of the dairy type at Oakland.

"The Pacific Slope Dairy Show," according to Mr. Condee, "is doing a remarkable work in bringing to the attention of the people who use the products of the dairy, what a great industry it is and how important it is to everyone, not only from a business standpoint but also from a health standpoint. The show is being well staged and visitors will certainly have an opportunity to see the best cattle on the Pacific Coast."

Milk dealers will be particularly interested in the dairy products exhibit.

The premium list for products classes this year contains some provisions designed to make this competition of more value. Superintendent G. D. Turnbow of the Dairy Products Division has established a gold medal class for Classes 15 and 16—Grade A Milk, Pasteurized and Grade A Milk, Raw. This new idea in milk scoring has been approved, so that instead of there being only one gold medal prize obtainable, any milk dealer who can attain a score of 97.5 per cent will be in the gold medal class and obtain such a prize from the show.

This score is pretty high, but it was decided upon only after a careful study of scores attained in the five Pacific Slope shows that have gone before. Several exhibitors have reached the gold medal class in the past.

DE LAVAL

DE LAVAL

DE LAVAL

100% Profit with a New Series De Laval

IF a New Series De Laval Separator of the size suited to the needs of your plant saves 1/100 of one per cent butter-fat it will pay for itself in a year or less and after that earn 100 per cent profit for years to come.

Many New Series De Lavals are doing better than this.

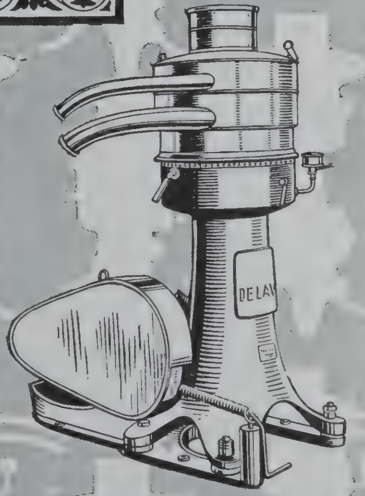
Operators report standard Babcock tests showing a scant 1/100 of one per cent fat when running relatively cool milk. Others running warm milk report fat losses so small that it is impossible to obtain a reading, a mere trace of fat appearing in the tube.

The New Series De Laval produces very heavy cream with less loss of butter-fat than was ever before possible and is particularly efficient in re-skimming gathered cream.

The New Series bowl is constructed so that unless it is subjected to exceptionally rough handling it should stay in balance over a long period of time. Hence, wear on the entire machine is reduced and assurance is given that the original skimming efficiency will be fully maintained for many years.

Write for full details regarding the capacity and style of drive suited for your plant.

The De Laval Separator Company
NEW YORK CHICAGO SAN FRANCISCO



What a Laboratory Did for One Milk Company

Great Improvement in Quality of Milk Brought About Through Keeping Check on Bacteria Counts, Followed Up by Personal Visits to Farms of Offending Farmers

By H. MACY*

A CONCRETE example of the effective improvement in the quality of the milk supply of a milk distributing plant through the agency of a laboratory is offered in the material presented here.

Each summer the dairy division of the University of Minnesota makes an effort to place students specializing in dairy manufacturing, in representative dairy establishments for practical experience to supplement their collegiate studies. An opportunity presented itself in 1923 to locate a student with one of the milk companies in the Twin Cities as bacteriologist for the summer months. The company was so well satisfied with the results that the same arrangement has been continued since that time The work was done in co-operation with the University, under the supervision of the writer. The company had theretofore not employed a regular laboratory technician and had not felt in a position to engage one for the entire year. As a result of the temporary arrangement this company now, however, feels inclined to establish a full-time laboratory in light of the valuable data obtained during these past three summers.

One of the first steps considered in 1923 when this work was instituted was a survey of the quality of the raw milk delivered at the plant for pasteurization. During the summer samples were taken at intervals from individual patrons. These samples were examined by the Breed microscopic method.

In order to facilitate the work and to give a basis for comparison, arbitrary standards were chosen. It was decided to use a ratio of 4:1 as representing the relationship of the microscopic count to the standard plate count. The grades established were:

V. S.—**Very Satisfactory**—microscopic count of less than 1,000,000 per c.c.

S.—Satisfactory—microscopic count of more than 1,000,000 but less than 8,000,000 per c.c. (This milk was considered satisfactory for pasteurization under local regulations.)

U.—Unsatisfactory—microscopic count of more than 8,000,000 per c.c.

With the microscope standardized and the number of bacteria per field necessary to throw the sample into one of the three grades easily determined, the observations were simplified, facilitated and offered substantially useful information.

During the two and one-half months of the summer, late June, July, August and early September, the results for the three years, expressed in the percentage falling in the three grades were as follows:

Microscopic Counts on Raw Milk for Pasteurization.

Year	Per cent V. S.	Per cent S.	Total per cent satisfactory for pasteurization	Per cent unsatisfactory
1923	31.44	32.45	63.99	36.10
1924	42.01	35.44	77.45	22.55
1925	50.99	37.54	88.53	11.47

This shows a very remarkable improvement each year in the quality of the raw milk from a bacteriological standpoint. By means of this laboratory analysis and survey, it was possible to locate the poorer grades and the producers responsible for them. Visits were then made to the farms of these patrons with the results illustrated in the improvement in each of two succeeding years. This company was indeed accomplishing a splendid thing both for the public and for itself, and entirely of its own initiative. Such an activity would be a credit to any control agency, municipal or otherwise, and inasmuch as the effort was a voluntary contribution of a private concern, it is much more commendable.

Plate counts of the raw milk were also made from time to time. The averages for the three years are given below:

Year	Average Count
1923	14,200,000
1924	6,700,000
1925	2,700,000

These high average plate counts may be explained by a few high individual samples. The following table showing the distribution of the samples indicates this more clearly:

Count per C.C.	Per cent of Samples 1923	1924	1925
Less than 1,000,000	0	13.3	40.0
1,100,000 - 2,000,000	22.2	20.0	5.0
2,100,000 - 5,000,000	11.1	6.6	25.0
5,100,000 - 40,000,000	66.7	46.7	15.0

Most of these plate counts were made from raw milk samples taken from storage tanks, some of which contained milk held overnight.

Plate counts made upon the pasteurized bottled milk also demonstrated clearly the gradual improvement in results for each successive year. This is brought forth in the following table:

Year	Average Plate Count
1923	67,000
1924	30,000
1925	15,800

When these counts are arranged on the basis of percentage distribution in groups we observe the following:

Counts	Per cent of Samples 1923	1924	1925
Over 50,000	41.8	9.6	5.0
25,000 - 49,000	25.0	32.3	15.0
10,000 - 49,900	16.6	58.1	30.0
Below 10,000	16.6	0.0	50.0

As the information became available upon the efficiency of pasteurization and plant operations, it was possible to improve upon the methods with the consequent lowering of the count in the finished product.

A regular check was made also upon the general efficiency of plant operation from the standpoint of bacterial counts.

In a comparison of the counts before and after clarification it was found that in 39.5 per cent of the cases clarification resulted in an increase in count, 58.1 per cent showed a decrease and 2.4 per cent no change. These results are typical of the effect of clarification on the bacterial count.

The data on the effect of the horizontal filter indicate that about 50 per cent of the samples increased in count

(Continued on page 105)

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* Assistant professor of dairy bacteriology, University of Minnesota.

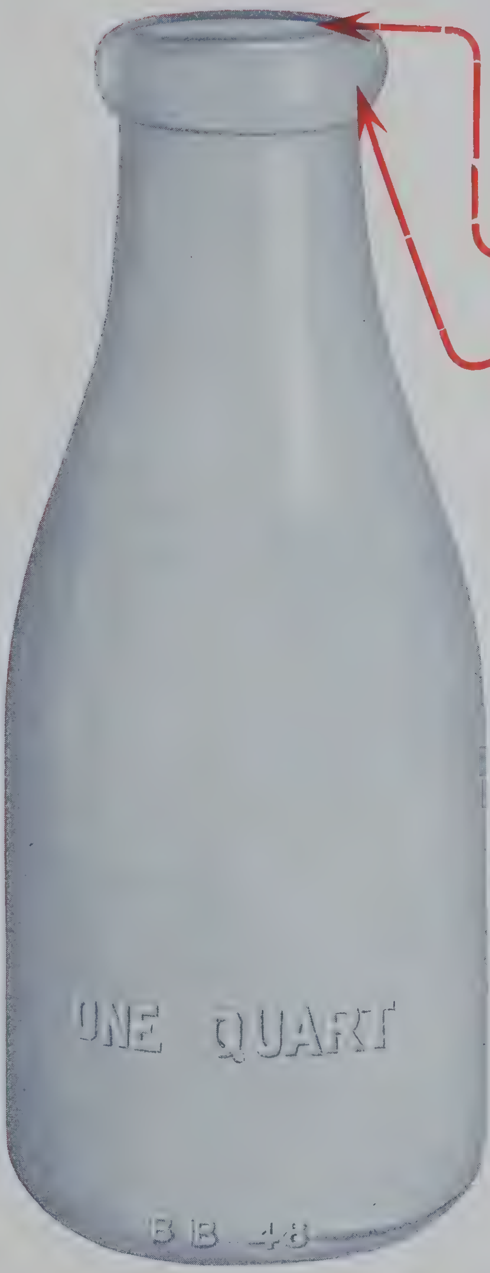
Automatically Processed Milk Bottles of Quality

Our Motto:

Quality

Economy

Dependability



Six Little Details All Big

1. Round cap seats that hold the cap
2. Well formed heads designed to obviate chipping
3. Accuracy in capacity uniformly maintained
4. Glass clear in color
5. Scientifically annealed (tempered) giving maximum strength
6. Grace in design, making a pleasing package

You Want Quality Let Us Serve You

BERNEY-BOND GLASS COMPANY

Main Office-Factory: CLARION, PENNA.

CHICAGO Representative: A. F. MARTIN, 1654 Cleveland Avenue, Chicago, Ill.
MICHIGAN and OHIO Representative: Lock Box 56, Redford, Mich.
NEW YORK, N. Y., Hudson Terminal Bldg., 50 Church St.
BOSTON, MASS., 170 Summer St.
PHILADELPHIA, PA., Abbott Bldg., Broad and Race Sts.

The Truth about Chocolated Milk

WE started it in the South at the Army Camps during the World War and it has now spread over the entire country and is a growing success where the Milk Dealers are using

CHOC-O-LISHUS

[TRADE MARK REG. U. S. PATENT OFFICE]

There is no reason for using imitations.
The original Choc-O-Lishus is just as cheap and it goes further.

It has the true Chocolate Flavor.
It is the best by test.
It deserves your support.

The manufacturers of Choc-O-Lishus are the oldest and largest manufacturers of Chocolate Syrup in the world.

THE CHOC-O-LISHUS CO.
NORFOLK, VIRGINIA

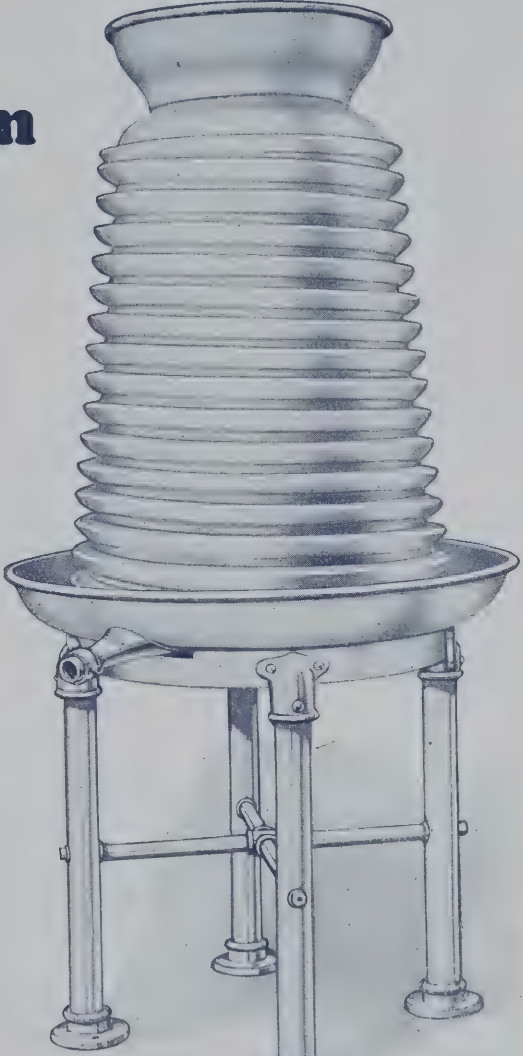
Subsidiary of H. B. HUNTER CO., INC.

Miller Miller

THE
H·H·MILLER INDUSTRIES CO.
CANTON, OHIO.

**Chilly King
Milk and Cream
Coolers**

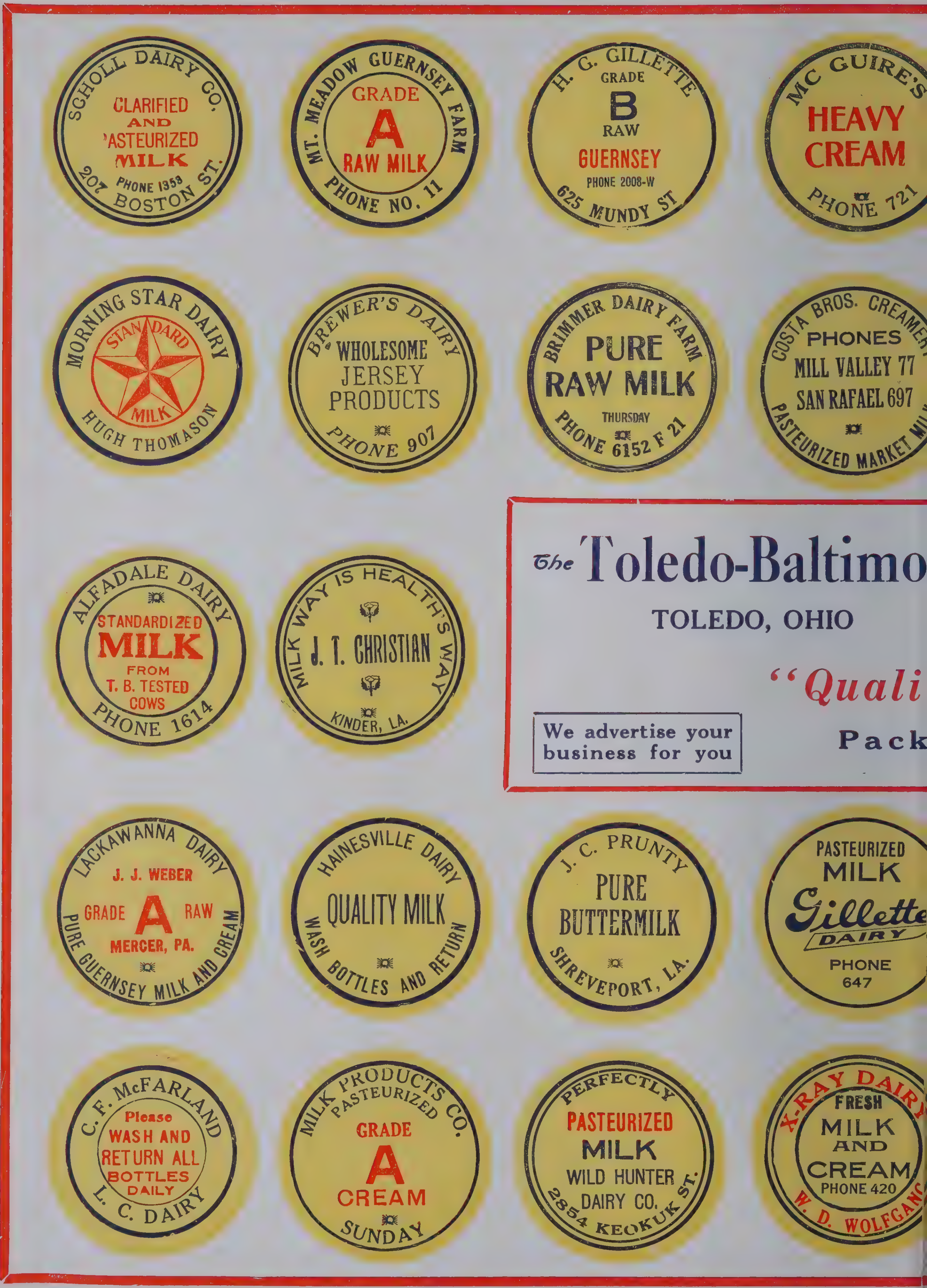
Unexcelled for the cooling of Fluid Milk, Heavy Cream and Pasteurized or Homogenized Ice Cream Mix.



Made in sizes
1,000 to 10,000
lbs. per hour.

Also manufacturers of MILLER BRINE ICE CREAM FREEZERS, MILLER PASTEURIZERS, AUTOMATIC MILK HOLDING MACHINES, VATS, TANKS, M&M BOTTLE WASHERS, ETC.

Please Ask for Bulletin and Prices



SCHOLL DAIRY CO.
CLARIFIED AND PASTEURIZED MILK
PHONE 1358
207 BOSTON ST.

MT. MEADOW GUERNSEY FARM
GRADE A RAW MILK
PHONE NO. 11

H. G. GILLETTE
GRADE B RAW GUERNSEY
PHONE 2008-W
625 MUNDY ST.

MC GUIRE'S
HEAVY CREAM
PHONE 721

MORNING STAR DAIRY
STANDARD MILK
HUGH THOMASON

BREWER'S DAIRY
WHOLESOME JERSEY PRODUCTS
PHONE 907

BRIMMER DAIRY FARM
PURE RAW MILK
THURSDAY
PHONE 6152 F 21

COSTA BROS. CREAMER
PHONES
MILL VALLEY 77
SAN RAFAEL 697
PASTEURIZED MARKET MI

ALFADALE DAIRY
STANDARDIZED MILK FROM T. B. TESTED COWS
PHONE 1614

MILK WAY IS HEALTH'S WAY
J. T. CHRISTIAN
KINDER, LA.

The Toledo-Baltimo

TOLEDO, OHIO

"Quali

We advertise your business for you

Pack

LACKAWANNA DAIRY
J. J. WEBER
GRADE A RAW
MERCER, PA.
PURE GUERNSEY MILK AND CREAM

HAINESVILLE DAIRY
QUALITY MILK
WASH BOTTLES AND RETURN

J. C. PRUNTY
PURE BUTTERMILK
SHREVEPORT, LA.

PASTEURIZED MILK
Gillette DAIRY
PHONE 647

C. F. McFARLAND
Please WASH AND RETURN ALL BOTTLES DAILY
L. C. DAIRY

MILK PRODUCTS CO.
PASTEURIZED
GRADE A CREAM
SUNDAY

PERFECTLY PASTEURIZED MILK
WILD HUNTER DAIRY CO.
2854 KEOKUK ST.

X-RAY DAIRY
FRESH MILK AND CREAM
PHONE 420
W. D. WOLFGAN

ottle Cap Company

1345 Miami Street

ottle Caps"

Wood

Makers of Bottle Caps
for Progressive Dealers

MAPLE RIDGE DAIRY
ANDOVER O.
PURE RAW MILK
3.5 B. F.
FROM TUBERCULIN TESTED COWS
R. B. PECK, MGR.
CEDAR LAWN DAIRY
GRADE A
PERFECTLY PASTEURIZED
C. BRIGGS P. H. 8525
CORRIGALL FARMS
GRADE A
RAW WHOLE MILK
BOSSIER, LA.
TUBERCULIN TESTED
PURE FRESH MILK
PLEASE WASH AND RETURN BOTTLES DAILY
FRED BAUER
COLLEGE-CITY-ICE CREAM CO.
SPECIAL WHIPPING CREAM
GALESBURG, ILL.
THOMPSON'S DAIRY
WASH AND RETURN BOTTLES DAILY
GRADE A
RAW MILK
PURITAN DAIRY
GOOD MORNING NOON NIGHT
PHONE 1760
UNITED DAIRY
SAFE MILK
PASTEURIZED
MEAD-SIDE DAIRY
GRADE A RAW
JERSEY MILK
PURITY-CLEANLINESS
WOOD & PAULSON DAIRY
TUBERCULIN TESTED
WHOLE MILK
3.5% B. F. OR MORE
JEWETT, OHIO.
D. A. DORAN
PURE FRESH MILK
TUBERCULIN TESTED
BELL PHONE 940-11
DECATUR, ILL.
PHONE 25-W
J. R. CLARK DAIRY
MADISON, MISS.
MOUNTAIN VIEW DAIRY
PURE Milk and Cream
PHONE 9506-F-2
FLOYD R. RILEY
WEST SIDE DAIRY
PHONE 418 Y
OAK GROVE DAIRY
STANDARD MILK
PASTEURIZED
SUNDAY
Garrison Ave. & W. M. R.R.
FOX HALL FARM
CALL AND INSPECT OUR DAIRY
DIAL 31518
GRADE-A-RAW
B. M. HOLCOMBE DAIRY
PERMIT 8
SPECIAL RAW MILK
TO BE USED SATURDAY
PHONE MAIN 3870-W
H. G. GILLETTE
GRADE B RAW
FROM TUBERCULIN TESTED HERDS
PHONE 2008-W
625 MUNDY ST.

M-W
CUSTOMER O.K.'s SHIPMENT

M-W Milk Can Jackets

Protect Milk, Sweet Cream and Ice Cream Mix from extremes of temperature while in transit, insuring shipments arriving in good condition.

Increase your sales by reaching new territory and add to your profits by eliminating adjustments caused by shipments spoiling.

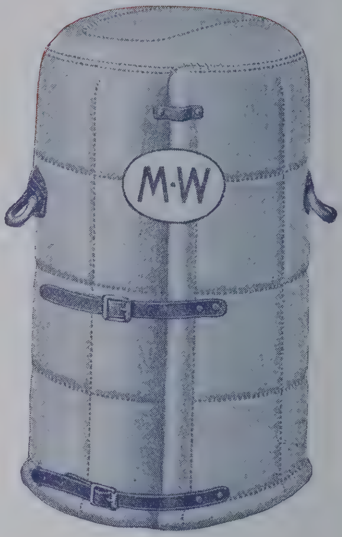
Milk or cream shipped in "M-W" Jackets is kept at a temperature that complies with requirements of the Health Authorities. Their use will please your customers.

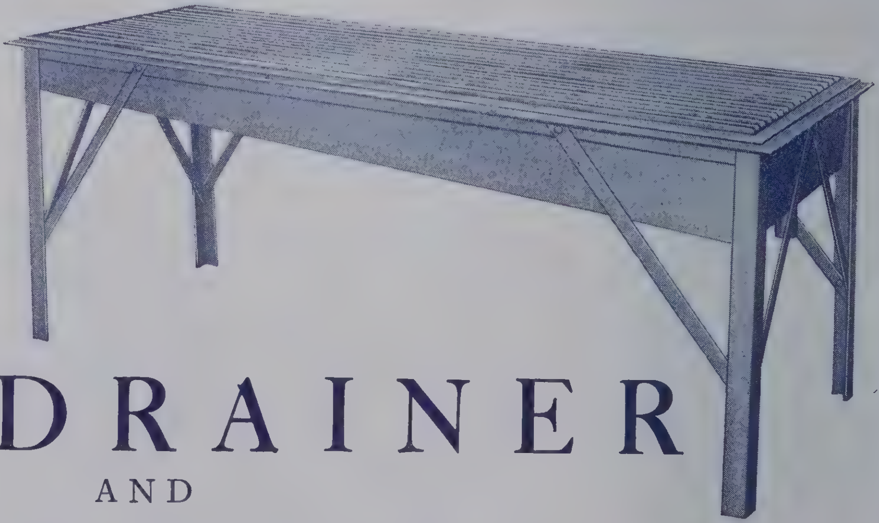
Made by the manufacturers of the original

"M-W" Iceless Delivery Jackets

"The Jacket That Defies Heat"

Montgomery - Washburn Co., Saugerties, N. Y.





CAN DRAINER AND DRIP SAVER

You can save the rich milk that too often drains into can washers by using this Faultless Can Drainer along the line of dump.

As the cans are dumped they are placed bottom up on this Can Drainer and pushed along by the next—and so on—giving ample time for draining and yet not slowing up the dumping operation at the receiving door.

You will be surprised at the rich milk this Can Drainer will recover.

Built of sturdy material to stand a lot of wear. Easily cleaned. Reasonably priced.

OUR CIRCULAR GIVES FULL DETAILS. SEND FOR IT.

E. A. KAESTNER, 516-524 N. Calvert St. **Baltimore, Md.**

WASH AND RETURN
PURE
FRESH
MILK
BOTTLES DAILY

MICHIGAN CITY SANITARY DAIRY CO.
PASTEURIZED
IN THE
BOTTLE
310 EAST 10TH ST.

CURTIS CREAMERY CO
PURE
MILK &
CREAM
PASTEURIZED

WE AIM TO PLEASE
ABSOLUTELY PURE

"Piquality" Caps

Eighteen Years Continued
SERVICE

Is our guarantee that your cap needs will be taken care of at ALL TIMES.

We also promise that tube caps work perfectly because of their high quality and clean cut.

Let us submit samples and prices on your next order and convince you as to the high quality of our product.

Piqua Cap Company, Piqua, Ohio

MILK
Milk Chocolate

Better CHOCOLATE Milk

Over 600 dairies have selected Morehealth Chocolate Syrup for their Chocolate milk. It is easy to use—merely requiring mixing. No additional equipment is necessary. This rich syrup with 2% milk will produce a most wonderful and delicious drink.

It's Made Right

Morehealth Chocolate Syrup is of highest quality and concentration. It is made from pure cane sugar and highest quality chocolate ingredients by Dr. Paskow's Special Process giving it an exceedingly rich and enticing flavor. No artificial coloring or preservatives are used

MAIL THIS COUPON TODAY

Chocolate Products Co.,
415 Beethoven Place, Chicago.

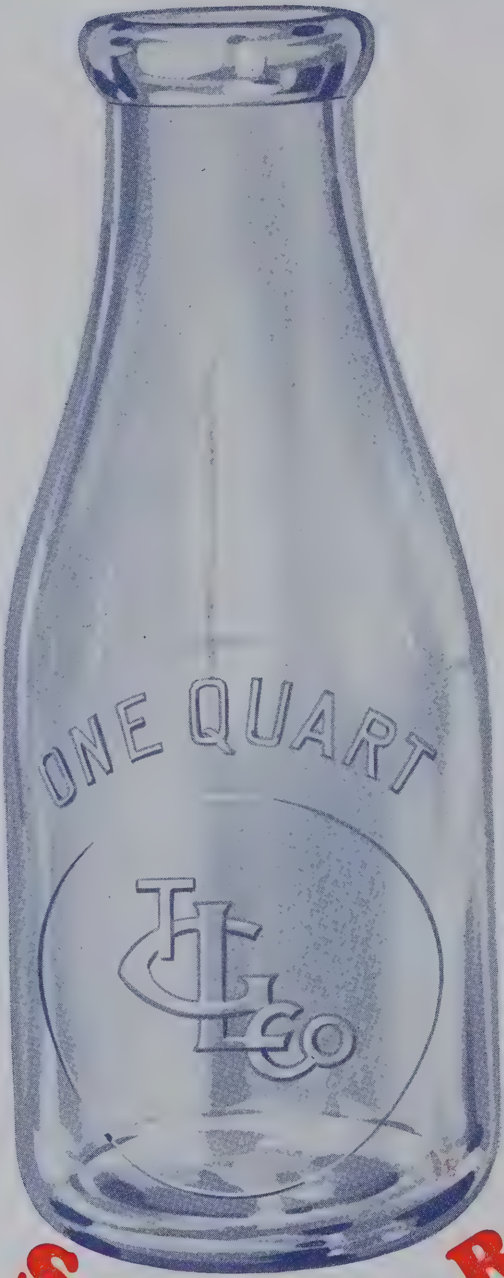
Please send us a sample of
Morehealth Straight Chocolate Syrup .... ☐
Malted Chocolate Syrup .... ☐

Name ....
Address ....
City ....
Buyer ....

M.D.

FULL-FILLS

Every Requirement of the Dairyman and Consumer



SUPER

Means: HIGHEST QUALITY - SERVICE - ECONOMY

Send for Samples and Information to Sole Manufacturers.

FACTORY AND OFFICES:

THE LAMB GLASS COMPANY

Chicago, Ill. : MT. VERNON, OHIO : New York, N. Y.

Some Facts About Advertising

Of Interest to the Dealer Who Handles His Own Advertising Campaigns. There are Many Combinations Possible in Dealing With Those Twenty-six Letters of the Alphabet

By JOHN T. BARTLETT

THE obtrusive fact about words in newspaper advertising is the small number of them. Hundreds of thousands of advertisements are published with less than 40 words.

Except in the large space units, 75 words is unusual, while advertisements running to 150 words are comparatively rare. Even in quarter pages and larger, 200, 300 and 400 words are the usual limits.

Compare these numbers with words in other literary forms. It is a short business letter which does not contain 75 words, and many business letters contain 700 or 800 or more. Many articles in business magazines reach 1,500 words. The standard short story length for numerous fiction publications is approximately 5,000 words, with stories frequently going to 7,000 and 8,000 or more.

Why is it that advertising uses far fewer words than informational and light literature? It is not, fundamentally, because of the space used, because it is quite feasible to put as many times as many words into advertisements than now, on the average, are used. The reason is one of expediency—and regard for effectiveness.

There is no magic in small number of words. The salesman who limits himself to 25, or 50, or 100 words when interviewing a prospect would be properly considered a subject for psychopathic observation. An advertiser can do, ordinarily, much more with 200 words than with 100 words—provided readers will listen to the entire 200 with interest. The trouble is they won't do the latter, in most cases.

The advertising world takes the view it is far better to use few words, and get them read, than print many which tire the reader and are abandoned before the story is half told. So advertising writers resign themselves to the task of taking very few words, and making them individually and as a group work with astonishing success.

How Long Does it Take to Write an Advertisement?

How long does it take to write a good advertisement?

An amateur advertising writer—in the sense that he writes only for his own business—replied to our favorable comment on a 75-word advertisement, "Yes, it ought to be! I sweat for three hours over that!"

Another business man who writes sales letters, incidentally, only one of many store duties, told us he had "worked for two days" to produce the splendid letter we complimented him on. He had a dictionary at his elbow, he related, and he kept at the letter until he was satisfied with it. It contained six paragraphs, and approximately 250 words.

On the other hand, a professional advertising man, conducting a service agency in a small way, was observed turning out advertisements for clients at the rate of eight or ten an hour. Most of the advertisements were not ones to win compliments.

We have seen unusually good sales letters, of from 400 to 500 words, turned out in less than an hour—all ready for the wrapper. The letter writer, however, was not writing about a strange subject, but one he had written on many times before. Moreover, before he started, the basic letter idea had been decided on.

Department store advertising managers in many cases turn out a page advertisement daily, and more or less direct mail advertising matter and perhaps billboard copy. The department store manager, however, usually has assistance. A great deal of copy comes to him which he can use with very little attention to it. Of course, after getting out many hundreds of large advertisements, the department store advertising man "gets the habit." He can turn out copy fast.

A professional advertising man, known far and wide for the literary excellence of his copy, dictates to his secretary who writes it in longhand. He may spend two hours over 200 words of text—and come back another day to spend another hour on it. This man is an exception.

There is no question that advertising writers of much experience can turn out good copy far more rapidly than can an advertiser who writes only his own advertising, and not much of that. Practice and experience do produce facility.

Nevertheless, we seldom hear a veteran copy writer contend that he can produce better stuff in fast time than when given an ample margin in which to produce and put on the finishing touches. Speed in writing advertising copy is not a goal to aim for, and the beginning advertising writer, in particular, should realize that fast copy writing is full of perils. A great many beginning advertisers, writing their own copy, could produce far better messages were they willing to put in, where necessary, three hours on a 75-word advertisement.

⁂

TERRE HAUTE BUSINESS PROSPEROUS.

Facts and figures concerning the business of the Terre Haute Pure Milk and Ice Cream Co., Terre Haute, Ind., prove interesting as related in a recent article in the Terre Haute Post, which points out that the company was established in 1909 and has enjoyed a continuous growth in its business of manufacturing a complete line of dairy products. The principal products include pasteurized cream, milk, cottage cheese, ice cream and creamery butter.

Henry Ward, who became connected with the organization in 1910, is given much of the credit for the company's rapid development.

The plant, which is located on N. Fifth St., is one of the most modern and sanitary in the state and the latest type of machinery and equipment has been installed.

The company has a number of routes for both retail and wholesale distribution.

3,000 Gallons Daily.

The volume of the Terre Haute Pure Milk and Ice Cream Company is shown by the fact that it bottles approximately 3,000 gallons of milk and manufactures 1,000 gallons of ice cream and 1,500 pounds of butter each day.

Officers of the concern are: George D. Foulkes, president; Henry Meyer, vice-president; Frank C. Fisbeck, treasurer, and Harry Ward, secretary and general manager. The board of directors includes the officers and Charles Fox, E. T. Hazeldine, Clair Dobbs and Prof. E. W. Kemp.

Cottage Cheese Surprises Many

The West Coast is Convincing the Public that Cottage Cheese is Really Good

By M. O. MAUGHAN*

THERE are a good many men engaged in the dairy industry who still feel that cottage cheese is a "drug on the market" and is difficult to "put across."

A good many people feel that the public cannot be persuaded to eat cottage cheese to any great extent and that its future is limited.

For a long time I was guilty of the same idea myself and it was not, in fact, until I visited the West coast during the past summer and saw the way the people ate cottage cheese there, and also the improved manner in which it was made, that I became thoroughly convinced that cottage cheese surely has a great future.

In practically all the entire states of California, Oregon and Washington, an unusually high grade of cottage cheese is being made—cheese in large flakes rather than in small crumbles and having a most pleasing flavor. For the first time in my life, I ate cottage cheese that left that "I want more" taste.

From San Diego on the south to Seattle and Spokane on the north, the majority of milk dealers are recognizing a great source of profit in cottage cheese. For example, our good friend and former president of the International Association of Milk Dealers, Fred B. Martin of Spokane, is making such good cottage cheese that he has a demand for it hundreds of miles away. He now makes regular shipments to Yellowstone Park, to Colorado Springs, Colo., and other places equally far distant, Colorado Springs being somewhere between 1,500 and 2,000 miles away by rail.

One can go into almost any cafeteria in the West and find cottage cheese very prominently displayed in dozens of different and appealing combinations, and it finds its way onto the tray of the business man, and the stenographer, and all others, to an amazing extent.

In one cafeteria in Seattle I found exactly 57 people out of 100 whom I counted took cottage cheese in some form or other.

In California the consumption of cottage cheese in 1925 was 2.54 pounds per person against approximately one pound average for the United States.

In St. Louis, creamed cottage cheese, made by homogenizing cottage cheese and cream, has become wonderfully popular and decidedly profitable. One milk dealer there found it could be used in 76 different ways —all wonderfully good. It is truly surprising the assortment of delicious dishes that can be made with cottage cheese as the basis. A few of them include:

Tomatoes stuffed with cottage cheese.
Celery stalks filled with pimento, olive and cottage cheese.
Prunes stuffed with cottage cheese.
Shredded cabbage and apple with cottage cheese.
Cubed pickled beets with cottage cheese.
Cottage cheese and pineapple.
Cottage cheese and nuts.
Cottage cheese plain.
Cottage cheese and tart jelly.
Cheese balls rolled in chopped parsley or nuts.
Cottage cheese sprinkled with paprika.

I am now convinced that there is a much greater opportunity ahead for cottage cheese than the average man in the dairy industry believes. Seeing is believing. There are some concerns that have patented processes on cottage cheese, and which charge a royalty for their particular process, and there are others which are glad to give information free of charge to their fellow milk dealers especially in adjoining cities as to how it is made.

With the opportunity ahead for a greater consumption of cottage cheese, there is no reason why skim milk should be poured down the sewer as it now is in so many different places.

One of the big jobs ahead of the dairy industry is to broaden the uses of dairy products—real good cottage cheese is one of the solutions to this problem.

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* Secretary of the National Dairy Council.

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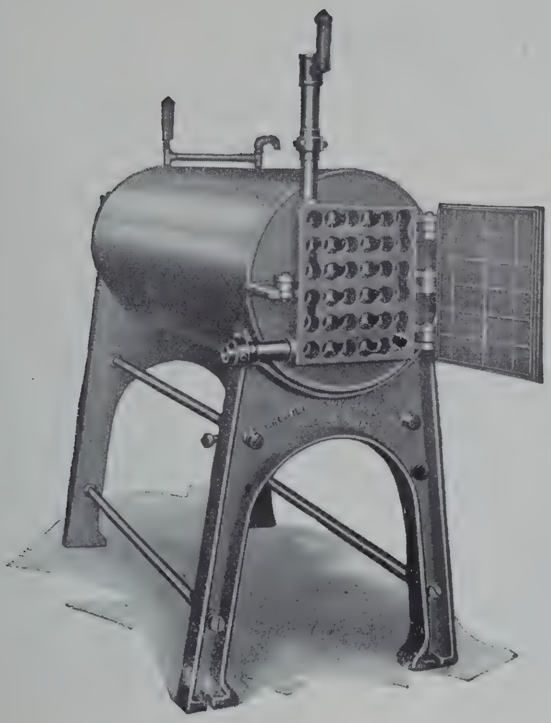
MILK BOTTLES TO BE STANDARDIZED.

Milk bottles are going to be reduced to four standard sizes, the simplified practices divisions of the department of commerce announced recently. There will be two quart sizes, nine and one-half and nine and one-quarter inches high; one pint and one-half pint size. Three years ago milkmen were using more than a dozen different sizes of bottles.



Breyer Ice Cream Company
Philadelphia, Pa.

USE TWO CHESTER BARREL HEATERS

One at the Philadelphia Milk Plant

They use a regenerative surface cooler and compartment type holders with a Chester Barrel Heater between these two. It is important in this instance that the heating temperature be accurately maintained and controlled. This is accomplished in a very practical and satisfactory manner with a Chester Barrel Heater.

One at the Millerstown Condensery

Here all Milk passing to the hot wells is first sent through a Chester Barrel Heater and heated to the desired temperature. This eliminates condensing live steam into the milk in the hot wells. It effects a saving of time and also the enormous cost of recondensing the water out of the milk.

The CHESTER BARREL HEATER is used to solve all sorts of heating problems in the dairy industry. What is yours?

CHESTER DAIRY SUPPLY CO.
Ninth and Hyatt Streets
CHESTER PA. U. S. A.

The Sign of Service

Why This Trend Toward Sheet Metal In Building Construction?

A Material That is Economical to Use and Thoroughly Adaptable to Factory Building Requirements

By B. B. POPELL*

SHEET steel is a material so familiar in countless forms and uses that its every day service is taken for granted. Yet, without it, modern industry commerce, transportation, agriculture and the home life of today would be greatly handicapped, and many conveniences greatly increased in cost.

Sheet steel is the material of universal adaptability. It enters into the construction of the Brooklyn bridge and the spectacle case in your pocket, the Woolworth building and your waste basket, the Eiffel Tower and your alarm clock. It is used alike in the Rolls-Royce and the Ford, in the Twentieth Century Limited and the youngster's toy train, in the Leviathan and the row boat. From battleships to electric irons, from corn cribs to bedroom furniture, from great railway terminals to portable garages, things of many kinds and uses are made safe, convenient, sanitary, efficient and durable by sheet steel.

It is only within the last two decades that the world has learned of the advantages of this modern material—of the unusual efficiency and economies it affords. In 1905, American mills produced less than one million tons of steel sheets. By January, 1924, the annual productive capacity had increased to nearly five million tons. Yet this 500 per cent increase in the use of sheet steel, large as it is, represents only a small part of its potential usefulness and service to every industry.

Here is what the leading editorial in Collier's Weekly, March 27, 1926, says: "Our modern world has grown around a steel skeleton. Back of everything we do lies the steel backbone. The houses we live in and work in; the conveyances that take us to work; our tools of employment and our toys of pleasure are all dependent on steel. It is as essential to our present day life as air, water and fire."

Material, like individuals, must "show the goods" if it is to make good. This tremendous increase in the use of sheet steel would indicate that it does just that, else why its ready acceptance wherever its advantages are known? Among the first to prove the desirability of this material were the railroads, the automotive industry and the electrical world, still among its largest users. These great organizations, ever on the lookout for better materials, improved methods, lower first costs and reduced maintenance expense, have found sheet steel, the answer to their every requirement.

Let us take up the advantages of sheet steel. They will serve to explain the ever increasing trend toward sheet steel construction.

At present America is confronted with a tremendous fire problem. Our annual losses from blazes—most of them avoidable—are staggering, showing a steady increase from year to year. Last year, for example, this nation literally threw into the fire-heap $570,225,921, an increase over the highest previous figure of $21,193,797!

Some Uses for Sheet Steel.

Sheet steel construction offers one hobby to this nation-wide problem because it is absolutely fire-resistive. You take no chances when you use it—and you insure double protection from destructive flames. First, adjoining buildings that are afire cannot ignite steel-clad structures. Burning embers fall harmlessly on the steel sheets and smolder until they die. Sparks from bonfires and chimneys are harmless, like water on a duck's back. For instance, in the recent $1,000,000 fire that took place in the yards of the Harris Brothers' Company in Chicago, an all-steel garage alone remained standing amidst the mass of ruins.

Another fire service that sheet steel offers is that it confines that start from combustibles within the building, and keeps the flames from spreading to adjoining property. A short time ago some paper stock caught fire in the Robert Goir Paper Plant at Piermont, N. Y. Firemen fought the flames for four days before they extinguished them. But this all steel building successfully confined the fire all that time. It did not spread.

Also, sheet steel is usually durable—it lasts a lifetime. The forces that undermine other materials have no effect on it.

Then, too, properly grounded sheet steel buildings offer absolute protection against lightning. They lessen the danger of stroke and render it harmless should it come. The late Dr. C. P Steinmetz, chief consulting engineer o the General Electric Company, and recognized authority on lightning stated that steel structures properl grounded offer the only form of habi tation that is absolutely lightning proof.

Then, too, properly grounded shee ideal structure must be able to stand the various natura elements—heat, cold, rain, snow and wind. Sheet stee construction offers a permanent defense against atmos phere. There is no warping, no shrinking, no cracking no rotting away.

The old myth that material which is tough and dur able cannot be pleasing to the eye, too, is no more. Shee steel gives attractive appearance without a sacrifice of other desirable qualities. And its beauty endures through the years.

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* With Sheet Steel Trade Extension Committee, Chicago, Ill.

Sheet steel makes possible a two-fold economy. First, in low first cost. Sheet steel buildings cost at least no more, if not less, than other types. Second, there is further savings in reduced upkeep. "It's not the cost, it's the upkeep," says a popular maxim. With sheet steel further expense is eliminated. The first cost is practically the last.

Rat and vermin proof. Products stored in sheet steel buildings are safe against destruction by pests of any kind. Steel offers a positive barrier to rodents who can gnaw their way through almost every other material.

A Creamery in Steele County, Minnesota.

Today, the steel building serves as a storeroom, a warehouse or a factory. Tomorrow, if your needs demand, it may be converted to any other use. This advantage is all important in these days of changing needs and over-night developments.

"The proof of the pudding is in the eating." Trite, yes, but isn't it true? And proof of all these merits abounds everywhere. Were not sheet metal practical, enduring, efficient and economical it would not be the choice in production, in transportation and in every type of building today.

This is an age of steel. Other materials are being tagged out of date, one by one. It's a logical evolution. and when science develops a better material than sheet steel, that material will succeed it in building. Until then sheet steel will continue to give dollar for dollar value to builders everywhere.

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VISITORS ARE INVITED.

All modern equipment and machinery necessary for the operation of a milk plant in the most expeditious and sanitary method is in use by the Shelly Dairy of Lima, O., according to Roy Etherols, manager.

The employees of the plant are only required to operate the machinery, the product never being touched by human hands.

Officials of the company have extended an invitation to the public to visit the clean, wholesome plant at 412 S. Jackson St. It is felt certain that a visit through the plant will convince the most discriminating person that the modern methods of handling milk are designed to protect the health of all users of this staple food.

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You cannot afford to miss a single copy of "The Milk Dealer." If you have not done so, be sure to send in your renewal today.

NEW JERSEY HEALTH OFFICIALS RE-EXAMINE SCHOOL MILK SUPPLIES.

Public school milk supplies were re-examined by the bureau of food and drugs of the New Jersey Department of Health and showed a marked improvement in sanitary condition over the milk supplies at the time of the first examinations. In the reinspection, 111 schools were visited and inquiries made in regard to the source of the milk supply, whether raw or pasteurized, whether statements on the bottle caps were correct, the amount of milk distributed to the pupils, and the method of handling it at the schools. The total amount of milk handled in the schools visited was 2,684 quarts daily. Almost 90 per cent of the schools distribute milk to the children in half-pint bottles, a straw being furnished with each bottle. In the remainder of the schools the milk is either poured from the original container into glasses or mugs or used in the preparation of hot cocoa. At 88 of the schools pasteurized milk is used; at 17 schools raw milk from cows that have successfully passed a tuberculin test within one year is used; and six schools use raw milk not produced by tuberculin tested cows.

At each school visited, samples of milk were taken for chemical analysis. Of the total 227 samples collected and examined, the average total solids content of the milk was 12.2 per cent and the average fat content 3.5 per cent. Twenty-one samples, or 9.2 per cent, were found to be below the state standard in total solids or butterfat. The percentage of samples below the standard this year is much less than last year when the percentage of low-standard milk was 17 per cent. This shows greater interest on the part of the school authorities as well as increased effort on the part of milk dealers to furnish a satisfactory supply. In eight schools visited, the caps used on bottles of pasteurized milk did not comply with our regulations; and in one case an ordinary raw milk was falsely labeled "pasteurized."

Whenever any unsatisfactory conditions were found in connection with a school milk supply, the facts were communicated to the proper school official and such action recommended as seemed necessary to correct the fault. Follow-up work invariably showed correction of faulty methods and improvement in the supply.

In general these school investigations have had the hearty co-operation and endorsement of school principals and others interested in furnishing clean, safe milk to the children. Local boards of health in several municipalities have been sufficiently interested in this work to collect samples from their schools regularly. The bureau will continue the work during the coming year and the milk supply of each school in the state will be investigated.—From Annual Report by the Department.

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CLAIM RAW MILK CAUSED EPIDEMIC.

Citizens of Cambridge are fortunate in having an adequate supply of pasteurized milk, considering that an epidemic of typhoid fever, the origin of which is said to have been traced to the use of raw milk, is prevalent in the village of Wellington, O.

An article in a Wellington newspaper recently disclosed that 97 actual or suspected cases of typhoid fever were reported in the village, which has a population of 2,000 persons. Cases have also been reported in several cities and villages near Wellington.

The advisability of using only pasteurized milk has been emphasized by physicians in the vicinity of Wellington. A similar condition exists in Ashtabula it is said and existed in Sandusky one year ago.—Cambridge, O., Jeffersonian.

Yes—Some Dairies Do Fail

And There's a Good Reason, as You Will Find Upon Reading This Story of Men Who Tried to do Business Without Business

THERE was plenty of business—worlds of it. In fact, no competition. It was the only pasteurized dairy of its city. The city was proud of it, and it was a nice city, a nice, progressive, up-and-coming, go-and-get-'em city with plenty of boosters and a number of live civic organizations. There were prominent citizens behind the venture, the best in the city, and they had no hesitancy in putting up plenty of capital.

Yet the dairy failed.

Yes, it failed—failed dismally, flatly. It went up with a loud report, and after the echoes died away several officials were found sitting in a dingy, shadowy office rubbing their heads in a dazed manner and trying to figure out just what happened. They would put you in mind of a certain little man in Holland who now wanders around in the woods with a saw in his hand and a far-away look in his eyes and trying to realize that there no longer is an emperor of Germany.

The business failed. The dairy went up; the pasteurized plant was a hazy dream.

How did it happen? Few people can tell you. They shake their heads in this city and say it is all a mystery. Certainly there was plenty of business. All are agreed upon that point. They saw the pretty little creamy white dairy wagons scooting over the streets of the city with a business-like air.

The drivers were cheerful and full of pep—on their toes all the time. They were good at collections—very good. In fact, it was the sort of town where collections are good in every line of business. The city took pride in this fact.

Everybody, in fact, took pride in this nice, up-to-date dairy plant; they emphasized the fact it was a pasteurized plant.

This plant failed because of too much business—too much business, that is, without any real, practical business methods. There were too many cooks handling the books. They were all good bookkeepers. The statement in bankruptcy proves that to a T. You should have seen that statement! Nobody but a bookkeeping genius could have so worked out those figures in a way that you could tell everything about the business—except what you wanted to know. Those figures made the Gordian knot look like a child's tangled string.

The bookkeeper's statement in the bankruptcy petition answer is fairly indicative of the kind of bookkeeping that spelled disaster for this firm.

Here's how it happened:

The drivers went out every day on their routes, went out singing and happy. They came back the same way every day, all of them cheerful and making optimistic reports.

Now, Frank Jones, for instance, came in to report one day. They liked Frank at the dairy; he was a cracker-jack, they'd tell you, at digging up new customers and increasing orders from old ones. He was good and knew it!

"Er—now, just how many cases did you take away this morning, Frank?" the route foreman would ask, a far away look in his eyes. "I believe it was twelve, wasn't it?"

"Six," Frank would correct him quickly. "Just had six this morning; you know you decided to send the other six out on route 3."

"Ah, guess you're right about it. Six, eh?" Well, now Frank, I believe that makes you owe us so many dollars and so many cents."

"A little bit less than that," Frank would reply; "you know I didn't get quite all of my salary last week; collections weren't quite enough. Anyhow, Mrs. Wilson said she'd mail you in a check for hers. You got that check, didn't you."

"Er, I believe I did hear something about that check coming in, Frank. Guess that's all right."

You see, this extraordinary dairy had followed the practice—the very bad practice!—of letting its drivers collect money and keep out some of it on their salary. Furthermore, they had followed the practice of upholding no practice in checking drivers in and out. They never knew where they stood. They possibly earned enough money to pay handsome dividends, but no dividend ever was paid—not one.

The extraordinary bookkeepers, befuddled by this weird practice, trying to cover up some of the figures that looked doubtful, soon got the books in such a shape that you could look them all over at a glance and be sure of yourself absolutely—be sure, that is, that you didn't know anything about them.

Yes, everybody was cheerful—quite cheerful all the time. It looked like somebody was making money—and somebody was! That was the best killing those drivers ever—ever had. There were more milk drivers owning nice automobiles in that city than you would find anywhere else in the world. A lot of prominent citizens paid for them.

This plant is going to come back. The prominent citizens are going to see to that. But next time they go into the milk business they are going to be sure they are going into business. Sure, they are going to get some good cracker-jack, practically trained dairymen to run the plant. They'd be foolish not to do so. They had such men before. But these men, well trained in the business of handling milk, were babes in the woods when it came to business—real business.

The prominent citizens are going to put this plant on its feet, reorganize, put practical dairymen in charge, and see that practical, methodical men keep track of all the milk that goes out and comes in. Also they will keep track of the money—and they won't do any guessing.

Yes, some dairies do fail.

Many people wonder why.

NORTH DAKOTA PLANT ENLARGED.

Improvements to cost in the neighborhood of $10,000 are being made to the building occupied by the Acme Dairy Co., 701 Thirteenth St., Fargo, N. D. Remodeling of the plant and construction of an addition will double the present capacity of the plant, according to Frank P. Peterson, manager.

The present building, which is 16 by 47 feet, will be enlarged to 32 by 52½ feet, he said, and will be equipped with all modern machinery. The building will be a one story cement structure and will be stuccoed on the outside.

NATOMA-HUNTLEY DAIRY CO.
DAIRY

Present Day Profit From Present Day Methods

1250 gallons of milk, the "best of food," for Chicago folks! And this is only one of the Natoma-Huntley milk trains that travel for miles and miles in the country around collecting milk for the Natoma-Huntley Creamery.

A 6-ton load—a 3½-ton truck. In other words, 2½ additional tons of milk hauled for the cost of the extra gasoline and oil needed to pull the Trailer. Figure also the investment cost of this train in comparison with that of motor trucks sufficient to carry the load. From every angle the savings brought by Trailers are tremendous. And, the profits are naturally in proportion.

These are the advantages that Fruehauf Trailers are bringing to milk dealers wherever they are used. These are advantages which no business man can do without. Fruehauf Trailers have a place in your organization as surely as the most important man you employ.

It is a case of save more money—make more money, in the milk business just as in any other. Here is a way to wholesale savings. Let us tell you about some other creameries using Fruehaufs and the benefits Fruehauf Trailers are bringing them.

Pioneer Builders of Semi-Trailers, Four-Wheel Trailers and Adjustable Pole Trailers.

BACKED BY 35 YEARS' EXPERIENCE

FRUEHAUF TRAILER COMPANY

BRANCHES AND DISTRIBUTORS IN ALL PRINCIPAL CITIES

10942 Harper Avenue **Detroit, Michigan**

Buttermilk and Business

As a Nutritious Food and as a Business Builder Buttermilk Stands Preeminent

By A. D. BURKE*

THERE should be no "closed season" on commercial buttermilk. Yet the idea seems to prevail that the product is purely a good old summer time drink and just another means of getting rid of the surplus.

That may be true but I fail to see any reason why buttermilk should not be made an all-year beverage with well sustained seasonal sales.

Perhaps our advertising is at fault. Possibly we fail to deliver the right type of consumer appeal and I am inclined to believe that herein lies our difficulty.

Some time ago Metchnikoff discovered that Bulgarians lived to a "ripe old age." This he attributed to the consumption of large quantities of sour milk. The information spread and Bulgarian buttermilk became popular.

Scarcely a day passes that a request is not received at our college commercial creamery for a bottle of Bulgarian buttermilk and a flat refusal to drink commercial buttermilk, that "cultured stuff," on the grounds of the artificial means of its manufacture.

Evidently someone read the Prolongation of Life by Metchnikoff, wrote a popular article and sold the public on Bulgarian buttermilk. That such may have been the case is brought out in an article by Mr. Frommes published in The Milk Dealer of last December in which he writes as follows:

"A newspaper with 900,000 subscribers in Greater New York published an editorial on the fact that Bulgarian peasants live to be 100 more often than the people of any other land because for generations they have almost lived on buttermilk. Following this there was a stampede for the buttermilk stands and New York soda fountains sold out their gallons of buttermilk before noon each day."

We publish articles among ourselves, we read bulletins; study scientific discussions and researches but do we actually reach the public to tell the value of the product?

"Have you had your iron today?" sells raisins. The word "vitamine" apparently sells yeast. The other day I was walking with a friend who suddenly complained about his stomach being "all upset" but that if he could just secure a cake of yeast he would be "all OK." The more he thought about it the more he complained and the more he wanted the yeast. Finally he stopped in a drug store, secured his "vitamines" and with alternate bites of yeast and sups of water disposed of the product. Whether he liked it or not mattered little. It apparently served its purpose as he shortly declared much improvement in his condition. He will continue to use yeast. His lesson had been learned through commonplace advertising that all could understand. Why not try it on commercial buttermilk? Instead of publishing all our information in scientific journals let us publish an occasional article in newspapers and popular magazines.

There are plenty of facts to substantiate both the food and therapeutic value of the product. The U. S. Department of Agriculture has declared it "a pleasant refreshing beverage and a nourishing food combined in one product." It further states "that prepared buttermilk is usually made from skim milk and has all the chemical properties of buttermilk. If it is is churned, as is usually the case, it agrees in appearance and flavor with real buttermilk. In fact it is often a **better product** especially if clean, sweet skim milk is used and it is carefully ripened and churned."

We have proof of the successful use of both Bulgarian and commercial buttermilk in the treatment of certain infant ills and in difficult feeding cases.

Its value in correcting intestinal disorders in adults has been demonstrated while its employment as a sole food in typhoid cases is known.

In addition Fisher and Heinemann have demonstrated a germicidal effect of lactic acid on certain pathogenic bacteria and while as Fisher concludes "the results of other experiments seem to indicate that this germicidal action of lactic acid does not extend to the control of organisms already in the intestine" it does prove as Fisher further states "that lactic acid has decided germicidal properties and may prevent the infection of fermented milk with harmful organisms." Although Fisher's work dealt chiefly with a study of Bulgarian buttermilk rather than the lactic commercial product the effect of acid on undesirable bacteria is worthy of note and signifies another possible valuable attribute of cultured buttermilk, since as we all know the lactic acid in both products varies only in amount and not in chemical composition.

Certainly as a business builder, a nutritious food, and a palatable product, buttermilk stands preeminent and yet in 15 plants in New England according to recent government survey the amount of cultured buttermilk handled was but 1.2 per cent as great as the amount of milk and cream used, whereas in 13 plants in the east south central states the ratio ran as high as 27 per cent. Undoubtedly we have an open field in the buttermilk business. Perhaps we are failing to blow our own horn.

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* Associate Professor of Dairying, Oklahoma A. & M. College, Stillwater, Okla.

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NEW OHIO PLANT.

A wholesale and retail milk and ice cream manufacturing plant will be erected by the Leichner & Jordan Co., Portsmouth, O., according to recent account. The company has been operating an ice manufacturing plant in Portsmouth for some time and the new plant will be built adjacent to its present ice plant.

The company already has machinery ordered for the handling of milk and the manufacture of a complete line of milk products, including the making of ice cream on a large scale. The machinery will be of the latest and modern type for the complete pasteurization of milk.

W. O. Moore, who has had years of experience with other local milk and ice cream industries, has been engaged as manager of the new plant, which is expected to begin operations within 90 days.

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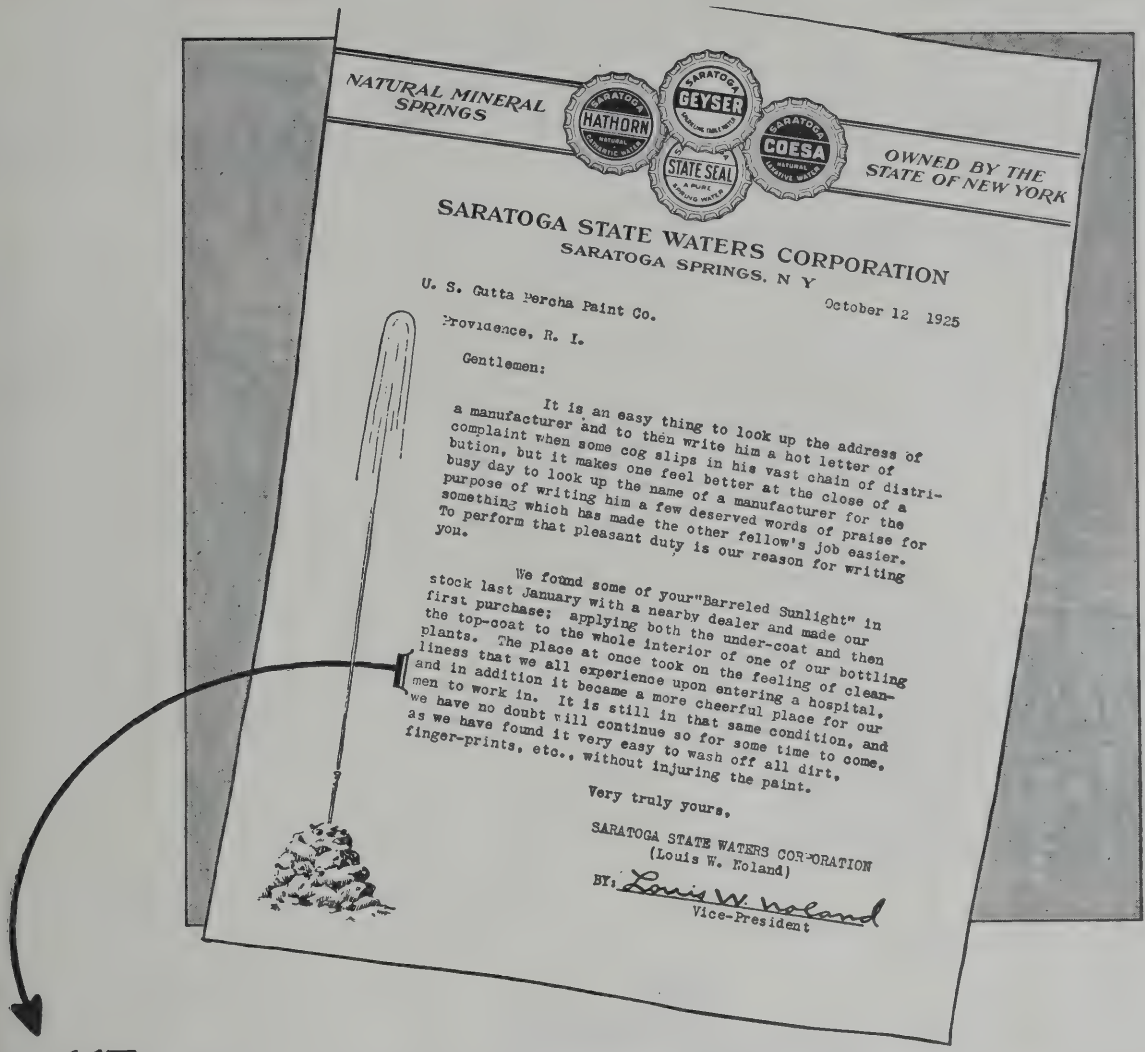
If you want a position "The Milk Dealer" can help you, as it has helped hundreds of others, to secure a good position.



NATURAL MINERAL SPRINGS

SARATOGA HATHORN NATURAL CATHARTIC WATER

SARATOGA GEYSER SPARKLING TABLE WATER

STATE SEAL A PURE SPRING WATER

SARATOGA COESA NATURAL ALTERATIVE WATER

OWNED BY THE STATE OF NEW YORK

SARATOGA STATE WATERS CORPORATION
SARATOGA SPRINGS, N Y

October 12 1925

U. S. Gutta Percha Paint Co.
Providence, R. I.

Gentlemen:

It is an easy thing to look up the address of a manufacturer and to then write him a hot letter of complaint when some cog slips in his vast chain of distribution, but it makes one feel better at the close of a busy day to look up the name of a manufacturer for the purpose of writing him a few deserved words of praise for something which has made the other fellow's job easier. To perform that pleasant duty is our reason for writing you.

We found some of your "Barreled Sunlight" in stock last January with a nearby dealer and made our first purchase; applying both the under-coat and then the top-coat to the whole interior of one of our bottling plants. The place at once took on the feeling of cleanliness that we all experience upon entering a hospital, and in addition it became a more cheerful place for our men to work in. It is still in that same condition, and we have no doubt will continue so for some time to come, as we have found it very easy to wash off all dirt, finger-prints, etc., without injuring the paint.

Very truly yours,

SARATOGA STATE WATERS CORPORATION
(Louis W. Noland)
BY: Louis W. Noland
Vice-President

"It became a more cheerful place for our men to work in" . . .

Lustrous, washable, durable Barreled Sunlight receives high praise from this well-known concern

EVERY plant that is painted white inside—or ought to be—can profit from the satisfying experience described in the letter reproduced above.

Barreled Sunlight *actually costs less per square foot of surface covered than any other interior paint.* It is easy to apply by brush or spray. It covers remarkably. And due to the exclusive Rice Process of manufacture, it is guaranteed to remain white longer than any gloss paint or enamel, domestic or foreign, applied under the same conditions—also not to flake or scale if properly applied.

Sold in 55- and 30-gallon churn-equipped steel drums and in cans from ½ pint to 5 gallons. Where more than one coat is required, use Barreled Sunlight Undercoat first. Note coupon below.

U. S. GUTTA PERCHA PAINT CO.
Factory and Main Offices
9 DUDLEY STREET, PROVIDENCE, R. I.
New York—350 Madison Ave. Chicago—659 Washington Blvd.
San Francisco—156 Eddy Street
Distributors in all principal cities

Barreled Sunlight
Reg. U. S. Pat. Off.

Barreled Sunlight
Reg. U. S. Pat. Off.

THE RICE PROCESS WHITE

U. S. GUTTA PERCHA PAINT CO.
9 Dudley Street, Providence, R. I.

Please send us your booklet "More Light," and a panel painted with Barreled Sunlight.

Name . . . .
Street . . . .
City . . . . State . . . .

Stay Away from Germs and

Talk Sunlight and Happiness!

This Company's Growth Reflects the Effectiveness of a Well-planned Sales and Advertising Campaign

THE psychology of telling the public the pleasant side of life has proven itself again successful. The Sanitary Milk and Ice Cream Co. of Peru, Ind., which has recently opened a model new plant, say that "every time we have discussed the dangers of unclean milk our sales have dropped just as fast as the other fellows. We have to stay away from germs and talk sunlight and happiness."

Again is an old story repeated. Again is an old theory proven. You can tell the public that your product is comparatively free from bacteria byt the admission that there is even the possibility of there being a germ in your product will have the opposite effect from that desired.

But stress sunlight and the happiness of your workers, get the public to picture your product as being made by happy workers in a factory flooded with sunlight and you increase your business and the result is entirely beneficial.

Interesting information anent a successful sales and advertising plan has come to us from Bonsib, Inc., the advertising agency handling this end of the business for the Sanitary Milk & Ice Cream Co. of Peru, Ind. They say: "The Sanitary Milk & Ice Cream Co. has a very sound sales and advertising policy. In the first place, scrupulous care is given to make certain that the product itself is absolutely pure, clean and safe. This care starts at the farm. A fieldman educates the farmers to the proper methods of milk production so far as possible and rejects the milk when proper methods are not used in its production. That is, he refuses to take more milk from that dairy until conditions are corrected.

SANITARY MILK CO.
SANITARY MILK CO.

The Modern Sunlight Plant.

"The milk is collected by trucks operated by the Sanitary Milk Co. which further assures careful handling and quick delivery to the plant.

"Every possible effort is made to make the products look as clean as they are and the wagons are kept clean and shining so that the impression they give as they travel through the streets is favorable. The men are carefully trained and weekly meetings have had much to do with their progress and courtesy and selling ability. A trained sales and advertising manager has charge of these meetings. Not only are sales problems discussed, but every possible complaint or failure on the part of anyone in the production department to provide a satisfactory product is discussed.

"The Sanitary Milk and Ice Cream Co. has always been a consistent advertiser. We have handled their advertising for about three years. We have found that the only advertising which pays is that which talks about the healthfulness and goodness of the product. Every time we have discussed the dangers of unclean milk our sales have dropped just as fast as the other fellows. We have to stay away from germs and talk sunlight and happiness.

"The growth of the business in Peru indicates that the methods have been effective. There is a still better indication, however. Recently a route was put on in a neighboring town, Rochester, Ind. Beginning with nothing, this route was built up to a satisfactory volume in just three or four months time because we advertised heavily the advantages of pasteurized milk. Nearly all of our ads are around two columns, six inches, but we use them every day or every other day, both in Rochester and Peru. They are almost always made up from type and stock cuts so they are not expensive. Many of the illustrations are found in the newspaper mat service.

"On the whole, we feel that we have worked out a model advertising and merchandising plan for the milk plant in a small-sized town. The population of Peru is about twenty thousand and the Sanitary Milk and Ice Cream Co. has a very liberal share of the business.

"Constant publicity in the newspapers, all run free, has helped too. It's all in the ingenuity with which you make 'news' out of things that happen. The papers are glad to get stuff that is properly worded, without boasting—'good taste,' in other words."

As an example of the kind of publicity which can be obtained by furnishing it to the newspapers, is given below:

The Sunlight Milk Plant.

As the inquiring reporter was cruising aimlessly past the busy scene on the site of the new Sanitary Milk and Ice Cream Co. plant this morning, he was struck by the peculiar construction of this splendid new building.

Why, nearly half the walls are just wide openings with steel frames for the windows. What a sunlight plant this will be!

In every wall of the first floor, wide windows and doors assure ventilation and air and in the second story the whole wall on each side is almost completely made up of one wide window.

Every square foot of this building will be thoroughly saturated with light and air. Not only do the windows provide this, but two enormous light wells provide more sunlight and ventilation in the very heart of the workrooms.

In the room where milk is handled, the walls are more than seventy-five per cent windows.

All of the floors of the work-rooms are concrete, the walls are glazed brick, impervious to moisture, clean and hard. There is nothing to deteriorate and no places for water to stand. When the building is completed, the interior will be as clean and shining as the most immaculate kitchen fancy ever conceived. Surely, the government's propaganda for more sunlight and fresh air has been fully carried out in this most modern milk handling plant of the Sanitary Milk and Ice Cream Co.

These stories which gain publicity for a firm by appearance in the daily newspapers local to any community, have a high value. The trick is to so write and word them that they are news, and not at all in the nature of free advertising or boosting. A keen advertising or publicity man can do wonders in securing this sort of publicity which has a value at least nearly equal to the paid advertising.

The new plant of the Sanitary Milk and Ice Cream Co. is, as we have remarked before, a model in its every detail. Its outward appearance will be appreciated from the photograph accompanying this article.

The new building is of concrete and brick construction, 135x170 feet, with all new equipment. The plant is divided into receiving, refrigerating, general work, and cooling rooms, general offices, private office, drivers' room, store room, barn and garage in connection. It will have a large basement, ice storage room, and the refrigerating plant will have a capacity of 25 tons daily.

It is testimony to the progressiveness of the company, as well as tribute to their business ability.

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TWO MILK PLANTS JOIN IN MERGER.

The merger of two of the Muskegon (Mich.) leading dairy companies was announced some time ago.

The entire properties of the Muskegon Dairy Company at 490 W. Muskegon Avenue will be taken over by the Sanitary Dairy Co. The new combined business, however, will be centered at the Sanitary Dairy plant at 1788 Terrace Street, adjacent to the Grand Truck railroad tracks. The Muskegon Dairy plant will be closed and its equipment moved to the other building.

Employees to Remain.

J. M. Knutson, president of the Muskegon Dairy, and all of the employees of the company will become a part of the new organization. Mr. Knutson will remain with the combination for an indefinite period of time and later will become active in his interests in the Woodlawn Piston Ring Company which is preparing to build and expand its business in the near future.

Drivers employed by the Muskegon Dairy will become the employees of the Sanitary Dairy and will, insofar as is possible, be kept on the same milk routes. Considerable overlapping of the routes covered by the two companies will be eliminated in the reorganization, however, and each individual driver's territory will be cut down to some extent. Approximately the same number of men will be employed.

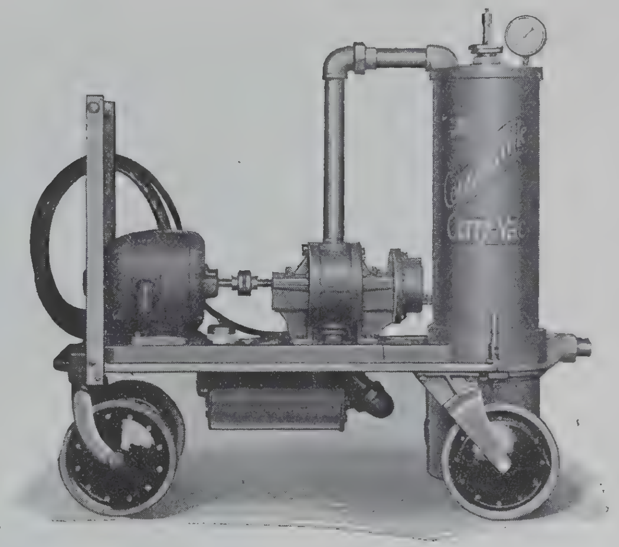
Organized Six Years.

The Sanitary Dairy Company was organized six years ago by Charles L. Peterson, Clarence A. Peterson and Charles L. Peterson, Jr. The latter had been a partner in the Muskegon Dairy Company for two years previous to the organization of the new milk concern.

Three years ago, the father and two sons were joined by another son, Howard C. Peterson, now vice-president of the company. Howard had been for several years superintendent of the Forest Glen Creamery Company of Chicago, before coming to Muskegon to enter the business with his father and two brothers.

It is expected that some enlargement of the plant of the new company which starts business as such tomorrow may be necessary in the near future.

Here Is The Curry-Vac



As Shown At Detroit Exposition

This sturdy and efficient currying machine was first shown at the Detroit Exposition.

The compactness of build, and the ease of handling, immediately won the interest of those attending. After seeing its superior work demonstrated, it was pronounced the most advanced Vacuum Currying machine.

This Curry-Vac is operated by a ¾ HP motor. The motor is direct connected by flexible coupling to the vacuum producer, thus assuring the proper speed and eliminating the possibility of slipping belt.

Write for information on this money-making machine.

Please send information on ( ) Truck ( ) Stationary Type Curry-Vacs for ( ) Horses ( ) Cows.

Name ....

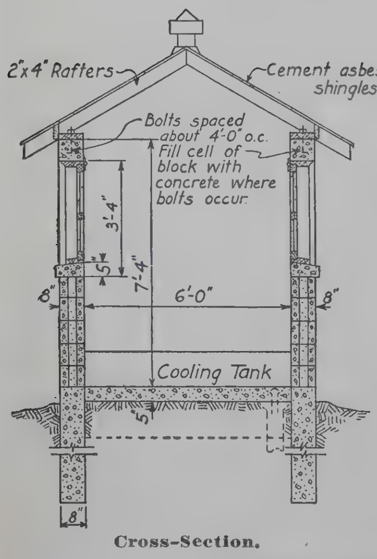
Address ....

City ....

United Vacuum Appliance Corp.
CONNERSVILLE Dept. M10 INDIANA

SUGGESTED PLANS *for* MILK COOLING HOUSES

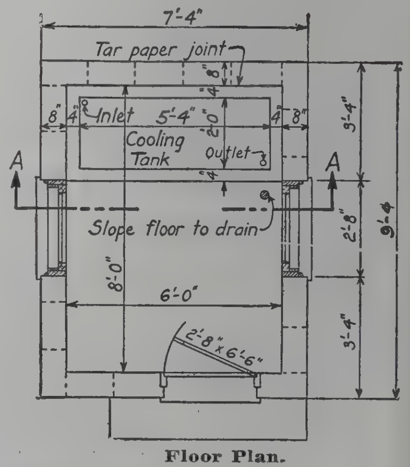
MILK COOLING HOUSE FOR 10 COWS


2"x4" Rafters
Cement asbestos shingles
Bolts spaced about 4'-0" o.c.
Fill cell of block with concrete where bolts occur.
3'-4"
7'-4"
5"
8"
6'-0"
8"
Cooling Tank
5"
8"

Cross-Section.

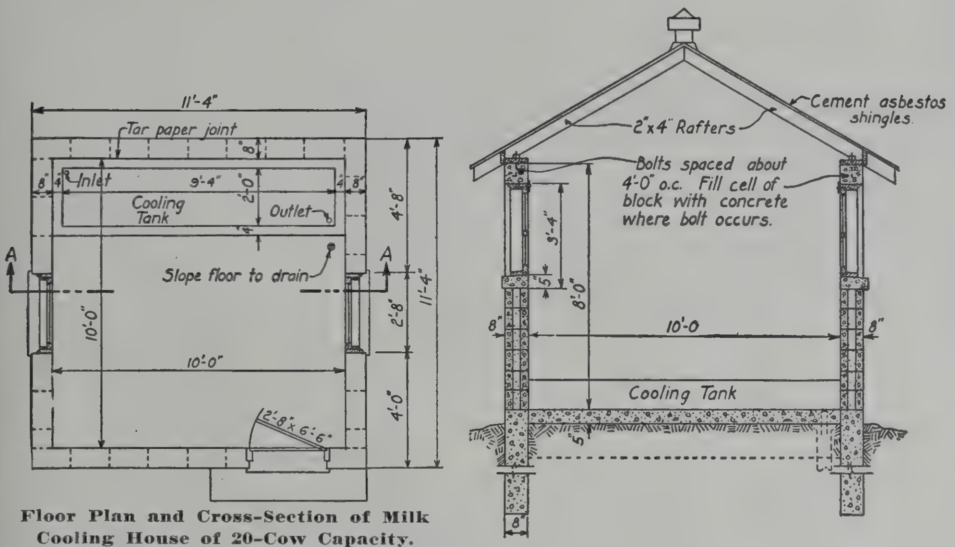
Materials required:
Cement—28 sacks
Sand—2½ cubic yards
Pebbles or broken stone—3¼ cubic yards
Concrete block, 8"x8"x16"—220
Half block, 8"x8"x8"—28
Reinforcing steel — 129 feet ⅜-inch diameter round rods

Concrete mixtures:
Foundation—1:2½:4
Floor, tank, sills, lintels, platform—1:2:3
Mortar—1:3


7'-4"
Tar paper joint
8"
4"
Inlet
5'-4"
2'-0"
4"
8"
Cooling Tank
Outlet
A
A
3'-4"
Slope floor to drain
2'-8"
9'-4"
8'-0"
6'-0"
2'-8"x6'-6"
3'-4"

Floor Plan.

MILK COOLING HOUSE—20-COW CAPACITY



Floor Plan and Cross-Section of Milk Cooling House of 20-Cow Capacity.

Materials required:

Cement—45 sacks
Sand—4 cubic yards
Pebbles or broken stone—5 cubic yards
Concrete block, 8"x8"x16"—362
Half block, 8"x8"x8"—30
Reinforcing steel — 189 feet ⅜-inch diameter round rods

Concrete mixtures:

Foundation—1:2½:4
Floors, tank, sills, lintels, platform —1:2:3
Mortar—1:3

CONSTRUCTION DETAILS

Foundation.

After carefully marking out the foundation, excavate the trench so that the sides are even and vertical. If the earth walls of the trench are firm, forms will not be necessary for that part of the foundation wall below grade. If the soil is not firm, additional excavation will be necessary to permit using forms to construct the foundation walls.

Well constructed milk houses are saving dairymen of this country thousands of dollars annually by providing suitable places for cooling and holding milk. Without proper cooling facilities, milk soon sours, causing heavy loss to the producer. Agricultural authorities consider a good milk house, built separate from the barn, a necessary adjunct on the dairy farm. In such a house milk can be kept in a sanitary condition where there is little possibility of its becoming contaminated.

For the wall above grade forms may be made with 1 by 6-inch boards, well braced. Concrete mixed in the proportion of 1 part cement, 2½ parts sand and 4 parts pebbles or broken stone, is satisfactory for the foundation. The latter should be carried below the frost line to prevent upheaval by freezing.

Building the Wall.

The mortar used in the concrete masonry walls should be mixed in the proportion of one sack of portland cement to 3 cubic feet of clean, well-graded sand. A small amount of hydrated or slaked lime (not to exceed 10 pounds per sack of cement) may be added to the mortar to make it more plastic.

Door and window frames are set and built in place as the blocks are laid. The usual method of attaching plates is to bolt them down at intervals of 4 or 5 feet to the top course of block. Bolts should be long enough to extend through one course of block and the plate. Cores of the block where bolts occur are filled with concrete to insure firm anchorage.

Milk Cooling Tanks.

Reinforced concrete milk cooling tanks may be made either with or without insulation. Suggested plans, including construction details and drawings, for both types of tanks are given on the following page. Corkboard insulation is used in the tank shown in Figures III and IV, although any other suitable insulating material may be employed in place of the cork, if desired.

When milk is cooled by well or spring water, a minimum net width of 24 inches is recommended for the tank, but in case either iced water or mechanical refrigeration is used this width may be reduced to 19 inches. The tank is made only deep enough to permit water to come well up on the neck of the cans. To lighten the labor of lifting cans in and out of the tank, part of its depth is below floor level. The length is variable, depending upon the capacity desired.

If ice is not available, milk usually can be cooled to 55 degrees F. or lower by circulating spring or well water through the tank. A uniform flow of water is secured by placing the inlet pipe at one end of the tank and the outlet or overflow pipe at the opposite end. The overflow pipe screws into the outlet drain and is equal in length to the depth of the water desired The grooves in the tank floor permit water to circulate freely under the cans, resulting in more rapid cooling of the milk. These grooves are made by pressing wood strips in the concrete at the time floor is finished. Before the concrete has hardened the strips are removed.

When the tank shown in Figure II is built, the floor and walls are concreted in one operation. The floor of the tank is made 6 inches thick and the walls, 4 inches. Reinforcement consists of ⅜-inch rods spaced 12 inches apart. The reinforcement of the floor and walls is made continuous by bending the rods "U" shaped. Rods are also extended around the tank walls, with ends lapped at least 12 inches. At all intersections reinforcing rods are firmly wired together to hold them in correct position.

Reinforcement for an insulated tank is practically the same as for the tank already described. Rods are placed only in the outer walls. This is done before any concrete is deposited.

A 1:2:3 concrete mixture for either type of tank is considered most satisfactory. Screened gravel or crushed stone up to one inch in size may be used. Information on how to make good concrete will be found on page 4. Simple forms for building the tank walls are shown in Figure I.

Figures III and IV show details of an insulated tank in which corkboard is used as the insulating material. The concrete base below the corkboard should not be less than 3 inches thick and is placed first after the reinforcing rods are arranged in place. Two-inch corkboard mopped with hot asphalt is then laid on the base, also painted with hot asphalt. The corkboard for walls is dipped in or painted with hot asphalt at the same time. Coal tar pitch may be used if asphalt is not available. Wooden forms for both the outside and inside walls of the tank are placed next and 2-inch corkboard for wall insulation is erected, making certain that all abutting edges between sections are thoroughly covered with asphalt. Corkboard must be braced to prevent displacement. Outside and inside walls are made the same thickness as the lower base of the tank—3 inches. Forms are then filled with concrete of a consistency that will place readily. A sloppy mix should be avoided. Bolts to which wooden plate or rail around top of tank is to be attached are placed in top of walls. The concrete base of the inner tank is placed next, making it four inches thick as is shown in Figure IV.

Mechanical refrigeration may be easily installed. An opening for the coil may be made in the wooden rail or in the concrete wall of the tank, according to manufacturer's directions. If it is desired to build the tank so that mechanical refrigeration may be employed at some future date, it would be well to provide an opening for installation of the coil. This hole may be filled with a wooden plug until the cooling apparatus is installed. Three-inch corkboard installation is usually recommended when the tank is built for mechanical refrigeration.

The wood cover for the tank should fit snugly and be of rigid construction to prevent warping. The framework is covered with dressed and matched boards after corkboard has been placed in the frame. The cover is fastened in place with galvanized hinges and should be thoroughly painted on all sides and edges.

Placing the Floor.

When the ground on which milk house is to be located is sloping, the area should be leveled off and

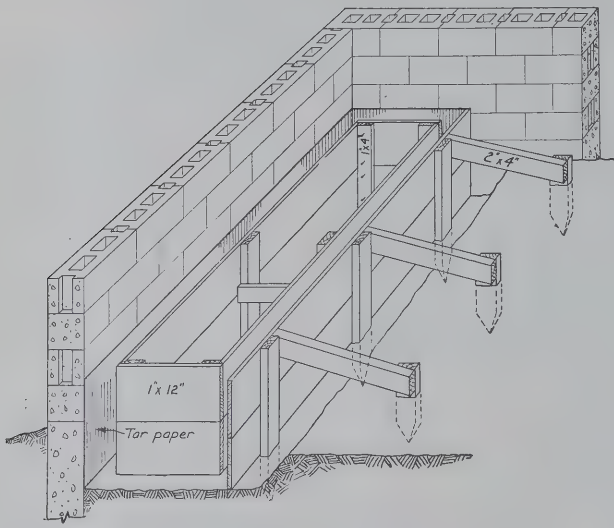

1"x4"
2"x4"
1"x 12"
Tar paper

Figure I. Detail of Tank Forms.

Cooling Tank Without Insulation

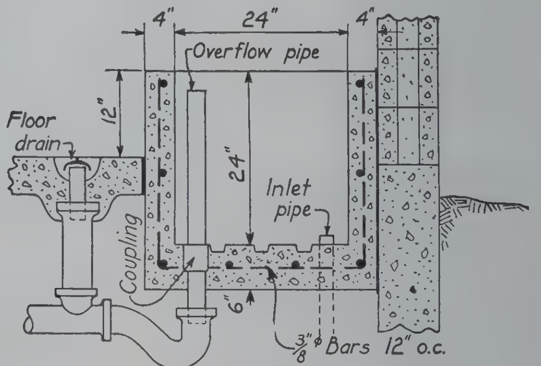

4"
24"
4"
Overflow pipe
12"
Floor drain
24"
Inlet pipe
Coupling
6"
3/8"ϕ Bars 12" o.c.

Figure II. Cross-Section of Tank.

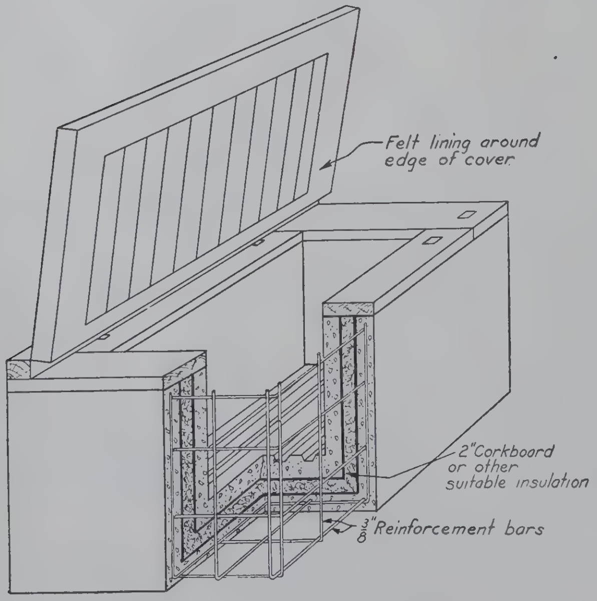

Felt lining around edge of cover
2" Corkboard or other suitable insulation
3/8" Reinforcement bars

Figure III. Perspective View.

Insulated Milk Cooling Tank

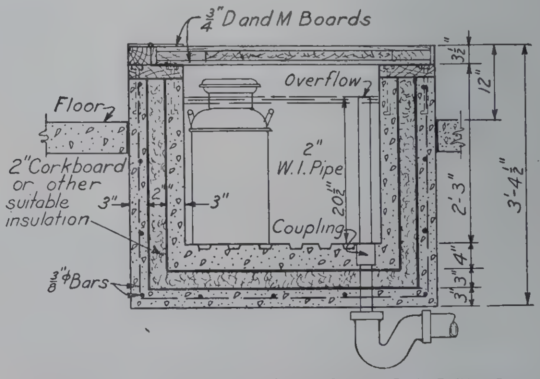
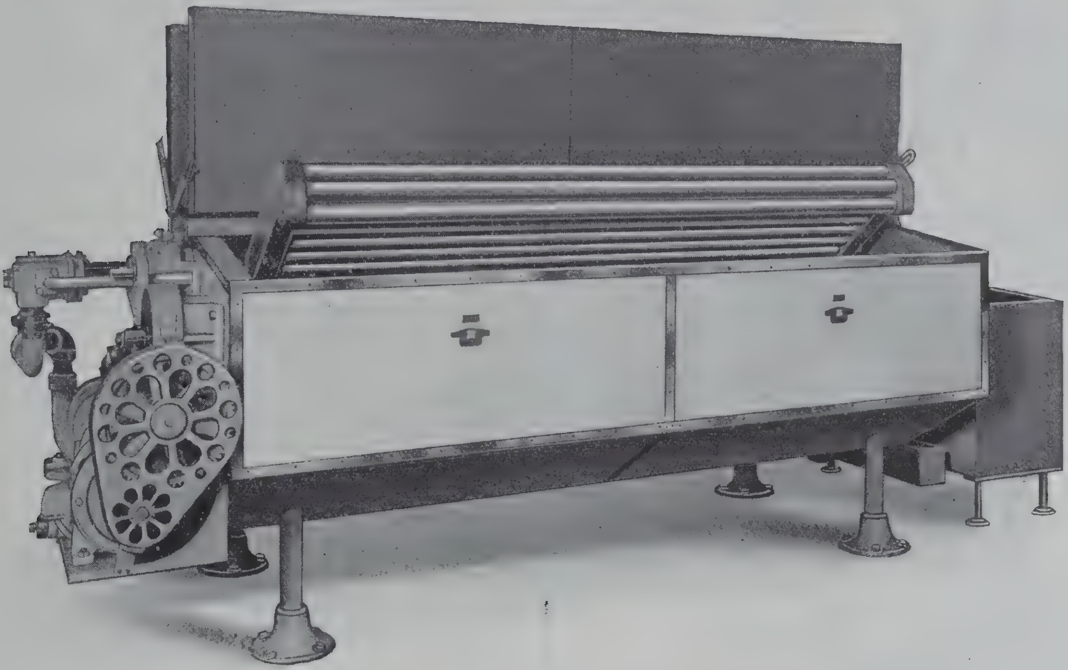

3/4" D and M Boards
Overflow
Floor
2" Corkboard or other suitable insulation
3"
2"
3"
2" W.I. Pipe
20 1/2"
Coupling
3/8"ϕ Bars
3 1/2"
12"
2'-3"
3'-4 1/2"
4"
3"
3"

Figure IV. Cross-Section of Insulated Tank. When Mechanical Cooling is Employed Use 3-inch Corkboard for Insulation.

"AMERICO" THE PASTEURIZER WITH A PURPOSE



The new "AMERICO" with improved coil control and new flush outlet valve

RECENT "*AMERICO*" INSTALLATIONS

In the purchase of an "AMERICO" pasteurizer, you not only get the value of a well constructed machine but through its improved principles of operation, the "AMERICO" places a greater value on the product it turns out.

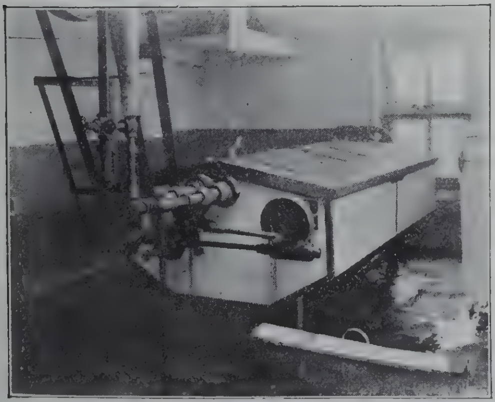
Its mild agitation, the use of low temperature heating medium, no stuffing boxes nor bearings in the batch, its flush type outlet valve and the assurance of thorough cleaning made possible by the feature of raising the coils out of the vat are accountable for the wonderful results being obtained with the "AMERICO" Pasteurizer.

Users boast of their cream line and flavor.

List of Installations

The Matthews Selected Dairies Co. Cincinnati, Ohio	6 Machines
The Kroger Grocery & Baking Co. Cincinnati & Dayton, Ohio	10 Machines
Townsend Bros. Milk Co. Cincinnati, Ohio	1 Machine
The Hyde Park Dairy Co. Cincinnati, Ohio	1 Machine
Risdon Creamery, Inc. Detroit, Mich.	2 Machines
Wilson & Co., Chicago, Ill.	2 Machines
Lange Creamery, Inc. Kansas City, Mo.	2 Machines

Representative Chicago District
A. J. EDHOLM
P. O. Box 1793 Chicago, Ill.



Two-Speed Belt Drive Machine

Further details on request

AMERICAN COPPER & BRASS WORKS
MANUFACTURERS OF DAIRY EQUIPMENT

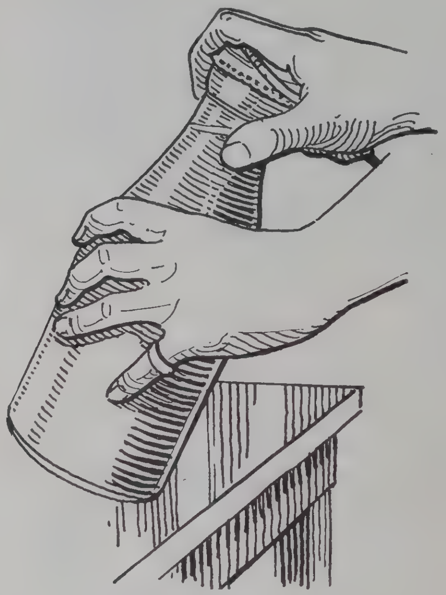
610-616 E. Front Street - Cincinnati, Ohio

THE

DACRO

METAL CAP

Here at last is the perfect package of Milk or Cream, pure and sweet pasteurized IN the bottle! Made possible by a mechanically perfect closure.



Pure, sweet MILK—delivered under hermetic seal to the home. Handy openers supplied at small cost.

The Dacro Metal Crown—This remarkable cap is made on exactly the same principle as the famous Crown Cork which revolutionized the bottled beverage industry. The Dacro Crown is a hermetic seal. It automatically locks under the glass rim of the bottle. It is scientifically a perfect closure. Sealed with the Dacro Crown, Milk or Cream can be pasteurized in the bottle, an exclusive advantage of this seal. The Dacro Crown covers and protects the pouring lip. It KEEPS clean milk clean! No danger of contamination or tampering with pure contents. And the Dacro Crown can be replaced for temporary covering and seal after opening bottle.

PASTEURIZE YOUR MILK
IN-THE-BOTTLE

THE
Crown Cork & Seal Co.
BALTIMORE, U. S. A.

Inventors and originators of the famous "Crown Cork"

tamped so that the entire floor rests on firm soil. A 5 inch floor made of 1:2:3 concrete is generally used, with stone or gravel not larger than 1½ inches in size. One course construction is recommended which means tha the full thickness (5 inches) of concrete is placed in on operation, and thoroughly tamped. A dense, even surface is produced by smoothing with a wood float. A little 1:2 mortar may be used in finishing, if needed.

How to Make Good Concrete.

The materials used in making concrete are portlan cement, sand, pebbles or crushed rock, and water. Th rules for making concrete are easily understood and fo uniformly successful work they must be carefully followed.

Proper Proportioning.

Concrete mixtures are usually expressed as a 1:2: mixture, a 1:2½:4 mixture, etc. The first figure denote the number of parts of portland cement, the second figure, the number of parts of sand, and the third figure the amount of pebbles or broken stone. For example a 1:2:3 mixture means that for each sack of cemen there should be used 2 cubic feet of sand and 3 cubic fee of pebbles or crushed rock.

Accurate Measuring—Thorough Mixing.

It is important that the materials be measured accurately. A pail or box or wheelbarrow may be use for the purpose, whichever is most convenient. Mixin may be done either by hand or by machine but it mus be continued until every particle of sand and stone i completely covered with a coating of cement mortar an the mass is uniform throughout. Use only enough wate to produce a plastic, quaky mixture that is readily workable. Avoid using a sloppy mixture.

Placing Concrete in Forms.

The newly mixed concrete should be placed in th forms within 30 minutes after it is mixed. As it is bein placed in the forms, it should be tamped or spaded. Thi operation makes the concrete dense and improves th surface.

Protect and Cure Carefully.

Do not permit the newly placed concrete to dry ou for a week or ten days. Protect it from sun and dryin winds; otherwise the water necessary for the prope hardening will evaporate, resulting in a loss of strength Floors, walks, and similar surfaces can be protected b covering with moist earth, hay or straw, as soon as th concrete has hardened sufficiently so that the surfac will not be injured. This cover should remain on for week or 10 days and be kept moist by occasiona sprinkling.

Suitable Materials.

To make good concrete, it is necessary to use prope materials. Both sand and pebbles should be clean an free from dirt or organic matter. Such substances pr vent proper bond between the cement and particles o sand and pebbles or crushed rock. By sand is mean that material ranging in size from fine up to that whic would just pass through a screen with ¼-inch opening Coarse sand makes better concrete than fine sand. Th material that will not pass through the ¼-inch scree is referred to as coarse aggregate. The particles o coarse aggregate may range from ¼-inch to 1½ inche or more in size according to the nature of the wor Crushed rock or screened gravel may be used for th purpose. Bank run gravel (just as it comes from th pit) should not be used without separation. It must b screened to separate sand and pebbles, which are the recombined in proper proportion for the work at han Water used in mixing should be clean; if it is fit f drinking, it is suitable for use in concrete.

(**Editor's Note**—This highly instructive article is published b courtesy of the Portland Cement Association. Reprints for di tribution among your patrons are available.)

Established—1880

Sethness Company

659 HOBBIE STREET, CHICAGO, ILLINOIS

QUALITY
— AND —
SERVICE

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YEARS

Increase Your Chocolate Milk Business

Using the right kind of Chocolate creates consumer demand upon which your volume output is dependent. The consumer will buy the Chocolate Milk that best appeals to his taste. You can induce him to buy YOURS by offering him

"Drinkmor"

The All Malted Chocolate Syrup.

This perfect Chocolate Flavor has become a standard with dairies throughout the country; it is a standard with your competitor, why not you?

A liberal sample with full particulars upon request.

No Obligation

Eastern Sales Office
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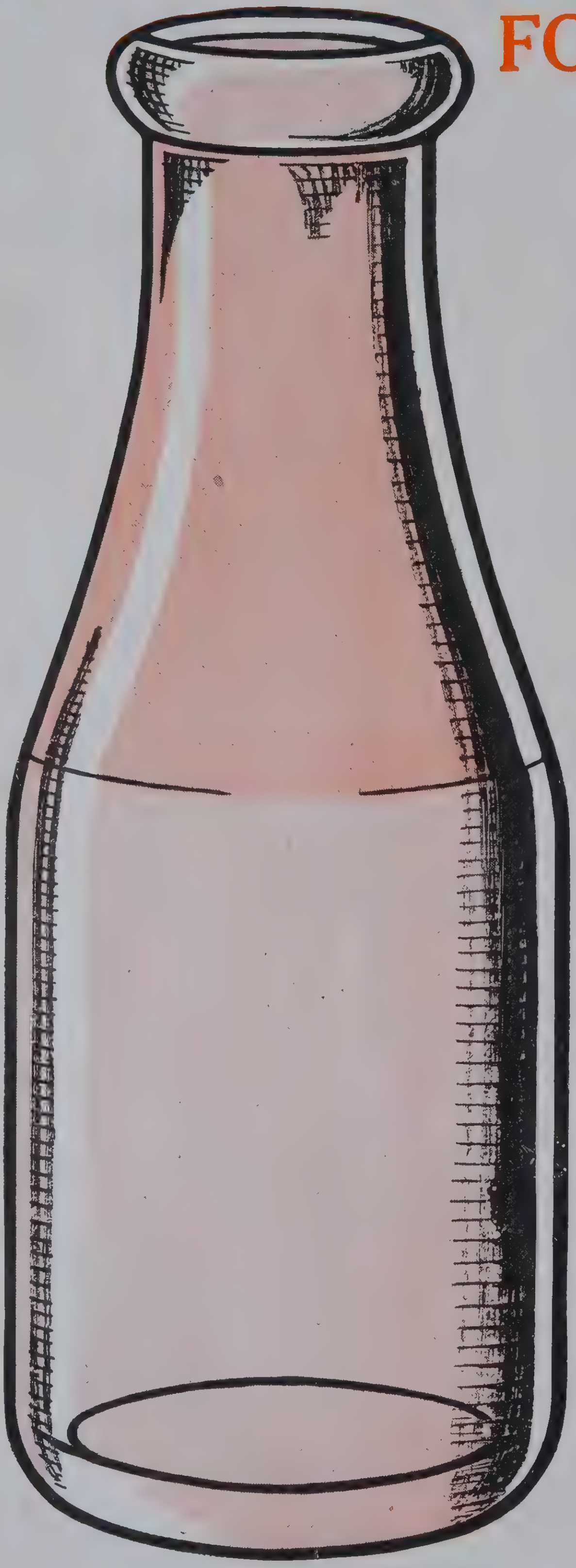
Cosco TRADE MARK

Cosco TRADE MARK



The BEST BULWARK
FOR YOUR BUSINESS

ATLANTIC
MILK BOTTLES

CLEARNESS

—that the customer may see the quality of the milk you are distributing.

ACCURACY

—that the customer may get the amount that he or she buys.

STRENGTH

—that the bottle may last the dealer as long as possible. Bottle loss is one of the milk distributor's problems. Less breakage, less cost.

Let us send you some samples. You will recognize their quality best by a first hand comparison.

ATLANTIC BOTTLE COMPANY
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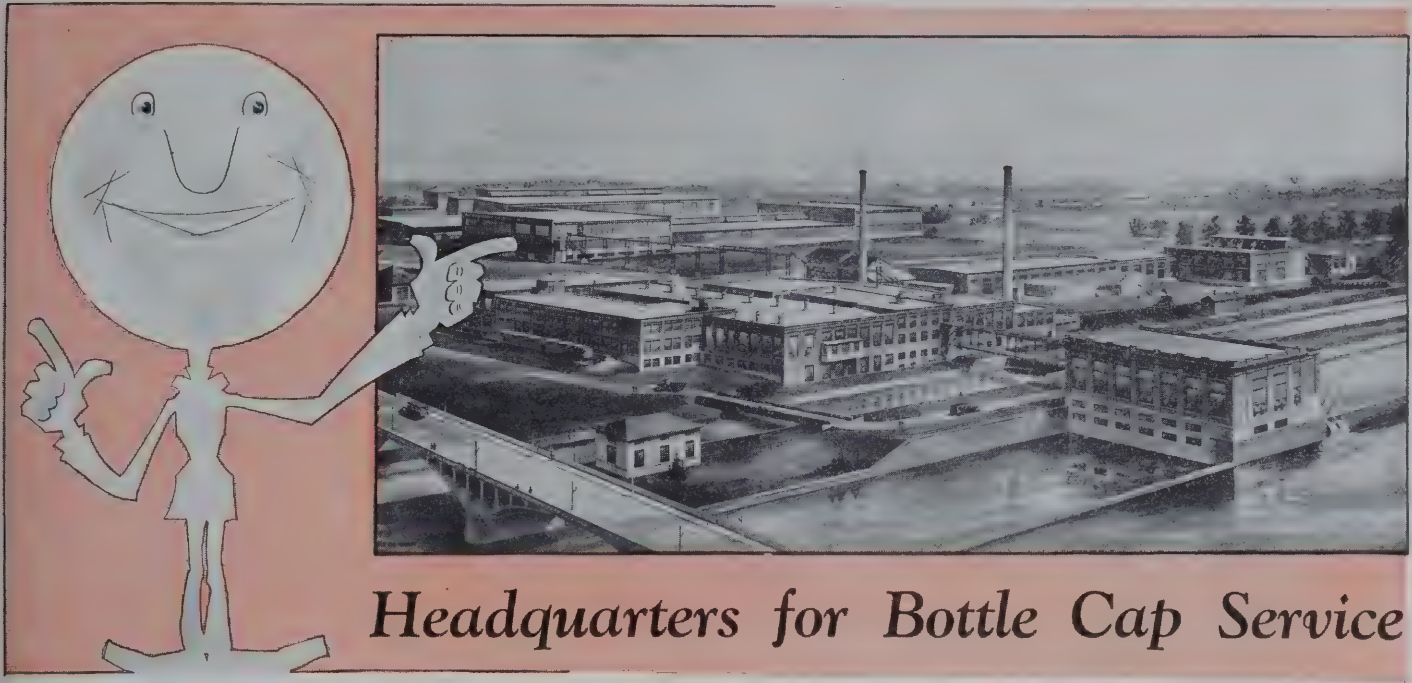


Headquarters for Bottle Cap Service

LOCATED at one of the finest distributing points in the country, the giant Sealright Plant is always ready to back up its guarantee of prompt service at all times. One-half the population of the United States is within one night's ride on a passenger train. Yet the Sealright Plant is ideally located for advantageous production, making and selling more milk bottle caps than any other manufacturer in America.

Sealright Caps are made of Fulton Board, a superfine spruce log product, time-dried and absolutely waterproofed by a scientific paraffining process. Sealright Caps never fail to weather the worst conditions to which a milk bottle cap is subjected. Whether under ice or water they retain their firmness, which assures leak-proof protection for bottled milk until ready to serve. Their clean cut edges, exact diameters, and uniform thickness prevent clogging in capping machines, and insure a perfect fit in cap seat.

Milk drinkers in all parts of the country know the advantages of Sealright Milk Bottle Caps—particularly the Sealright Pouring-Pull Cap which has been advertised through the pages of *The Saturday Evening Post* into the homes of the best people in almost every city and town in the United States. It is known everywhere as the milk bottle cap three times more useful:

1. A safe, clean way of quickly removing cap — just lift tab and pull.
2. A safe, clean way of pouring without spilling, thru opening in cap.
3. A more healthful way of drinking milk by inserting straw thru cap opening.

You will profit by using Sealright Caps. Send us coupon for samples today.

SEALRIGHT
REGULAR STANDARD
MILK BOTTLE CAP

SEALRIGHT
POURING PULL
MILK BOTTLE CAP

SEALRIGHT COMPANY, *Inc.* Dept. N-10 Fulton, N. Y.

The Largest Plant of its Kind in the World

SEALRIGHT
Pouring Pull and Regular Standard
Milk Bottle Caps

"Keep the Goodness In and the Fingers Out"

SEALRIGHT CO., *Inc.* Dept. N-10 FULTON, N. Y.

Please send me samples of Sealright Pouring-Pull and Sealright Regular Standard Milk Bottle Caps and any data that will help me increase bottled milk sales.

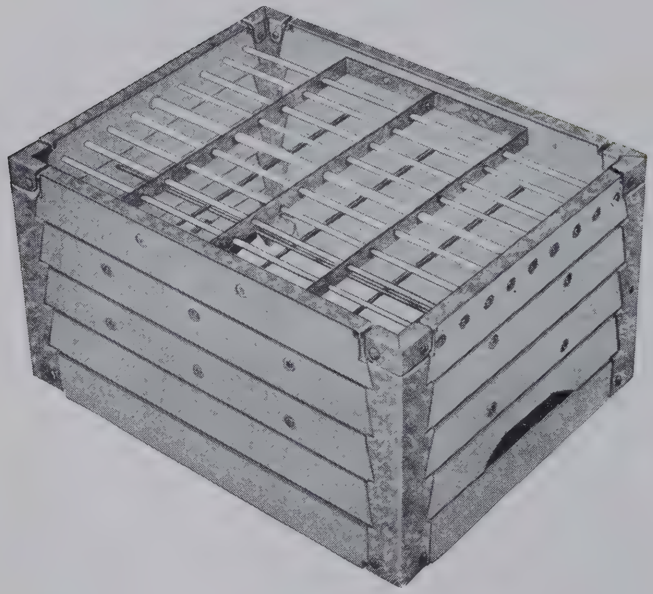
*Name*______________________________

*Address*______________________________

*City*____________ *County* ____________ *State* ____________

*My Jobber is*______________________________

WOOLSEY



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The Woolsey is the only **Wire Laced** Bottle Crate on the Market.

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Once More Sets the Pace

and again gives his competitors a chance to imitate when he introduced at the Detroit Dairy Show

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New Super Grid

9 Bottom Wires instead of 6
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3 Truss Bars Across the Bottom
all three joined.

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Oakes & Burger Co.,
Cattaraugus, N. Y.
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Phoenix Seed & Feed Co.,
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Geo. W. Prising Co., Inc.,
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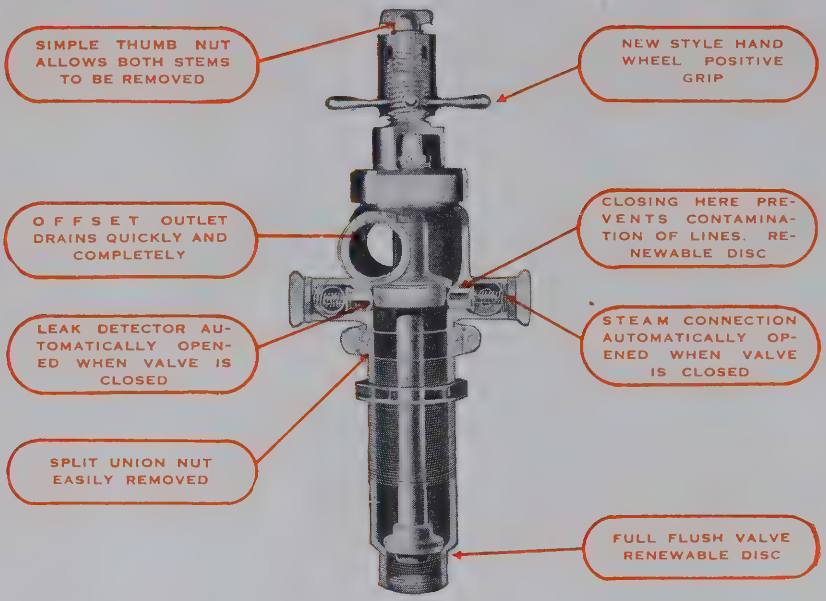
Los Angeles, Calif


SIMPLE THUMB NUT ALLOWS BOTH STEMS TO BE REMOVED
NEW STYLE HAND WHEEL POSITIVE GRIP
OFFSET OUTLET DRAINS QUICKLY AND COMPLETELY
CLOSING HERE PREVENTS CONTAMINATION OF LINES. RENEWABLE DISC
LEAK DETECTOR AUTOMATICALLY OPENED WHEN VALVE IS CLOSED
STEAM CONNECTION AUTOMATICALLY OPENED WHEN VALVE IS CLOSED
SPLIT UNION NUT EASILY REMOVED
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SHIMP LEADS AGAIN

A NEW FLUSH OUTLET VALVE with LEAK DETECTOR and STEAMING ATTACHMENT

THE New Shimp Sanitary Flush Valve with Leak Detector and Steaming Attachment was designed to meet the demands and with the help of some of the best known Health authorities in the country.

You owe it to your customers to protect every drop of your pasteurized milk products.

— *Let us tell you more about this valve.* —

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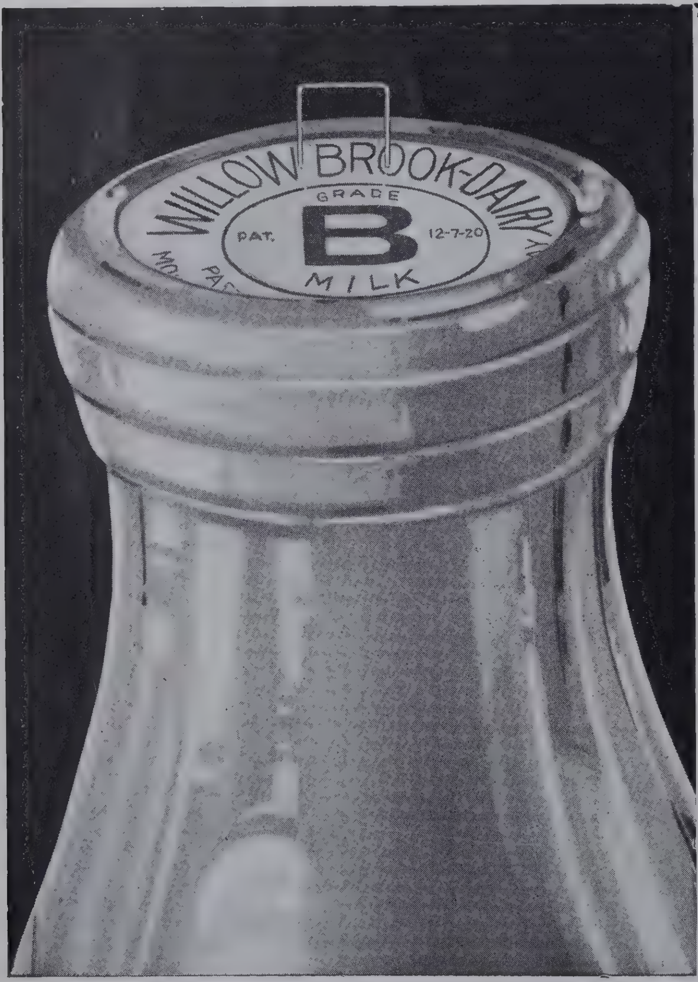
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GRADE
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B
12-7-20
MILK

A Pull Cap is only as good as its Pull

Pull-Rite Caps

(REG. U. S. PATENT OFFICE)

Are unfailing in their service to pull, wet or dry.

And the fact that they pull—always pull—pulls business your way.

Let us send you samples and prices.

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THE Reliable Dairy Company, South Bend, Ind., says Thatcher advertising has helped it and the dairy industry as a whole by increasing the public interest in milk from a health standpoint and by helping to offset canned milk competition.

> *"We have used Thatcher Bottles for ten years," writes this wide-awake dairy. "We use Thatcher Posters on all our wagons and windows and in schools and restaurants. We take full advantage of the popular Thatcher slogan: 'A Bottle of Milk Is A Bottle of Health,' by painting it on our wagons. Yes, it pays us to do so. Our milk sales jumped 20% in one year as a result."*

It will pay you, too, to be known as the Thatcher dairyman in your city!

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"MORE TRIPS PER BOTTLE"

The most important item in buying milk bottles, is the final cost per bottle to you. The first cost or purchase price means little or nothing to you. From the actual experiences of dairymen and from exhaustive laboratory tests, it has been definitely proved that Thatcher Superior Quality Milk Bottles will give you more trips per bottle. For Thatcher Bottles are tougher, more uniform in quality, have a better distribution of glass, and consistently perform better in actual service than any other bottle made.

Specially designed lehrs, used exclusively by Thatcher, help to give Thatcher bottles that superior quality and wear-resisting toughness not found in ordinary bottles. The Thatcher Trade-mark is blown in on every Thatcher Bottle for your protection and guarantee. Then, too, millions of milk users see and read the celebrated "A Bottle of Milk Is A Bottle of Health" advertisements of Thatcher Bottles in The Saturday Evening Post and Good Housekeeping Magazine. If you want to increase your milk sales, fill in and mail the attached coupon. It will pay you to act at once.

THATCHER MANUFACTURING COMPANY, Elmira, N. Y.

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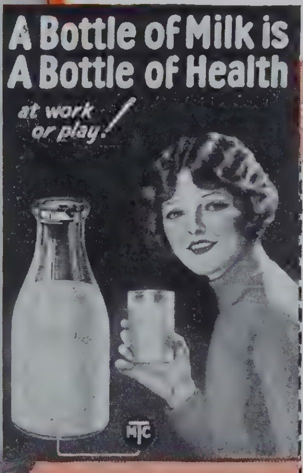

Put this Attractive Poster on your Wagons and Windows. Get your supply now.

Tested and Approved 2517 by Good Housekeeping Institute Conducted by Good Housekeeping Magazine

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THATCHER MFG. Co., Elmira, N. Y.

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(2) Send me .... Thatcher Posters. I intend to use these Posters on my wagons.... .., windows........

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Address..

City...............................*State*................

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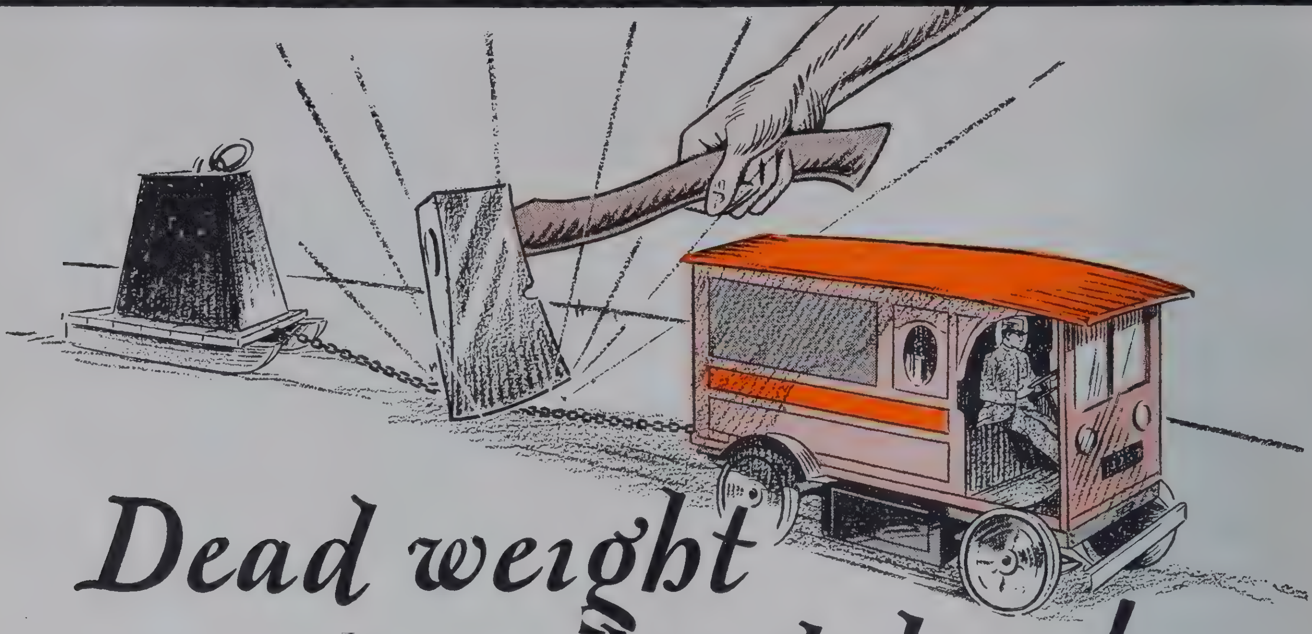
Superior Quality
MILK BOTTLES



Dead weight is a dead loss!

IT costs too much to operate electric trucks burdened down with heavy battery equipment. There is more wear on the chassis and tires, and the added dead weight means reduced ton-mile capacity for the profitable pay load.

Excess battery load is a dead loss. The lighter the battery the greater your profit.

Edison Truck Batteries are lighter in weight than any other batteries of commercial importance on the market—from a third to 40%! They are made of *steel,* with iron and nickel elements.

When you equip your electrics with Edison Batteries you will realize, directly, one of two things—either fewer trucks for the same work-output, or more work from the same trucks. In either event lower costs are inevitable.

This initial cost-advantage with the notably longer life, sustained power capacity, cleanliness, low maintenance and all-around dependability, assure very definite savings. Edison Batteries are preferred by truck users because they have proved the most satisfactory.

There are more Edisons in motive power service today than all other makes combined. May we send you the figures?

EDISON STORAGE BATTERY COMPANY, ORANGE, N. J.

Thos. A. Edison
Built like a Watch—Rugged as a battleship

Edison

STEEL-ALKALINE*

TRUCK BATTERIES

*There is no iron at all in any battery of commercial importance except the Edison. There is no nickel at all in any battery of commercial importance except the Edison. There is no lead at all in the Edison Battery. There is no acid at all in the Edison Battery.

ATLANTA BOSTON BUFFALO CHICAGO CLEVELAND DETROIT HUNTINGTON LOS ANGELES
NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH SAN FRANCISCO SEATTLE ST. LOUIS WASHINGTON

Export: 26 West Broadway, New York *Canadian Distributors: International Equipment Co., Montreal, Quebec*

HAUL MORE FOR LESS MONEY

NEBRASKA FIRM EXPANDS.

Sanitation and quality have been placed on a high pedestal by the Koser Dairy and Ice Cream Co., which recently opened its new plant at 19th St. and Warren Ave., Lincoln, Neb.

The new building is equipped with strictly modern equipment for the pasteurizing and bottling of milk and the manufacture of ice cream.

The building is of modern style constructed of yellow pressed brick, one story, with a seventy-five foot frontage. Practically a solid array of plate glass windows admit light to the building from three sides with a skylight in the roof. Sunlight is one of the key notes to sanitation and of sunlight, the Koser company has an abundance.

The building faces the east with three doors opening into the street. One goes to the central office, one to a private office and the other to the dairy room.

The inside of the structure is as fresh and clean looking as the exterior. White rough plaster covers the ceiling and side walls except for a continuous panel going around the side of imitation white tile. The floor in the dairy room is of composition concrete. In the offices it is of imitation marble with a curved base so that dust and dirt may easily be swept out.

About six years ago the company began operation in an adjacent building, but steady growth in the business made necessary the erection of the new structure. G. W. Koser and his two sons, Merle G. and G. R., operate the plant.

The milk is obtained through contracts with reliable farmers near the city.

Each morning a truck goes out to these farms and brings the milk in fresh. It is then pasteurized, tested and cooled. Then it is bottled and placed in a large refrigerator. The refrigeration plant in the new building is another feature. Besides keeping the milk ice cold in the ice box, its pipes run through the vats and circulate about the cooling pipes to keep the milk at as low a temperature as possible.

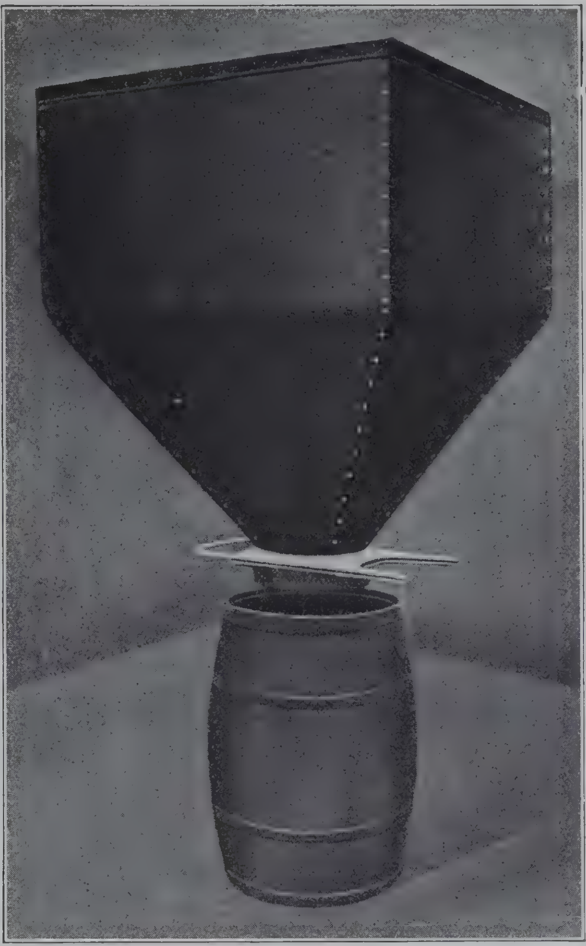
Up to the present time, the company has dealt only in milk. In the new building, however, a complete ice cream manufacturing device has been installed, with the very latest equipment. Great care is used in selecting the raw products for making the ice confection, we are told.

The milk will continue to be sold retail but the ice cream, which will be known as Koser's Perfection, will be sold wholesale to dealers. Increased business has caused the expansion of this firm. Those connected with it feel that future prospects are still brighter.

⁂

WEED OUT THE WASTE.

The Honorable James Francis Burke in a recent address said: "The new watchword for both business and government is WEED OUT THE WASTE." He further said that the world is realizing that improved manufacturing methods are adding to the pleasure of living. As the comfort and contentment of the masses are increased, the stability of trade and the security of investment are likewise promoted. Reducing lost motion, cutting out elements of waste, eliminating too high a degree of diversification of products, and doing away with a large number of unnecessary plants that rest like crushing weights on the back of American industry—all of these are steps toward economy and efficiency, increased profits to the manufacturer, increased wages to labor and lower prices to the consumer.



The Jacobs Barrel Delivers Your Powdered Milk Right!

One-Piece Heads
Tongued and Grooved Staves
Sturdy Steel Hoops

A "better barrel" that prevents caking — keeps out vermin — stands export shipment :: ::

K. W. Jacobs Cooperage Co.
1907 St. Paul Avenue Milwaukee, Wis.

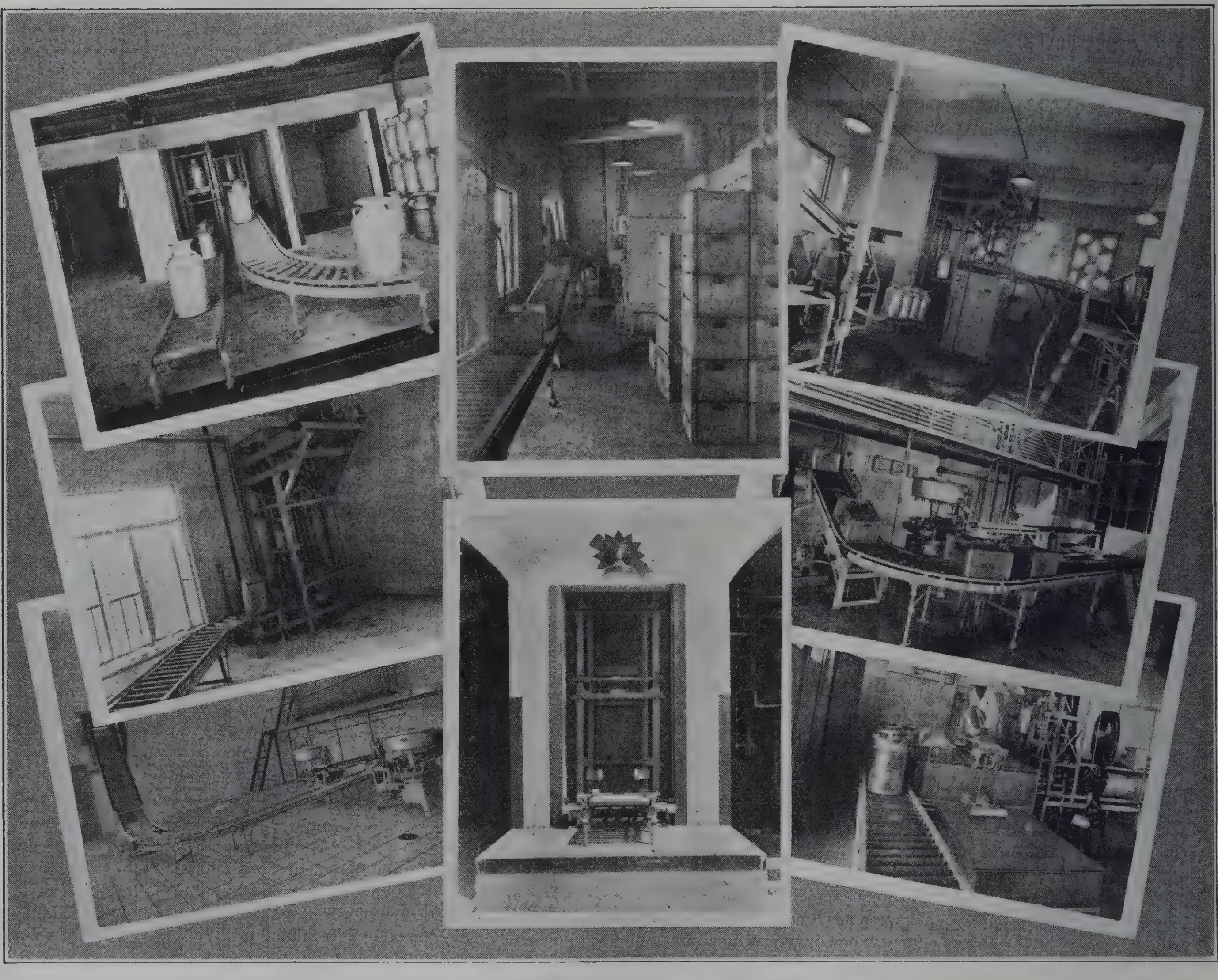
Economic Reasons Why the Dairyman Has Special Interest in Conveying Equipment

An Observation of the Dairy Industry, from the Viewpoint of a Material Handling Expert

By GEO. AGRY*

THAT American industry is in the midst of a production epoch that may be rightly termed "The Epoch of Development of Improved Materials Handling Methods" there can be no question. Long has American industry, in general, worked to improve its products; long has it studied and developed marvelous automatic machinery for economical manufacture. Great advances have been made in efficiency of business organization through improved methods of bookkeeping, cost keeping and pricing, helped greatly by the perfecting of what may be termed "Business Efficiency Machines," the typewriter, the adding machine, modern filing equipment. Even more recently has industry come to a just appreciation of the importance which materials handling methods bear to efficiency in production, to a lowering of manufacturing costs and to improved service to the consumer, as represented by prompter deliveries and lower prices.

It was the World War that put the "stamp of approval" on the employment of automatic carrying devices. Faced with a necessity for intensive and voluminous production with a shortage of manual labor, it was natural that industry should adopt with enthusiasm everything which would enable it to produce in more volume than ever before despite the shortage of



TYPICAL INSTALLATIONS OF CARRIER EQUIPMENT.

Top row, left to right: No. 1, Vertical elevator loading and unloading stations on first floor of receiving and delivering room. No. 2, Carrying crates with empty bottles from drivers to washing machine on first floor. No. 3, Loading and unloading vertical elevator stations on third floor.

Middle row, left side: Loading empties on third floor that have just left washing machine; right side, bottle filling machine and escalator to cold storage room on first floor.

Bottom row: No. 1, From filling machine to storage room on first floor. No. 2, Drivers' loading station on first floor. No. 3, Emptying loaded cans and placing can in washer.

---

* Engineer, The Lamson Company, Syracuse, N. Y.

VELVET
BRAND
ICE CREAM
DETROIT
CREAMERY
DETROIT CREAMERY
EVERYBODY'S FRIEND
IRA WILSON
& SONS

American MALLEABLE Nickel

99% +

FREE FROM COBALT

The Purest Nickel you can buy!

AMERICAN NICKEL CORPORATION
CLEARFIELD PENNA.

This better, purer metal is free from cobalt—and is available to every builder of plant equipment who desires to use the best.

There is no substitute for quality—American Nickel is pure—a metal that is ideal for your plant equipment.

man-power. The accomplishments of automatic conveyors were quickly learned. It was realized that they could perform the functions of carrying and toting better, more economically, and more expeditiously than was possible with human labor. Industry came out of the war-time period with a proven realization of the economic advantage of employing machinery for the performance of any kind of work which machines will accomplish, thus relieving human brains and human hands for the many important tasks which human beings are alone capable of accomplishing.

Since that time, tremendous advances have been made in the design and application of conveying machinery to industrial purposes. Automatic carrying of raw materials, of products in processes of manufacture and fabrication, together with finished merchandise, have effected tremendous economies. Intervals of time of manufacture have been reduced, floor space has been saved, human labor has been relieved for more productive tasks, work in process has been expedited, costs have been lowered and many other economic advantages have been obtained by the widespread adoption of automatic conveying machinery throughout the industry in general.

Now in what way is the dairy and milk bottling industry comparable with other industrial enterprises? In the matter of extent and necessary frequency of handling materials perhaps no other industry can be compared with it. In the handing of milk, operations occur day in and day out with no intervals of non-production due to Sundays and holidays. The usual manufacturing plant closes over Sunday and shuts down for various holidays, but plants which are devoted to the vital necessity of milk production must operate daily. Day after day milk is received, weighed and passed through the processes for which each plant is intended with no interruption of daily operations.

Thus when the usual manufacturing plant can effect economies by the employment of conveying machinery, how much more so, in proportion to the size of each milk producing unit, can the milkman profit by the employment of automatic carrying devices. Especially is this true since conveyors which adequately meet the requirements of a milk handling plant are for the most part simple in design and extremely economical in operation.

One of the most commonly employed types of conveyors for the handling of package loads is a gravity roller conveyor. This conveyor is constructed with steel frames into which are set load carrying rollers, the spacing of the rollers being dependent upon the size and type of load. Rollers are commonly made of steel tubing and turn either on ball bearings or bearings especially designed to meet the requirements of various industries and the types of loads to be carried. When such a conveyor is set at a sloping angle, loads are carried forward over the rollers by the force of gravity. Thus gravity roller conveyor requires no power, except where it is necessary to install power units in order to raise the load for further travel.

To properly design gravity roller conveyors suited to meet the arduous tasks imposed upon them by the usual milk bottling establishment is no mean task. Many dairymen have experienced difficulty in keeping gravity roller conveyors of the usual ball bearing type in proper operation due to the fact that accumulated milk has caused lactic acid to eat the bearings and due also to the necessity of daily cleaning of the conveyors in the filling room with live steam and hot water which has caused corrosion to conveyors of a design which functions properly under less strenuous circumstances. It is probable that the difficulties formerly experienced have started some milk plant managers in the more extensive adoption of conveying apparatus.

It was realized some time ago by the engineers of the company with which the author of this article is connected that while the usual ball bearing conveyor was not suited to the special tasks imposed upon it by a milk plant, nevertheless a gravity conveyor especially adapted to milk plant purposes could and must be perfected. That plants of both large and small size should take full advantage of the use of gravity conveyors, the problem of a satisfactory design for the purpose necessitated not only a design which would overcome former objectional features, but also a type of construction so that conveyors employing many bearings could be produced at a sufficiently low cost to make them a real profitable investment for all milk plant users.

The result of extensive designs and experiments has been the perfecting of a conveyor, the rolls of which turn in special bearings machined from a solid hexagonal bar of acid resisting material. Rollers, too, have been especially designed with hermetically sealed heads in a manner so that water, milk or steam cannot penetrate the roll, thus making it easy to keep rollers and bearings clean, sweet and sanitary. Conveyor frames have been arranged in a special manner to enable easy cleaning and to prevent accumulation of dirt on the frame angles.

It is not intimated that gravity roller conveyors of the ball bearing type should be superseded by gravity conveyors equipped with a special sanitary type of bearing in every instance, but rather that in such departments as an acid and corrosion resistant type of conveyor is best adapted, a conveyor of such a design has been perfected which is within the reach of all purchasers.

Other types of package handling conveyors find suitable use in dairy operations, including slat, belt and chain conveyors, but by far, the type of conveyor which finds opportunity for the most extensive service is the gravity roller conveyor.

No doubt there will be interest in a listing of the services which conveyors are rendering in two prominent types of milk plants.

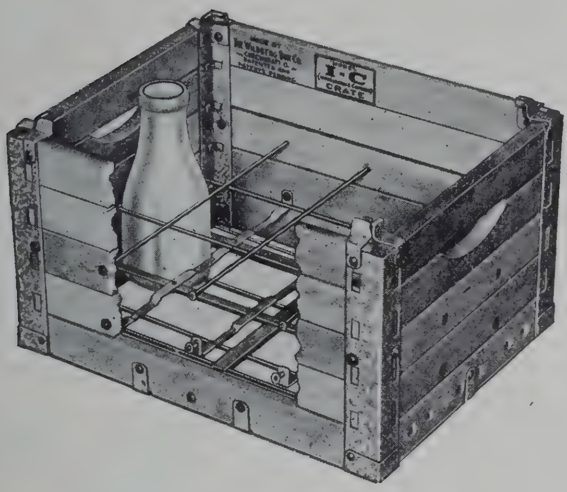
First, the receiving plant. Conveyors are being effectively employed for handling filled cans from farmers' trucks to "weigh cans." The empty cans are then taken by conveyors to the can washers and are carried from the washers to a point outside the plant where they are called for by the farmers' trucks. In a receiving plant so equipped in which all carrying of cans is done by conveyors the day to day operations are greatly facilitated.

Second, the milk bottling plant. Conveyors are rendering extremely profitable service for the following operations of a milk bottling plant: Handling incoming cases of soiled bottles, carrying incoming filled milk cans, passing cases of soiled bottles to bottle and can washers. Cases of clean bottles are efficiently passed to storage by conveyors, thence to bottle filling. The further function of conveyors is for handling cases of filled bottles to refrigerator and thence to delivery truck loading platform. Empty cans are rightly returned to farmers' trucks by conveyor.

In a later article will be given details of effective arrangement of conveying apparatus for various purposes, including suggested sizes of conveyors for handling various sizes of loads. The present purpose is to stress that the economies effected by the use of conveyors throughout industry in general are causing so extensive

In Bottle Crates, as in Automobiles----

MODEL I-C (Interlocking Corner)
Patents applied for



one needs an ELASTIC BUMPER to absorb the shocks from the outside—hence, the FLEXIBLE FRAME OF THE MODEL I-C.

But — one needs RIGIDITY OF CHASSIS to protect the delicate mechanism of the motor—hence, RIGIDITY OF DIVISION WIRES, our new SAFETY GRID, to protect the milk bottle and its contents.

MODEL I-C *outside construction is*

Flexible	Shock-Absorbing
Elastic	Durable

NO LACING WIRES NO NAILS NO SCREWS

MODEL I-C INSIDE CONSTRUCTION is designed for *LONG LIFE of the Bottle* and *Protection of its Contents.* Our new SAFETY GRID prevents contact of Bottles at Bottom, Shoulder, and Lip.

Make this test—if you are *not* now using Wildberg Crates—put two bottles in adjacent pockets and see how easily you can hit one with the other.

Then send to us for a sample MODEL I-C and you will be surprised at the protection your bottles will get.

This sample crate will be sent to you FREE OF CHARGE, EXPRESS PREPAID, with no obligation on your part. Please mention whether you use two or three rows of division wires and whether standard size or compact.

THE WILDBERG BOX CO., Cincinnati, Ohio

World's Largest Manufacturers of Milk Bottle Crates

adoptions of conveying apparatus as to represent an epoch of mechanical carrying study and adoption by industry.

The necessity of daily operations in the dairy industry is more insistent than that of almost any other line of production.

Conveyor manufacturers have recognized the need of producing types of conveyors particularly suited to dairy purposes.

Each dairy operator will do well to carefully investigate the economies and efficiency which can be brought about by the adaption of conveyors to his particular requirement. Studies can be undertaken with the conveyor manufacturer as advisor which will lead to a definite understanding of just what can be accomplished for each installation.

Perhaps in no other industry does the roller conveyor render itself so serviceable.

Florida Receives a Gift of Milk

Florida Called and the Chicago Milk Distributors' Association Heard and Came to Its Aid

TOO often, we hear of statements to the effect that the American business man has no heart; that he is interested only in his business and in pursuit of the dollar; and that he would go to any extremes to gain his end. Let a man who is commonly termed "Big Business" attempt to get a monopoly and corner the market on the available supply of Mah Jong sets and the world in general howls to the high heavens that they are being ground under the oppressive heel of "Capital."

In the September issue of The Milk Dealer, there was an article dealing with the dairy conditions in Florida and headed "Florida is Calling." The head was extremely timely and very much to the point; for on the day that the issue was mailed the country was stunned with the news of a catastrophe that came out of the sea and gripped parts of the state in its ghostly grip. Cities, where a week previous gay crowds had thronged and made merry in this winter playground, there was now only ruin and desolation. Tales of heroism, of sacrifice, and of the extent of the damage finally filtered through to the outside world.

The Spectre of Starvation.

Fortunes were shattered in many cases, but at such a time money has but little value. Money will not buy food or water when it is not to be had. With starvation facing them, Floridans, still in a daze, appealed to the rest of the country for aid—they needed food, clothing, hospital supplies for the injured and a host of other necessities, but most of all they needed food. They needed it hurriedly, for the suffering among the children was great.

The country heard the call. Money was given generously. Preparations were made by various agencies to ship necessities to the stricken state.

When the news of the Florida disaster first came in, the Chicago Milk Distributors' Association knew that there would, undoubtedly, be much suffering from hunger; especially so among the poor helpless tots who would be unable to help themselves and could not eat the heavier, coarser food that would probably be the only kind available for several days. The Chicago Milk Distributors' Association accordingly acted, and they acted with unction. They knew that their product was needed in the stricken area. Needed for the children, and needed because its bulk supplied all of the food requirements.

Fresh Milk by Tank Car.

It is hard to tell if the membership of the Chicago Milk Distributors' Association is composed of men who might be classed as "Big Business." Perhaps, they are, for Chicago is a large city and they supply the city with milk. However, if they are, they are not living up to the way that the soap-box orator has him painted; for when the news of the Florida storm came through, they were interested in other things than their business, and they evidently had a heart, for immediately the decision was made that Florida wanted milk and that they were going to get it. A canvass was made of Chicago to ascertain the amount of milk available. It was found to be insufficient. A tank car was rushed to Janesville, Wis. All night trucks brought loads to the milk depots in the vicinity and the work of pasteurization went on through the night. In the morning the tank car was full and on its way to Miami—a gift from the Chicago Milk Distributors' Association.

The gift was not heralded from the house tops when it was made; it was not "put on the air." The members of the association were content to have done something to relieve a fellow being and perhaps save the life of some little mite. Finally, news of the gift reached the newspapers. They devoted some space to it. What reaction did it give the professional savior who makes it his self appointed duty to relate the injustice of "Big Business?"

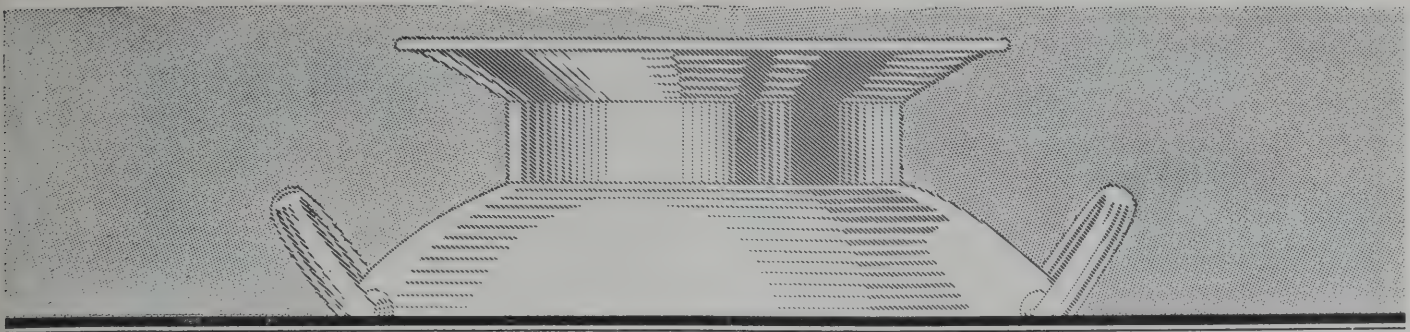
The American Car Company spotted a glass-lined refrigerated milk tank car in Chicago and dispatched it to Janesville, Wis. The milk distributors of Chicago generously arranged for the filling of the car with 48,000 pints of fresh Wisconsin milk. Thursday night the car was already back in Chicago at the head of a passenger train bound for Cincinnati. Sunday morning at one o'clock the car arrived at Miami with its life-saving cargo of fresh, tuberculin-tested, pasteurized milk in perfect condition.

The railroads, too, played a big part in this achievement, for through the co-operation of the Chicago, Milwaukee & St. Paul, the Chicago and North Western, the Pennsylvania, the Southern and the Florida East Coast Railway the milk car arrived in record time, 76 hours. The car was in actual transit only 54 hours after having been loaded.

This Florida emergency trip is a spectacular performance, but its larger significance lies in the demonstration that milk, a highly perishable, vital human food can be successfully and quickly transported long distances under diverse climatic conditions.

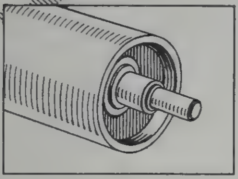
STANDARDIZATION ELIMINATES WASTE.

Under the title, "An American Initiative and Fight Against Waste," Henry Le Chatelier of Paris, in a recent bulletin, comments: "In order to understand the prosperity of the United States, it will not do merely to examine their industrial realization in detail; it will be necessary to study as well the hidden and profound causes of their success. Standardization as now prosecuted under the impulse of the department of commerce is the result of a long series of efforts....."



5 features found only in the Lamson Sanitary Conveyor—

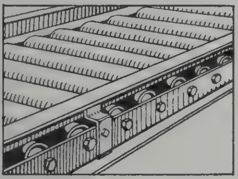
Especially designed for dairies



1

1. Roller sealed so no moisture can enter.

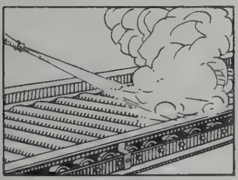
Keep the moisture out and you keep away corrosion. The roller is extra-heavy, and the heads are WELDED in. The inside of the roller is always perfectly dry and clean. The ordinary roller gives out because of inside corrosion. You'll never have that with the Lamson Roller.



2

2. The special guard-rail.

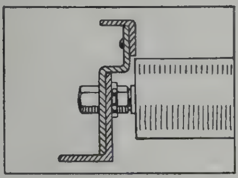
The heavy angle-iron guard-rail sets in over the ends of the rollers. This prevents the chimes of the cans or edges of bottle cases from ever slipping down off the roller ends. The Lamson Conveyor never stalls or blocks.



3

3. Can be safely flushed or steamed.

The Lamson Sanitary Conveyor stands up under all methods of cleaning. Flush it with hot water as often as you please. Steam it whenever you wish. Whatever you do, you will do no harm to bearings or rollers. The Lamson Conveyor has been designed throughout with the necessity for frequent cleaning in mind.



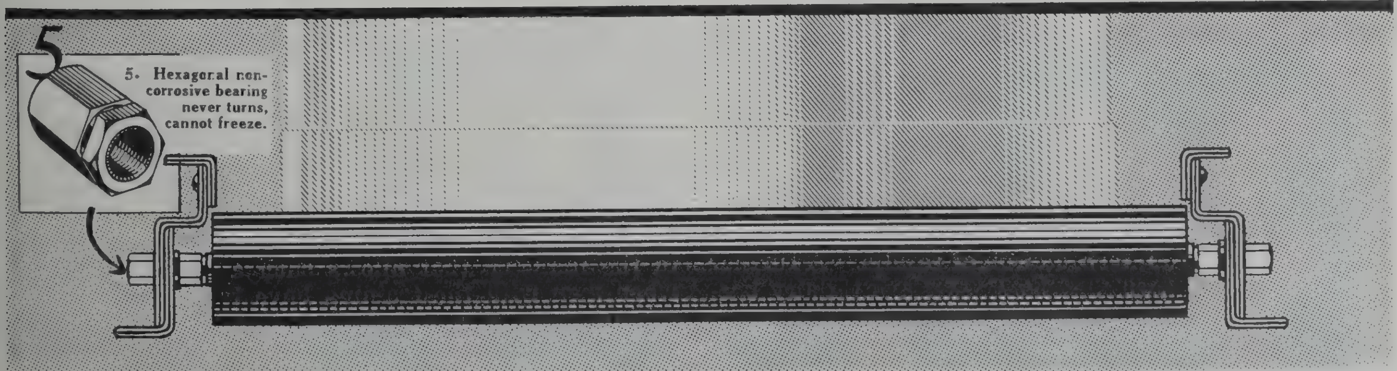
4

4. Moisture and Acid resistance throughout.

This sturdy, heavy-duty conveyor is built to resist wear and corrosion, even in the little details. Note how the design of the frame-work forms a cup-like cross-section that keeps moisture and milk away from the shafts and non-corrosive alley bearings. This special equipment will pay for itself in longer wear and better service. Write for full details.

THE LAMSON COMPANY, SYRACUSE, N. Y.

LAMSON CONVEYORS


5
5. Hexagonal non-corrosive bearing never turns, cannot freeze.

Qualitative or Quantitative?

Most Authorities Agree That Present Methods and Practices Are Working Against the Milk Industry

SOMEONE remarked, sometime in the past, that "too much education is a dangerous thing." Perhaps, the expression would have been better if it had been modified to "too much of the wrong kind of education is a dangerous thing." However, if too much is dangerous, too little is dynamite; and no better example can be offeed than the education that people have received regarding bacterial counts.

To them a bacterial count of 30,000 means just that many "microbes," "germs" or disseminators of plague and pestilence. They read the current bacterial counts in the daily press, and are immediately struck with the idea that the bacteria found in the milk are all of the harmful type. That there is room for a change in methods of conducting bacterial counts is very apparent, but at the present time, the plate method is the most satisfactory method of determining the qualities of milk.

Need of Constructive Advertising.

Perhaps, it is a question of advertising to give the consumers information concerning bacterial counts. Certainly, it would be valuable in clearing the atmosphere and the qualms that the layman has regarding a bacterial count that to a milk dealer or a bacteriologist is regarded as relatively low.

In the September issue of The Milk Dealer, the opinions of two men who are regarded very highly in the dairy industries gave their opinions in reference to bacterial counts. B. W. Hammer, dairy bacteriologist at Iowa State College, stated that while he admitted the error of the present plate method, he thought that the good points far outweighed the weaknesses. G. L. A. Ruehle, dairy bacteriologist at Michigan State College, gave his opinion that the present methods left much to be desired.

H. Macy, assistant professor of dairy bacteriology at the University of Minnesota, says: "The history of our present standard methods for the bacteriological analysis of milk has been featured by the realization of the short-comings of the methods suggested. This is particularly true of the ordinary plate method which has been most widely adopted. Nevertheless, with all the discrepancies the method is not worthless nor ready for abandonment."

Public Has Wrong Interpretation.

It has been the contention of The Milk Dealer that the methods as they now exist when given to the press with no explanation of the results are misleading to the public and are apt to be very much misunderstood. Continuing, Prof. Macy writes: "The greatest difficulty, I feel, has been in the interpretation of results." A further example of this is furnished by E. H. Parfitt, dairy bacteriologist of Purdue University, who says: "In some ways the quantitative count has done injury to the milk business. This is especially true where health authorities take one sample of milk per month, make an analysis of it, and then publish that analysis in the local papers. The consumer of milk is oftentimes misled. I recall one instance where a milkman had his milk reported with a bacterial content running into the millions but his fat content was low. He was informed by one of his customers that though other milkmen had higher fat content than he, he was so far ahead in bacterial content that she knew that his milk must be of much higher quality. Such instances as that, and then too, the consumers complaining and changing milkmen because there is a variation of two to three thousand per cubic centimeter, has wrought a hardship on the industry."

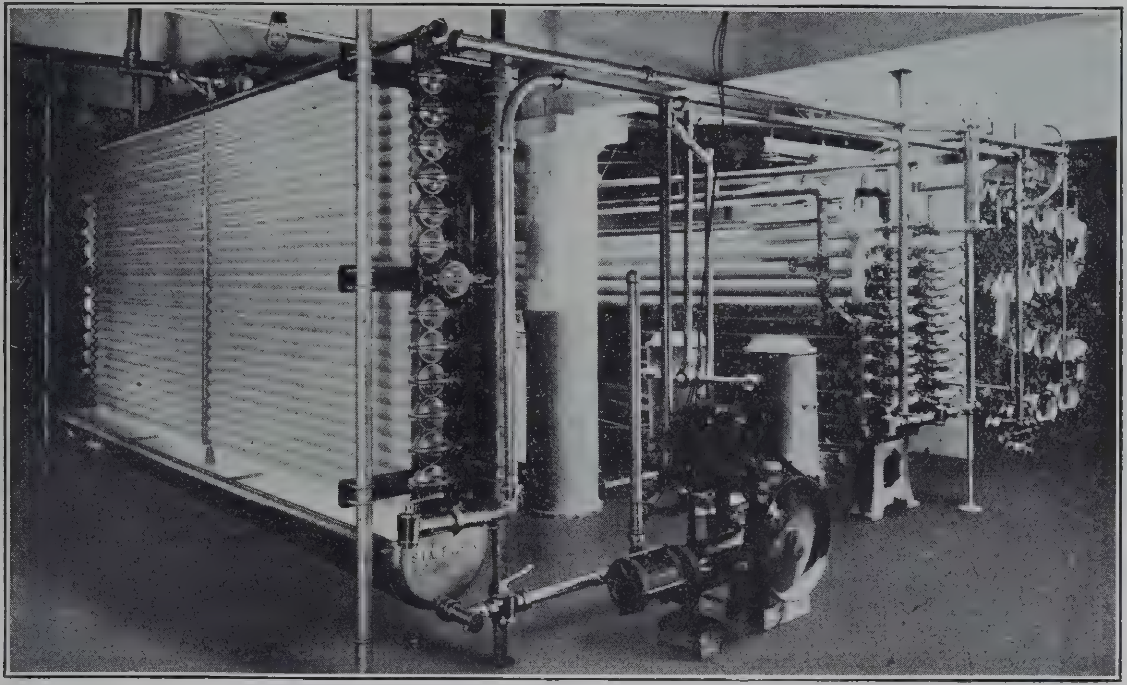
That the present quantitative method is not without its good points is brought out by Prof. Macy. "Taking into account the possible errors and adjusting conditions to eliminate them as far as possible, the results obtained in any one laboratory should be reasonably helpful in a diagnosis or prognosis for the immediate situation. I can see great value in our ordinary plate method when we are familiar with the accompanying and influencing factors in the present and past history of the sample. But when it is necessary to go blindly into an analysis of a sample without information as to its history, the method yields results which are decidedly questionable in value. Knowing the wide variations in technique and materials used in the standard plate method in laboratories in the same or different localities or in the hands of the various technicians, it is doubtful if any method of quantitative bacteriological analysis can yield comparable results."

Health Authorities?

In the September issue of The Milk Dealer B. W. Hammer and G. L. A. Ruehle gave their opinions regarding the present method of determining milk standards, in reference to bacterial counts. In this article, H. Macy, M. J. Prucha, E. G. Hastings and E. H. Parfitt give their opinions. All are practically in accord that while the present plate method leaves much to be desired—they point out that it is the most satisfactory at the present time. Seemingly the great trouble in the present method lies at the door of the health authorities in the various cities who are either ignorant of the limitations of the plate method, or do not wish to inform the public as to the real meaning and possibilities of bacterial counts.

Weakness in Health Departments.

No doubt, one of the greatest factors for the misunderstanding that exists concerning bacterial counts on the part of the laymen can be laid to the door of the health departments; for in many cases the type of men that are employed are certainly not doing anything toward clearing the ignorance of the consumer relative to the meaning of the bacterial counts. In many cases, those who have charge of the bacteriological analysis are men who do not have the training necessary for such work, and are employed solely because they will work for less money than one who has been educated in such work can afford to. There are cases of many cities that have employed men whose technical training in bacteriology has consisted of three or six months work in the dairy short courses who are totally incompetent to handle such work which requires greater skill and technical training than such men are capable of, if the work is to be carried on successfully. Certainly, it is no credit to the industry that allows such a condition to exist, when men with the training have to compete in salary against those of less training. Not only is it unfair to the trained bacteriologist who has spent years in acquiring such knowledge, but it is also detrimental to the



This Equipment saves $6000 a year in operating cost

There is probably no finer milk plant in Canada than that of J. J. Joubert, Ltd., of Montreal, which bottles over 100,000 quarts of milk a day, and which is known throughout Canada for the quality of its product. In this plant is installed a *complete* 14,000 lb. Burrell-Simplex Regenerative Continuous Long Flow Pasteurizer outfit, as shown in the illustration above.

Since installing this Burrell equipment, the Joubert plant has pasteurized at the rate of *14,000 lbs. of milk per hour,* with electric motors aggregating only 2 H. P., and with only one man required in the pasteurizing room! The saving in electric current, heating, refrigeration, and cooling water has been conservatively estimated at $6000 per year. And a decided improvement in the quality of the product has resulted from greater uniformity, better cream line, and lower bacteria counts.

The remarkable Surface Regenerator shown in the foreground of the illustration effects a tremendous saving in steam, cooling water, and refrigeration—and reduces coal consumption as much as 75%. The Burrell-Simplex Long Flow system holds the milk *positively* for not less than 30 minutes, nor over 35—with no loss of temperature during the holding period. There are no valves, elaborate timing devices or other mechanism—"nothing moves but the milk." And because of simple and inexpensive temperature control devices, the entire outfit can be operated automatically with part of one man's time.

These are only a few of the features that make the Burrell-Simplex Regenerative Continuous Long Flow Pasteurizer the most profitable outfit for you to use. Let us tell you about the other features—and the saving they will make in your own plant. Write today for illustrated catalog.

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This Mark Stands for Burrell Quality As Well As Interchangeability

The standardization of fittings as fostered by the International Association of Milk Dealers was a most timely step, and has contributed efficiency and economy to the dairy industry. It is an excellent thing. But it should be remembered always that this standardization means only standardization of dimensions—to permit complete interchangeability of fittings insofar as diameters, threads, etc., are concerned.

Now that there is standardization of dimensions, there is only one factor to determine your choice of fittings—*quality.* And in *quality* there is *no standardization.*

You will find that it pays to be *sure* you are getting *Burrell Quality*—Burrell character of metal, weight, workmanship, finish, style, durability—in every fitting you buy. The name "Burrell" is clearly stamped in a small circle on every genuine Burrell-Simplex Sanitary Fitting. This mark is a guarantee that you will receive not only the I.A.M.D. standardized dimensions, but also Burrell quality and precise correctness of Burrell workmanship. Always be sure that this Burrell trademark is on every sanitary fitting you buy.

A stock of 30,000 Burrell-Simplex Sanitary Fittings is constantly maintained to ensure the filling of your order within 24 hours of its receipt. At any time, you can order Burrell-Simplex Sanitary Fittings with the assurance that, first, your order will be filled *immediately;* second, your fittings will *fit;* third, your fittings will be of unsurpassed *quality.*

Catalog Section No. 293 gives detailed descriptions and illustrations of the individual Burrell Sanitary Fittings. Write for a copy today. There is no obligation.

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milk industry, inasmuch as the trained man could give information to the public, whereas the untrained man is incapable of doing so.

Bacterial Count not Inflexible.

Prof. Macy brings this point out very clearly. "It appears to me," he writes, "that the disrepute which the method has attained is due principally to the lack of judgment on the part of those people who have attempted to interpret the results. There has been a tendency for many to consider a bacterial count as an invariable, inflexible figure, so exact, in fact, that a count of 55,000 would be considered much worse than one of 50,000. I have seen prosecutions on evidence of precisely this character when only single counts were the basis of indictment. As counts were considered as relative under the conditions of operation and judgment withheld until sufficient evidence were at hand to demonstrate a general tendency toward higher or lower counts, the method involved would not receive such ready condemnation."

In asking his opinion whether he considered the present plate method as valuable to the milk industry, or whether he considered other methods as being more satisfactory, Prof. Macy replied: "I believe that the standard plate method is useful, yes, even valuable in giving us data which could not be obtained otherwise. It should be retained, but in the interpretation of results we must not set up standards that are too arbitrary nor must we forget the limitations. Until we find some more adequate method we must continue in our present ways."

Methods Have Limitations.

Comparing methods to the generally used plate method, Prof. Macy continued: "With the Breed microscopic method, there are also limits of usefulness. When applied for milk suspected of high counts it is decidedly effective in picking out the classes of milk which are questionable. It combines to a certain extent a qualitative virtue with the quantitative determination for such high count milks.

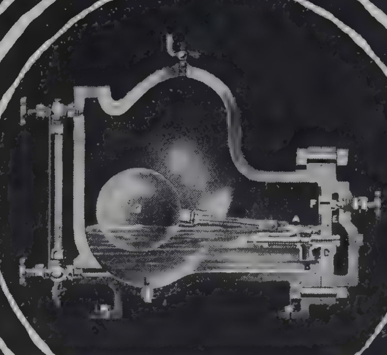
"The Frost 'little plate' method offers some advantages of both plate and microscopic analysis. Its use has not been sufficiently extensive to test its real merits. We have found it helpful but often experienced considerable difficulty among groups of men in obtaining results which were as comparable as results obtained when using the previously mentioned methods..

"The reductase test is quantitative and when the fermentation is allowed to continue sufficiently long becomes partly qualitative. Its usefulness is questioned. But again we must realize its handicaps and limitations.

"Other methods for the determination of the bacterial content of milk have been suggested, both quantitative and qualitative. But to date, I am not familiar with any method that does any more for us than the methods we now consider as standard. As long as we are dealing with biological phenomena we are confronted with countless variations and uncontrollable factors, particularly when we meet such complex flora as we do in milk. Each sample is different. It is questionable if we can ever get an infallible test or absolute uniformity in results. We shall find improvements, I am sure, and perhaps before the millenium someone of profound wisdom may give us our long-sought-for deliverance—a perfect method."

Wanted—Education for Health Authorities.

Seemingly, there is a unified opinion among many bacteriologists concerning the value of the present methods, and also the evils that have been allowed to creep in, for E. H. Parfitt of Purdue University holds the



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The capacity of a trap is usually judged by the size of the outlet **pipe,** instead of by the size of the **discharge valve orifice.** In ordinary traps the orifice is very small compared to the size of the trap outlet; while in American Traps very large orifices are provided.

Another advantage of this construction is that dirt and scale pass through easily and will not clog the valve or cause chattering.

Other points of superiority which make the American a most economical and efficient trap are described in our Catalog S-25. Send for a copy.

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same opinions of Prof. Macy. Prof. Parfitt writes: "I think that the bacterial count as outlined by standard methods of milk analysis by the American Public Health Association has done much to improve the quality and increase the consumption of milk, but I am firmly convinced that many health authorities are not using the quantitative method of determining the bacterial content of milk in the correct manner. One must expect that the count is but approximately with a limit of error. I do not feel that one should not say that milk with a bacterial content of 15,000 is better than a bacterial content of 25,000, though I do feel that milk with a bacterial content of 15,000 is better than milk with a bacterial content of 150,000."

Prof. Parfitt brings up another point which, seemingly, is being carried to extremes in the milk industry. This is the evil of the galaxy of grades that exist with respect to milk, at the present time. Not only is this detrimental to the sale of milk from an ecomomical standpoint, but the psychological effect is bad on the consumers of milk; for immediately they gain the impression that those grades that are down on the scale are very poor from the health standpoint. In commenting on this, Prof. Parfitt wrote: "Our sanitarians have also brought about grades of milk in some cities. There are four or five different grades of milk, all palatable and all healthful; the grading having been done on the type of equipment used in the production of milk, and upon bacterial standard. This, I believe, is not fair to the industry inasmuch as the consumer cannot tell the difference in grade. I believe that Dr. Hastings of the University of Wisconsin, in his work on the methylene blue test, has somewhat neared a better system of grading milk than the bacterial count, inasmuch as he grades milk into classes, not numerical, but as good, fair, poor, bad. This is judged more or less from the period of time that it takes milk to sour."

Hastings Champions Bacterial Counts.

The author of the methylene blue test, E. G. Hastings, professor of agricultural bacteriology at the University of Wisconsin, whom Prof. Parfitt brings up in his opinions, is a strong champion of the quantitative test. In part, Dr. Hastings writes: "There is no question, I believe, concerning the value which such counts have been and still are in controlling and especially in improving the milk supply. So many phases of milk quality are directly related to the bacterial content of the milk as to make it necessary to use bacteriological counts if we wish to control the quality of the supply. I doubt very much whether at the present time one can wisely bring in the qualitative side in milk control work. It would greatly complicate the laboratory methods and make the routine examination of samples a rather difficult matter.

"It seems to me that everyone is interested in improving the milk supply. Milk with a low bacterial content will certainly keep better, taste better, and be more valuable for manufacturing purposes than milk of a high bacterial content. It will prove more satisfactory to everyone—to consumer, distributor, and producer. The only way by which we can learn whether an individual producer or distributor is so producing and handling milk as to have it of good quality is by determining its bacterial content. The quantitative aspect is, therefore, more important than the qualitative aspect. I should hesitate about introducing into control work the qualitative side at the present time."

Work for Milk Dealers.

M. J. Prucha, professor of dairy bacteriology at the University of Illinois, takes the stand that the present method of conducting quantitative counts is superior to the qualitative. In part, Prof. Prucha writes: "Judging from my personal experience of over 20 years and observations in general, my opinion is that the quantitative count is better than the qualitative count. However, I believe that the qualitative count would be better if it could be done. We have not advanced far enough in bacteriology to have any qualitative method which would be desirable and therefore, I believe, the quantitative method is better at present."

Seemingly, from the opinions gathered, there is but little hope for a change in the methods of determining the standard of milk. In the face of such conditions, the milk dealers have the work of educating the public regarding the meaning of the bacterial content of milk. Not only have they the mission of giving information to the consumers, but in many cases they will have to devise some means of contributing toward the knowledge of some of those who sail under the misnomer of "health authorities." Ignorance on the part of the consuming public is excusable, but not so with the latter, for if they are not alive to the meaning of bacterial counts they are obtaining money under false pretenses --in a somewhat different manner than the orthodox procedure.

⁂

INDIANA MAN BUILDS NEW PLANT.

A new concern, the West End Creamery Co., recently began operations in its new modern plant at 908 West Spring St., New Castle, Ind. W. E. Morris, who has had considerable experience in the creamery and dairy industry, decided to enter into business for himself and erected the fine, modern plant and reports he is enjoying a splendid business. The plant is said to be one of the most up-to-date small plants in the state.

With every kind of equipment for proper pasteurizing and clarifying of milk, Mr. Morris is able to offer pure, sanitary milk and cream to his already growing trade.

His fine new machinery includes a splendid pasteurizer, separator, cooling plant, testing machine, bottling machine, bottling apparatus, and bottle washer, as well as a splendid refrigerator, that will accommodate a total of about 400 gallons of milk and cream and many gallons of ice cream.

Mr. Morris plans to start making ice cream later. He has his machinery for this work installed at present.

Truck service is offered to all parts of the city.

⁂

MODERN EQUIPPED PLANT IN OPERATION.

Operations were recently begun by the Huron Dairy Products Co. in its new brick plant on East Third St., Huron, S. D. New fixtures and machinery have been installed and the plant is said to be thoroughly modern in every detail. The plant is electrically refrigerated.

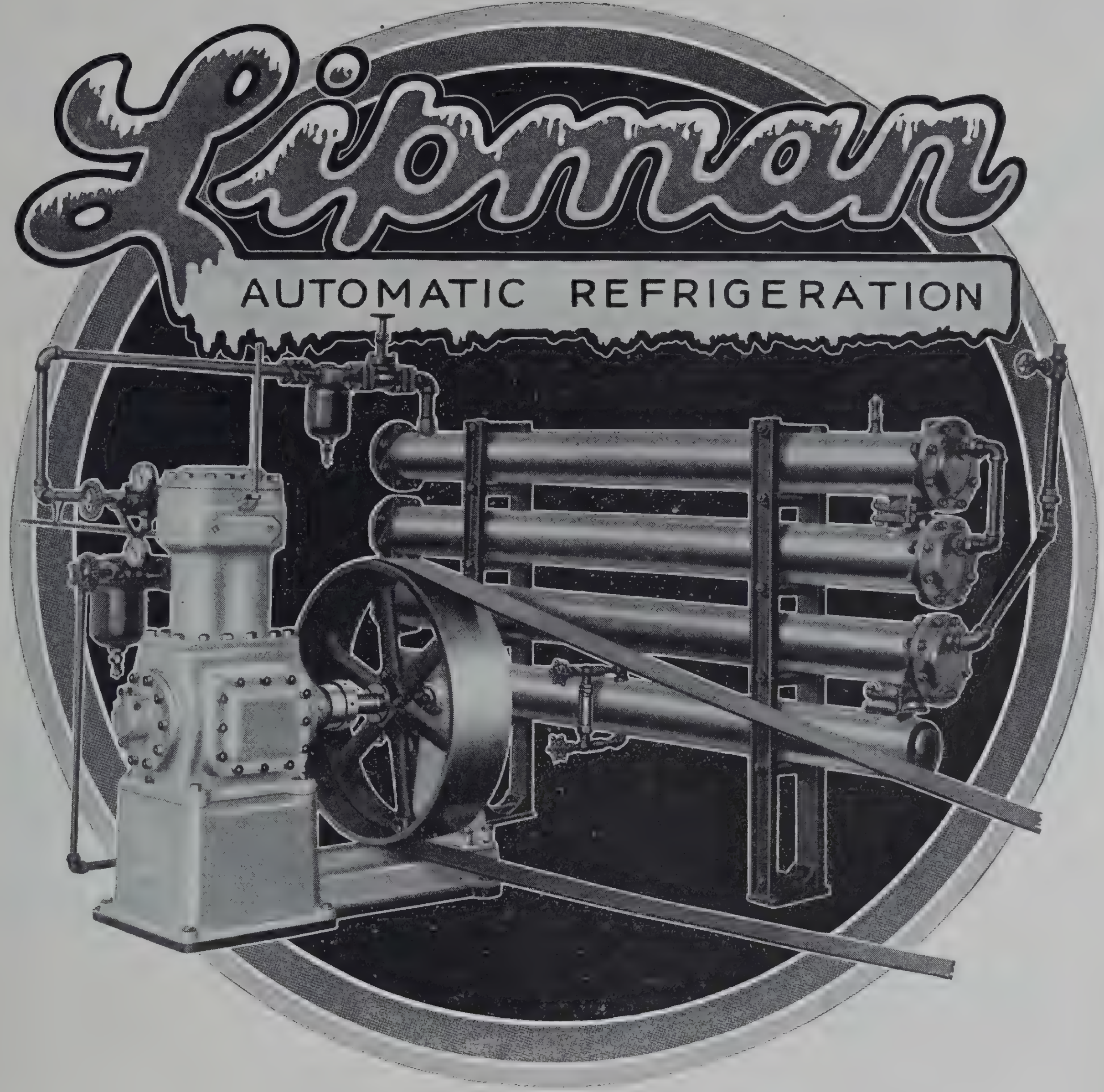
A new 600-gallon motor driven milk pasteurizer has been installed, where the milk is heated to 145 degrees F. From this vat it is carried by sanitary piping to a tubular cooler where it is aerated and cooled to 35 degrees. At this temperature the milk is bottled and capped automatically.

All milk bottles and cans are washed with live steam, the water from which the steam is made having been previously softened by machinery. The pressure washer runs from a centrifugal pump.

A new sweet cream pasteurizer is in the plant and will soon be put in operation, according to K. Greenquist, manager of the company.

A large new brine storage tank has been added.

Other machinery and equipment have been installed so that the plant is entirely sanitary.



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THE DRY, CONSTANT COLD OF THE MOUNTAIN TOP

How Does Iowa Do It?

Iowa, Seemingly, Has Co-ordination Lacking in Dairy Industries

By ARNOLD ROSE

CO-ORDINATION is the crying need in the dairy industry. Few people realize it, many dispute it, and still more never heard the word. They are too busy attending to their own business, which is one of the great faults of what we are pleased to call the industry founded upon the dairy cow.

Many times the question has been asked, "What is the matter with the dairy industry?" The answer is quite simple—too many people attending to their own business. Not enough people know something of the other man's business as well as their own.

We have a much abused word in industry—a much misapplied word. We call it co-operation, though heaven only knows who ever misfired by putting such a word in circulation in trade channels.

Let it be understood at the beginning that this writer is not in the dairy business. He knows very little about it, virtually nothing. Then there is no argument here, for as a gentleman said to the angry bellboy after tipping him a dime, "Why discuss trifles?" But let it be impressed that this writer's connection with the dairy industry is limited to a few pop calls in various offices of dairy manufacturers in his daily pursuit of a competence at writing on various trade topics, from pickles to pins. And this writer is not quite popular, for he doesn't altogether mind his own business, having very little business to mind. After this article sees the pitiless light of day, it is likely that he will be still more unpopular.

Lack of Understanding.

What is the situation in the dairy industry? How is this industry going to work together if we don't know more about each other? You will understand that this, although a well-chopped up industry, really is one clearly defined industry, ranging all the way from the man who milks the cow to the man who makes butter, cheese, ice cream, condensed milk, evaporated milk, powdered milk, and so on.

But in certain of the states which we are pleased to call our leading dairy states there is quite a bit of uncertain flitting and flickering among the various dairying groups. As a result the dairy industry in those states is not the solid, substantial, prosperous system that it appears on the surface.

Iowa is a typical example—by exception. The dairy groups in that state are well organized. But even that may not fully answer the question of why is it that Iowa is running away with the butter prizes at the dairy shows, annually gaining over other states in better cows, consistently forging to the front in the manufacture—and sale—of ice cream? Yes, why? Hanged if I know.

But of this one thing is certain. You won't hang around Iowa dairy plants long until you discover this one fact—there is cohesion, organization. The dairy groups work together. Their industry is balanced. There is no pulling away, with market milk men holding aloof, ice cream men standing aside and talking about a free and independent industry, with cheesemakers hunting their holes and staying put. You will see that these men, somewhere in their workings, come into definite touch with each other, finally being welded at some great fountain-head of control. I don't know what the fountain-head is, but it seems that the educators of the state, the dairy officials and the public-spirited men of Iowa have a better and more guiding hand upon the checkreins of dairy control in Iowa than elsewhere. They are working for a quality product, and they are not stopping there. They are pushing lines of merchandising endeavor.

Through the Eyes of an Outsider.

Frankly, I don't know just how it is being done, but the fact remains that Iowa is going somewhere in the dairy industry and all the king's horses can't stop her. Some day, I promise you, I shall find out the whys and wherefores, for that is another story.

I attended a dairy meeting in a very large city one day—not an Iowa city. It would be extremely hard to class these people as dairymen. You might imagine that every one of them were strangers. It developed that it was a mixed organization, with creamerymen, milk dealers, ice cream manufacturers, cheesemakers, powdered milk manufacturers, etc., all participating. I have often wondered what developed at that meeting. Babel was quite a simple bedtime story compared to the bedlam of noises and counter noises and motions and counter motions at that meeting. But nobody spoke the same language. Nobody understood the other man's viewpoint. One man had his mind very seriously upon the manufacture of cheese, and an ice cream manufacturer was wondering just who the devil was out trying to cop some of his dealers while he was tied up, and a milk man was looking around wondering just why one of his competitors wasn't there, or what did he have up his sleeve? At least, that is the way it looked to me, for I was an outsider with nothing at stake except a healthy appetite for commercial copy.

"Certainly seems to be all confusion," this writer chanced to remark to a visiting supplyman.

But he grinned and shook his head. "Everything is down to normal. If this gang ever got anywhere with anything, I'd—aw, hell, then I **would** be worried."

But then, one naturally inquires of oneself, how the dickens is the dairy industry as an industry going to get very far ahead if these horses don't work together in this team? That thought still exists. It is not pessimism. There is no attempt to show that dairying is headed for the bow-wows.

Read Trade Journals.

It isn't that dairy manufacturers of one group are not interested in the other. However much an ice cream man may draw himself up and say, "Well, my business is separate, an entirely independent line of business," you will find this same ice cream man carefully watching butter reports, cream prices, cattle importations, etc.

In fact, you will see him reading with much interest everything about other dairy groups that he may find in his magazine, though the mistake in the past, too often, has been he has had to read too many magazines to keep up with everything that concerns his business.

You may hear a manufacturer say, "Aw, dern the trade journals, I haven't time to keep up with them." But the real trouble is he has had to read too many of them. Look on his desk and see the large number of

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THE CHOICE OF A MILLION
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EVERYBODY'S FRIEND
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The original pure nickel truck tank

—WEIGHS LESS
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Every pound saved in weight of the tank equals two pounds of pay load.

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Our pure nickel truck tanks are insulated with 2″ corkboard and mounted ready to set on truck or trailer at following prices:

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trade publications. How in the Sam Hill do you expect him to read all of those magazines and still attend to his business, if any?

The thing that is going to bring the trades of dairydom together is—more trade literature that will keep members of the industry better informed upon the various ramifications of dairy manufacturing and wholesaling.

The man who imagines that all he has to do is push one feature of his business is lost. You will hear one man say, "All we must do to sell more dairy products is to push merchandise—that's all, push merchandise."

Yet, that man is facing just one of the things to be done—a very important thing, indeed, but just one phase of the matter nevertheless. This also applies to the man who thinks that the problem of the dairy manufacturer is merely a manufacturing problem, merely a mechanical problem. He is facing just one side of the matter and has no protection against a flank movement.

The Need of Balance.

An industry that goes forward is like an army that wins or a successful football team or a successful farmer—it is a balanced industry. Business men need more balance. It is not good wisdom to shoot in one direction and forget about the other ramifications of the business. It is bad business for a man to allow himself to believe that he must just read the literature that has to do with a certain phase of his certain business.

Now, we have the ice cream manufacturer who thinks he is not interested in any other phase of the industry—not interested in the creameryman, the dairy producer, or the manufactured-milk man.

I haven't fully answered the question of how Iowa does it, but if you will take a trip through that state you will see many, many copies of The Ice Cream Review, The Milk Dealer and the Butter, Cheese & Egg Journal. But why should an ice cream manufacturer be interested in the Butter, Cheese & Egg Journal? I asked one that, and he gratified me very much by the reply, "I couldn't conscientiously look any man in the eye and tell him that I know my business if I did not keep up with the activities of the men identified with my industry."

There were no wrappers on these magazines.

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THE SHOP POET GETS AN INSPIRATION.

In a recent issue of The Milk Dealer we published "Eleven Advantages of Drinking Milk in Factories," by M. O. Maughan, secretary of the National Dairy Council. The Pfaudler folks posted the page on their bulletin board in the big factory in Rochester, N. Y. The shop poet got his eyes on its with the following result:

Men Drinking in Factories.

Milk drinking in factories is a habit, if you please,
That helps each one who drinks it, do his work with greater ease.
It increases vital stamina where muscles are in play,
And makes a workman regular, and therefore earn more pay.
He does his work more accurate—efficiently withal,
And when a job needs extra vim—he has it at his call.
For building up the body, this liquid can't be beat;
And he who drinks a quart each day feels good from head to feet.
As an antidote 'gainst poisons which in the system lodge,
There is no other thing like milk to put them on the dodge.
To steady nerves and make you feel still fit when ends the day,
Drink milk! and be fatigueless when it comes your hour to play!

J. P. M.

SUPERIOR, WISCONSIN, HAS MODEL MILK AND ICE CREAM PLANT.

By Louise M. Maier.

Recently the Russell Creamery Company of Superior, Wis., completed the remodeling of their milk and ice cream plant, and the installation of new equipment.

The plant was open for public inspection September 17, 18, and 19, from 10 a. m. to 10 p. m. It is estimated that about ten thousand people toured this model plant during the three-day period.

Thousands of children not accompanied by parents were invited into the ice cream department where they were given liberal servings of Delisho ice cream in soft form. These children were constantly guarded by a police officer who was engaged for this purpose by the company.

Four thousand beautiful roses were given to the ladies who visited the plant. Everyone was given Delisho ice cream in the soft form. Five hundred gallons of ice cream were given away. Competent guides were on hand to guide the visitors through the plant and explain in detail the operation of each machine. The bottle cleaning process as provided by the patented mechanical cleaner was a revelation to all visitors as was the big mechanical can washer and all other equipment including the four ice cream freezers, the ice cream molds, ice equipment and the milk room and laboratory equipment.

The value of pasteurization was stressed during the time that the processing was carefully explained, in the beautiful milk room. Visitors were next taken to the laboratory where they were impressed with the need of laboratory examinations of their milk supply.

As they were about to leave, their attention was centered on the picture or chart purchased from the U. S. Department of Agriculture at Washington, D. C., entitled, "The Importance of Pasteurization." The visitors were then asked to register and were given literature, pertaining to milk and the necessity of proper pasteurization.

The Russell Creamery Company is managed by H. S. Russell, assisted by his brother F. N. Russell These two young men are to be congratulated for the progressive spirit and the confidence which they have displayed in their industry. It is such vision and spirit as theirs which is creating for our industry the big place which they have displayed in their industry. It is such vision and spirit as theirs which is creating for this industry the big place which it occupies in the world of commerce. Few people realize the efforts put forth by members of the industry for the protection of public health. The most people who visit our plants the more will realize our efforts and the greater will be our sales. The Russell Creamery will always be open for public inspection and will continue to arrange for group and individual tours of the model plant. Classes of school children will be taken through the plant during all school sessions.

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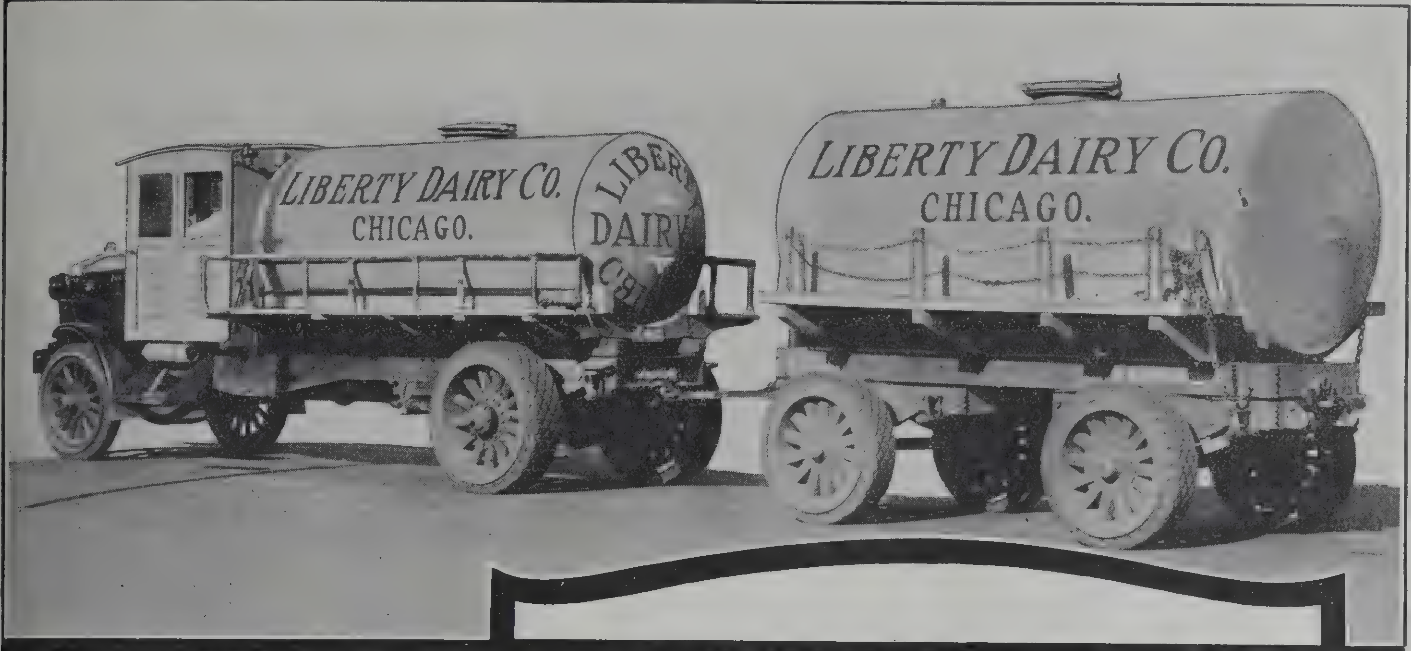
DR. CAMPBELL RETURNS FROM EUROPEAN TRIP.

Dr. H. C. Campbell, director of the Dairy Laboratories, Philadelphia, recently returned from a summer's trip through the various European countries. While abroad he visited the veterinary schools in Germany, France and Scotland; also the Pasteur Institute at Paris, with the idea of noting what they are doing in milk hygiene, as well as general veterinary practice.

Dr. Campbell reports the United States far in advance over those countries in respect to our milk supply and in the development of our milk plants, etc.



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No. I

Spring Dept.

The above is a glimpse of the Spring Department in the Highway plant. With the exception of bearings and tires, every part of Highway Trailers is made in the Highway plant.

The Highway embodies the quality construction at low cost which complete manufacturing facilities assure.

Just doubles the capacity, with one haul instead of two. That's what a Highway Tank Trailer does for the Liberty Dairy Co., Chicago, Ill.

The tank unit illustrated above is one of two in the service of this company. It makes a "run" of 100 miles daily, hauling 2400 gals. of fluid milk each trip.

Can you haul 2400 gals. of fluid milk on the back of any truck you know?—neither would your city or state permit you to use it! Nor would you want to make such a staggering investment in one truck!

No other equipment equals a truck-trailer system for economy of first cost and operation, not one! Fewer trips, maximum loads, truck capacity doubled, —that's Highway Trailers.

The Trailer pictured above is one of the most popular models; others in two and four wheel models with tank, refrigerator or special bodies are available.

Write for bulletins.

Highway Trailer Company
512 Fulton Street
Edgerton, Wisconsin

HIGHWAY TRAILERS

The World's Largest Trailer Plant!

Milk Bottle Exchange Pays Big Dividends

Rockford, Illinois, Health Department Conducts Survey and Makes an Interesting Report

By N. O. GUNDERSON, M. D., and R. W. GENRICH*

ONE of the most complex and perplexing problems confronting the milk dealers of the country is the inability to have all milk bottles used in the distribution of milk returned to the rightful owner. For years, it has been the custom for each dealer to make use of any and all bottles that were returned by the drivers, with the result that dealers having the largest number of bottles in circulation were forced to buy new ones more frequently than necessary. Then too, many junk dealers were collecting bottles because a fertile field existed for their sale outside the jurisdiction of the local dealer.

When one considers that about five milk bottles must be kept in circulation for every customer the significance of this problem becomes very evident from an economical viewpoint.

For years, this problem has been lying dormant for lack of solution in spite of the fact that an Illinois law forbids a dealer to use bottles other than those bearing his own name.

Repeatedly the local dealers have appealed to municipal and state authorities for help, which has not been forthcoming, due to a lack of sufficient field men, who could constantly supervise and control all dealers and public in general.

A few dealers on several occasions have united in the hopes of solving this problem, but with no lasting results because of lack of co-operation on the part of all the dealers.

Investigation of dairy literature also shows that several large cities support organizations for the control of this problem and a brief description of the Rockford system may be of interest to dairies or cities contemplating a similar project.

Rockford Survey.

With the above data in mind, a comprehensive survey and study was made of the Rockford Milk Dealers Bottle Exchange by the director of the health department bureau of milk control, in order that a permanent record may be available of this city's method of handling the ever-present bottle problem.

Description of City.

Rockford, a thriving manufacturing city of 77,000 population, is located in one of the richest dairy sections of Illinois and consumes approximately 56,000 quarts of milk daily. If five bottles must be kept in circulation for every quart of milk delivered to the customer's doorstep, the dealers of Rockford must have approximately 280,000 bottles on hand at all times, which represents a total investment of $15,400.

Bottle Exchange Inaugurated.

Realizing and appreciating the enormity of this economic problem a bottle exchange was established in Rockford whose purpose is to accomplish the following results:

1. Prevent dealers from using only those bottles, cans and cases which bear their own name or stamp.
2. To afford a means of collecting stray bottles, cans and cases.
3. To instigate a system of inspection of all these containers at each dairy once a week.
4. To afford a means of transporting foreign bottles, cans and cases to the rightful owner.
5. To educate the public to respect the milk bottle and use same solely and only for the purpose of transporting milk.

All these conditions being in strict accordance with state law, local dealers could not well afford to stay out of the organization.

Local Organization.

Investigation shows that the first exchange in Rockford was established three years ago, by two of the largest dealers, and while unsuccessful for a time, the exchange today includes all local dealers, which was made possible only after a long, painstaking program of education.

At the present time, the local exchange consists of an unincorporated company owned and operated by fourteen dealers, who elect three officers annually with

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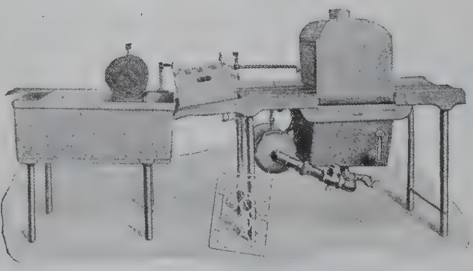
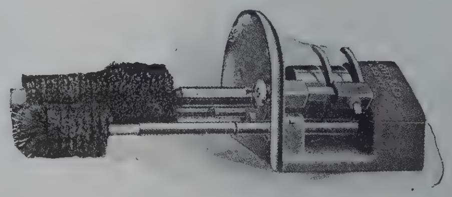
* Commissioner of health and director bureau of milk control, Rockford Department of Public Health.

R. G. WRIGHT & COMPANY

BUFFALO, N. Y.



Wash Sink, Rinser and Sterilizer will do better work with less labor on account of its patented automatic features.



3-Brush Belt Washer

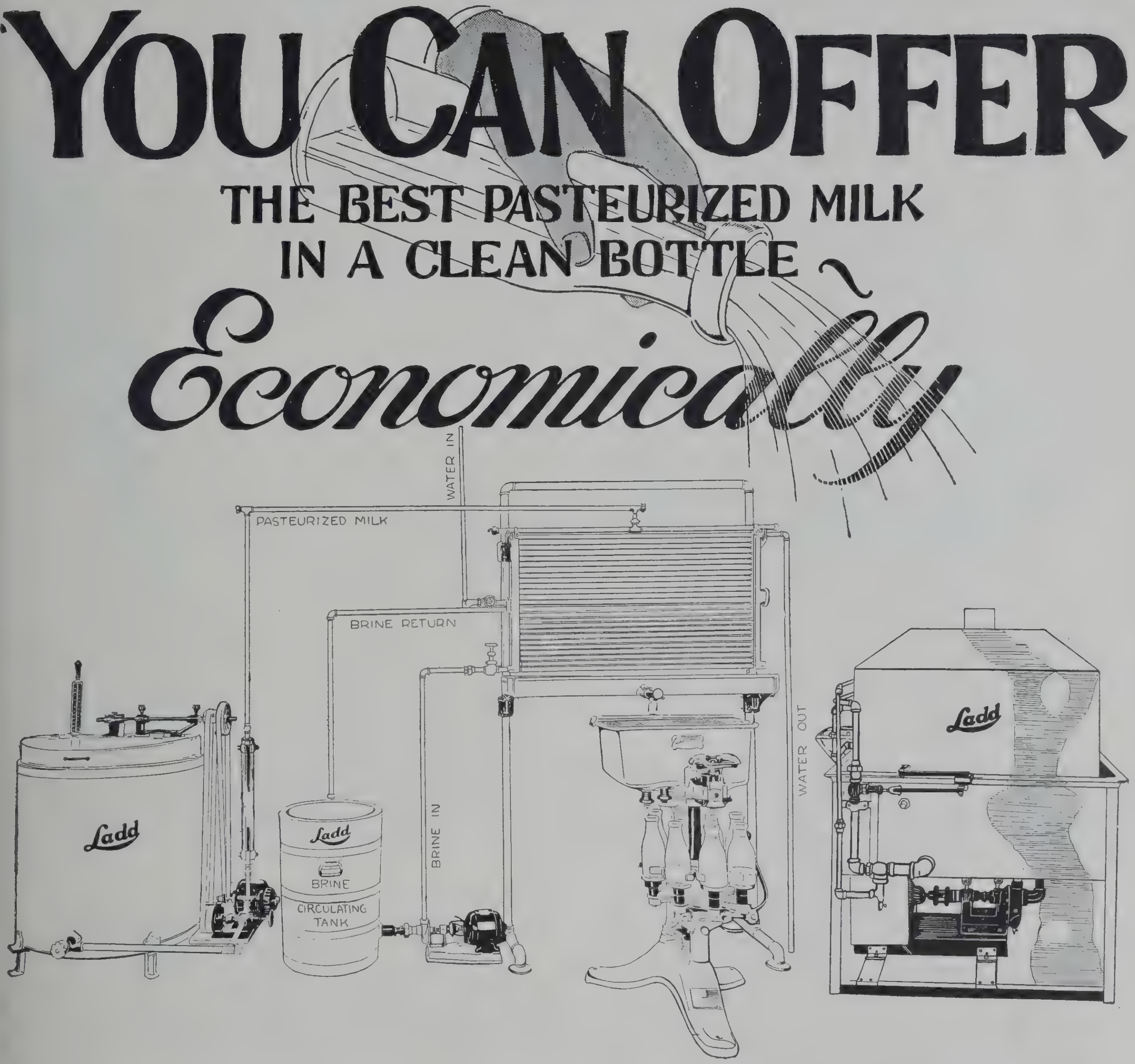
Write for Circular

MR. SMALL DEALER

YOU CAN OFFER

THE BEST PASTEURIZED MILK IN A CLEAN BOTTLE

Economically


WATER IN
PASTEURIZED MILK
BRINE RETURN
Ladd
Ladd
BRINE
CIRCULATING TANK
BRINE IN
WATER OUT
Ladd

This machinery has been proven to be the most efficient and the most economical for the small milk plant. It can be had in direct motor drive or belt driven units. It consists (from left to right) of Ladd's Blue Line Pasteurizer, Ladd's Brine Circulating Tank, Ladd's Tubular Cooler, Milwaukee Hand Operated Filler and Capper, and Ladd's Dairyman Pressure Washer.

Let us submit plans for your plant without obligation.

John W. Ladd Co.

COMPLETE OUTFITTERS TO THE DAIRY INDUSTRIES

Detroit · Columbus · Cleveland · Cincinnati no salary attached. These officers in turn engage a manager and an assistant, both of whom are salaried.

Equipment.

A rented shed thirty by thirty constitutes the building equipment for the exchange, where all bottles, cans and cases are sorted and stored until delivered to the rightful owner. No unwashed bottles are permitted in the exchange because of odor, and secondly, bottles with dried milk must be hand washed.

Operation.

The two exchange operators carry on bi-weekly inspections at all dairies at which time all bottles, cans and cases are inspected immediately after washing. After the day's run is completed a count is made of all foreign bottles and the inspected dairy is given a receipt for all foreign bottles, cans and cases. The price paid the inspected dairy is one-half cent for each bottle and nothing for each can and case, after which they are taken to the exchange shed.

Then, once a month the exchange delivers all containers to the rightful owner, who must reimburse the exchange at the following prices: Milk bottles two cents, cans ten cents and cases ten cents. In other words, with exchange bottles on hand a dealer pays one and one-half cents for bottles, ten cents for cans and ten cents for cases, which is quite a saving over the market price of five and one-half cents per bottle, fifty cents and one dollar and seventy-five cents respectively.

Personnel Expense.

An interesting feature of the Rockford exchange not found in other cities is the unique method of financing the personnel of two people. The exchange value or income from returned containers is not sufficient to support the operators, and to overcome this the dealers have arranged to give the two operators a hauling route for collecting milk, which does not interfere and brings each man to the dairies in time to make their inspections.

Volume of Business.

Records of the exchange manager show that during the year 1925, over 90,000 milk bottles were returned to the rightful owners at a cost of $1,350.00 to the local milk dealers compared to a cost of $4,950.00, if these same bottles were purchased on the open market. No records were obtainable, however, on cans and cases.

Bottle Exchange Accomplishments.

The accomplishments of the Rockford Milk Bottle Exchange may perhaps be summed up as follows:

1. The exchange is a means of educating local milk dealers not to use foreign bottles.

2. Records show that a large number of bottles are being returned to the rightful owners, but no records are available as to cans and cases.

3. The financial records of the exchange show that this organization is an economic saving to the dealers.

4. An exchange is one means of effectively complying with the state dairy law which forbids a dealer to use only those bottles, cans and cases bearing the dealer's own name or stamp.

5. That the exchange has apparently curbed the buying and selling of milk containers by junk dealers.

Conclusions.

1. That the Rockford Milk Bottle Exchange during the last two years has proven to be a financial success.

2. That an average of 90,000 milk bottles were returned to the rightful owners during the year 1925.

3. That this represents a saving of over $3,000.00 to the dealers compared to an operating expense of less than half this amount.

4. That an exchange acts as a powerful stimulus to all local dealers to use none but their own bottles.

5. That the exchange proves conclusively that the state dairy law regarding the use of foreign bottles cannot be effectively enforced by official inspectors and therefore serves only as a weapon in the hands of the exchange managers in effectively carrying out such projects.

6. That the exchange is unique in that the proceeds do not warrant the salaries of the two men, but by employing milk haulers as exchange operators a very effective economical organization can be perfected.

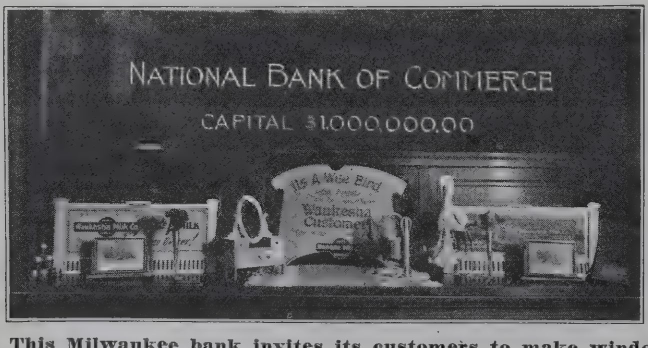
7. That investigation shows that the exchange can be made a success in small cities as well if a co-operative plan of using milk haulers can be worked out.

8. That equipment necessary for conducting an exchange is very limited and that the overhead expense is very small.

9. That the dairies of Rockford are to be commended for having instigated an exchange.

10. That the exchange thus far has not worked out any effective plan for collecting stray bottles from factories, homes and especially buildings under construction.

11. That the exchange officers have an opportunity to put forth an effective educational program along the lines of, "Remember the Milk Bottle and Keep it Free from Contamination" and popularize the slogan, "Mr. Customer, when you buy a bottle of milk, the milk belongs to you, but the bottle is the personal, private property of the milk dealer."



This Milwaukee bank invites its customers to make window displays, using the bank's windows on a busy street corner for the purpose. The Waukesha Milk Company took advantage of the opportunity.

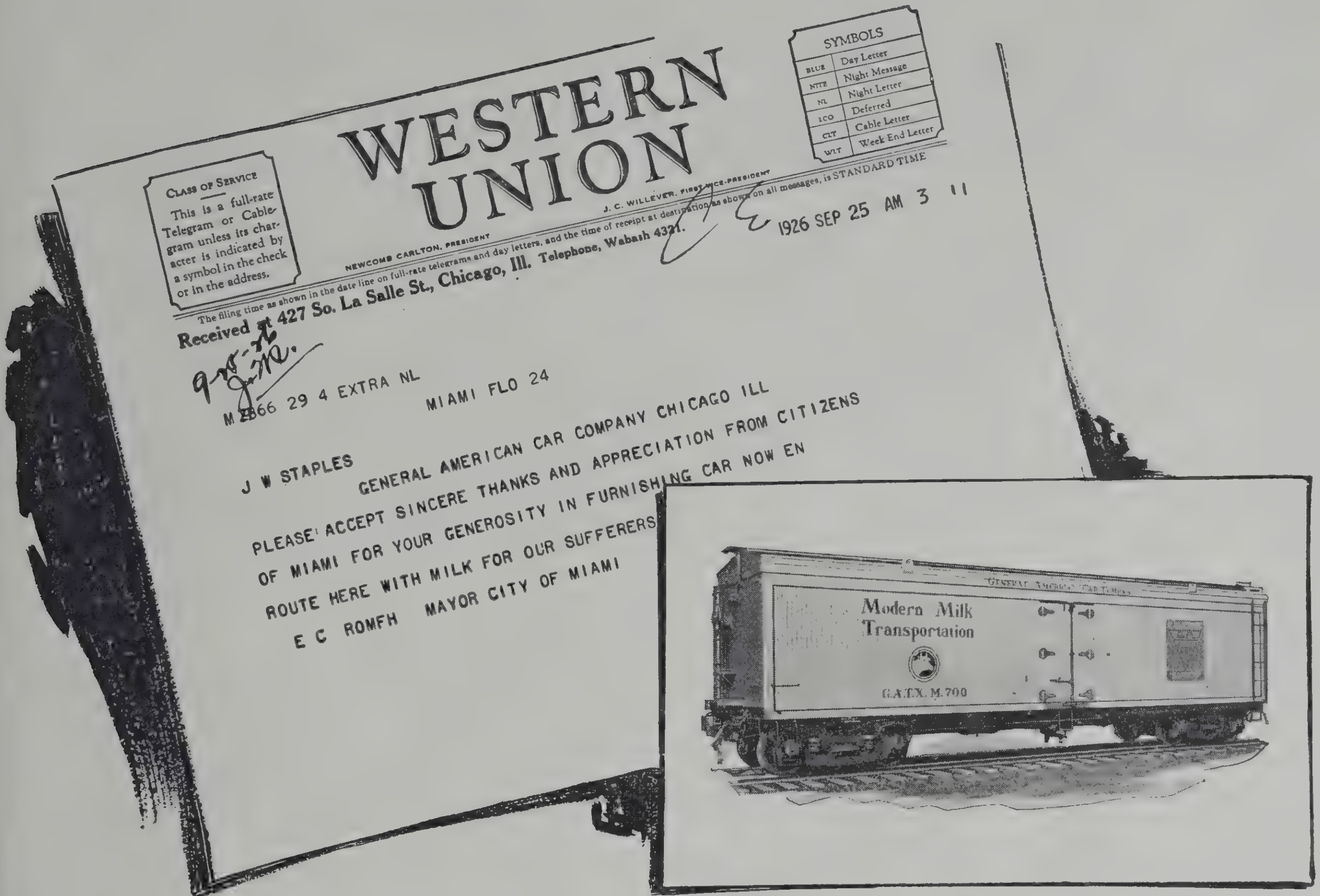
* * *

MILK USED TO CURE INSANITY.

According to a report from Berlin, Germany, milk has been used to cure insanity but it gets in its beneficial effects on the patient's system through injections with the hypodermic needle rather than by the more usual route of the mouth, according to advices just received here.

Dr. Julius Schuster, formerly a member of the faculty at the University of Budapest and authority on psychic diseases, observed that many of the insane patients who lost weight, even down to the point of emaciation, decidedly improved in mental conditions. He accordingly resolved to try the effect of speeding up this process by the injection of foreign proteins into the system, in the form of milk. This procedure has been used with considerable success, it is said, in the treatment of certain infectious diseases but has seldom been tried with maladies not of infectious origin.

By carefully regulating the milk injections, six out of 16 of his patients were completely cured, Dr. Schuster declares. Several types of insanity were represented in the group, including dementia praecox, one of the most prevalent mental disordrs. The curative effect is explained as due to anaphylactic shock which influences reactions of the thyroid gland and the liver.



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NEWCOMB CARLTON, PRESIDENT

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MIAMI FLO 24

J W STAPLES GENERAL AMERICAN CAR COMPANY CHICAGO ILL

PLEASE ACCEPT SINCERE THANKS AND APPRECIATION FROM CITIZENS OF MIAMI FOR YOUR GENEROSITY IN FURNISHING CAR NOW EN ROUTE HERE WITH MILK FOR OUR SUFFERERS

E C ROMFH MAYOR CITY OF MIAMI

Daytime...Night time...STORM TIME...

any time at all

General American Milk Tank Cars come thru!

Disaster in Miami. An appeal to the nation for help. Doctors, nurses, clothing, food...and *milk*. Milk for babies, for exhausted men and women. Milk...Milk ...Milk...and Chicago responded.

A wire from Miami from Chicago's Health Commissioner, Dr. Herman N. Bundesen. Received in Chicago at 9 P. M. Wednesday, September 22nd. "Rush Milk." In 76 hours a General American Milk Tank Car with 50,000 pounds of Tuberculin Tested, Pasteurized Milk was delivered in Miami. Enroute only 54 hours from Janesville, Wisconsin. A record...a General American achievement, to meet an emergency.

The milk was donated by the Chicago Milk Distributors. Their contribution to a mighty good cause. Transportation was given, and speediest of cooperation by the Chicago, Milwaukee and St. Paul, Chicago and Northwestern, Pennsylvania, Southern, and Florida East Coast Railroads. Without their assistance the Milk Car supplied by General American could not have accomplished its mission.

Daily, the General American Car Company is performing an increasingly important service for the dairy industry and the public. And while the emergency Florida trip is highly significant in the transportation of perishable foods under diverse climatic conditions... it is nevertheless only a milestone in the greater service that can and will be delivered as General American builds more and more Refrigerator Milk Tank Cars.

DO NOT EXPERIMENT
WE HAVE DONE IT FOR YOU
GA
GENERAL AMERICAN
LET A CAR BUILDER
BUILD YOUR CAR

GENERAL AMERICAN CAR COMPANY

DIVISION OF GENERAL AMERICAN TANK CAR CORPORATION

General Offices: 940 Illinois Merchants Bank Bldg., CHICAGO

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17 Battery Place, New York
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Bartlett Bldg., Los Angeles, Calif.

Midwestern Offices:
1946 Railway Exchange, St. Louis, Mo.
502 Cosden Building, Tulsa, Okla.

Southern Offices:
Union Indemnity Bldg., New Orleans, La.
Magnolia Bldg., Dallas, Texas

Glass Lined Refrigerator Milk Tank Cars

Milk Plant Labor Studies

Effect of the Type of Plant on Number of Plant Employees Required

[*Milk Plant Letter No. 145, U. S. Bureau of Dairy Industry*]

THE number of men required to operate a milk plant seems to be affected to some extent at least by the type of plant. As a general rule, fewer men are required in plants located on one floor level than in those occupying several floor levels.

In the table below is shown the number of plant employees used at 92 plants arranged according to size and to the number of stories. The average total number of gallons of milk and cream handled per plant employee is also shown in the table. The total number of gallons of milk and cream handled per plant employee with the checkers excluded is also shown, since some dealers do not include the checkers as plant employees but charge them to the delivery or sales department.

It will be noted that with only two exceptions more milk and cream were handled per plant employee in the one-story plants than in the two-story plants and more in the two-story plants than in the plants of three or more stories. In group six of the plants of three or more stories more milk and cream were handled per man than in the same group of the two-story plants, though less was handled than in group six of the one-story plant. One of the reasons for the two-story plants in this group being lower than might be expected in number of gallons handled per man, thus presenting an exception to the general rule that two-story plants are more economical as to laber required than plants of more stories, seems to be that one of the plants in this group was a grade A plant with only 188 gallons of bottled milk and cream handled per plant employee, which brought down the average for the group considerably. The other exception to the general rule is in the case of the one plant of three or more stories in group four, at which more milk and cream are handled per man than in the same group of the two-story plants. While this plant was classed as a three-story plant, it was very well arranged and might have been put in the two-story class. The milk was pasteurized on the second floor and bottled on the first floor. The bottles were washed in the basement, but the bottle washer elevated the bottles to the first floor, where they were filled. Thus, while three floors were used, this plant, by its well arranged conveyor systems, obtained practically the same efficiency as a one or two-story plant.

From the survey that was made it seems apparent that best results as to labor required are obtained where the bottle washing and filling departments and the milk storage are on the ground floor. In this way there is a minimum of handling and of supervision required. Where the bottles are washed in the basement and the bottle washer delivers the bottles to the fillers on the ground floor nearly as good results are accomplished.

⁂

THAT'S A FINE COMPLIMENT, JOHN.

In a recent review of American business methods, the "London Observer" made this significant comment: "Our investigation showed plainly that America's prosperity was due not so much to her natural advantages as to the enlightened policy of her citizens in developing them."

GALLONS MILK AND CREAM HANDLED PER PLANT EMPLOYEE AT VARIOUS TYPES OF PLANTS.

ONE-STORY PLANTS.

Group	Number of plants	Average total gallons per plant	Percentage bottled	Average total plant employees	Average gals. total milk and cream handled per plant employee	Average gals. bottled milk and cream handled per plant employee	Average gals. total milk and cream handled per plant employee exclusive of checkers
(1) Less than 2,000 gals........	5	1,314	83.7	5.8	227	190	263
(2) 2,000-5,000 gals.	10	3,152	88.9	11.0	287	255	341
(3) 5,000-10,000 gals.	6	7,570	90.1	26.2	289	261	361
(4) 10,000-15,000 gals.	2	10,975	84.5	30.0	366	309	422
(5) 15,000-20,000 gals.	..	.....	....	....	...	...	...
(6) Over 20,000 gals...........	1	21,000	82.0	67.0	313	257	344
TWO-STORY PLANTS.							
(1) Less than 2,000 gals........	8	1,466	79.6	7.4	199	158	228
(2) 2,000-5,000 gals.	11	3,631	85.7	19.0	189	162	220
(3) 5,000-10,000 gals.	23	7,103	84.9	34.4	206	175	252
(4) 10,000-15,000 gals.	6	11,742	80.6	52.5	224	180	263
(5) 15,000-20,000 gals.	4	16,875	83.7	57.3	295	247	343
(6) Over 20,000 gals...........	3	25,261	88.1	102.6	246	217	277
THREE OR MORE STORIES.							
(1) Less than 2,000 gals........	..	.....	....	....	...	...	...
(2) 2,000-5,000 gals.	..	.....	....	....	...	...	...
(3) 5,000-10,000 gals.	5	8,169	82.7	45.0	182	150	235
(4) 10,000-15,000 gals.	1	11,150	88.0	41.0	272	238	372
(5) 15,000-20,000 gals.	4	17,910	89.3	100.0	179	160	220
(6) Over 20,000 gals...........	3	31,783	89.3	115.3	276	246	327

GLASCOTE

How Much Milk Have You Dumped in the Sewer This Season by Not Having Storage Capacity?

POSSIBLY enough to pay for Glascote storage tanks, insulated by the Glascote method of covering the cork with an air tight welded steel shell, including a brine coil for extra cooling, coated with HIGH GLAZE GLASCOTE. Made in both vertical and horizontal types.

Write for a Glascote representative and bulletin.

THE GLASCOTE COMPANY, EUCLID, OHIO [Cleveland District]

New York Office, 15 Park Row St. Louis Office, 905 Carleton Building Detroit Office, 1217 Book Building

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"Nearly a Billion and a Half Pounds of Butter"

The United States Bureau of Agricultural Economics reports nearly 5½ million pounds of butter increase in 1925 over 1924.

Raw milk and cheese production also shows a great increase.

It is impossible to estimate how great a quantity of these delicate foods were protected by the sweet, wholesome, sanitary cleanliness

Wyandotte
Dairyman's
Cleaner and Cleanser

so dependably provides, but every day increasing numbers of milk food producers register their confidence in this uniform and economical product.

Ask your supply man for "WYANDOTTE"

Indian in Circle

In Every Package

The Wyandotte Booth at the Sesqui-Centennial Exposition, Philadelphia, June 1-Dec. 1 will be found in the Manufacturers Building, Group D — Section 1 — Block 2

The J. B. Ford Company *Sole Manufacturers* Wyandotte, Michigan

Fluid Milk Market Report for United States for Sept., 1926

By Bureau of Agricultural Economics, Market News Service, United States Department of Agriculture.

Table I—Producers' Prices for Standard Grade Milk Testing 3.5% Butterfat, Delivered F. O. B. Local Shipping Point or Country Plant.

Prices which appear in this report are secured through the co-operaton of milk distributors, producers' associations and municipal officers. Dealers' buying prices unless otherwise indicated, represent prices applying to all milk delivered by producers. For cities where a "surplus plan" is in effect, the prices reported in table III are for "basic" quantities. All per cwt. buying prices have been converted to a 3.5% butterfat basis for comparative purposes.

Sections	Range of Sept. Prices		Prices Compared for Same Markets			
	Number Local Markets	Prices per Hundredweight	Number Local Markets	1926 Average for Sept.	1926 Average for August	1925 Average for Sept.
New England	8	$2.95–$3.82	8	$3.43	$3.38	$3.44
Middle Atlantic	15	2.00– 3.15	15	2.70	2.62	2.69
E. North Central	24	1.87– 3.13	21	2.49	2.44	2.42
W. North Central	18	1.75– 3.10	12	2.20	2.15	2.18
South Atlantic	13	2.37– 5.81	13	3.75	3.73	3.41
E. South Central	4	1.84– 2.60	4	2.26	2.26	2.37
W. South Central	7	1.58– 3.30	6	2.54	2.45	2.49
Mountain	6	1.75– 3.20	6	2.34	2.29	2.50
Pacific	9	1.74– 3.12	8	2.72	2.69	2.74
United States	104	1.58– 5.81	93	2.75	2.70	2.67

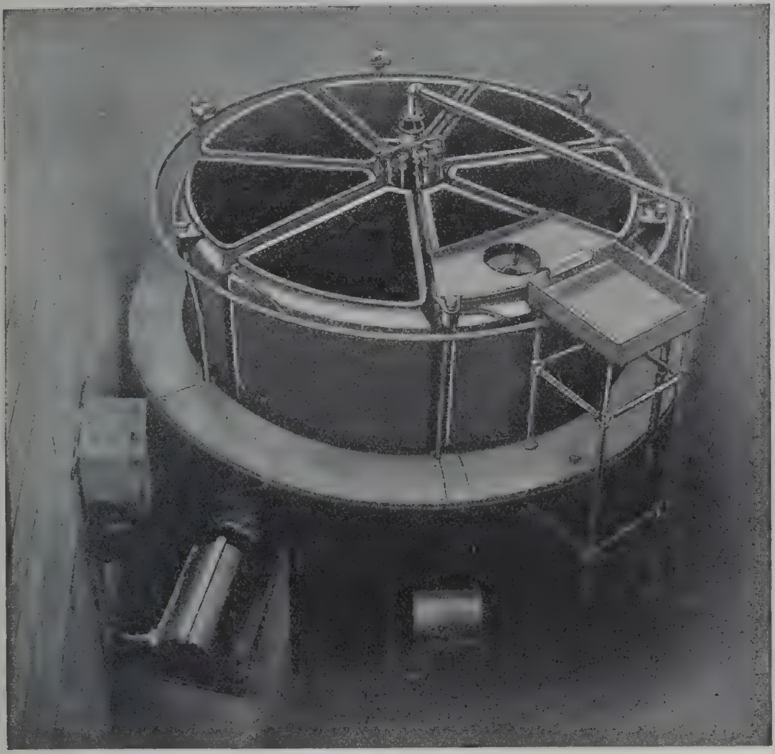
Above prices include "basic" prices where a surplus plan or pooling plan is in effect. Cities where prices are based upon current butter quotations not included.

Table II—Prices for Special Grades of Milk and Certain Milk Products.

The following table shows the wholesale and retail prices reported for "special" and "certified" milk and certain other products delivered at wholesale buyers' places of business and at the home of retail customers.

Cities	Special Milk	Certified Milk	Cultured Buttermilk		Cottage Cheese		Light Cream 18-25% B. F.	
	Retail Price per Quart	Retail Price per Quart	Wholesale Price per Gal.	Retail Price per Quart	Wholesale Price per Lb.	Retail Price per Lb.	Wholesale Price per Gal.	Retail Price per ½ Pt.
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	$	Cts.
Akron	16–20	20	20	8	8	10	1.30–1.60	16
Albany	17	..	32	10	..	..	1.60	17–20
Albuquerque	..	..	..	..	18	25	1.75	15
Allentown	18	30	34	12	7–8	11	1.90	16
Asheville	19	25	30	11	15	18	2.00	20
Baltimore	..	..	40	13	7–10	15*	1.70	16
Birmingham	..	25	25	10	..	..	1.60–2.00	20
Boston	18	26	24	10	10	12	1.16–1.78	22
Buffalo	14	26	..	10	12	15	1.44–2.00	22
Chicago	17	25	..	10–20	..	15*	1.30–1.80	16
Cleveland	19	25	..	12	12	15	1.26–1.75	15–21
Colorado Springs	17	..	15	6	..	..	1.20	11
Columbus	17	25	..	..	..	20	1.45	14
Dallas	24	..	20	8	..	..	1.40	14
Denver	14	..	15	8	14	20	1.40	14
Des Moines	20	..	..	5	10	12	1.40	13
Detroit	25	25	..	10	10	15	1.60	16
El Paso	18	..	20–25	11	15*	20*	1.50	15–18
Evansville	15	..	25	9½	12*	15*	1.60	14
Harrisburg	..	28	28	9	..	..	1.50	13
Hartford	20–25	25–35	..	..	..	..	1.40	18
Indianapolis	16	..	25–30	10–12	12–16	20	1.10–1.20	12–13
Jacksonville	25	..	30–35	10–12	20	30	1.60–2.25	20–30
Kansas City	15–25	25	25	10	12*	10*–15*	1.80–1.90	15
Lincoln	14	18	20	10	12	15	1.25	10
Long Beach	20	..	25	10	10	10	1.60	17
Los Angeles	..	28–30	25	10	..	..	1.60	17
Louisville	16	24	..	12	..	..	1.00–1.63	16
Memphis	..	30	12½–20	7–8	..	..	1.00–1.40	15
Miami	30–35	35	50	15–20	30	35	2.00	25–30
Milwaukee	14–18	25	16–18	6	6–8	9–10	1.30–1.65	13–14
Minneapolis	..	22	..	13	10*–13*	12*–15*	1.40	15
Nashville	18	..	20	10	17	20	1.50	16
New Orleans	18	31	40	14	..	..	1.20	17
New York	30	28	28	11	10	15	1.56	..
Omaha	15	20	20	10	10	..	1.30	11
Philadelphia	14–15	30	..	8–12	..	..	1.40	15
Portland	19	..	35	12	10	15	1.50	15
Richmond	18	..	28	8	10*	15*	1.20–1.30	14
Rockford	..	..	..	..	..	..	1.40	15
San Francisco	..	25	..	14	..	20	2.50	20
Scranton	18–20	25	20	8–10	..	..	1.40–3.20	20–23
Spokane	15–18½	18½	20	12	10	15	1.55	15
St. Louis	18	25	..	10–18	10–13	12–15	1.26–2.00	17
Trenton	17	30	36	12	..	..	1.44	13–14
Trinidad	20	25	..	..	20	25	1.25–1.60	..
Washington	16–23	30	40–48	14–15	10–12	15	1.70	17–20

* 12 oz. package



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HORTON-DAVIS-JENSEN
Absolutely Positive
HOLDER

Each compartment may be washed with 200 degree water AFTER held milk is discharged and BEFORE new unheld milk enters, which absolutely prevents seeding of unheld milk by smears of old milk.

Compartments individually water jacketed.

Milk absolutely held the regulation time.

ALL FOAM entirely eliminated by WIER-TUBE method.

Holder valves steamed BEFORE milk passes through.

Holder valves washed AFTER milk passes through.

Valves PASTEURIZED at all times.

Milk smears ELIMINATED from holding compartments and valves by AUTOMATIC STEAMING and WASHING.

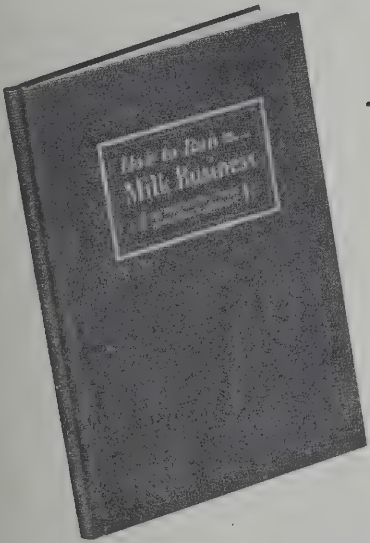
Circulating water thermostatically controlled.

Steam STERILIZATION of compartments after washing.

Compartments lined with nickel or glass.

Write for circular and full details.

Jensen Creamery Machinery Company ☐ BLOOMFIELD, N. J.
OAKLAND, CALIF.



LEARN from the experience of others

Ways and means by which successful Milk Dealers have built up a prosperous business are for the first time told in this handy book. Much of the information herein has never appeared in print before.

No matter what the size of your business, this book will be worth many times its cost to you.

Sent anywhere postpaid on receipt of . . . ***$2.00***

Send for a Copy Today.

THE OLSEN PUBLISHING COMPANY

Fifth and Cherry Streets
MILWAUKEE, WIS.

Table III—September Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat Test of Milk Sold
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5-20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
ALABAMA—							
Birmingham	Varies	..	40–50	14	18	14–18	4.0
ARIZONA—							
Phoenix	..	..	32	8	10–12½	10–11	..
CALIFORNIA—							
Fresno	Butter Market Basis		35	11	13	12–13	3.8
Long Beach	3.32	9.5	43.33	13	15	15	4.1
Los Angeles	3.32*	9	43.33	13	15	..	3.6–4.0
Oakland	2.81	2.9+	35	9	12	10	3.6–3.8
San Francisco	3.11–3.21	2.9+	41.33	12	14	13–14	3.75–4.0
Santa Barbara	Butter Market Basis		40–45	12	15–16	15	3.8–4.4
COLORADO—							
Boulder	1.75	5	32	9	11	10	3.6
Colorado Springs	2.45	6	30	9	11	11	3.4–3.75
Denver	2.10	6	35	10	12	12	3.2–3.7
Pueblo	2.38	6.8	..	..	12	10–12	3.8
Trinidad	..	..	35	..	10–13	10–13	3.0–3.5
CONNECTICUT—							
Bridgeport	4.22*	4	48	14	16	..	3.6
Hartford	4.22*	4	46	12–14	16	..	3.8–4.0
New Haven	4.22*	4	50	14	16	16	3.7
DIST. OF COLUMBIA—							
Washington	3.14*	7	42–48	11–14	14	12–15	3.8
FLORIDA—							
Jacksonville	4.30–4.53	10 to 4.2%	55–60	18	20–21	18–21	4.0–4.5
Miami	6.05–6.65	Flat	70	20	23–30	23–30	3.5–4.2
Tampa	5.81	Flat	60	21	25	20–25	..
ILLINOIS—							
Chicago	See Table II		32.38	13	14	14	3.5
Joliet	2.70*	4	38	12	14	14	3.7–3.8
Peoria	2.00–2.10	5	..	..	11–12	11	..
Quincy	..	..	30	8	10	10	3.5
Rockford	2.55	6	28	9	11	11	3.6
Springfield	2.25	4	34	10	12½	12–13	3.5–4.0
Streator	..	..	30	9	12	10	4.0
INDIANA—							
Elkhart	2.10	5	30	7½	10–12	10–12	3.8–4.0
Evansville	2.22	6.35	34	11	12½	12½	3.7
Indianapolis	1.92–2.01	5.5–5.75	28–32	10–10½	12	11–12	3.6–4.0
South Bend	2.55	4	32–35	10	12	12	3.8–4.0
IOWA—							
Clinton	Butter Market Basis		32	9	11	..	3.6–3.8
Des Moines	2.40*	5	28	7–9	11	9–11	3.5–3.6
Fort Dodge	2.70*	5	38	10½	12	12	3.9–4.0
Iowa City	2.27*	6.5	30	9	12	11	3.5–3.8
Ottumwa	2.25–2.45	5	35–40	10	12	12	3.5–3.9
KANSAS—							
Kansas City	..	..	35	10	12	12	3.6
Topeka	2.10	4	30	8	10	..	..
Wichita	2.35	3	35	10	12	12	3.5
KENTUCKY—							
Lexington	2.60	Flat	35	12	14	12–14	4.3
Louisville	2.01	4	28	10	12	12	3.8–4.0
LOUISIANA—							
Alexandria	2.91	Flat	40	12	15	13	4.0
New Orleans	3.04	4	35	12	14	14	4.0
MARYLAND—							
Baltimore	3.31*	5.8	40	13	13	14–15	3.9
Cumberland	4.50*	5	40	13	15	15	4.0–4.2
MASSACHUSETTS—							
Boston	3.86*	B. M. Basis	41	12½	14½	12	3.7
Easthampton	..	..	46	12	14	14	3.5
Lawrence	3.95	Flat	44	11½–12	14½	12–15	..
Springfield	3.49	Flat	40	12	15	12–15	3.7
MICHIGAN—							
Battle Creek	2.80	4	36	10	12	12	4.0
Detroit	3.00*	4	40	10	14	14	3.5
Grand Rapids	2.48*	4	30	8–9	9–12	9–12	3.5–3.6
Kalamazoo	3.00*–3.20*	4 to 4%	38	11	13	13	3.5–4.0
Lansing	2.05	Flat	30	8	10	10	3.4

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No Weak Points, They Will Wear Out (Uniformly)—No Repairs Necessary.

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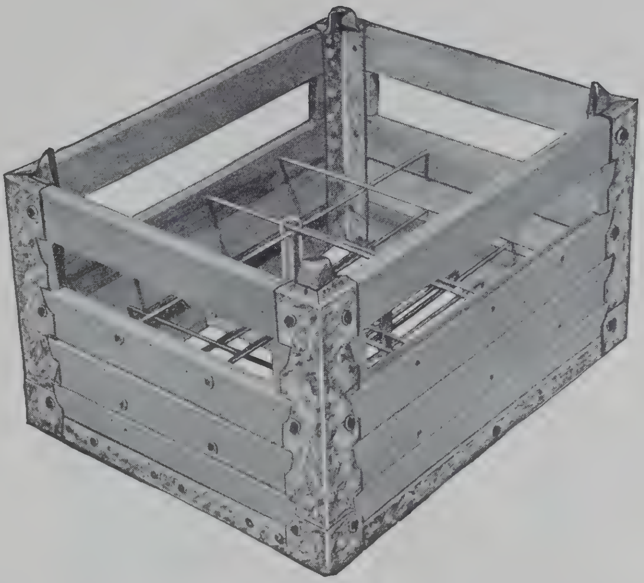

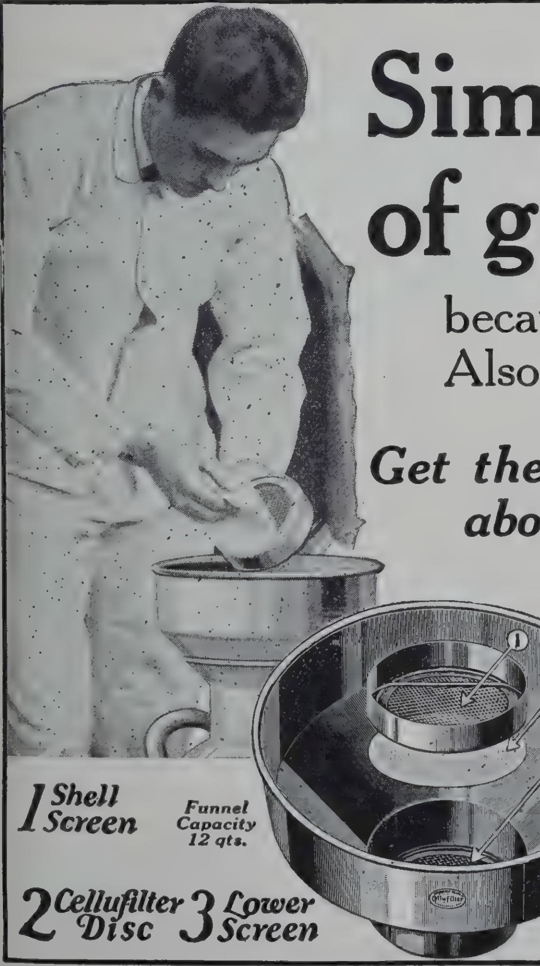

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KIMBERLY-CLARK CO.
Dairy Division
Neenah, Wis.

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KIMBERLY-CLARK CO.,
Dairy Division, Neenah, Wis.

( ) Send us your plan for equipping our patrons.

( ) Send one Cellufilter Funnel and carton of 300 Cellufilter Discs at dealer's discount, for trial. It is understood that if 10 days' trial of Cellufilter does not prove it satisfactory, we may return funnel in good condition, with unused discs, and money will be refunded.

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Shipping Address________________________

Dairy Supply House________________________

M. D.—Oct.

Table III—September Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat Test of Milk Sold
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5-20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
MINNESOTA—							
Duluth	2.56*	5	..	..	..	..	..
Minneapolis	2.50*	5	32–34	9–9½	11	10–11	3.5–3.7
Northfield	2.17	5	32	9	10	10	3.7
St. Paul	2.50*	5	25–36	8–10	11	..	3.5
Winona	3.10	Flat	35	9.58	11	11	3.6
MISSOURI—							
Kansas City	2.50	3.5	40	10–11	13	10–13	3.8
St. Louis	2.60	3	35–38	11	13	13	3.5–3.8
MONTANA—							
Butte	2.56	11.6	30–35	11	13	13	3.5–3.7
Lewistown	..	..	30	8	10	10	3.6
NEBRASKA—							
Lincoln	2.10	6	28	8½	10	10	3.6
Omaha	2.25	5	28	9	11	11	3.4–3.6
NEW HAMPSHIRE—							
Concord	..	..	37½	10–12	12–14	12–14	3.7–3.9
NEW JERSEY—							
Camden	..	..	..	..	12	..	..
Hoboken	..	..	34	10½	15	15	3.6
Trenton	3.06*(A)	4	36	10–11	12	13	3.6–3.7
NEW MEXICO—							
Albuquerque	3.20	5.8	40	12–12½	15	15	4.0
NEW YORK—							
Albany	3.17*	4	38	15	15–17	16–19	3.6
Buffalo	2.90*	4	36–40	11–11½	13	13	3.5–3.6
New York	See Table II		40	14	15	15	3.6
Rochester	2.83*–2.85*	4	40	11	12½	13	..
Syracuse	Not Determined		..	11	13	..	..
Utica	3.02*	4	36	10	12	12	3.6
NO. CAROLINA—							
Asheville	3.80	4	48	14	17	17	4.2
Biltmore	3.80	4	..	..	..	..	..
Greensboro	3.70	6	50	14	17	18–20	4.0
Winston-Salem	3.30*	4	45–50	13	16	17–18	4.3–4.5
NO. DAKOTA—							
Bismarck	2.75	4	35	9½	12	..	3.7
Jamestown	2.30	4	30	9	11	11	3.5
OHIO—							
Akron	3.40*	5	40	10–12½	13	13	3.5
Cleveland	3.20*–3.40*	5	38–40	11	14	10–14	3.5–3.7
Columbus	..	..	35–40	11	12	11–13	4.0
Toledo	2.55	3	36–38	10–10½	12	12	3.5–3.6
OKLAHOMA—							
Oklahoma City	1.75	5	35	10	12½	10–12	4.0
Tulsa	2.45	7	..	..	..	..	..
OREGON—							
Portland	Not Determined		35	9	12	..	4.0
Salem	1.99–2.09	5	30	..	10	10	4.0
PENNSYLVANIA—							
Allentown	2.81	4	34	10	12	12	3.5
Altoona	3.16*	4	42	11	13	13	4.0
Harrisburg	2.25	4	32	9	11	11	3.5
Philadelphia	3.14*–3.17*(B)	4	35	11	12	12	3.8
Pittsburgh	3.45*	5	..	..	14	..	..
Scranton	2.87	4	38–40	12–13	12–13	13–14	3.5–3.6
RHODE ISLAND—							
Newport	..	..	..	..	15	15	..
Providence	3.86*	B. M. Basis	55	12	15	..	..
TENNESSEE—							
Chattanooga	2.45	7	45	12	18	12	4.2
Memphis	2.58*–2.73*	4.5	30–35	10–11	15	12–13	4.2–4.3
Nashville	Butter Market Basis		35	11	13	13	4.2
TEXAS—							
Dallas	2.40	4	30	10	21	11–12	4.0
El Paso	3.50–3.60	5	35	12	15	13–15	3.5–4.0
Houston	2.80	8	..	..	15	..	..
VIRGINIA—							
Newport News	4.20	6	50	15	17	17	3.8
Richmond	3.93*–4.05*	5	44	13	14	..	3.8–4.0

* Basic prices for fluid milk.

(A) Effective September 16 price will advance 35 cents cwt.

(B) Effective September 16 price to producers will increase 35 cents and to consumer 1 cent per quart.

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Chestnut and 39th Street

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OSCAR W. RICHARDS, Manager

600 ROOMS—500 BATHS

Rooms with running water from $2.50 per day
Rooms with private bath and shower from
$3.50 per day

Food and Service the Best

Near West Philadelphia Station Pennsylvania Railroad
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The Famous Flueless — Boiler —

Famous as a Quick Steam Producer.
Famous as a Fuel and Repair Economizer.

BOILER is regularly constructed with extension to form ash pit, but can be furnished with cast iron base, in all sizes up to and including 48 in. diameter, **without extra charge.** Boiler comes complete with fire door and frame, ash door, grates, elbow and damper, hand hole plates complete. Steam trimmings include safety valve, steam gauge and syphon, water gauge, gauge cocks, blow-off valve, injector complete with check and feed valve. All constructed to comply with the A. S. M. E. code for 100 lbs. working pressure and tested to 150 lbs. hydrostatic pressure.

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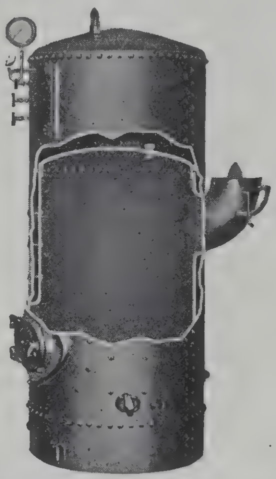

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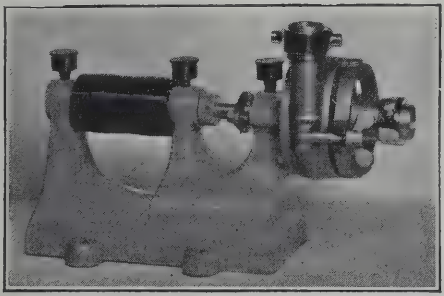

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Super-Sanitary Milk Pump

All the details of how this one piece sanitary milk pump works and the efficient work it does is told in our illustrated circular.

If you are thinking about new milk pumps for your plant, be sure you send for one of these circulars and learn how you can benefit from the W-Z milk pump. If your supply house can not supply, write

WRIGHT-ZIEGLER CO.
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APRONS that *Will* Resist Acid

LONG-LIFE
BRAND
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REAR VIEW SHOWING ADJUSTABLE STRAPS

How well they succeed is best proved by this practical comparison.

Put in service in your plant an equal number of aprons you are now using along with those of our special "Long-Life" dairy aprons.

Inspection after a short use will readily show a marked difference.

Our "Long-Life" apron is made of special material to resist the destructive inroads of fats and acids peculiar to the dairy industry.

Let us send you samples of material and prices.

The M. F. Murdock Company
RUBBERIZED FABRICS
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Table III—September Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat Test of Milk Sold
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5-20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
WASHINGTON—							
Everett	..	..	28	7	9	9	3.8–3.9
Seattle	2.60*(1–15)	6.71	35	10½	13	12	..
Spokane	2.35*–2.55*	5	34	10	12	12	3.9–4.0
Tacoma	2.65	5	35	10	12½	11–12	3.6
WEST VIRGINIA—							
Clarksburg	2.55	5	32	12	14	15	3.8–4.0
WISCONSIN—							
Beloit	2.50*	5	30	8	10	10	..
Kenosha	3.00	4	40	11	12	12–13	3.6
Madison	Butter Market Basis		32	8	9	9	3.5
Milwaukee	2.90*	4	30	9½–10	11	10–11	3.5–3.65
Oshkosh	Butter & Cheese Market Basis		..	9	10	10	4.0
Racine	2.75	4	38	10	11	11	3.5
Sheboygan Falls	Cheese Market Basis		..	10	11	11	3.3
Superior	2.56*	5	32	10	12	12	3.8–4.0
Wausau	2.05	3	..	8½	10	10	3.8

* Basic prices for fluid milk.

Table IV—September Cost Prices of "Standard Grade Milk" 3.5% B. F. for Cities Where Part of the Supply is Purchased Through Country Stations.

Cities	Prices Paid Producers per cwt. raw Milk (Flat prices of 3.5% B.F. basis)		Freight Zones to Which Country Station Prices Apply
	F. O. B. City	At Country Stations	
New Haven, Conn	$4.22*	$3.70*	28c rate
Washington, D. C	3.14*	2.37*	35c 10 gal. can
Chicago, Ill.	Unavailable	2.50–2.60	All
Baltimore, Md.	3.31*	2.73*	35c rate
Boston, Mass.	3.86*	3.13*	181–200 mile zone
St. Louis, Mo	2.60	2.00	34c rate
Trenton, N. J.	3.06(1.15) 3.41*(16–30)	2.51* 2.86*	41–50 mile zone
Buffalo, N. Y.	2.90*	2.62*	28c rate
New York, N. Y.	Unavailable	3.10*–3.15*	201–210 mile zone (53c rate)
Cleveland, O.	3.20*–3.40*	3.02*–3.09*	All
Philadelphia, Pa.	3.14*-3.17*(1-15) 3.49*-3.52*(16-30	2.57*–2.60* 2.92*–2.95*	51–60 mile zone
Pittsburgh, Pa.	3.45*	2.70*	All
Scranton, Pa.	2.87	2.57	30c rate
Dallas, Texas	2.40	2.00	All

* Basic prices for fluid milk.
NOTE: At all places in the above tables where prices are not shown, the information was either not reported or is not available.

WHAT IS THE LIMIT FOR STEAM PLANTS?

Drs. Mellanby and Kerr of Glasgow have published some interesting figures in the British journal, Engineering, on the possible future performance of steam plants. They conclude that 1,250 pounds per square inch will eventually be the best pressure. Feed water will be heated to 545 degrees F. The maximum temperature of the steam will be 900 degrees F. With a vacuum at 29 inches, and an economizer and boiler efficiency of 90 per cent, assuming that the auxiliaries will consume 3 per cent, their result is 9,875 B.t.u. per kilowatt-hour. This is equivalent to 0.544 pounds of coal per horse-power-hour, on the basis of 13,500 B.t.u. per pound of coal.

Just how a temperature of 900 degrees F. can be safely carried is not explained with sufficient clearness for me to comprehend. But they claim that 900 degrees F. is possible even with modern materials. Most engineers consider 700 degrees F. as the safe limit under present day conditions. In some places 750 degrees is actually being used. After 750 degrees is reached the ultimate strength of steel decreases very rapidly and the elastic limit has decreased about 33⅓ per cent. However, it may be the Drs. Mellanby and Kerr are right as they apparently have done a great deal of experimenting. There is still much to be known about power plant performance under high pressures and temperatures.—W. F. Schaphorst.

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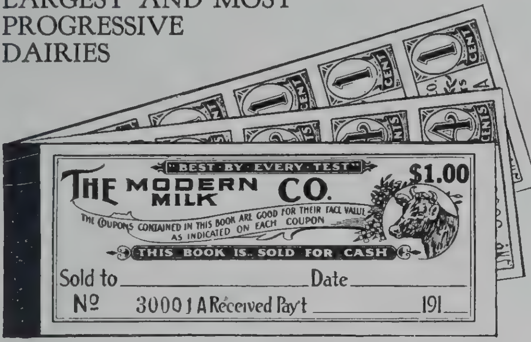
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Every user of a "Cream Line" Pasteurizer has increased his sales at least fifty per cent in less than a year after installation of our equipment. Many have changed from raw to pasteurized milk without their customers knowing of the change.

There must be Good Reason for this. It will pay you to investigate.

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Dependable Boilers

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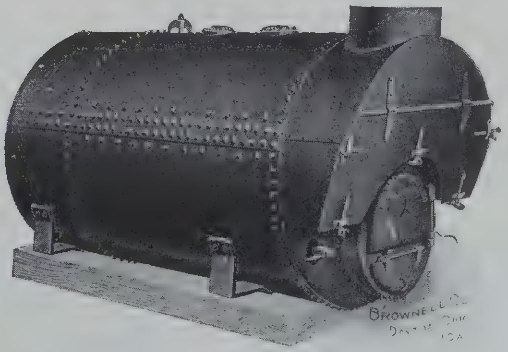

The
BROWNELL COMPANY
DAYTON, OHIO • U • S • A •

A MAN'S WORD.

What is there to this subject of verbal promises in business?

Is a milk dealer under fundamental obligation to keep verbal promises? Is, as a proverb says, "a bad promise better broken than kept?" Some milk dealers have an enviable reputation for keeping their word. Are they more fortunate individuals than others, are they inherently more honest, or what?

Writers of commercial law repeatedly advise business men to reduce all contracts to writing. This is excellent advice, so far as it is practicable, but every commercial business man knows it is impossible to reduce all agreements to writing. Obviously, before a contract can be executed, there must be an agreement to put it in writing. That "meeting of the minds" cannot, in the first place, be put in writing, obviously.

And there are a host of petty agreements, very small affairs, to dignify which with written contracts would make ridiculous the contracting parties.

Confidence is an absolute credential in business. Business men must repeatedly put it in each other, and in most cases this means trust in another's verbal promise.

We believe one policy conducive to kept promises and a high business reputation has been largely overlooked in current literature. That is due care in making promises. The best business man makes promises only as his judgment tells he can live up to them, and that he will be glad to do so. He makes his promises with good judgment, with proper precaution. The logical result is that he can, without inconvenience, keep promises. He does not find himself in situations compelling him to break his word.

A great many light and unnecessary promises are made by men in business. Promising gets to be a bad habit. The victim—for that word is absolutely appropriate—habitualy feels no obligation to fulfillment, and thoughtlessly promises this, promises that, in many cases where it is not necessary to promise or where the impossibility of keeping the promise is apparent as he makes it.

Make promises with caution, looking ahead. Promise only those things you believe you will be glad to fulfill, as you also will be able to fulfill.

Keeping the verbal promise pays as a practice of cold business. Leaving the question of ethics out, every milk dealer should plan to develop through the years a flawless reputation for keeping his personal word. Promises well made are easily kept.

During the Baby Week Council in London, the United Dairies Limited invited the members to attend their Streatham plant. The two gentlemen in the foreground will be recognized by their friends as Messrs. P. B. Tustin and E. A. Evans, who are known to many in this country.

LABORATORY STANDARDIZATION.

There are few localities in which laboratories for milk-control work are not available. Most boards of health in the larger cities maintain such laboratories. These are usually well equipped, and the work is done by a trained personnel. When the size of a milk plant warrants it, a private laboratory is usually organized for the benefit of that particular plant. In addition, many private laboratories are available for the use of the dairy industry.

It happens frequently when these various laboratories are in the same locality that dissatisfaction and misunderstandings arise because of the fact that reports submitted by the different ones upon the same lots of milk vary to a wide degree. This is especially true with reports upon the bacteria count of milk samples. Such a condition may be greatly relieved by co-operation among the various laboratories in standardizing the methods, equipment, and material used in this work.

Great variations in bacteria count are due in part to improper sampling; to differences in the materials, methods and equipment; and to the personal element entering into the counting of the plates.

Obviously, proper sampling is necessary if comparable results are to be obtained by various laboratories upon the same lot of milk. Care should be taken to obtain as nearly identical samples as possible when two or more laboratories are working upon the same milk. The temperature and age of these similar samples should be the same until the samples are plated.

Variations in the composition of the ingredients in the media will cause pronounced variations in the total bacteria count of identical samples. All media used should be of as nearly the same composition as possible. Such a condition may be brought about by using the same brand (and lot) of ingredients and by adjusting the acidity of the media to the same standard.

Standardization of equipment, sterilization, and plating may be easily accomplished without undue effort. Such steps are essential if the bacteria counts obtained by various laboratories are to be compared. The time and temperature for incubation of plates have been standardized. However, such factors should be carefully controlled.

Without adequate instruction and training, two persons will seldom count the same plate in the same manner. In the case of high dilution especially, this error in counting may become serious. Efforts might well be made to overcome this.

The slightest difference in equipment, materials, or methods used may influence to a marked degree the reported bacteria count of the sample. With these facts in mind it is easily understood why two or more laboratories may report quite different results for the same lot of milk. In order to lessen any misunderstandings which may be caused by the nonagreement of reported bacteria counts, it is suggested that various laboratories coming in contact with one another carefully standardize their entire laboratory work as regards bacteriological analysis of milk. Such a movement, if successfully carried out, would react most favorably to all concerned.

The fifteenth annual meeting of the International Association of Dairy and Milk Inspectors will be held at Philadelphia, Pa., October 25-27, 1926. A program has been planned which will be of interest and value to milk inspectors.—Milk Inspector Letter, U. S. Bureau of Dairy Industry.

◆

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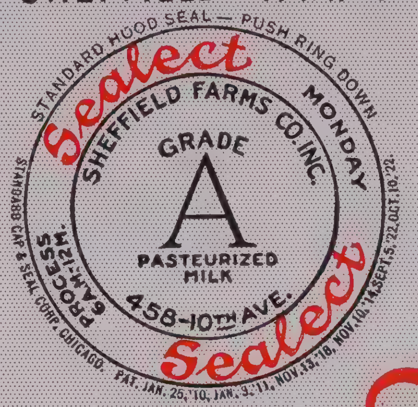
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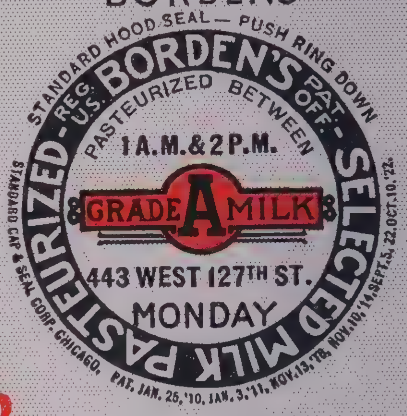
PROCESS 6AM-12M.
Sealect
STANDARD CAP & SEAL CORP. CHICAGO. PAT. JAN. 25,'10, JAN. 3,'11, NOV. 13,'18, NOV. 10,'14, SEPT. 5,'22, OCT. 10,'22.

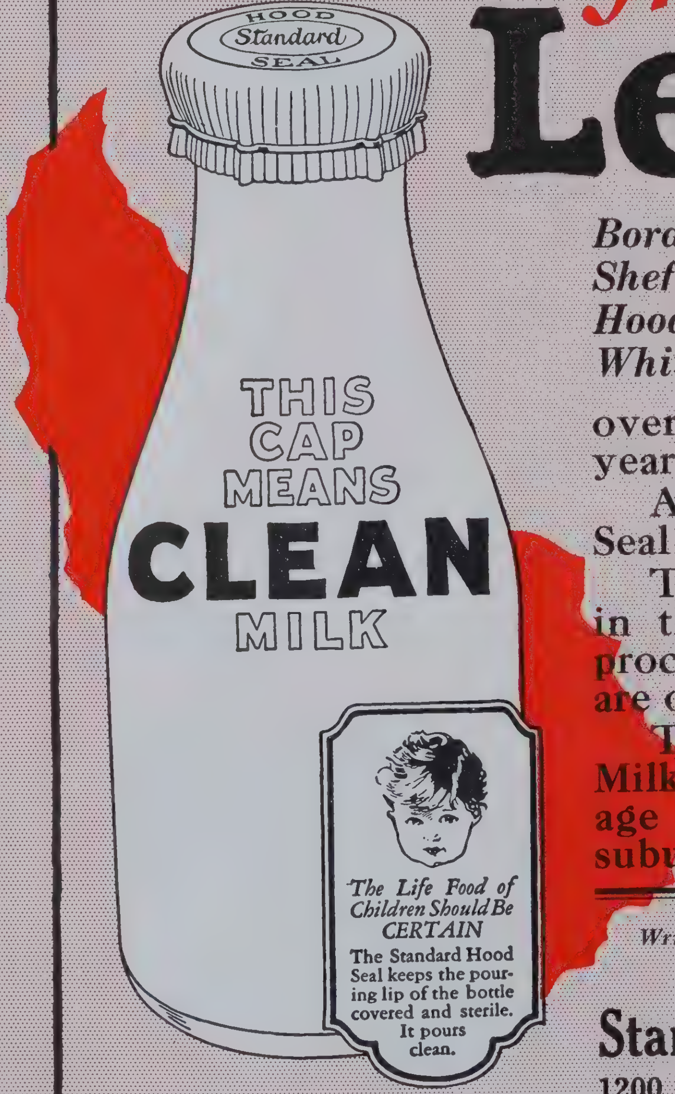
NEW YORK

BORDENS


STANDARD HOOD SEAL — PUSH RING DOWN
REG. U.S. BORDEN'S PAT. OFF.
PASTEURIZED BETWEEN
1 A.M. & 2 P.M.
GRADE A MILK
443 WEST 127TH ST.
MONDAY
PASTEURIZED - SELECTED MILK
STANDARD CAP & SEAL CORP. CHICAGO. PAT. JAN. 25,'10, JAN. 3,'11, NOV. 13,'18, NOV. 10,'14, SEPT. 5,'22, OCT. 10,'22.

NEW YORK

These Leaders


HOOD Standard SEAL
THIS CAP MEANS CLEAN MILK
The Life Food of Children Should Be CERTAIN
The Standard Hood Seal keeps the pouring lip of the bottle covered and sterile. It pours clean.

Borden
Sheffield
Hood
Whiting

Every day of the year these four mammoth milk companies bottle and sell the largest Grade A Milk distribution in the world, over two hundred million bottles a year.

AND—they put a Standard Hood Seal on every bottle of it.

These four are outstanding leaders in the retail milk industry. Their processes, methods and equipment are of the best.

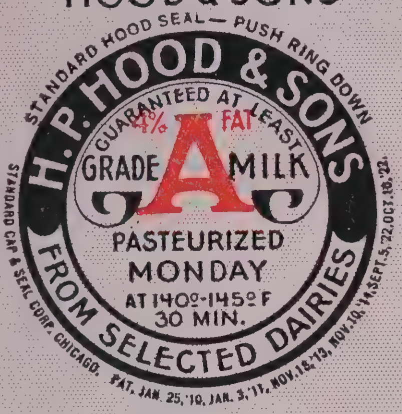
They have been sealing Grade A Milk many years for the best patronage in Boston, and New York and suburbs.

Write for sample Hood Sealed bottle, catalog of sealing machines and prices.

Standard Cap & Seal Corporation
1200 Fullerton Ave. Chicago

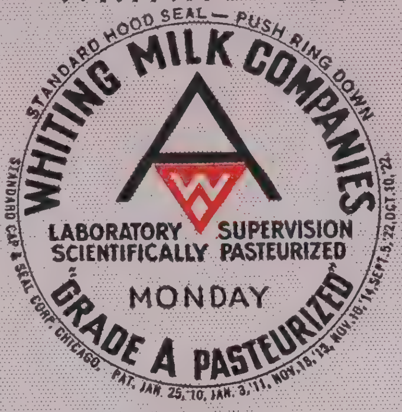
STANDARD

HOOD & SONS


STANDARD HOOD SEAL — PUSH RING DOWN
H. P. HOOD & SONS
GUARANTEED AT LEAST
4% FAT
GRADE A MILK
PASTEURIZED
MONDAY
AT 140°-145° F
30 MIN.
FROM SELECTED DAIRIES
STANDARD CAP & SEAL CORP. CHICAGO. PAT. JAN. 25,'10, JAN. 3,'11, NOV. 18,'13, NOV. 10,'14, SEPT. 5,'22, OCT. 10,'22.

BOSTON

WHITING COS.


STANDARD HOOD SEAL — PUSH RING DOWN
WHITING MILK COMPANIES
A W
LABORATORY SUPERVISION
SCIENTIFICALLY PASTEURIZED
MONDAY
"GRADE A PASTEURIZED"
STANDARD CAP & SEAL CORP. CHICAGO. PAT. JAN. 25,'10, JAN. 3,'11, NOV. 18,'13, NOV. 10,'14, SEPT. 5,'22, OCT. 10,'22.

BOSTON

Know

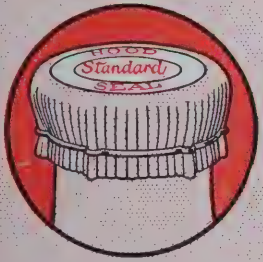
They know all about all of the different ways of sealing milk bottles.

They all have adopted Standard Hood Seals because they must have a non-replaceable seal, because they must have a seal that will stay on the bottle thru delivery no matter how roughly handled.

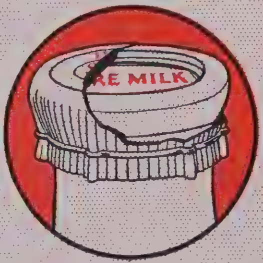
These leading dairies have adopted Standard Hood Seal only because it does a better job and for the same reason their patrons prefer them.

You can safely rely upon the judgement and experience of these world-leading distributors.

Their experience and preference should settle the sealing problem for every dairyman who is at all interested in what is best—what the leaders are using.


HOOD
Standard
SEAL

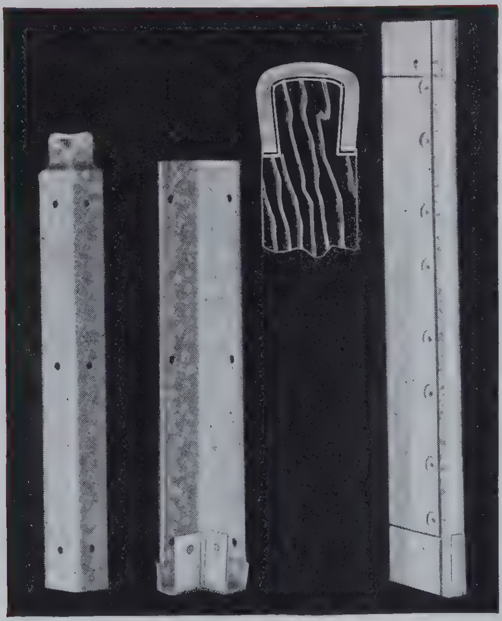
A metal sealing ring, locked on the hood at the time of bottling provides a non-replaceable seal which positively prevents tampering.



The hood goes on over the inner disc, covering the pouring lip, making a double seal. The inner disc cap is a necessary feature of any proper closure for milk because its clean, sterile surface comes in direct contact with the milk.

HOOD SEAL

TRIED and



Better Construction with Fewer Parts

Proved

by RE-ORDERS and the past record of buyers for their conservatism and discrimination.

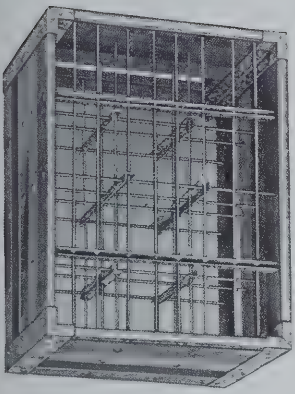
Showing the single piece stacking iron and inside corner support and how the outside corner folds under and locks on the inside giving full protection of the bottom corner from the stacking iron below. The bottom runner also gives complete protection for a full half inch up the inside and outside of the slat. The lower slat is dovetail in shape on the bottom and the runner slides over making a snug fit that won't come off. This avoids the use of any other means of fastening it that might loosen and impede the progress of the case over conveyors, slides or wagon boxes. The fold in corners of the outside corner iron make a smooth finish and absolutely prevent the runner from loosening. The slats are also rabitted near the ends to take a right angled fold of the outside corner iron. This prevents the cases from "weaving" when stacked high.

Every feature of design, construction and selection of material has but a single purpose

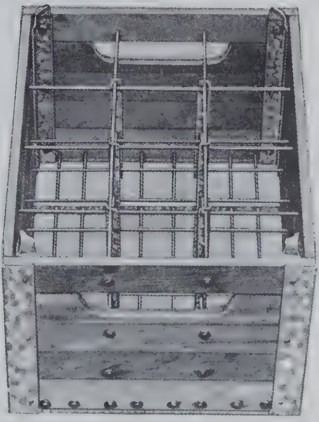
"years of steady service"

G. H. TENNANT CO.,

FOUND RIGHT



Armor Klad Bottle Cases



Made in many styles, yet all standard in size to facilitate stacking and avoid lost storage space. All cases come with metal bottom runner as "regular equipment." The dividing wires are well supported by channel irons on the bottom and the uprights provide extra stiffening and prevent shift of the wires.

Some Excellent Territory is Still Available for Reputable Jobbers

LET US SEND YOU
A SAMPLE FOR
INSPECTION

Minneapolis, Minn.

Get the Facts Before Advertising

Put the Grease Where the Squeak Is for the Best Results

DO YOU believe in oiling your entire automobile when a squeak develops in a certain spot? Or do you believe in locating the squeak and oiling only it, thus saving oil that would, in the other case, be needlessly wasted? Something of the same theory and practice can profitably be practiced by milk dealers who are attempting to increase and build their business through the assistance of employment of advertising.

Trained surveyors, during the past few years, have conducted surveys to ascertain the facts as to why women in their homes buy any milk at all, and why they buy a certain kind or brand or from a particular firm. Would it not be interesting and valuable to you if you could know what the **buying motives** of the women in your city are? If you knew these, you could accurately check up with your selling arguments. Why does this woman buy milk from you? And why does another buy from your competitor? We know that the shrewd sales manager succeeds in direct proportion to his accuracy in gauging the buying motives of his customers and prospective customers.

The surveys which have been completed have investigated the reasons women have for changing dairies, as well as ascertaining the comparative importance of service, driver, quality of milk products, etc. It is usually an "eye opener" when the reasons the housewife changes dairies and brands of milk is found.

Advertising should tell facts, and facts should be sold. If this is the case, then a disinterested survey is the thing that will bring to light the important phases of the situation, enabling the dairy company to secure definite and profitable results from the knowledge they have gained. First, the surveyor must gain the housewife's confidence for, without this, his results will not be true, his information will be "colored," and his time spent for naught. He does not get the facts.

For instance, to show how far astray some of the advertising which is being conducted is going, a recent survey for one of the largest dairies found an expenditure of many thousands of dollars being made for the purpose of counteracting advertising of a "competitor." The survey showed the facts. The "competitor" was not, in fact, at all a competitor and the money should have been spent on an educational campaign telling the truth and facts about the value of "fresh milk in bottles," what it will do for those who drink it, its healthfulness, its actual necessity in the diet of young and old. The consumption of fresh milk in the city in which this survey was conducted amounted to only one-half pint per capita and 60 per cent of the homes were using condensed milk.

Still, many dairies continue to go after these imaginary conditions when getting the facts before advertising would save the oil that is wasted in lubricating the entire machine for a single squeak. This is really the first step toward efficiency in advertising.

Each and every kind of advertising which a dairy may do has its own and important function. Newspapers do certain very definite things, and should be used for those things, rather than for the things they will not and cannot accomplish. The same holds equally true for billboards, direct, home-bound pieces of literature, wholesale displays and all other forms of advertising.

Buying motives are the dominating facts in the growth of any milk business and any campaign that does not start with the fact-finding survey wastes both time and money. One of the revealing, or "tell-tale" questions being asked, gives surprising results. Here is the question: Where have you seen fresh milk advertised? Another revealing question is: What do you remember about the advertising you have seen?

We are not going to stop advertising, but we are going to put dairy advertisers on a more definite basis and we plan to do certain, definite things that advertisers have a right to expect. We need more purpose and more facts in our advertising, whether the problem is the need of a spread of the truth about pasteurizing, or less milk agitation, or good will, or a better sample product.

Some of these surveys have demonstrated that the greatest, strongest competitors of a dairy were not the other dairies in the same city, but they have shown that the dairies have a common need and interest in a forward-looking program pushing milk and what milk will do. This can be "put-over" in a large program conducted by a united, consolidated effort and program by all dairies.

⁂

NEWS FROM FAR AND NEAR.

Atlantic City, N. J.—Supplee-Wills-Jones Co. has installed a very large type bottle washer in its shore plant.

Atlantic City, N. J.—Abbott's Alderney Dairy Co. now receives much of its seashore milk supply from central Pennsylvania. The milk is shipped in glass-lined tank railroad cars direct to Abbott's siding.

Delanco, N. J.—Joseph W. Kemble has discontinued pasteurizing and bottling milk, now receiving his supply from Borden Estate, Burlington, N. J.

Haddonfield, N. J.—Albert Munn has installed a mechanical refrigerating outfit in his pasteurizing plant.

Hoboken, N. J.—I. B. Rothstein and Mr. Neuschtat have taken control of the Vineland Products Cheese Co. on Clinton Street.

Lakewood, N. J.—Frazee Brothers have installed a batch pasteurizer in their milk depot.

Paterson, N. J.—Samuel Vermeulen has just installed a batch pasteurizer at his plant on Gillies Street, Clifton, N. J.

Riverside, N. J.—W. Joseph Cook has retired from the milk business, having sold his "good-will" to H. V. Bishop.

Weehawken, N. J.—Nathan Axelroad has given up the business of sour cream and cheese manufacturing.

Woodbury, N. J.—A. G. Cramer has installed several glass-lined vat pasteurizers to replace his old continuous-flow pasteurizer. Several other improvements have been made in his plant.

Michigan City, Ind.—The Triangle Dairy Co., with capital of $15,000, was recently incorporated with John Schmauz, Herman E. Leverenz and Samuel P. Boonstra.

Madison, Wis.—Mandt Dairy Co. was incorporated with $20,000 capital. Incorporators are L. O. Mandt, M. C. Mandt and W. R. Mandt.

Philadelphia, Pa.—Scott-Powell Dairies, Inc., is planning to erect for its Stenton Park branch a two-story and basement structure, 145 by 84 feet.

Fargo, N. D.—The Acme Dairy Co., 701 13th St., is building an addition to its plant.

Cambria, Wis.—The Cambria Dairy Products Mfg. Co., capital $12,000, was incorporated with Charles W. Wainke, Wm. R. Wainke and E. W. Buntrock. The firm will manufacture ice cream, cheese, butter, etc.

SPECIALTY BRASS COMPANY

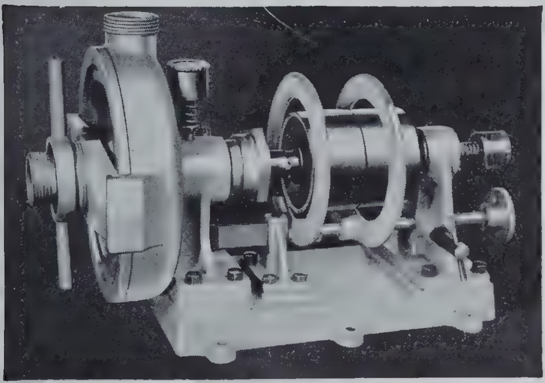
Nofome

KENOSHA, WIS. ALBION, N.Y.

PUMPS

Protect Your Products

Because



This pump is made with a view of being absolutely sanitary. All surfaces coming in contact with the milk, being of bronze, tinned, finished smooth, and very accessible for cleaning.

Regardless of elevation or speed—"No Foam."

Constructed so that it will handle milk or cream with the least possible agitation.

Perfectly balanced—all parts completely machined.

Milk passes through the impeller housing, but the vanes do not pass through the milk, which prevents churning and injury to the cream line.

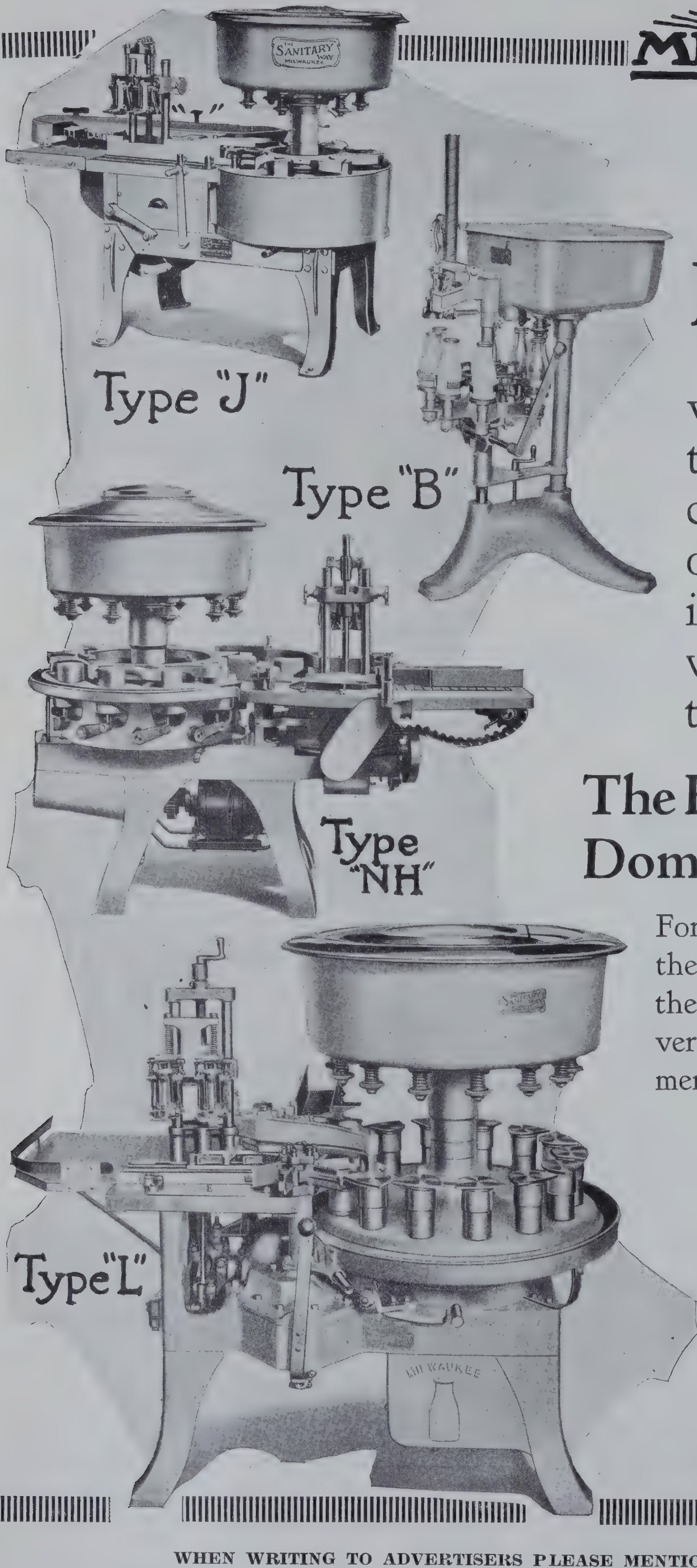
No foam because no air can enter the pump from shaft bearing, nor grease from the same source.

This pump is so constructed that there is pressure on the packing instead of suction.

No churning, because the enclosed impeller carries the milk to full peripheral speed without the vanes passing through the milk.

SPECIALTY BRASS CO.

KENOSHA, WIS. **ALBION, N. Y.**



MILWAUKEE

At the Dairy Show,

whichever way one turned—there were a dozen places entirely outside our own exhibit where Milwaukees were on demonstration—

The Fact of Milwaukee's Dominance Was Plain

For the man who uses them, there is a distinct satisfaction in the continued proof of the universal acceptance of the equipment he employs.

Our 6 Pamphlets: "Stages in the Construction of a Milwaukee," ***explain the reasons.***

Have You Been Receiving Yours? If not, drop us a line.

Milwaukee Dairy Supply
Mfg. Co.
Milwaukee, Wis.

WHAT A LABORATORY DID FOR ONE MILK COMPANY.

(Continued from page 32)

after filtering, 40 per cent decreased, and 10 per cent remained the same.

The reduction in count due to pasteurization varied between 97.0 and 99.9 per cent, with an average reduction of 99.3 per cent each year. Pasteurization was practically as effective one year as in the next, but since the original count of the raw milk was higher in the first two years and with the per cent of reduction the same, the counts of the pasteurized milk would naturally be higher in 1923 than in 1924, and lower in 1925 than in 1924 or 1923.

Samples taken during the month of January, 1924, brought forth the fact that the percentage reduction was lower than during the summer months, even though the original count in the raw milk was much lower. The raw milk count averaged 1,200,000 with the limits between 250,000 and 5,000,000. The pasteurized milk counts averaged 67,000, with a variation of 18,000 to 260,000. The percentage reduction averaged 88.8 per cent, with a range of 65.3 to 99.6 per cent. One sample with a count of 750,000 in the raw milk yielded a count of 260,000 after pasteurization, or a reduction of 65.3 per cent. It must be recognized that during the winter months we may expect the reduction in count through pasteurization to be lower than during the summer season because of the different types of bacteria present. In the warmer weather, the growth of bacteria is active and while high counts in the raw milk may be found, the types of bacteria present are much less resistant to heat. The bacteria in the winter milk are much more apt to be resistant forms which fact may explain the lowered "efficiency."

The figures on general plant efficiency, including searches for contamination from coolers, supply tanks, bottlers, and bottles, are so numerous that it is impractical to present them here. In going over these figures, however, it is evident that contamination is decreased with the continued vigilance of bacteriological control, 1925 being much more satisfactory in this respect than either of the preceding years.

A contemplation of the significance of these results of a part-time laboratory control of a milk supply must lead one to recognize the value of this enterprise. It may suggest an adoption of the practice of engaging a student for similar work in many plants during the summer vacations, the months when difficulties in the milk supply are most prevalent. This opportunity offers the milk company a chance to know just what the milk really is, from the standpoint of bacterial content, and to regulate plant operations to provide a low count milk for distribution. Furthermore, by taking a young man into the plant for these few months, a great deal has been done to train the future dairymen in a practical way, to supplement their scientific and fundamental information which a college has given them. Neither can stand alone. The two together, theory and practice, are going to make real contributions to the dairy industry.

This demonstration of the value of a summer labora-ory service leads beyond this point. It has proven worthwhile to this company and it will to others, but it should open, afresh, in the minds of many plant owners he possibility of a full-time, year-round laboratory servce to safeguard the good name of the organization and o prove itself an actual economy, yielding good returns n dollars and cents beyond the cost of maintenance.

NAPACANS
FOR
COTTAGE CHEESE

MANUFACTURED BY
W.C.RITCHIE & COMPANY
831 W. VAN BUREN ST.
CHICAGO, ILL.
Page's
COTTAGE CHEESE
THE PAGE DAIRY CO.
TOLEDO — OHIO

THE PRACTICAL STERILIZATION OF MILK BOTTLES BY CHEMICAL DISINFECTION.

(Continued from page 20)

Table 1—B. The Effect of the Concentrations of Sodium Hydroxide and Sodium Carbonate at Various Temperatures upon the Viability of B. coli.

			Concentrations of Solutions					
Time	Temp. of Solution	Water Control	1% NaOH 1% NaCO	2% NaOH 1% NaCO	3% NaOH 1% NaCO	4% NaOH 1% NaCO	5% NaOH 1% NaCO	6% NaOH 1% NaCO
2 Mins.	72° F.	X	X	X	X	X	X	—
4 Mins.		X	X	X	X	X	X	—
6 Mins.		X	X	X	X	X	X	—
8 Mins.		X	X	X	X	X	—	—
10 Mins.		X	X	X	X	X	—	—
12 Mins.		X	X	X	X	—	—	—
2 Mins.	100° F.	X	—	—	—	—	—	—
4 Mins.		X	—	—	—	—	—	—
6 Mins.		X	—	—	—	—	—	—
2 Mins.	125° F.	X	—	—	—	—	—	—
4 Mins.		X	—	—	—	—	—	—
		Water Control	1% NaOH 2% NaCO	2% NaOH 2% NaCO	3% NaOH 2% NaCO	4% NaOH 2% NaCO	5% NaOH 2% NaCO	6% NaOH 2% NaCO
2 Mins.	72° F.	X	X	X	X	X	X	—
4 Mins.		X	X	X	X	—	—	—
6 Mins.		X	X	X	X	—	—	—
8 Mins.		X	X	X	X	—	—	—
10 Mins.		X	X	X	—	—	—	—
12 Mins.		X	—	—	—	—	—	—
2 Mins.	100° F.	X	—	—	—	—	—	—
4 Mins.		X	—	—	—	—	—	—
6 Mins.		X	—	—	—	—	—	—
2 Mins.	125° F.	X	—	—	—	—	—	—
4 Mins.		X	—	—	—	—	—	—

(X) = growth (—) = no growth

In the use of cleaning compounds they should always be used in hot solutions in automatic bottle cleaners. It is evident that inasmuch as the germicidal action of the alkalies is due to the chemical action on the cell protoplasm, any increase in the temperature of the solution will have a marked increase on its disinfecting properties. This fact was strikingly illustrated in experiments with various concentrations of sodium hydroxide and sodium carbonate using B. coli as the test organism, the results of which are given in Table 1.

Another fact that is indicated by the data given in Table I is that sodium carbonate used alone is not as efficient as sodium hydroxide used alone or in combination with sodium carbonate. Curiously the combination of sodium hydroxide and sodium carbonate does not appear germicidally as efficient at the 72 degrees F. exposure as sodium hydroxide alone but at the 100 degrees F. exposure these two alkalies used together are more efficient than caustic soda or soda ash used alone.

The experiments with B. coli may be considered as representative of the probable results with most non-spore forming pathogens. B. coli survives in a wider range of acids and alkalies than many other bacteria. The thermal death-point of the particular strain of bovine B. coli used in these experiments was found to be 140 degrees F. for 12 minutes. The thermal death-point of B. diphtheria which has about the average resistance of the non-spore bearing bacteria to disinfectants, is about 140 degrees F. for 10 minutes, or 158 degrees F. for five minutes.

It is obvious that the method outlined is highly efficient in destroying the organisms usually encountered in milk. On the other hand, it is well to know that the tubercle bacillus is resistant to alkalies. Through the courtesy of Dr. W. H. Park, director of New York City Bureau of Laboratories, I was able to obtain data on this point.

As a result of his tests, Dr. Park informs me that the tubercle bacillus will resist four per cent NaOH for four minutes at a temperature of 140 degrees F. When the temperature is increased to 155 degrees F. for two minutes or 160 degrees F. for one minute, the bacillus is killed. It is apparent that the method outlined fully meets these requirements since the bottles are held in the second soaking tank containing four per cent NaOH at a temperature of 160 degrees F. for four minutes, thus insuring the destruction of tubercle bacilli.

Summary.

The practical sterilization of milk bottles by chemical disinfection has been studied. A method of chemical disinfection involving the use of an automatic bottle cleaner has proven equally as safe as the additional sterilization of milk bottles by the autoclave with its attendant practical necessity of bottle storage permitting some air contamination before their use.

The best method of chemical disinfection consisted in the use of an automatic bottle cleaner with three soaking compartments containing detergent solutions with alkalinities of 4 and 4.5 per cent as NaOH in the first two compartments and clean water in the third with temperatures of 120 degrees F., 160 degrees F. and 120 degrees F., respectively. The operation of the unit was so timed as to provide exposures of four minutes duration in each of the three soaking compartments. This process killed all B. coli and provided for the maintenance of proper caustic strength of detergent solutions during the cleansing of approximately 15,000 milk bottles.

From a number of tests, it was determined that a solution of 5 per cent NaOH at a temperature of 100 degrees F. would destroy B. coli of bovine origin within two minutes. Sodium carbonate is not as efficient germicidally as sodium hydroxide used alone or in combination with sodium carbonate.

Sodium hydroxide is not effective in the destruction of tubercle bacilli. The temperature factor of 160 degrees F. for four minutes as used in the second soaking compartment of the cleaner provides for the destruction of any tubercle bacilli exposed to the cleaning operations.

Bibliography.

(1) Rideal, Samuel, "Disinfection and the Sterilization of Food," 1903.
(2) Park & Williams, "Pathogenic Micro-organisms," 1920.
(3) Hamilton, H. J., Bacteriologists—Park, Davis & Co., Jan. 25, 1922.
(4) Williams, A. D., Chemist—Thatcher Mfg. Co., Jan. 12, 1926.

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HOW ABOUT IT?

Montreal, Canada, Sept. 11, 1926.

Editor The Milk Dealer:
Attention Mr. Roy K. Moulton:
Dear Sir:

In your Milk of Human Unkindness you mention the Vegetarians' Union ukase against milk: "Anyone who indulges in quantities of milk develops the brains and mentality of a cow."

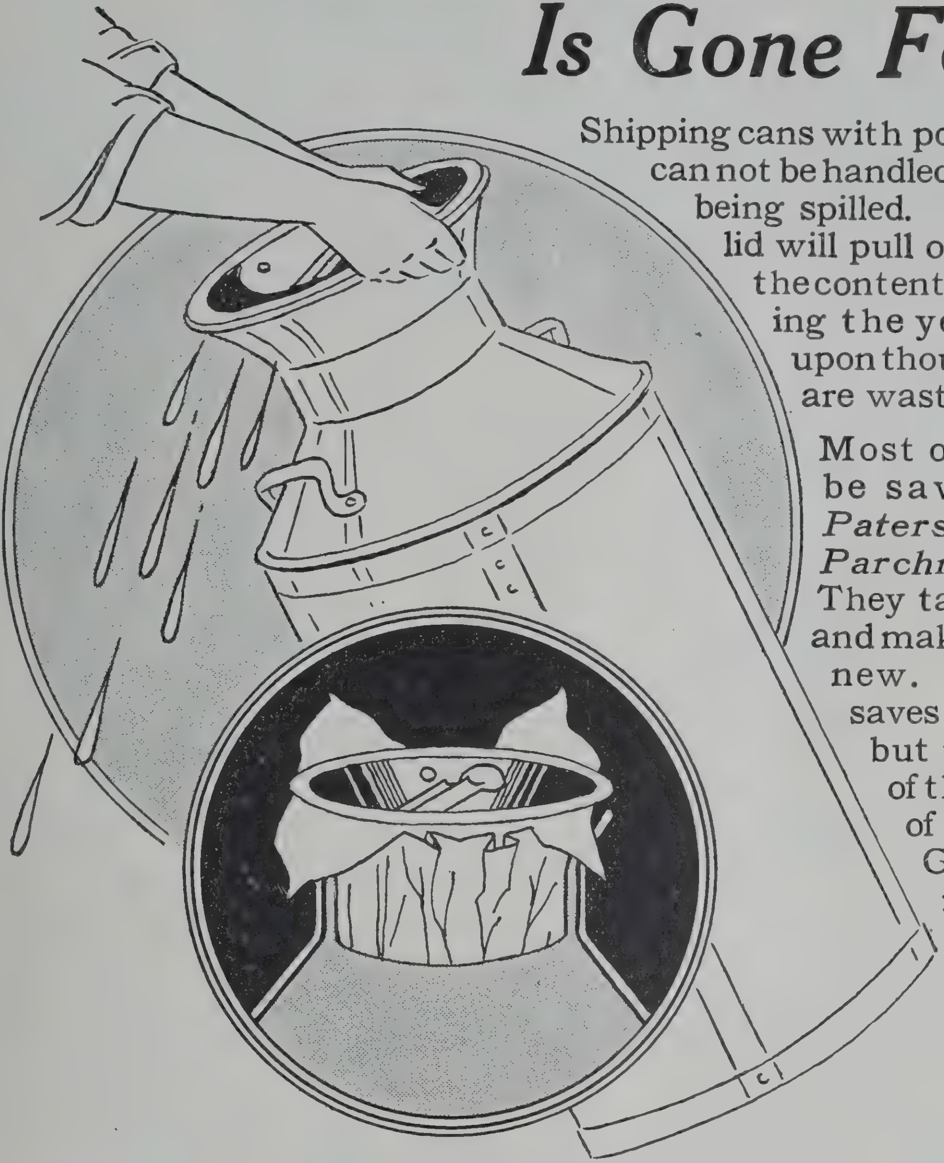
I wish to ask those gentlemen if anyone of them who indulges in fruits and vegetables develops the brains and mentality of a cocoanut or a watermelon?

To me this attack against cows has a weedy flavor.

Yours very truly,

A. D. MOLDAVAN, Laboratories,
Guaranteed Pure Milk Co., Montreal.

Cream Lost Here—Is Gone Forever



Shipping cans with poorly fitting lids can not be handled without cream being spilled. Frequently a lid will pull out and most of the contents are lost. During the year thousands upon thousands of dollars are wasted.

Most of this loss can be saved by using *Paterson Vegetable Parchment Gaskets.* They take up the slack and make all lids fit like new. This not only saves milk and cream but prolongs the life of the can. The cost of the Parchment Gasket is nothing compared to what it saves. That's why millions are used every year.

Special Offer

Send us One Dollar in coin, stamps, check or Money Order and we will send you, Postage paid, 250 Parchment Milk Can Gaskets made from heavy fifty pound stock cut to standard size 11″ x 11″. If you are not satisfied that their constant use will save you money, the amount you paid us will be cheerfully refunded.

The Paterson Parchment Paper Co.

Chicago San Francisco

Passaic :-: New Jersey

You can save money, too!

You may handle only a few cans a day, or week, or you may handle hundreds. But in either case Parchment Gaskets will save many times their cost. Fill out the coupon below and send for the free samples and instructions how to use them.

THE PATERSON PARCHMENT PAPER CO.
35 Eighth Street, Passaic, N. J.

Gentlemen:

Please send us free samples of Paterson Vegetable Parchment Milk Can Gaskets and leaflet called "Making Milk Shipments Pay".

We handle about.................................cans of milk cream a day.

....

....

....

Milk Men as Sales Representatives

Evolution of the Milk Delivery Man—Now a Sales Representative in Many a Modern Milk Concern. Are You Satisfied to Have Your Men Deliver Only Milk?

AMONG many progressive and up-to-date dairies, the place of the old-time milkman, clad in overalls often not overly clean, has been taken by an alert and business-like fellow, whose position is much more than that of a mere delivery man. He has become his employer's trusted sales representative.

This small revolution in a big industry has not been sudden. It took time, as all such changes do. The desire to transform a delivery system, by combining salesmanship with it, could not be had simply for the wish, nor be perfected overnight. In fact, transition from the old way to the new is not yet complete. No uniform method of training drivers to be salesmen has been developed. Various plans are being used. Some are systematic. Others are more or less on the hit-or-miss order. But, for all that, the tendency to combine salesmanship with delivery work, and to adopt some method of training the drivers, is becoming general in the dairy industry.

A study of the methods used in training drivers as salesmen was recently undertaken by the Metropolitan Life Insurance Company, under the direction of Henry Bruere, third vice president, in charge of the Policyholders' Service Bureau, which provides a special service for the company's group insurance policyholders. A short questionnaire was sent to a large number of dairy concerns, and, from replies received, a mass of informative data was obtained.

It was learned from these sources of information that some of the dairy companies conduct training schools for their drivers, in order to teach them the principles of salesmanship. Others hold sales contests and stage demonstration sales campaigns, all with the same purpose in view, while frequently literature on the dairy business in general and salesmanship in particular are distributed to the embryonic salesmen.

For good work done in securing new business some of the companies have installed bonus systems; others pay their driver-salesmen on a salary-commission basis, while a Massachusetts company has held a sales contest with money and merchandise premiums awarded the successful competitors.

In discussing his company's "driver salesman" policy, Franklin G. Cover, personnel director for Borden's Farm Products Company, Inc., says that the bulk of solicitation of new accounts is accomplished directly by the company's route salesman, or wagon drivers. He says his company recently opened a training school for route salesmen that all applicants for such positions must receive instruction there.

"The topics taught," he said, "are as follows: A comprehensive course of instruction on our products, detailing specifically all routine connected with milk from the time it is drawn from the cow until it is ready for delivery at the customer's door. A knowledge of the composition of milk, the food values, differences between the various grades of milk and cream, pasteurization, care of products, transportation, health department regulations and sanitation.

"Under the heading of service are taught the proper methods of handling the products after pasteurization, icing, loading, delivery and method of serving customers in various types of houses, collection of bottles and traffic regulations.

The instruction in salesmanship, Mr. Cover said, includes the following:

Brief information on points in salesmanship, slightly touching upon the science of the subject and particularly stressing the company's policies in regard to the desired relationship between salesmen and the consuming public. This subject is subdivided into several parts touching upon the various stages of a canvass, requirements in regard to the sales talks on company products, solicitation methods, handling competition and personal appearance.

"Our route salesmen," Mr. Cover said, "secure all commissions paid on the sale, whether the original order is taken by the salesman himself or by a special canvasser.

"While our training school is only in its infancy, we have confidence in the good which may be obtained from training our driver salesmen. We believe through this medium we will be able to give a standardized set of instructions to all incoming salesmen. Previous to the installation of the instruction system, the company policies, rules and regulations were taught by many foremen instructors. This made it possible for our salesmen to receive varied types of instruction. We believe that the instruction course will result in even better service to our customers, a more efficient personnel in serving the wants of the public and a better knowledge of company standards by our salesmen."

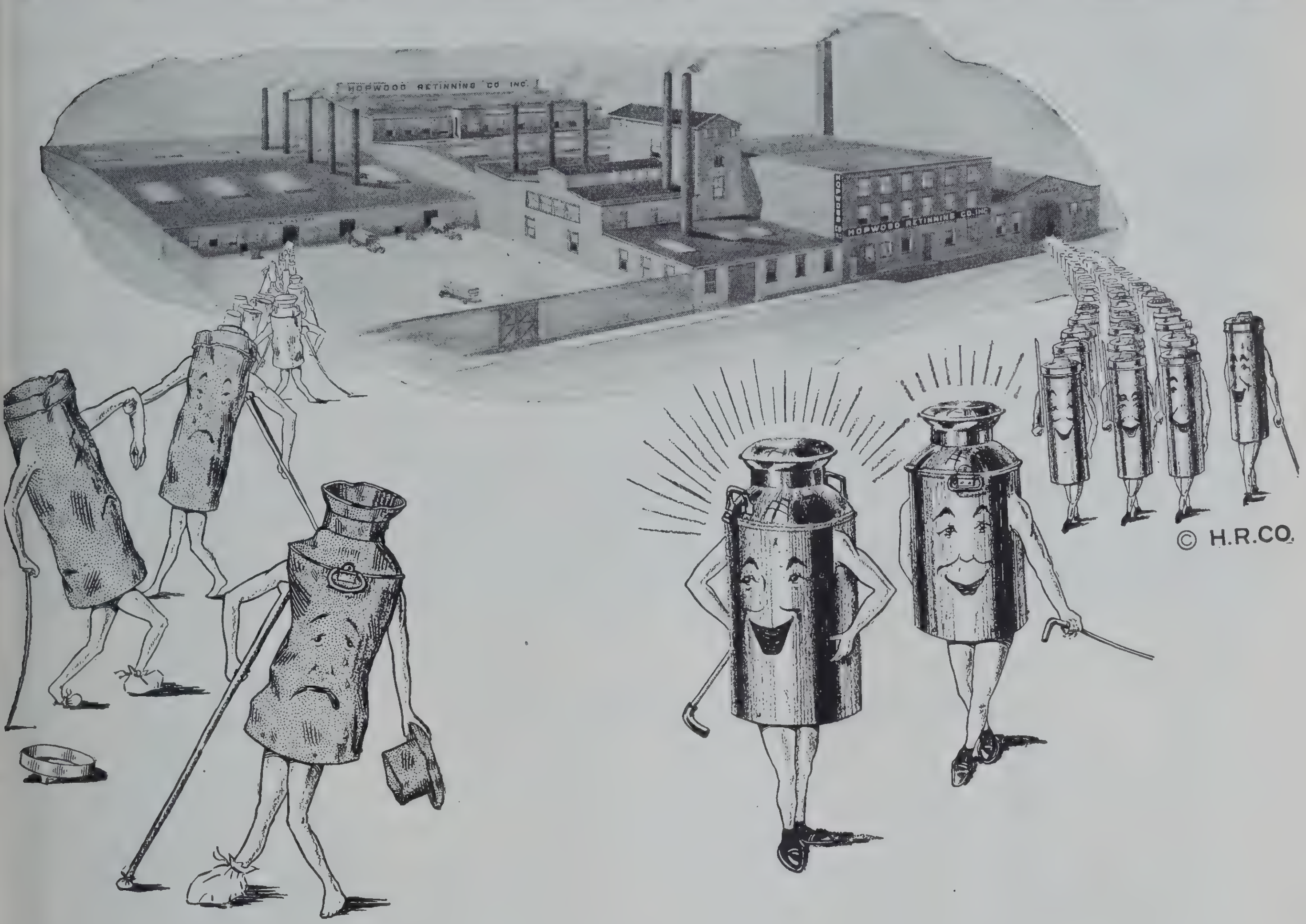
An interesting and novel view of the driver-salesman plan is taken by a Pennsylvania company. While explaining it adopted the policy of using its drivers as salesmen exclusively and for more than three years has given them a full course of salesmanship instruction, it feels that "the use of a driver as a high pressure salesman is absurd, as he has a full day's work to do before he can get around to do any soliciting, at which time his mind and body are fatigued.

"We believe that it is essential to have a knowledge of salesmanship to make them realize their importance in the industry, but the best trade getters are the efforts of the men to give service and sell themselves to their present customers, who will become salesmen to their neighbors.

This same company, however, specifically states the belief that "any money to be spent for solicitation of new business should accrue to the interest of the man on the daily job," and adds that it has "standing prizes for monthly gains, with special drives and prizes on occasions."

One of the largest of the New York City dairy companies gives practically entire credit to its routemen or route salesmen for the growth of business on their routes. Each routeman receives special instruction for a period of from five to ten days, a portion of which relates to salesmanship. The latter varies according to the ideas of the foreman giving the instruction.

A milk company located in northern New York is so impressed with the importance of wagon men as col-


HOPWOOD RETINNING CO. INC.
HOPWOOD RETINNING CO. INC.
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Ship Your Cans to Us For Retinning!

High Quality and Quick Service

AT THE RIGHT PRICE!

[We Have Been Connected with the Manufacture and Remanufacture of Milk Cans and Ice Cream Cans Since **1898**]

Hopwood Retinning Co.

(INCORPORATED)

MAIN OFFICE:
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FACTORIES:
52-64 Commercial Street
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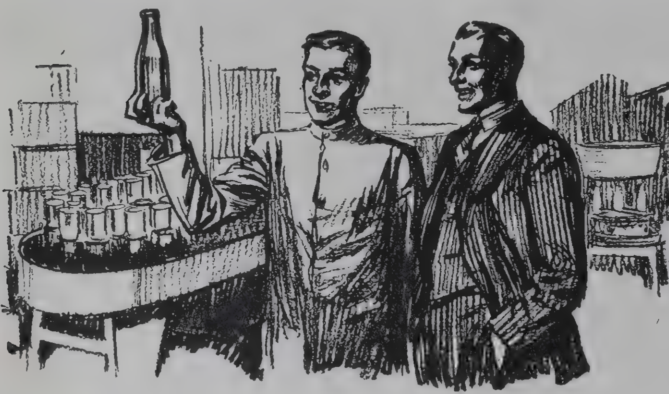

Cleaning bottles clear as crystal

Oakite Service Men, cleaning specialists, are located at......

Albany
Allentown, Pa.
*Atlanta, Ga.
Baltimore
*Boston
Bridgeport
*Brooklyn
Buffalo
Camden
Charlotte, N. C.
*Chicago
*Cincinnati
*Cleveland
*Columbus, O.
*Dallas
*Davenport
*Dayton
*Denver
*Des Moines
*Detroit
Erie
Flint, Mich.
*Grand Rapids
Harrisburg
Hartford
*Indianapolis
Jacksonville, Fla.
*Kansas City
*Los Angeles
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Newark
Newburgh, N. Y.
New Haven
*New York
*Oakland, Cal.
Philadelphia
*Pittsburgh
Portland, Me.
*Portland, Ore.
Providence
Reading
*Rochester
Rockford
Rock Island
*San Francisco
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*St. Louis
Springfield, Ill.
Syracuse
*Toledo
*Toronto
*Tulsa, Okla.
Utica
*Vancouver, B. C.
Williamsport, Pa.
Worcester

**Stocks of Oakite materials are carried in these cities.*

SPARKLING cleanliness! Brilliant lustre! That's what you get when bottles are washed the Oakite way. They not only look clean. They are CLEAN!

Gone is every last bit of dirt, casein,—every trace of dingy film. And the best part of it is that Oakite cleans QUICKER AND CHEAPER than any other material obtainable. Not only bottles, but also cans, separators, pasteurizers, and all other equipment in the milk plant.

Write for our booklet "Oakite Cleaning Materials and Methods in Dairies and Milk Plants." Get the facts about Oakite and its remarkable detergent properties. It will PAY you to do so as it has paid over 18,000 Oakite users. No obligation.

OAKITE
TRADE MARK REG U S PAT OFF
Industrial Cleaning Materials and Methods
OAKITE IS MANUFACTURED BY OAKLEY CHEMICAL CO.
30B THAMES ST., NEW YORK, N.Y.

lectors and salesmen that it recommends discontinuance of the term of "driver". "We do not term or designate the men on our wagon as drivers, as they have to be much more than that", it was explained by an official of the company. "They have to be salesmen and collectors, as well as careful and courteous delivery men." This company is also one of those providing systematic instructions for its wagon men, who are trained under the tutelage of foremen.

One of the New England dairies gives emphatic recognition of the driver-salesman problem, declaring it among the most important now confronting the dairy industry. It has given the question much thought and devised various expedients to increase the interest of route salesmen in their work, for the company has completely discarded the designation of "driver."

"The man who operates one of our wagons successfully must be four-fifths salesman and one-fifth peddler," it was explained. "He does his own collecting and receives 11 per cent commission on all his sales; he does his own bookkeeping and keeps a record of his sales.

"We hold weekly meetings of our route salesmen to keep them on the move for new business. We hold a luncheon about every three months at which we have some outside speakers.

"I think that it is absolutely essential for the greatest success in this business to have men who are not drivers but salesmen. The man must first like the work and be able to get out of bed in the morning; there are few among them who have any real training in salesmanship. We try to give this training in a small way."

⁂

PRICE CUTTING—ARE YOU GUILTY?

The price-cutter is worse than a criminal. He is a fool. He not only pulls down the standing of his goods; he not only pulls down his competitors; he pulls down himself and his whole trade. He scuttles the ship in which he, himself, is afloat.

Nothing is so easy as to cut prices; and nothing is so hard as to get them back when once they have been pulled down.

Any child can throw a glass of water on the floor, but all the wisest scientists in the world can't pick that water up.

Who gets the benefit of price-cutting?

Nobody.

The man who sells makes no net profit; and the man who buys soon finds himself getting an inferior article.

No manufacturer can permanently keep up the standard of his goods if the price is persistently cut. Pretty soon he is compelled to use cheaper materials, and to cut down the wages of his workers.

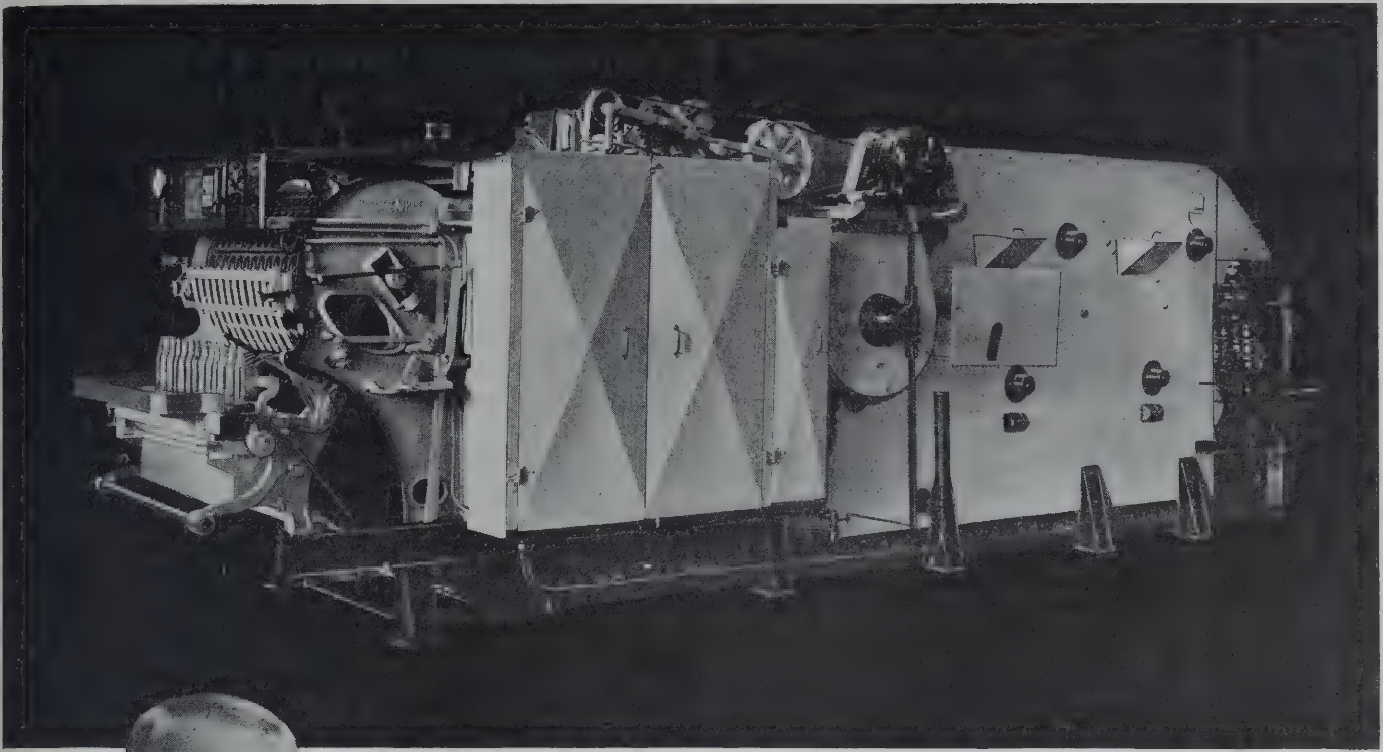
The man who cuts prices puts up the sign: "This way to the junk heap."

He admits his own failure as a salesman. He admits he has been defeated according to the Marquis of Queensbury rules of business. He admits he cannot win by fighting fair.

He brands himself as a hitter-below-the-belt.

If the business world were dominated by price-cutters, there would be no business at all.

Price-cutting, in fact, is not business any more than smallpox is health.—Ex.



Mr. Edward Seybold, President of the Waukesha Milk Company of Milwaukee

Mr. Seybold says:

"As a user of the Meyer Dumore Bottle Cleaner for the past two years, I wish to express in writing my appreciation of the excellent service rendered by this machine.

"During this period our operating cost has been negligible, and many complimentary remarks have been made by visitors relative to the continuous line of clean, shining bottles coming from the machine, demonstrating the efficiency of the work done.

"We do not hesitate to give a certain amount of credit to your washer for our phenomenal success during the past two years.

"In conclusion, please accept my thanks for the personal attention given by your organization."

This wholehearted, forceful statement, signed by Mr. Seybold, is a convincing testimonial of the bottle-cleaning capabilities of the Meyer-Dumore machine.

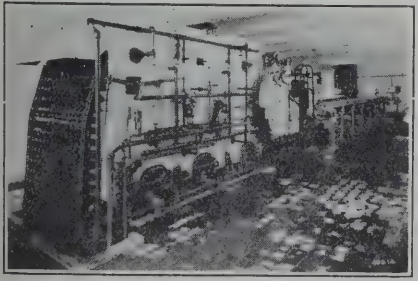
Notice these words especially: "We do not hesitate to give a certain amount of credit to your washer for our phenomenal success during the past two years!"

This can mean only one thing: the Dumore method of soaking, washing, brushing and rebrushing, rinsing and rerinsing, is so thorough that the quality of its work reflects through the contents of the bottles directly to the consumer.

What the Dumore has done for the Waukesha Milk Company it can also do for your plant. Write today for bulletins and details of our engineering service — *they mean money to you!*

MEYER-DUMORE BOTTLE CLEANER

Capacity 60 to 200 bottles per minute.



60,000 bottles Dumore-cleaned every day at this dairy.

Other Milwaukee dairies using Meyer equipment:

Layton Park Dairy Co.
Cedarburg Dairy Co.
Gaulke Dairy Co.
Quality Dairy Co.

Geo. J. Meyer Manufacturing Co.

569 Barclay Street **Offices: New York and Chicago** **Milwaukee, Wis.**

Prof. Burke's Inquiry -:- Department -:-

Correspondence Covering a Variety of Subjects of Interest to Milk Distributors

Dear Sir:—My business is a pasteurization milk plant and I want to dispose of the milk that is turned to the plant by the drivers. Besides this I want to dispose of the surplus when this gets more than 48 hours in the refrigerating room and also of the buttermilk coming from the churning.

For the mentioned purposes I do the following. I let the turned milk stand in the refrigerating room until next day; then I heat the milk to 86 to 95 degrees F., I separate the cream (33 per cent fat), I put the cream in the refrigerating room for 24 hours and churn it sweet. I let the skim milk coming from the separator go down to 68 degrees F. then I mix it well with the mother starter (2 per cent of starter) and immediately I bottle the mixture and let the bottles (one-third of a quart bottles) stand in room temperature for 14 to 18 hours (temperature in room runs from 73 to 68 degrees F. during that time). When the milk curdles I put it in the refrigerating room (39 degrees F.) for 24 hours and after this I send it to be sold to the stores. I do the same thing with the surplus that reaches more than 48 hours. Generally, I don't use mother starter with the buttermilk coming from the churning work, but only let it stand in room temperature; and I must say that this buttermilk sometimes curdles in 5 to 6 hours notwithstanding that it comes from sweet cream and that it has only about 0.17 acidity. I control the acidity in the different parts of the work. For instance, the acidity of mother starter is about 7.65; the acidity of the buttermilk 6.5; the acidity of the milk before mixed with the starter 0.16 to 0.18. Under the same conditions some days I have a good product, but a very bad one some other days with plenty wheying off on top and bottom. I work every day the mother starter with milk heated to 147 degrees F. for one to one and a half hour, using 3 per cent of the day before starter.

So the first question to ask is this: Is turned back milk or 48 hour milk good material for buttermilk? I think that the acidity of the material used has not much to do with the last product and that perhaps other milk germs are responsible and the real controllers of the matter; and I say this because with the same acidity I have good and bad product. Another trouble is that the buttermilk goes in good condition to the stores where it is kept in the ice boxes at about 53 to 62 degrees F. and after 6 to 8 hours it is wheyed off and I cannot sell it. How long and at what temperature do you think is possible to keep buttermilk in our stores? Do you think that the driving on our delivery wagons could have some influence on this point?

I cannot do other things than to incubate the milk in the bottles because people don't accept broken buttermilk, they ask for a curdled milk like it looks before breaking it.

I will fully appreciate your advice for getting a good product considering my local conditions.

Do you think that heating cold pasteurized milk to 86 to 95 degrees F. to separate the cream and bring down the skim to 68 degrees means a bad thing for good buttermilk?

Reply: I see no reason why the 48 hour milk should not be quite satisfactory for the manufacture of commercial buttermilk providing it has not been allowed to stand at a warm enough temperature to cause partial curdling during the pasteurization process. This could be determined by making a careful examination after pasteurizing to note whether slight curdling had taken place. If it has then in all probability the samples will whey off quite readily when the buttermilk is made. From what you say, however, I do not believe this is causing your difficulty as you mention the acidity as under .18 per cent and ordinarily milk does not curdle when heated with this low content of acid. I suggest that you store the milk at a temperature of about 10 degrees C. and instead of heating to 35 degrees C. heat to 30 degrees C. before separating, cooling the resulting skim milk to 20 degrees C. as specified. I suggest that you add 3 per cent of starter to the skim milk.

As to the preparation of the buttermilk from the churn, I would advise adding 5 per cent of good starter to this product. This should help prevent wheying off.

I do not believe your trouble is caused by undesirable bacteria that get into the milk. I feel confident the difficulty is caused by the agitation which the milk bottles receive in transit to the various stores. During the delivery period the buttermilk would naturally heat up and a very slight amount of agitation will cause it to whey off in a relatively short period even though wheying off is not visible in the outset. If the buttermilk is handled carefully and not kept at ice box temperatures above 10 degrees C. you should be able to keep it for 24 hours without difficulty. I think your trouble is all caused by too high ice box temperatures and the agitation on the routes. It is very difficult to outline specific details for handling the buttermilk problem in your locality and the above suggestions are given in the hope that they may help solve some of your difficulties.

* * *

Dear Sir:—Will you please send me bulletin on cheese making; does your regular bulletin include the making of Neufchatel cheese?

Reply: I am very sorry that we have no publications relative to cheese at this college other than the enclosed, which is a government bulletin. However, a good formula for the manufacture of Neufchatel cheese is as follows:

Whole Milk Neufchatel.

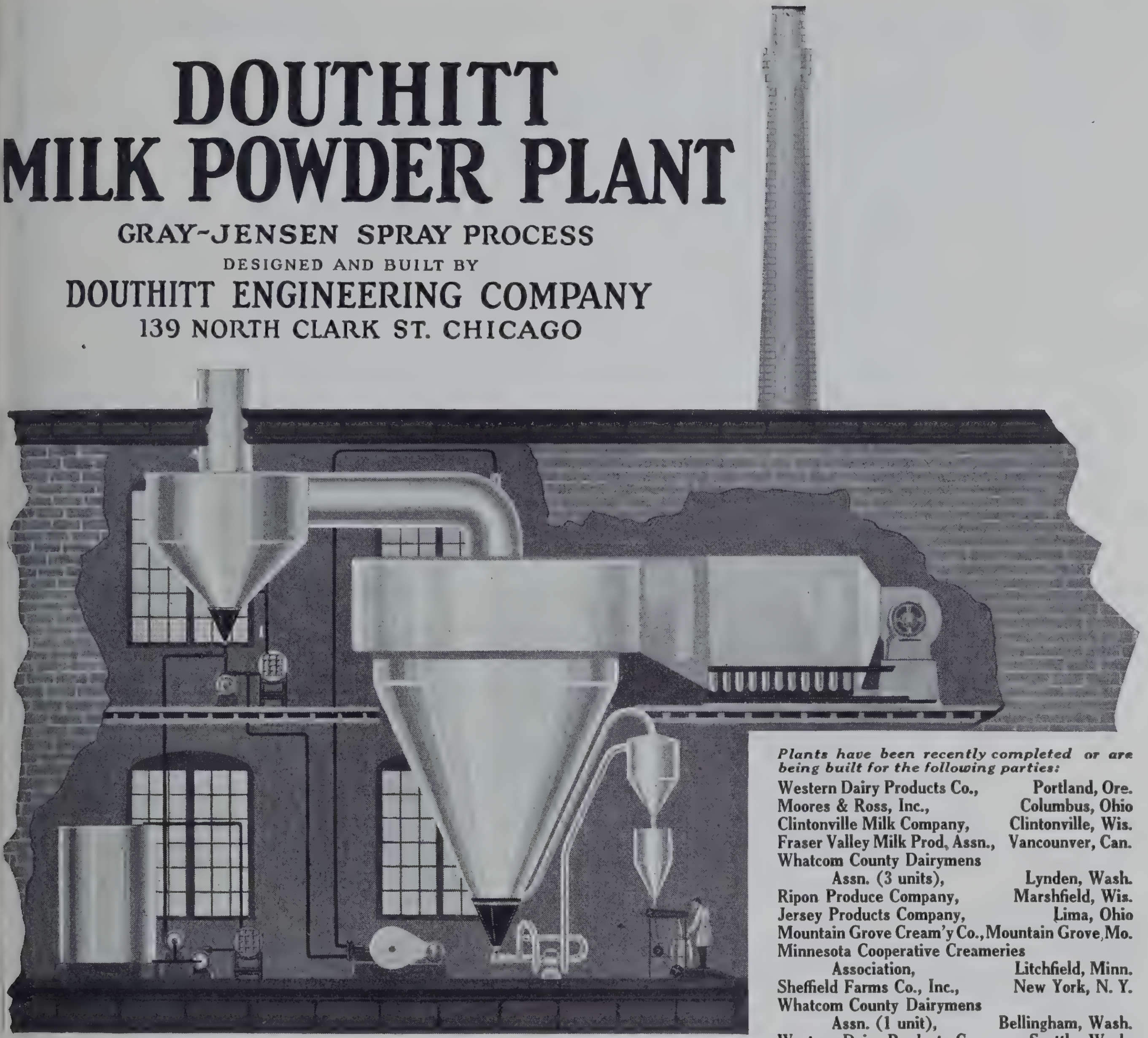
For this product you may use either pasteurized or unpasteurized raw milk and I suggest you divide the milk up into three lots of about thirty-three pounds each. Set the milk at a temperature of 86 degrees F. Add one-quarter pint of starter and ten to twelve drops of rennet for each thirty-three pounds. I have always been setting the milk at 86 degrees and placing it in an ice box which has a temperature of about 60 degrees F. By morning I find the milk is nicely curdled and well cooled. I then follow the practice of pouring it out onto a cloth to drain until most of the free whey has escaped, after which I apply pressure. You may apply pressure through the use of a mechanical device or press the cheese in a draining cloth between flat boards which are well weighted down. After four or five hours the cheese should be fairly firm but smooth and readily spread.

* * *

Dear Sir:—We are having serious trouble with our sweet cream souring before consumer can use it. We are pasteurizing our sweet milk in a 200-gallon glass-lined tank, but do not have enough cream to pasteurize successfully—that is, we do not have enough to get it up

DOUTHITT MILK POWDER PLANT

GRAY-JENSEN SPRAY PROCESS
DESIGNED AND BUILT BY
DOUTHITT ENGINEERING COMPANY
139 NORTH CLARK ST. CHICAGO



Plants have been recently completed or are being built for the following parties:

Western Dairy Products Co.,	Portland, Ore.
Moores & Ross, Inc.,	Columbus, Ohio
Clintonville Milk Company,	Clintonville, Wis.
Fraser Valley Milk Prod. Assn.,	Vancounver, Can.
Whatcom County Dairymens Assn. (3 units),	Lynden, Wash.
Ripon Produce Company,	Marshfield, Wis.
Jersey Products Company,	Lima, Ohio
Mountain Grove Cream'y Co.,	Mountain Grove, Mo.
Minnesota Cooperative Creameries Association,	Litchfield, Minn.
Sheffield Farms Co., Inc.,	New York, N. Y.
Whatcom County Dairymens Assn. (1 unit),	Bellingham, Wash.
Western Dairy Products Co.,	Seattle, Wash.
Los Angeles Creamery,	Tulare, Cal.

30 Plants Operating. 5 Plants Being Installed.

WE guarantee 100% recovery of milk solids on capacity operation. No other plant can make such recovery.

No precondensing necessary. No condensing water used. Only water required is for boilers and to wash up plant each day.

Only 1 man necessary to operate plant and pack milk powder in barrels.

The plant is easily kept in absolutely sanitary condition. It can be thoroughly washed and sterilized each day.

Easily and instantaneously regulated to leave any desired percentage of moisture in powder.

½ minute from milk to powder; the shortness of time during which the milk is exposed to heat insures superior quality of powder, entirely soluble in cold water, manufactured at lowest possible cost and sells for highest market price.

The powder is automatically and instantaneously removed from the drying chamber, also cooled as delivered into barrels. Other plants require from 1 to 20 hours to accomplish the same results. Milk powder allowed to remain in drying chamber until the day's run is completed becomes thoroughly mixed while being removed, therefore there is no advantage in grading such powder as the lowest quality made that day governs the grade for the day's run.

The saving in milk powder, fuel, labor and power, as compared to other milk powder plants, is sufficient to pay for one of our plants in from 1 to 3 years. Manufacturers are discarding other types of milk powder plants and installing the Douthitt plant, the life of which is from 15 to 20 years.

We will furnish a guaranteed market for all skim milk powder manufactured on our plants.

We pay traveling expenses of responsible parties sufficiently interested to visit one of our plants.

Write today for booklet describing the Douthitt milk powder plant.

over agitator in pasteurizer, so we have to cool and bottle raw. We bottle twice daily. The afternoon's milk is separated and bottled for the morning's delivery, and the morning's milk is bottled for the afternoon run. In some cases the cream is sour before delivery. We cool to 45 degrees and hold in milk vault around an average temperature of 40 to 45 degrees. Our separator is thoroughly washed and steamed twice daily. Also disks are soaked in sterilizing solution. The average bacteria count on milk before separations is between 60,000 and 100,000.

Will you kindly give us any suggestions you think would be of assistance to us. Our milk is splendid. We are not having any trouble with it to speak of, but the cream is certainly giving us lots of grief. We try to keep all of our equipment clean as possible. Our cans are used for all purposes such as buttermilk, sour cream, etc., but are all thoroughly washed before using.

The separator has had a small portion of sour milk through it at one time. This happens to be milk just beginning to sour.

Reply: You probably would not find it possible to handle the raw cream satisfactorily in any case.

I would suggest that you rig up a little pasteurizer from a half barrel such as cocoa cola barrel or a ten-gallon ice cream packer, or even a five-gallon packer and pasteurize your sweet cream in a ten-gallon can by setting this can into the half barrel or packer containing water. The water around the ten-gallon cream can can be heated by connecting a small steam line to it. You can very easily heat up a ten-gallon can of cream in this way and pasteurize it.

While this can of cream is heated, however, someone should be there to constantly stir this cream, not too violently but just with a gentle motion of the stirring rod. After the cream has come up to the pasteurizing temperature of 142 or 143 degrees it will not be necessary to stir for the holding time. Before allowing the can, however, to stand for 30 minutes it would be best to see that the temperature of the water on the outside of the can is not boiling or else it might scale some of the cream or if you continue to stir it, would heat the cream to too high a temperature. You can very easily determine just how to handle this method of pasteurizing your sweet cream with a little practice from day to day. A satisfactory pasteurized, bottled cream should test about 35 per cent butterfat unless it would be a special coffee cream which you could have test 22 to 25 per cent.

* * *

Dear Sir:—I am having trouble with our buttermilk and will appreciate any advice which you may be able to give me.

The buttermilk cracks in the middle or wheys off at the bottom, and not at the top as it should. We use what skim milk we have, and make up any shortage by adding skim milk powder. We heat this in a coil vat to 180 degrees and then cool to 68-70 degrees depending on weather conditions. Cooling takes about 2½ hours. Then 1 or 1½ per cent of starter is added and the buttermilk is ready in about 12 hours. Then it is broken and cooled to 50 degrees which takes about an hour and run through a small pump to bottler. The buttermilk is then put in an ice box where the temperature is about 50 degrees. I do not think that our trouble is with starter as it seems very good.

I shall greatly appreciate any suggestions which you may be able to give me.

Reply: There are three possible causes that may be producing your difficulty. One is the use of skim milk powder. You know the casein in skim milk powder is in just a little different state than in the skim milk which has been untreated. The skim milk powder, however should go into solution quite readily and if it does not I would suggest that you strain it after it reaches a temperature of about 120 degrees, thereby taking out any lumps, and then continue the pasteurization. This may help in enabling you to overcome your difficulty, but I do not believe it will entirely prevent it.

Another suggestion is that you add about 3 per cent starter instead of 1.5 per cent, setting it later in the evening. This will probably give you a little thicker product but should help overcome the difficulty.

Another factor may be that you are breaking up the cultured product at either too warm or too low a temperature. If you begin the breaking up process at a temperature of 70 degrees, cooling and breaking it up without undue agitation, wheying should not occur.

I have run into the difficulty which you speak of many times in making commercial buttermilk and it is invariably produced by breaking up too vigorously at the wrong temperatures. Even at the temperature above suggested, 70 degrees or less, wheying off will occur if agitation is sufficiently vigorous to incorporate air. Break the curd up so that foaming does not occur and I believe you will not have any difficulty.

I believe it is this last factor that will overcome your trouble and I would suggest you try it first as the remedy.

* * *

Dear Sir:—We have been making our sour cream up till now by simply allowing a 20 per cent cream to sour but the results were not always satisfactory. Our trade desires a thick, heavy sour cream, which we could not offer always. Read your two formulas in the March issue of The Milk Dealer, but cannot avail myself of either

WILLIAM H. TIMM
CONSULTING ENGINEER AND ARCHITECT
PERRY BUILDING
Chestnut & 16th Sts.
PHILADELPHIA
PENNSYLVANIA
DAIRY AND ICE CREAM PLANT SPECIALIST
Consulting Service for By-Product Processes

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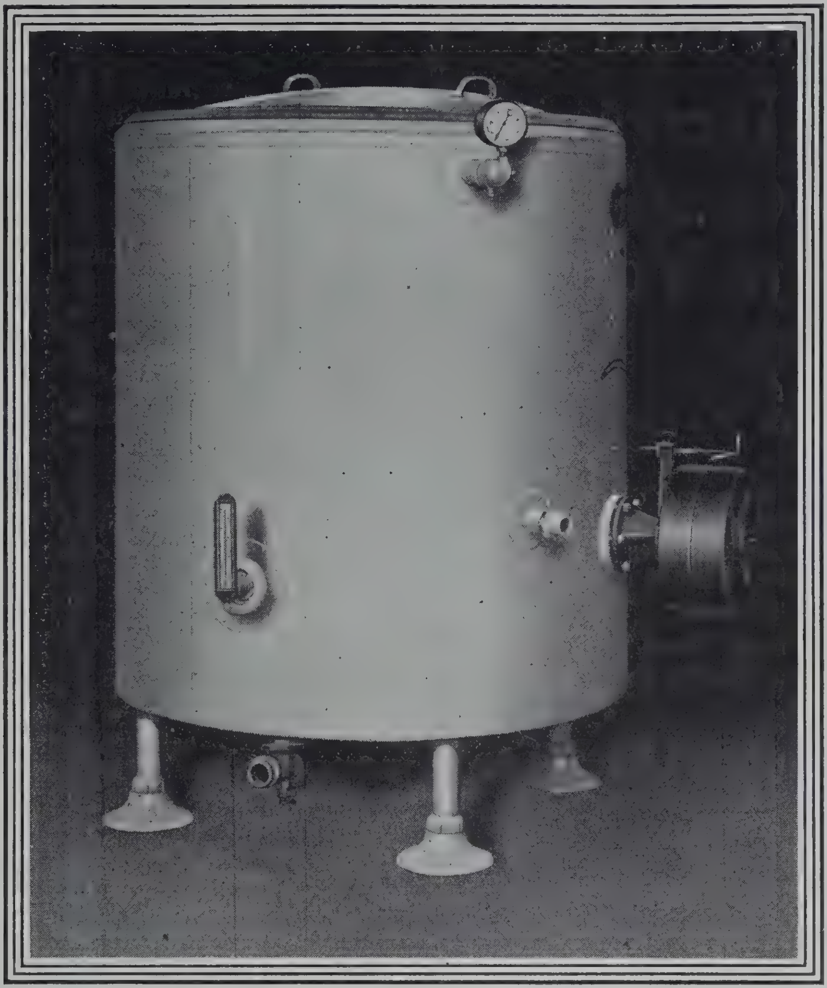


$650
F. O. B.
Elyria,
O.

The New PFAUDLERETTE

[AT MARKEDLY LOWER PRICES]

(Following the successful manufacturing and marketing of the "C-Gal" Pasteurizer, we have installed new plant machinery of the same type for the manufacture of the New Pfaudlerette. Thus we have introduced the same economies of manufacture into this larger unit without in any way sacrificing its original quality.

(The insulated base unit selling at $650.00 represents a saving of $187.00 over the old insulated Pfaudlerette which, as listed in our published prices, sold at $837.00.

(On the complete motor-driven Pfaudlerette with insulated cover, there is a total saving of $347.00.

(AND IN ADDITION TO THIS, the New Pfaudlerette has a working capacity of 330 gallons (actual, 350 gallons), the increase of 30 gallons over the old model being furnished without additional charge. ORDER YOUR UNIT NOW.

Complete Descriptive Bulletin on Request

THE PFAUDLER COMPANY
Dairy Division ROCHESTER, N. Y.

PFAUDLER

PURER FOODS THROUGH GLASS LINED EQUIPMENT
Pfaudler

What Would a
50% Increase
In Cottage Cheese Sales
Mean to You
?

Big dealers who have made **Flake Cream Cottage Cheese** by our special method have increased sales 50%. The cheese is better than anything your trade has had.

Let us tell you more about it and how you can learn to make it.

Flake Cream Cottage Cheese Co.
601 Milwaukee Avenue
CHICAGO, - ILLINOIS

Having Trouble with Bacteria Count?

Investigate what results Milk Dealers are getting with . . . . .

The ILLINOIS PASTEURIZER

A low cost pasteurizer very simple to operate and keep clean.

Send for illustrated circular and prices.

Illinois Creamery Supply Co.
715-19 SO. ROBEY STREET
CHICAGO, - - ILLINOIS

one of these, as we have no viscolizer, and we have no means of making a 10 per cent cream. If you know of some simple method which helps to make the sour cream appear thicker and richer kindly let me know at once by mail.

Reply: I regret that I failed to publish a formula for sour cream without the use of a viscolizer. I trust the following will help you.

To your 20 per cent cream add 2 to 3 per cent skimmilk powder. Heat slowly to 120 degrees F. to dissolve the powder and follow this by pasteurizing at 145 degrees F. for thirty minutes. Cool to 40 degrees F. and hold at this temperature over night. The following morning warm to 70-74 degrees F. and add 3 to 5 per cent of good starter, thoroughly broken up. Dilute twenty drops of commercial rennet extract with about one-half glass of water and add this to one hundred pounds of cream, agitating it thoroughly to distribute the rennet. The rennet helps to form a thick curd and the cream may curdle in a relatively short period. However, you should hold it over night at the ripening temperature of 70-74 degrees F. to develop the desired acid flavor. Follow this by breaking up the curd while cooling to 40 degrees F. and hold at this low storage temperature.

In conclusion I would like to state that I have eliminated the first step of holding at 40 degrees F. over night, simply cooling the cream to 74 degrees F. after pasteurization and then adding the starter and rennet, with very satisfactory results. However, the first procedure given should give you a little heavier appearing product.

* * *

THE FLORIDA HURRICANE HARNESSED.

It is interesting to ponder over the enormousness of Nature's forces behind the recent Florida hurricane Think of the benefits that could have been derived from such tremendous power, were it harnessed, rather than the destruction and misery it caused! The power in that storm was sufficient to furnish light, power, and heat to Miami for years; to dig canals; to melt many tons of steel in furnaces; and to add vastly to the development of Florida instead of tearing it down. Some day, perhaps, high winds like that will be welcomed—but not in 1926.

In the newspaper accounts that I have read of the storm I did not find the velocity of the wind mentioned But according to my engineering handbook the highest authentic velocity in a previous storm occurred in the vicinity of St. Paul, Minn., and was about 80 miles per hour. The velocity of the Florida storm was probably greater, but 80 miles is high enough for computing the approximate power of the Florida storm.

The path of this storm, it is said, was about 60 miles wide. Of course its exact depth is not known. Probably it was several miles deep. But let us say that it was a quarter of a mile deep. On that basis, had the storm been harnessed to a depth of one-fourth mile and throughout its entire width, it would have developed 12,500,000 horse power. Just think of that!

In other words, it is safe to say that the power of the Florida storm was equal to the entire steam power produced in the entire United States with all steam turbines and engines operating simultaneously.—W. F. Schaphorst.

* * *

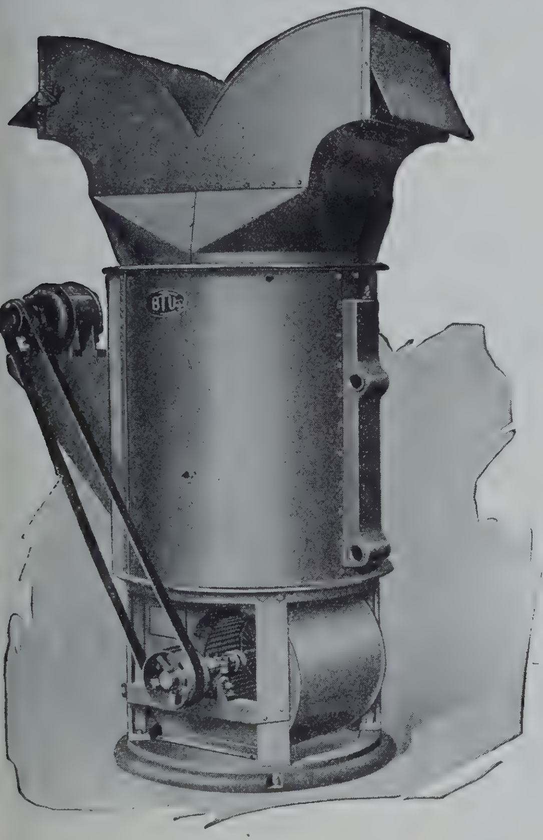
A motor truck, milk wagon — in fact, anything of interest to milk dealers, can be disposed of through "The Milk Dealer" Want Department.

Barber Goodhue

Everything for the Dairy Industry

ON DAIRY PRODUCTS ALL THRIVE

Kill the Fog—Improve Working Conditions—Have a Dry Plant—With Bayley Thermo Unit



A LOW-PRICED, self-contained heating and ventilating system, requiring a minimum of steam, a minimum of space, a minimum of power, and a minimum of attention—*but it produces maximum results*. It is shipped fully assembled, ready to operate after 3 simple connections have been made—very easy to install.

Its heating principle is simple and natural; it simply draws in the colder air from the floor, forces it through and around the heating coils by means of the Bayley Flexiform Fans, and the warm air is circulated downward from the ceiling, along the floor and back to the base of the heater. It heats the room uniformly and insures a warm floor.

It improves working conditions by supplying fresh, dry air that eliminates fog, and that keeps the ceiling and walls dry. This is a big factor in making the right impression on patrons and in keeping employees in good health and good humor.

IT may be used as a heating unit only, or as a heating and ventilating unit, taking part or all of the air from out-of-doors. It works equally well with exhaust steam at low pressure, or live steam by boiler pressure, without any change or regulation of the equipment.

Made in five sizes, 30, 36, 42, 48 and 60 inch diameters—a range suitable for every heating requirement. Ask for special folder giving complete description, specifications and prices.

The Chinook, a compact, smaller capacity heating unit has certain advantages for some classes of installations—longer lived and more efficient than most small heaters. Ask us about it.

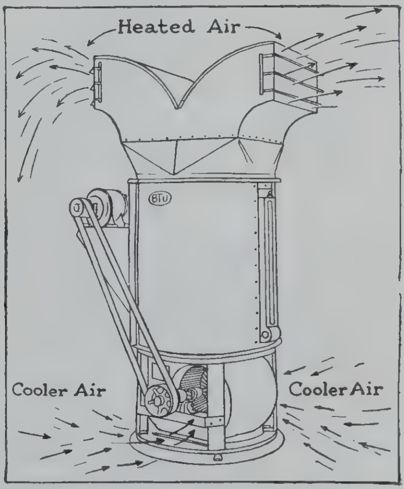


DIAGRAM showing how the air is circulated and warmed, the cooler air from the floor entering the heater at the bottom, after which it is heated as it is forced through and around the heating coils.

A.H.Barber-Goodhue Company

TWIN CITY OFFICE
2490 University Ave.
ST. PAUL

Home Office
300 W. Austin Ave.
CHICAGO

216 South
Pennsylvania St.
INDIANAPOLIS

New Home Reflects Union Dairy's Growt

A monument to the efforts and industry of C. F. Kaiser and A. J. Hill, proprietors of the Union Dairy Company, is the new and modern dairy products manufacturing plant recently erected at the corner of East Douglas St. and North Adams St., Freeport, Ill. It is the realization of a dream which has long been in the minds of these two aggressive gentlemen. In fact, its seed was planted as early as 1916, when Messrs. Hall and Kaiser decided to go into partnership, founded the Union Dairy Co., and began operations in the building located on East Stephenson St. Steady increase in business was enjoyed and during the last few years facilities were entirely inadequate.

In relating the history of the firm, officials recall that the original investment of $1,000 was in danger of loss several times.

The Union dairy pays out annually to the milk producers in the vicinity of Freeport approximately $75,000 which will be increased by several thousand dollars this year.

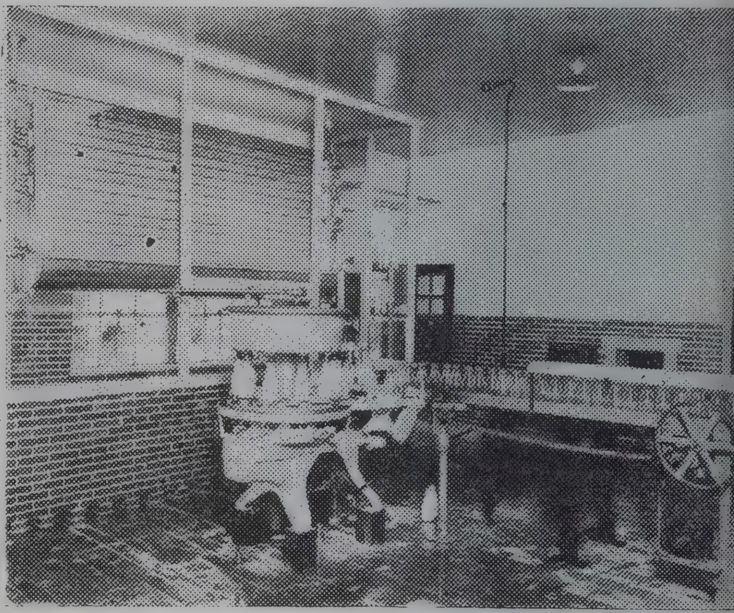
Much New Equipment.

The new plant also houses about $20,000 worth of new equipment including milk pasteurizers, preheaters, coolers, buttermilk machinery, culture cans and butter churn.

A feature is the new milk cooler which cools the milk for bottling. The milk flows over the cooler in a thin film and is chilled to 35 degrees F. almost instantaneously. This cooler is surrounded by a plate-glass enclosure free from dust and draft, thus assuring a clean, wholesome product.

The plant is now producing approximately 5,000 quarts of milk and cream each day, and 150 pounds of cottage cheese. The new equipment will take care of increased business for years to come.

Modern new home located at East Douglas St. and North Adams



Interior view showing automatic bottle filler. The plate glass in the back ground houses the tubular milk cooler.
(Courtesy Freeport Journal-Standard.)

MILK BOTTLES AS AMMUNITION ROUTS BANDIT.

Armed with a dozen milk bottles, Sam Dunn, 705 Cedar St., a milk wagon driver, put to rout a lone bandit who held him up with a gun early Sunday morning and demanded money.

Dunn was driving down Mitchell St. when an automobile drove up alongside him and the driver ordered him to stop. Thinking that the man wished to purchase a quart of milk for breakfast, Dan stopped and reached for a bottle. He had the bottle in his hand when the man got out of the car and came up to the wagon, gun in hand.

When the man asked for money, Dunn threw the milk bottle at him, striking him on the head. The bottle opened, giving the other a milky bath.

As the man picked himself up and ran to his car, Dunn grabbed a tray of quart bottles and ran after him, throwing the bottles as he ran. The bandit's car turned north on Twenty-third Ave. and disappeared as Dunn threw the last bottle.—Milwaukee, Wis., Journal.

Statement of Ownership, Management, Etc., of The Mi Dealer, published at Milwaukee, Wis.—required by the A of August 24, 1912.

The Olsen Publishing Co., Publishers, Milwaukee, W
Manager—H. P. Olsen, Milwaukee, Wis.
Editor—E. K. Slater, Milwaukee, Wis.

Known bondholders, mortgage and other security holde holding 1 per cent or more of total amount of bonds, mo gages, or other securities—None.

Signed, H. P. Olsen, Manager.

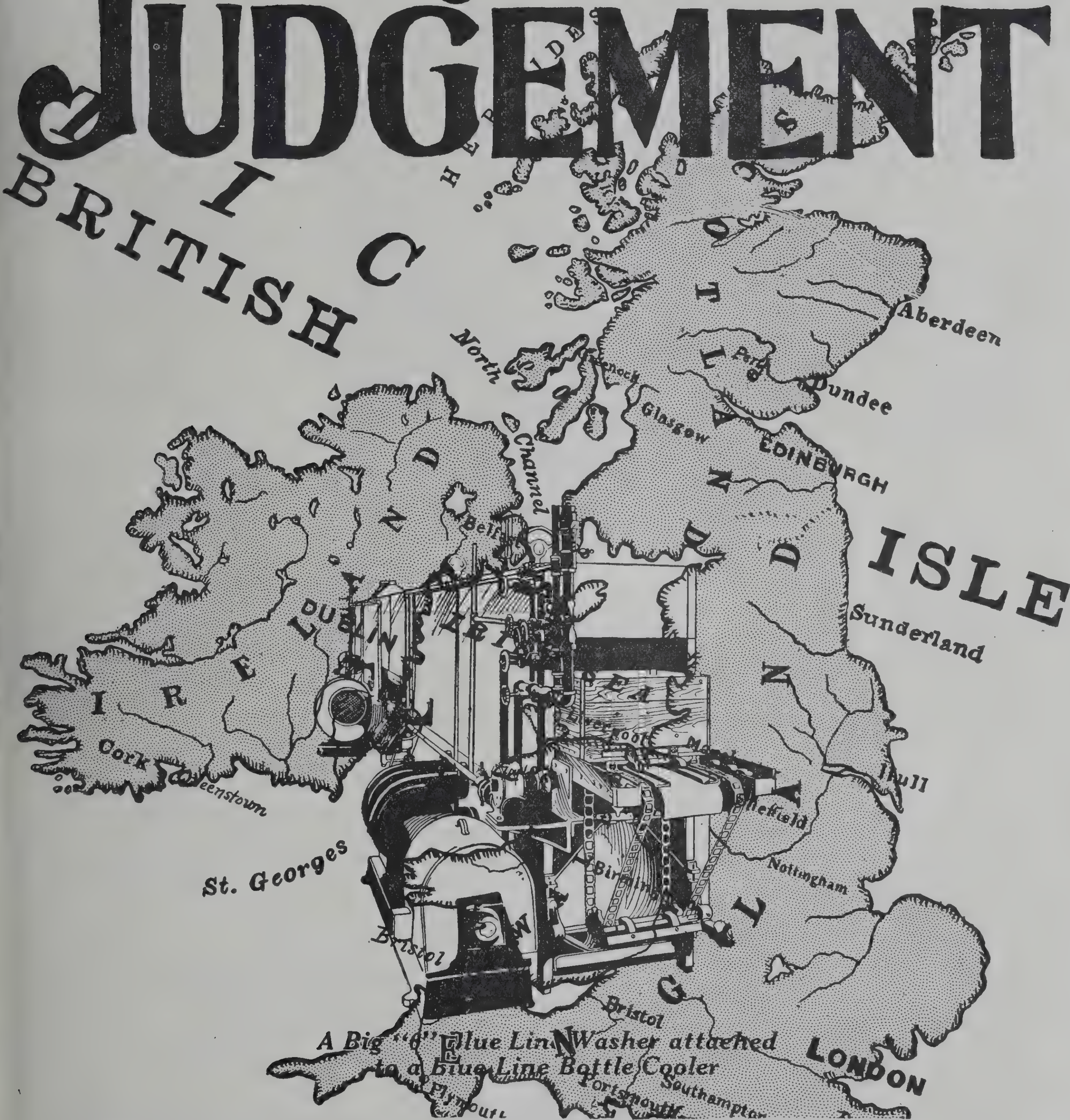
Sworn to and subscribed before me this 2nd day October, 1926.

C. J. Linden, Notary Public, Milwaukee Co., Wis.
(My commission expires March 10, 1929.)

OWNERS—(If a corporation, give name and address of stoc holders holding one per cent or more of total amount of stoc —H. P. Olsen, Milwaukee, Wis.; L. S. Olsen, Milwaukee, Wi M. W. Olsen, Milwaukee, Wis.; E. E. Olsen, Milwaukee, Wi E. K. Slater, Milwaukee, Wis.; Paul H. Laabs, Milwaukee, Wis.

NOTE:—This statement is made in duplicate, both copies be delivered to the postmaster, who will send one copy to t third Assistant Postmaster General (Division of Classificatio Washington, D. C., and retain the other in the files of t post office. The publisher must publish a copy of this statem in the second issue printed next after its filing.

They used JUDGEMENT


BRITISH
ISLE
HEBRIDES
SCOTLAND
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North Channel
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Dundee
Glasgow
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Hull
Sheffield
Nottingham
Birmingham
Belfast
DUBLIN
IRISH SEA
Liverpool
Cork
Queenstown
St. Georges
Bristol
LONDON
Southampton
Portsmouth
Plymouth

A Big "6" Blue Line Washer attached to a Blue Line Bottle Cooler

Twenty MILK DEALERS in the British Isles are operating LADD'S Blue Line Pressure Washers. They were installed and are serviced by our local representatives, Storer, Rodgers & Hughes, Ltd. of 102 Great Saffron Hills, London, E. C. I.

LADD WASHERS LEAD EVERYWHERE

— Write for Descriptive Literature —

JOHN W. LADD COMPANY

DETROIT COLUMBUS CLEVELAND CINCINNATI

Many Short Courses Are Offered

Excellent Courses in Dairy Manufacture Will be Given by Large Number of Universities and Colleges

WITH the flush season now past in the dairy industries, many of those engaged in the manufacture of the various dairy products are making plans to attend the dairy manufacturing short courses that will be offered by the various state universities and colleges. So popular has the short course become during recent years that most of the dairy schools will offer courses in at least some phase of the industries; while a great number will give complete courses, with reference to the dairy industries.

Most of the leaders within the industries have learned the value of attending the short course, and not only do they make every effort to be in attendance themselves, but they also make provision to have some of their employees attend. In general, the courses offered by the various institutions are very strong; inasmuch as most of them not only employ their own staff of instructors for this work, but they also go to considerable expense and effort to secure the best and most advanced men in the industries to give special lectures and demonstrations.

Nebraska Has Six Months' Course.

At the Nebraska College of Agriculture, University of Nebraska, a six months' course in dairy manufacture will be offered from Oct. 4 to April 13. The enrollment will be limited to 20 students. Full courses in the manufacture of ice cream, butter and both soft and ripened cheese will be given, in addition to market milk work.

Iowa State College at Ames will have its usual six months' short course, and also the ten days' course. The latter is designed largely for those who have had previous experience in the manufacture of dairy products. Complete courses in all of dairy industries will be given at the courses.

Under the direction of W. B. Combs, the University of Minnesota will offer three short courses during the coming year. The first will be the ten-day ice cream short course which will be given Nov. 10-20. Two courses will be given for creamery operators, one of which is designed for the experienced operator and will be given Dec. 1-15. The other will be for beginners and will extend over a period from Jan. 5 to Feb. 16.

Tennessee is offering three courses of a duration of 12 weeks which will embrace creamery practice, ice cream manufacture, testing, cheesemaking, and market milk work. Although those at the university are desirous of having the student take the year's course, they point out that it is possible for a student to enroll for any one of the three terms.

Two Courses at Cornell.

At the New York State College of Agriculture, Cornell University, two courses, each of six weeks' duration, will be given. The first six weeks' course will include such subjects as milk testing, starters, dairy bacteriology, chemistry, arithmetic and mechanics. During the second term, subjects will consist of work in market milk, ice cream, cheese, condensed and powdered milk and butter. Only those having satisfactorily completed the first six weeks' work can register for the second term.

The University of Idaho will offer a five months' course in dairy manufactures, which will be divided into two terms. The first will open Oct. 27 and will run to Jan. 19. During this term the work will consist of testing, bacteriology, cheesemaking and ice cream makin and dairy calculations and mechanics. The second ter will extend from Jan. 20 to Mar. 30. During this ter such subjects as buttermaking, market milk, factor management, dairy calculations and the scoring of dair products will be given.

A twelve weeks' course consisting of work in testin market milk, butter and cheese manufacture, ice crea making, dairy sanitation and mechanics and the busines of dairying will be given at Rutgers University, Stat University of New Jersey. The course will open No 15 and will close Feb. 18.

Pennsylvania has Strong Course.

Three courses, each of two weeks' duration, will b given by the dairy department of the Pennsylvani State College. The first will be given Jan. 6-21, and wi be for those wishing work in testing and butter an cheese manufacture. The second is an ice cream cours and will extend from Jan. 24 to Feb. 4, while the las course will be given Feb. 7-18 and will cover work i market milk and milk condensing.

The University of Wisconsin will offer a galaxy o courses for those in the dairy industries. The first wi be a three months' dairy course extending from No 3 to Jan. 27. A summer dairy course is open to student any time between Mar. 1 and Nov. 1. Special one-wee courses for experienced buttermakers, American cheese makers, ice cream makers and managers will be give the first week in February, while a special week's cours for experienced brick cheese makers will be offered th last week in February. A Swiss cheese course will b given the second and third weeks in February. Exper enced ice cream makers will have an opportunity to a tend a course from Jan. 3 to 26.

GOOD OLD DAYS.

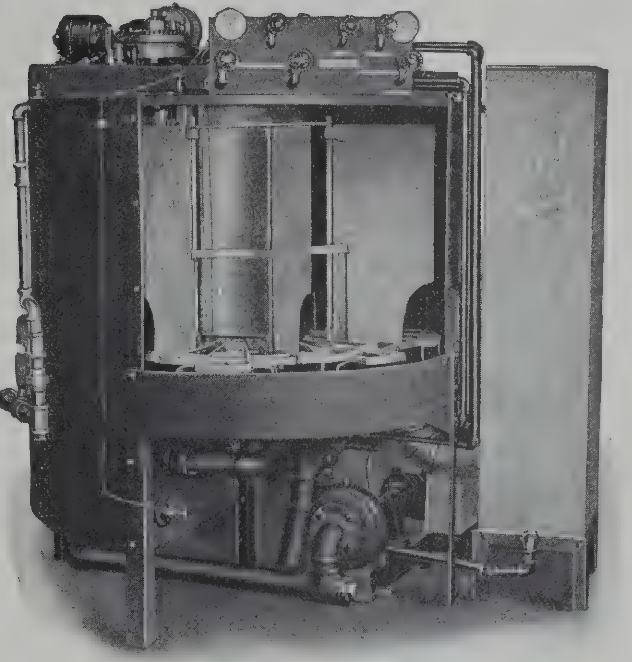
Those who think the good old days were better whe living was more simple and that greater economy wa practiced, fail to analyze the situation then and now We gather a rather interesting comparison between th good old days and the present from the Minnesota Highway News.

In part it states that in the first years after th colonies became a republic, funds were so meager an the people so poor that the commonwealth could not assume the burden of road building. Instead, private companies were formed to build and maintain turnpikes fo which service they were authorized to charge a toll fo the use of the road. A schedule of tolls running fro one cent per mile for every ten sheep or hogs up to thre cents per mile for wagons, stages, private carriages, an like conveyances drawn by horses was legally permitte the company.

These roads were very poor; ruts were left unsmoothed; bridges sagged and fell in; vehicles mired i mud holes. Yet the toll companies claimed their return were so small they could not afford repairs. It costs today, over a concrete highway where 500 vehicles pe day pass, about 1¾ cents per vehicle per mile. This i a trifle more than half of what our ancestors used t pay to travel the mud, dust, and ruts in the good ol days.—Hoard's Dairyman.

This is the Rotary Can Washer that went over big at the Show!

The R & A Low Duty Can Washer displayed at the show. This model thoroughly washes, thoroughly rinses and thoroughly dries three cans per minute.



Visitors at the show displayed equal, if not greater, interest in the larger R & A Rotary, which washes, rinses and dries six cans per minute with thoroughness and dispatch that has earned the sincere praise from every milk plant using it.

ONE big buyer of dairy equipment walked up to an R & A salesman at the show and said, "Well, I've looked them all over. I am going to buy four can washers — *and they're going to be R & A Rotaries.*" (Name on request.)

This, however, was but one of many similar experiences. For, both the six can per minute and the three can per minute R & A Washers seemed to meet perfectly the dairymen's ideas of what a real, serviceable can washer should be. Briefly, these R & A Rotaries rang the bell!

And, if you will look carefully and analytically into the can washer subject—determine for yourself *what a can washer should do, how it should be built, and what it should cost*—you will find that the R & A Rotaries are exceptionally praiseworthy pieces of dairy equipment.

They are rugged. They are simply constructed and accessible. They do their work thoroughly—*produce clean, dry cans and covers.* They are available in two capacities. And their first cost and maintenance cost are both extremely moderate.

Isn't that just what you, too, are seeking in a can washer?

Let us send you complete mechanical details and prices on these Rotaries. Just ask for Bulletin 615X.

RICE & ADAMS CORPORATION

1144 MILITARY RD. **BUFFALO, N. Y.**

R&A

THE NEED OF CONCERTED ACTION AND UNIFORM PLANS FOR DEVELOPMENT.

(From bulletin issued by The Dairy Products Association of Kentucky.)

Milk Consumption Per Capita in Kentucky Towns.

(American Child Health Association.)

Town	Date	Population	Consumption Per Capita
Clinton	Jan., 1924	1,455	.39 pints
Fulton	Feb., 1924	3,415	.57 pints
Mayfield	Jan., 1924	6,583	.35 pints
Murray	Jan., 1924	2,415	.34 pints
Pikeville	Nov., 1924	2,010	.45 pints
Paintsville	Nov., 1924	1,383	.30 pints
Louisa	Nov., 1924	2,011	.34 pints
Russell	Nov., 1924	1,758	.46 pints
Morehead	Nov., 1924	981	.22 pints
Richmond	Nov., 1924	4,563	.38 pints
Irvine	Nov., 1924	2,705	.57 pints
Stanford	Nov., 1924	1,397	.94 pints
Pineville	Dec., 1924	2,908	.34 pints
Middlesboro	Dec., 1924	8,041	.16 pints
Williamsburg	Dec., 1924	1,767	.19 pints
Harlan	Dec., 1924	2,647	.22 pints
London	Dec., 1924	1,707	.15 pints
Corbin	Dec., 1924	3,406	.49 pints

Milk Consumption and Percentage of Pasteurized Milk in Kentucky Towns.

(State Board of Health of Kentucky.)

Town	Date	Population	Per cent of milk past.	Milk consump'n per capita per day
Louisville	Jan., 1926	305,935	94.3	0.62 pints
Covington	Mar., 1926	58,093	94.0	0.51 pints
Lexington	Feb., 1926	41,534	25.0	0.64 pints
Newport & vic'ty	Mar., 1926	50,558	94.2	0.54 pints
Ashland	Feb., 1926	22,512	73.3	0.38 pints
Henderson	May, 1926	12,169	0.0	0.32 pints
Owensboro	Mar., 1926	17,424	0.0	0.37 pints
Paducah	Dec., 1925	23,817	64.0	0.70 pints
Frankfort	Mar., 1926	9,805	72.6	0.69 pints
Georgetown	Mar., 1926	3,904	0.0	0.41 pints
Hopkinsville	May, 1926	9,696	5.7	0.36 pints
Maysville	Aug., 1925	6,107	0.0	0.36 pints
Richmond	Oct., 1925	5,447	13.6	0.41 pints
Shelbyville	June, 1926	3,760	0.0	0.34 pints
Winchester	July, 1925	7,866	0.0	0.67 pints
Madisonville	Aug., 1926	4,945	0.0	0.45 pints
Mayfield	Aug., 1926	6,593	0.0	0.52 pints
Elizabethtown	June, 1926	2,530	0.0	0.25 pints

Eighty-four and four tenths per cent milk supply of the ten principal cities comes from tuberculin tested cows.

Twenty-six counties have completed tuberculosis eradication work.

Fourteen counties are now actively engaged in tuberculosis eradication, with 4,079 head of cattle so tested during August, and a total of 102,392 head tested to date.

Clark and Floyd counties, Indiana, just across the river from Louisville, have made appropriations for making each county a modified accredited area.

Courtesy of the state board of health of Kentucky.

Courtesy of government veterinarian in charge of tuberculosis eradication at Frankfort.

CARLTON BALL, Gen. Sec'y.

* * *

"HISTORY OF DAIRYING."

HISTORY
OF
DAIRYING
T. R. PIRTLE
MOJONNIER BROS. CO.
CHICAGO

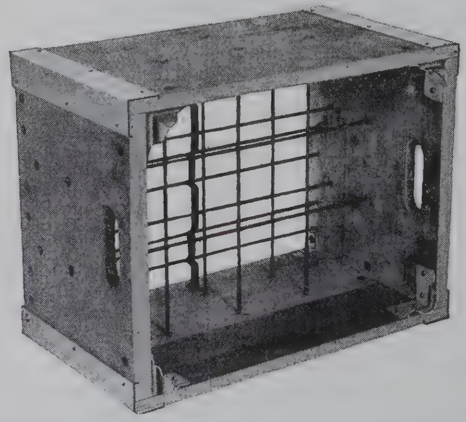
What no one has ever attempted before will soon have been completed. T. R. Pirtle, assistant marketing specialist, U. S. Dept. of Agriculture, has written the "History of Dairying" which is now being printed and bound in the Olsen Publishing Company's big plant. We are moving along rapidly in the science and art of dairying. Mr. Pirtle has collected a record of the many steps that have influenced the progress that has been made the world over. Mojonnier Bros., Chicago, are financing the publishing of the book, which will be ready for sale soon.

Each year sees more and more books on dairying subjects turned out of our printery and bindery. In developing that phase of our business we feel that we are contributing distinctly to further progress in the industry.

When the "History of Dairying" is ready for sale we will be prepared to take orders at a price to be determined later by the publishers.

* * *

Many a dollar can be saved by supplying your needs through "Milk Dealer" Want Ads. Others have done it, why shouldn't you?



METAL CORNERS

for added case life!

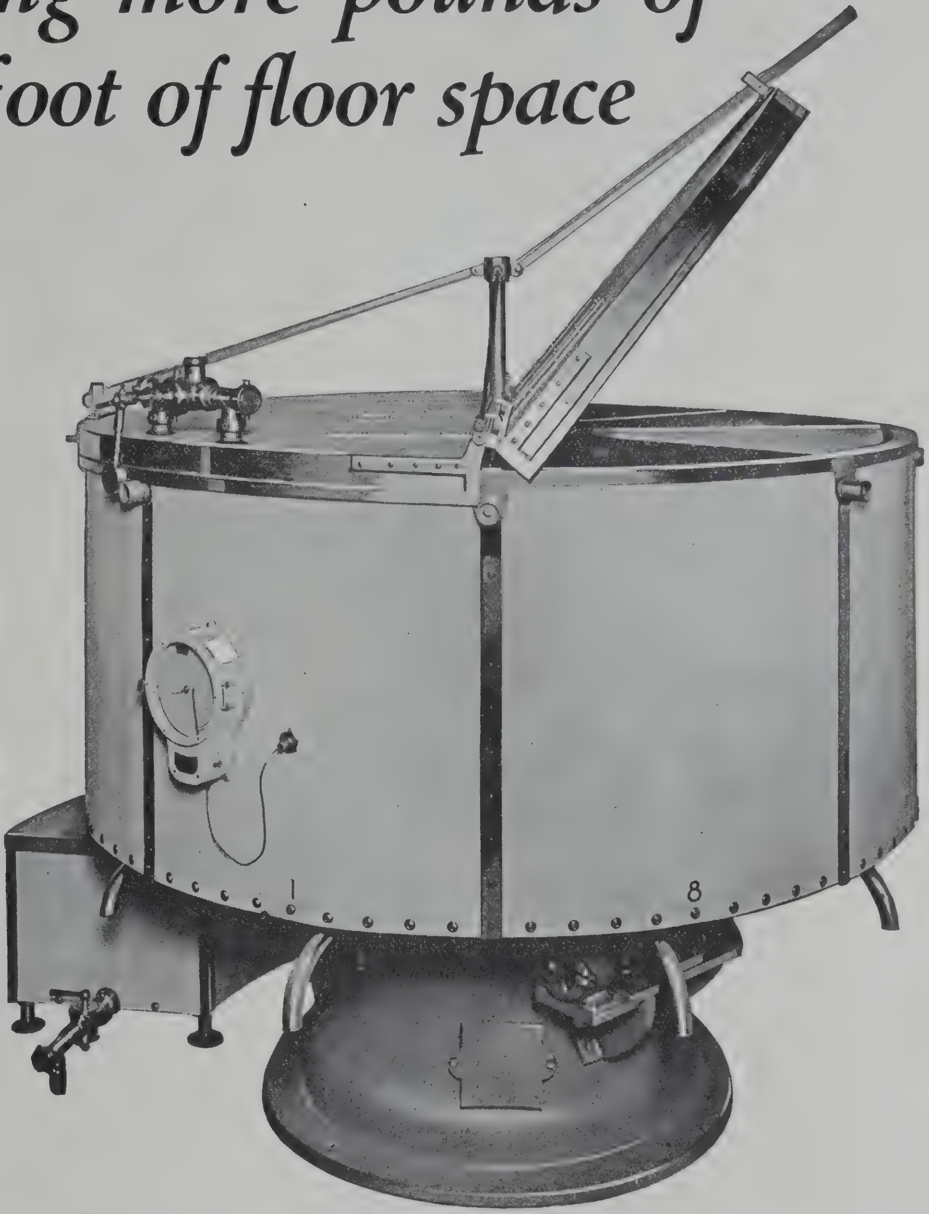
THE four vertical edges of this new R&A case are bound from top to bottom with a riveted corner strip of 18 gauge galvanized iron; and the lower end of this strip is turned up inside of the case, furnishing a bottom corner iron that can't come off.

A fine grade of thoroughly seasoned, southern oak free from knots, is used, and a new bottom cross support restrains the division wires from sagging.

This is the case for those who will pay a *little* more at the start to get a *lot* more in service in the end. *Write for prices.*

RICE & ADAMS CORPORATION
1144 Military Rd. **Buffalo, N. Y.**

Pasteurizing more pounds of Milk per foot of floor space



Mortensen
Positive Automatic
HOLDER

Within a space of 10 feet square you can automatically pasteurize as high as 20,000 pounds per hour. You can handle this volume with greater facility, less labor and at lower cost.

The Mortensen Positive Automatic Holder is proving its economy and practicability to an ever increasing number of users.

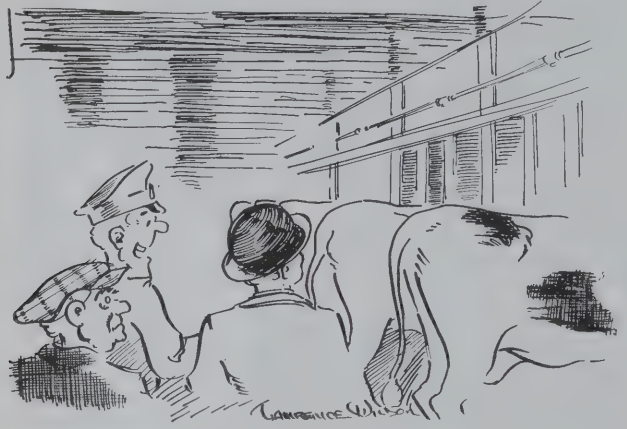
Why don't you, in the interests of plant efficiency, make a thorough investigation of this equipment?

Standard Milk Machinery Co.
INCORPORATED
LOUISVILLE KENTUCKY

MIKE THE MILKMAN

SHOWING A BARN

The other day I had a chance, by accident, I grant, to give a customer a glance at our new modern plant. That fellow opened up his eyes as wide as oven doors; his face was stricken with surprise, he glowed about the pores! "All this!" he cried. "Is this the way that milk is handled now? I thought the stuff was lugged away directly from the cow! Machinery! Upon my word, all working smooth and true! My, what a journey from the herd to custard pie and stew! It's what? It's pasteurized, you say, and all the germs are killed? And this, you tell me, is the way the bottled stuff is filled? You wash the bottles here? By jove, why listen to me, man! I thought you rinsed them on a stove and dried them in a pan! THIS caps the bottle? Land of plums, great lavender and lace! I thought you use your handy thumbs to push the caps in place! I've seen enough! How things advance! How wholesome, fresh and clean! Say, everyone should take a glance at plants like this, I ween! Yes, everyone who uses milk, who uses milk and cream, should view this plant, as fine as silk from under joist to beam! I'll never be afraid again to buy your milk, I vow, with these machines, some nine or ten, between me and the cow! And for my tots I'll not be scared, no never in my life, for now I see how milk's prepared! Next time I'll bring my wife! Tomorrow leave an extra quart, there's room upon the shelf, and then to show you I'm a sport I'll drink more milk myself!"—J. Edw. Tufft, Grand Forks, N. D.



NEW BUSINESS STATISTICS.

During the past six months 106 new statistical indicators of business have been made available to the public through the "Survey of Current Business," as shown by the August issue of that publication, issued recently by the department of commerce. The total current business indicators now available through this source amount to 1,698, furnished by 111 trade associations, 41 government agencies, 35 technical periodicals and 37 other organizations. The greatly increased interest of business men in the use of such statistics to show the true facts of business has been largely instrumental in obtaining these new data, officials of the department report, and most of the principal industries are now covered by these monthly reports.

New data added to the "Survey of Current Business" during the past six months include the following: Cotton-cloth production, stocks and unfilled orders by groups; trackwork production; cast-iron boiler and radiator data; household enamelware; closed-automobile relative production; electric bookings; electric motors; electric hoists; electric porcelain; band instruments; vacuum cleaners; sales-books orders; barrel headings; cypress lumber; rotary-cut veneer; household furniture; receipts of milk at Philadelphia and Baltimore; Canadian life-insurance sales; and brokers' loans.

These data are all shown in the August issue of the "Survey of Current Business," which contains the semi-annual details and list of sources, covering 160 pages, as well as over 1,500 other business items, all collected under one cover. This publication may be obtained regularly from the Superintendent of Documents, Government Printing Office, Washington, D. C., at the price of $1.50 for a year's subscription.

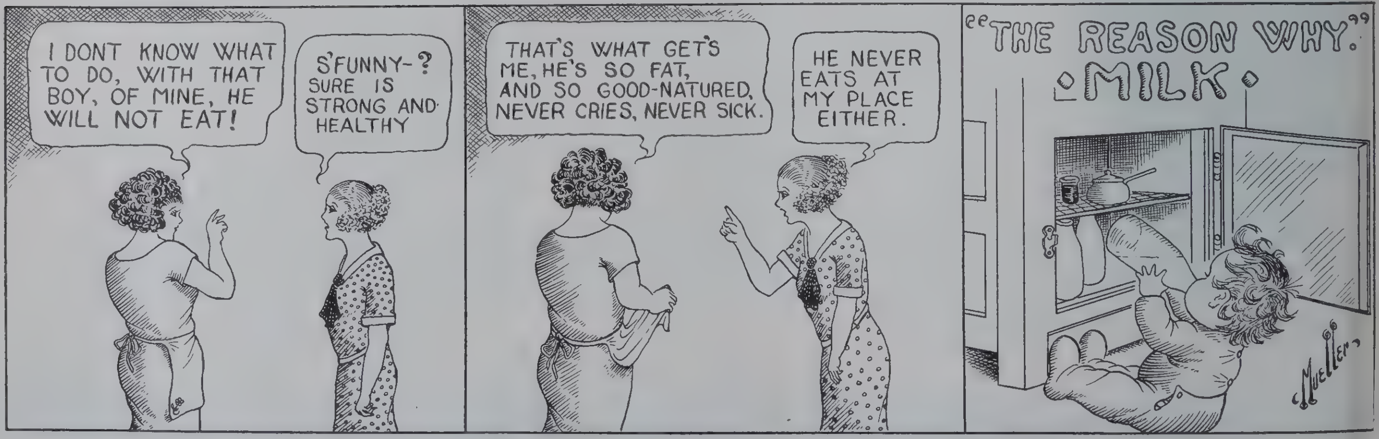
⚜

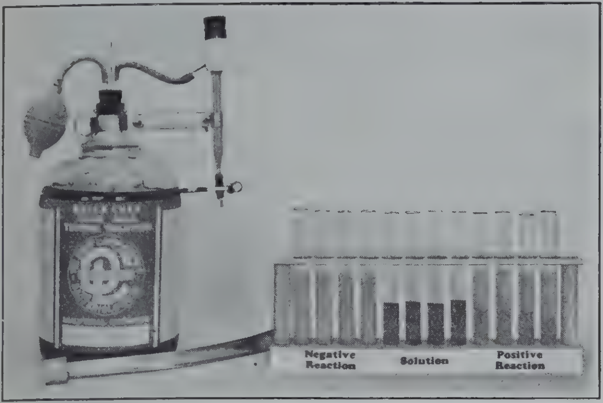
WISCONSIN AND HAWAII INTERESTED IN DAIRY SHOW.

Manager Robert E. Jones reports that he is daily in receipt of requests for entry blanks for exhibits in the Pacific Slope Dairy Show, which is to be held in Oakland November 13 to 20.

In the past week, blanks were sent to cheese and butter manufacturers in Wisconsin and to whole milk distributors in Honolulu, as well as to many others on th Pacific Slope.

"This is the sixth year of the Pacific Slope Dair Show and everyone in the industry is now assured tha the show is a permanent and growing dairy enterprise,' said Manager Robert E. Jones recently. "We are assured by the number of inquiries and requests for entr blanks that the 1926 show will surpass anything of th kind that we have ever had on the Pacific Slope."


I DONT KNOW WHAT TO DO, WITH THAT BOY, OF MINE, HE WILL NOT EAT!
S'FUNNY-? SURE IS STRONG AND HEALTHY
THAT'S WHAT GET'S ME, HE'S SO FAT, AND SO GOOD-NATURED, NEVER CRIES, NEVER SICK.
HE NEVER EATS AT MY PLACE EITHER.
"THE REASON WHY."
MILK
Mueller



QUICK-KURD
Sour Milk Testing Solution

RAPID *ECONOMICAL* *CONVINCING*

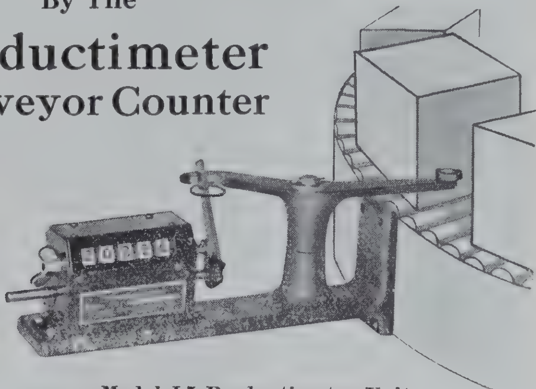
A simple and reliable test for high-acid and Garget milk that can be **performed by anyone in a few seconds.**

Placing a dipper of milk in the test tube containing solution and shaking undesirable milk will produce an unmistakable **curd** at once.

No. 18.	Supplied for eliminating milk over 0.18% acidity and Garget milk. One Gallon (sufficient for 375 tests), $2.50.
No. 22.	Supplied for eliminating milk over 0.22% acidity (milk that will curdle on heating), and Garget milk. One Gallon (sufficient for 375 tests), $2.50.
Outfit Complete, tubes, dippers, etc., without solution	$5.00

THE DAIRY LABORATORIES
2300 LOCUST STREET PHILADELPHIA, PA.
New York Baltimore Washington
"The Home of Flav-O-Lac Liquid Cultures"

Counted As They Pass
By The
Productimeter
Conveyor Counter



Model L5 Productimeter Unit.

The Productimeter Model L5 Conveyor Counter provides a quick, easy, and accurate means of getting the count of boxes, pieces, or packages as they pass along the conveyor. Assures a mechanically accurate count and saves a man's time and wages. Unit consists of a standard 5B1 Productimeter equipped with a special mounting bracket and counting arm, ready and complete for attachment to any conveyor. Counts to 99999 and is easily reset to zero by a turn of the wing nut.

Send for special bulletin, giving details on this unit, and catalog describing 57 standard models of Productimeters for various applications.

DURANT MFG. CO.
663 Buffum St. Milwaukee, Wis.

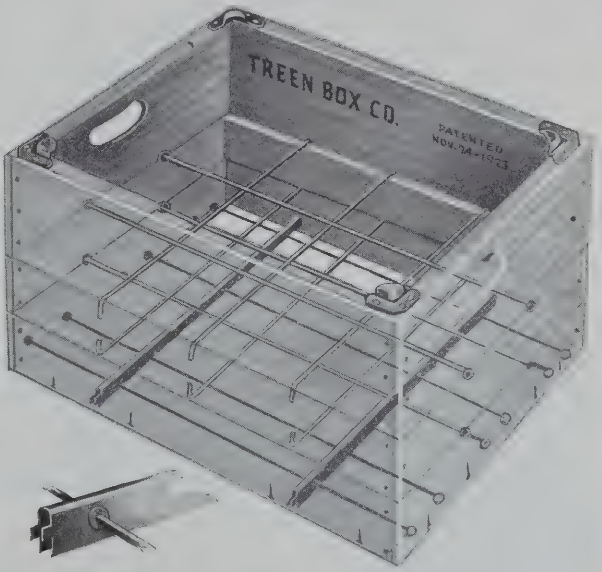
ARCUS COUPON BOOKS

Can be made to Increase Sales of ALL Your Products

By printing ads of your ice cream, butter, cottage cheese, eggs—and other lines on the covers of Arcus Coupon Books you will increase your sale of all these products, because your customers will be more liberal in "spending" coupons than cash.

Our Service Department will prepare catchy ads for you—free—if you wish this service.

The Arcus Ticket Company
348 N. Ashland Avenue CHICAGO, ILL.



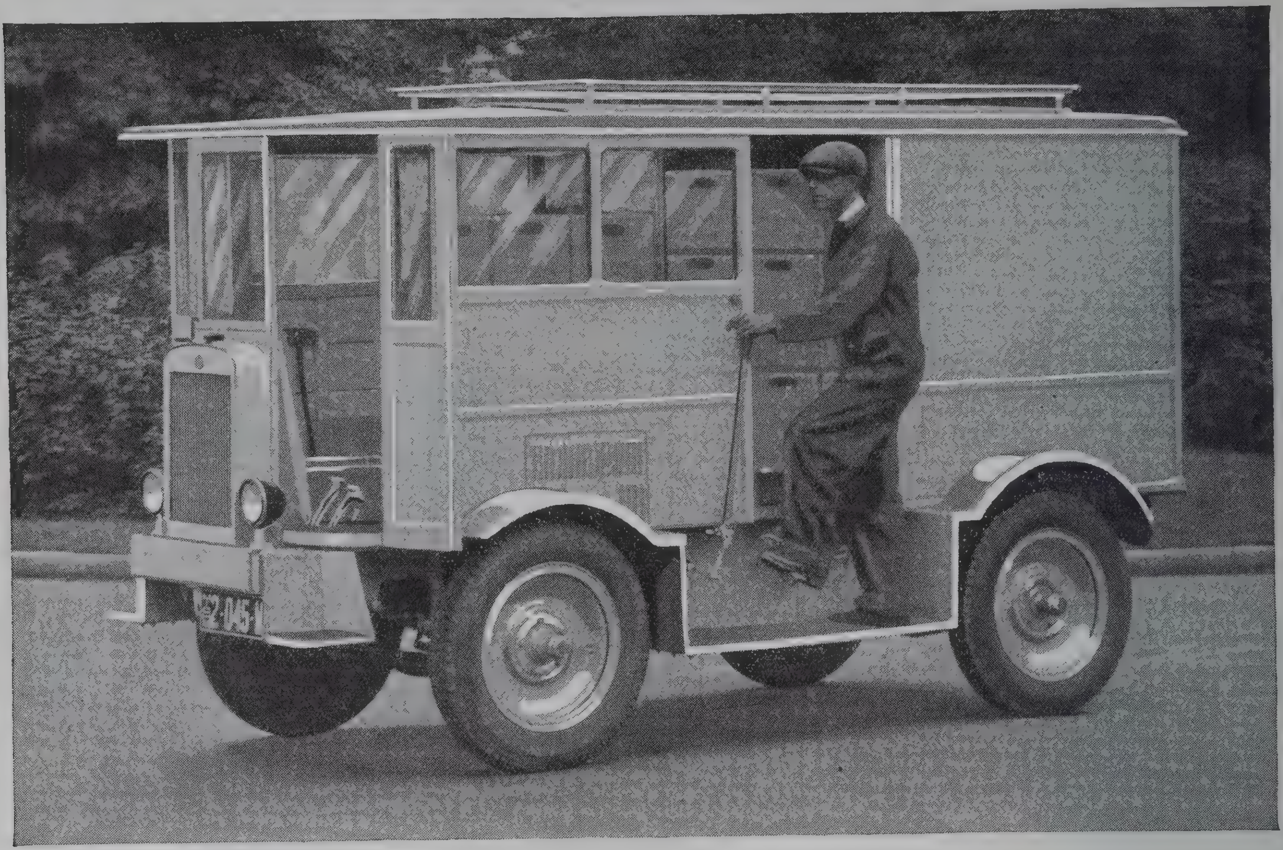
Made in 2 and 3 Grid styles for
12 Quarts—20 Pints

Moderately Priced Milk Box

Cross wires inserted in sides with angle ends support sides both ways.
Galvanized Channel cross braces.
Non-Breakable Steel stacking corner irons.
Strongly constructed in every detail.
Made of Selected Maple.

A TRIAL ORDER IS THE BEST SAMPLE. WRITE FOR PRICES.

TREEN BOX COMPANY
Tioga and Memphis Streets : PHILADELPHIA, PA.



Gasoline Driven — Not Electric

From House to House with Divco

The milk man of the very near future will go from house to house with Divco. Exhaustive tests in actual service prove that. For Divco, the only gasoline vehicle designed purely for milk delivery service, cuts delivery costs, combines three average routes into two, expands the delivery possibilities of the driver and carries as much milk as any man can deliver.

Write for the booklet which tells all about Divco. It not only describes the vehicle fully, but is complete with operating tables which show the big savings effected in the services of large milk dealers.

From House to House with DIVCO

We would like to have the book, "From House to House with Divco."

We operate ___ milk wagons at present.

Name __________________

Street __________________

City __________________

Detroit Industrial Vehicle Corp.

1400 Fort Street West
Detroit

MICHIGAN ASSOCIATION WILL MEET.

Jackson will be the Mecca of the Michigan Allied Dairy Association for their annual convention Feb. 7-11, and plans are rapidly going forward for providing the most interesting program that has ever been given by the Michigan dairy products manufacturers. This association was formerly known as Michigan Dairymen's Association.

According to D. W. Shiel, secretary of the association, it is very important that those who will have an exhibit at the Jackson convention make their reservations at once; inasmuch as those in charge of the convention wish to make their advertising plans accordingly. Floor space will be sold at prices ranging from $18 to $30, this rate to include janitor and drayage charges to and from the exposition hall. Fifty-six spaces are for sale, and according to Mr. Shiel, each will have plenty of light for effective exposition.

The convention will include all of the dairy industries, so that a huge attendance is expected. Within the Michigan Allied Dairy Association, there is an association from each industry, and it is planned that each unit hold their own respective meetings during the course of the convention.

The convention program that has been planned to date, in addition to the business sessions, follows:

Feb. 7.

Placing of exhibits.

Dairy Boosters annual banquet at the new Hayes Hotel.

Feb. 8.

Convention will open at 10 a. m.

A program in the exposition hall will be given in the evening.

Feb. 9.

Michigan Allied Dairy Association annual banquet at the Hayes Hotel, which will be followed by entertainment.

Feb. 10.

Special program by the Jackson City Choral Club under the direction of Prof. S. S. Rockwell.

Annual dance of the Michigan Dairy Boosters. Everyone attending the convention is invited.

Feb. 11.

Winding up of all unfinished business.

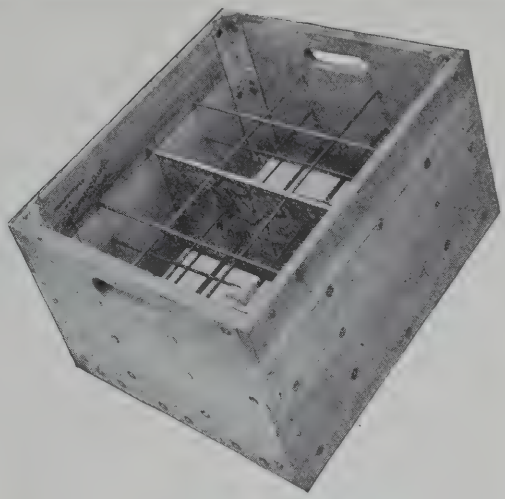
⁂

JUDGE MORRIS FOR GOVERNOR.

Our good friend, Fred Wehmiller, president of the Barry-Wehmiller Machinery Co., St. Louis, calls our attention to the fact that Chas. G. Morris, president of the New Haven Dairy Company, New Haven, Connecticut, is a candidate for governor of his state. At the Democratic state convention, held in New Haven in September, "Judge" Morris, as he is known to his host of friends in the dairy industry, was selected as the standard bearer.

Mr. Wehmiller also calls our attention to the fact that the convention also adopted a platform which reads as follows:

> "The Eighteenth Amendment has no place in the framework of our government. It is an indefensible curtailment of personal liberty. We believe that it should be repealed, and pledge our candidates for office to work for that end. In taking this unequivocal stand we do not countenance non-enforcement. While prohibition is the law of the land it is the duty of our government to enforce it. We oppose the return of the saloon."



Money Savers

You can keep down your bottle crate investment with—

Republic Bottle Crates

and their life of useful service will be found to compare exceptionally favorable to any you have used.

The high one-piece galvanized iron center spacer keeps the rods permanently in line and prevents their sagging. Corners are reinforced with heavy galvanized metal—made in one piece to form stacking iron and bottom corner protection.

GET OUR PRICES
BEFORE YOU BUY

THE
Republic Box Company
1693-1711 Merwin St.
CLEVELAND, OHIO

Special Course in Dairy Manufactures

At University of Missouri, College of Agriculture, Columbia, Mo., Jan. 3 to Feb. 26, 1927

INSTRUCTION is offered in all dairy manufactures, including buttermaking, ice cream making, cheesemaking, handling market milk, dairy bacteriology, testing dairy products, dairy mechanics, dairy plant management, and refrigeration.

This course trains men to become buttermakers and cheesemakers, to manufacture ice cream, to receive and process market milk by application of modern methods, and to manage manufacturing plants efficiently.

Who Should Enter the Course in Dairy Manufactures. The volume of ice cream consumed annually in the state of Missouri has increased 300 per cent during the past five years. The output of Missouri creameries has experienced an increase in the volume of butter manufactured of approximately 35 per cent in the same length of time. The market milk plants of this state are each year increasing the volume of their milk sales due to an increase in the consumption of milk and cream.

The demand for thoroughly trained and competent men to accept positions in cheese factories, creameries, ice cream plants, market milk plants, and commercial laboratories has greatly exceeded the number of trained men available. This demand for trained men is becoming more urgent each year. The beginning salary for men with little or no previous experience averages $120 per month. Every graduate of our special course in dairy manufacture for several years has been placed in a satisfactory position. As further requests for more experienced men are received, we never hesitate to recommend our graduates for promotion in position and salary. The purpose of this short course is to give a thorough training in the fundamental principles essential for practical work in creamery buttermaking, ice cream making, cheesemaking, plant management, and the production and handling of market milk. Men who desire to undertake any phase of the dairy manufacturing business, will find this course complete in every respect and a most important stepping stone to better positions. Many of the most modern creameries, ice cream factories, and market milk plants now demand that a man be a graduate of a short course of this nature.

Training Very Necessary and Essential. Success in dairy manufacture now depends on a knowledge of the most modern methods now practiced in our dairy manufacturing plants. So great is the value of dairy products and so dependent is the value on quality, that the efficiency of a plant is measured by the ability of its employees to turn out the largest amount of high quality product from the raw material available. **Trained men,** only, can cope with the varied problems of manufacture, marketing, and business management. The plant manager must be capable of assisting and directing skilled and technically trained labor. These qualifications may be gained through many years of work in commercial plants or by thorough training, such as is secured by attending the Missouri special course in dairy manufactures, combined with a much shorter period of practical experience.

This special short course is designed to teach the fundamental principles necessary for the manufacture, storage, and sale of dairy products, and abundant opportunity is given to become thoroughly acquainted in the university creamery, ice cream and market milk departments, and operating facilities.

Equipment. The university creamery, where all instructional work is given, is supplied throughout with modern equipment. This includes a Disbrow churn, Perfection churn, 150-gal. Wizard pasteurizer, 200-gal., motor driven Cherry pasteurizer with recording thermometer, automatic bottle filler and capper, motor driven De Laval clarifier and separator, and Sharples combination clarifier and separator, also complete testing equipment.

In addition there are available for student instruction modern commercial dairy plants in Columbia, fully equipped for handling market milk, butter, ice cream and cheese.

The ice cream equipment includes a batch mixer, a 50-qt. Cherry ice cream freezer, ice cream standardizer, a Gaulin homogenizer, a hardening room with a capacity of 600 gallons per day, and two modern ice cream mixture emulsors. All refrigeration work is handled by a 16-ton York refrigeration system which is, without question, one of the most completely equipped plants in the West. The ice making plant has a capacity of 1,500 pounds daily and supplies ice for milk cooling at the dairy barn in addition to the needs of the creamery and the ice cream department.

Time. This special course in dairy manufactures will be offered for a term of eight weeks from January 3, 1927, to February 26, 1927. Many students or men employed in the plants avail themselves of the opportunity to take this course which is offered during the season of the year when the demand for their services is the least. Such an arrangement will not require that you resign from your present position. Realizing the vital importance of this course, the managers of many plants pay the expenses of several of their employees who are eager to progress. In the class of 1926 about one-half of the students enrolled had all expenses paid by the company with whom they were employed.

Entrance Requirements. The only entrance requirement is that the student be 16 years of age or older. The special course in dairy manufactures is arranged so that the students who have had no more schooling than that offered by the common schools can satisfactorily do the work. About one-third of those who attend have had no more than an eighth grade education. Many students have had some high school or university training. The work is so broad in its program and the course of study so arranged that those with advanced preparation and experience will find their time fully employed to a good advantage by giving attention and consideration to the more advanced problems.

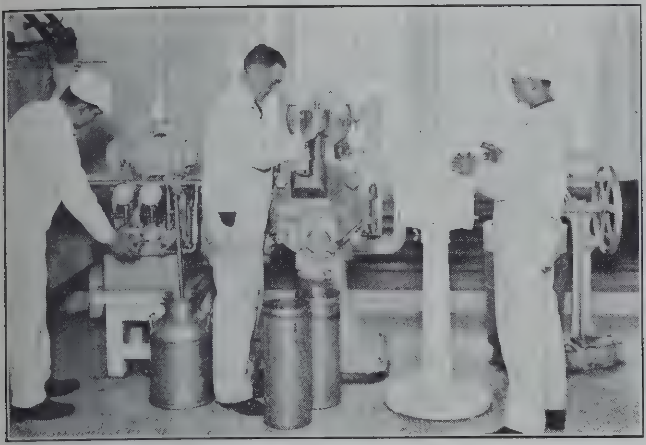
The Cost of this Course. Students are required to pay a library, hospital and incidental fee of $10. This entitles them to the use of the libraries, and to hospital and medical attention in case of sickness. Laboratory fees totaling approximately $15 are also charged to cover cost of materials used. Most short course students room with private families. The usual cost for each student is from $7 to $11 a month. Many short course students eat at the cafeteria where board may be had at a reasonable figure. The cost at private boarding houses ranges from $5 to $7.50 per week.

Outline of the Work Given.

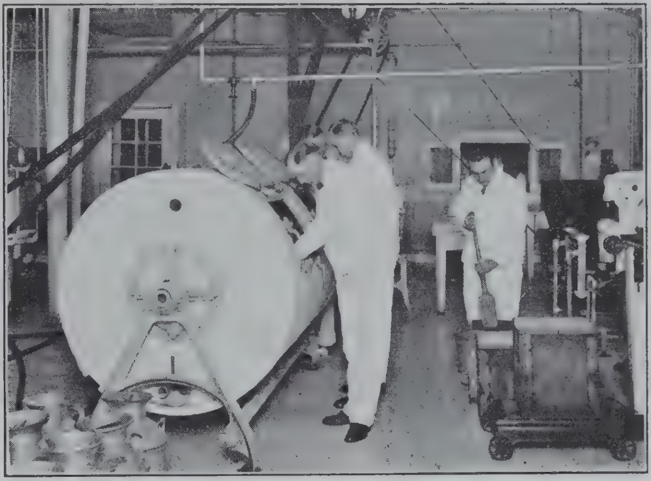
Ice Cream Making. This includes the manufacture of ices, sherbets, and ice cream; freezing, packing, hardening, sale of ice cream, and the standardization of ice

In the Missouri Dairy School

The Practical and Theoretical Properly Blended

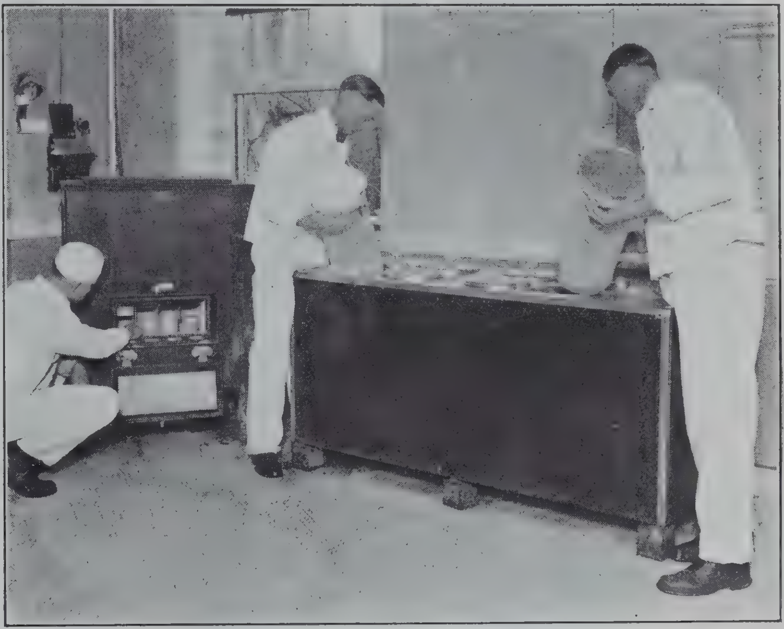


Special Attention Given to Ice Cream Making.

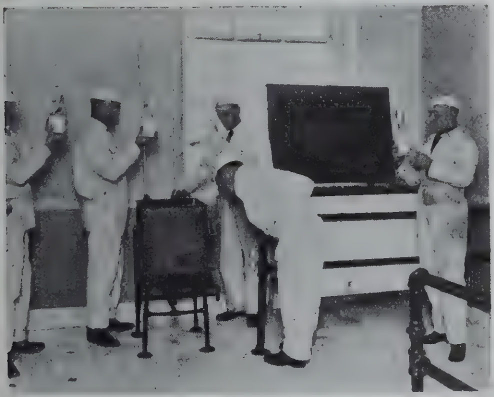


In the Churn Room.

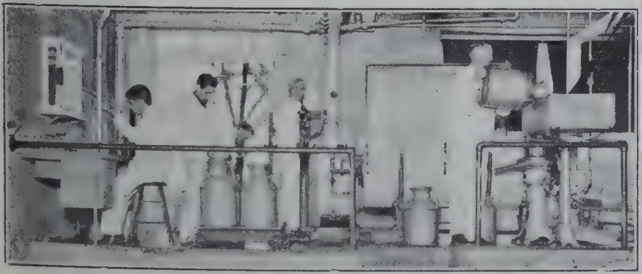
Grading Cream in the College Creamery.



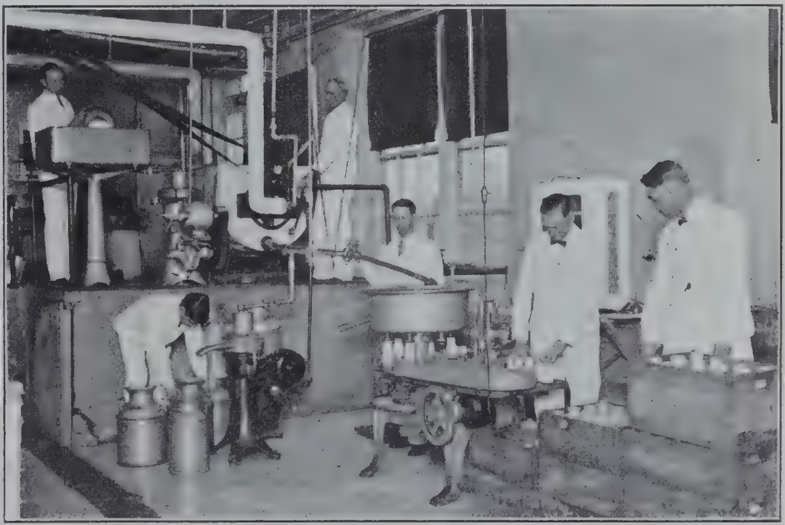
The Modern Way of Handling Ice Cream.



In the Culture Laboratory.



At the Receiving End.



The Production and Handling of Market Milk Gets Special Attention.

Conservative Investment in Insulation

results—

when you insulate your Cold Storage Rooms with

CRESCENT
[100% Pure]
CORKBOARD

installed complete by

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Write to us for further information.

United Cork Companies
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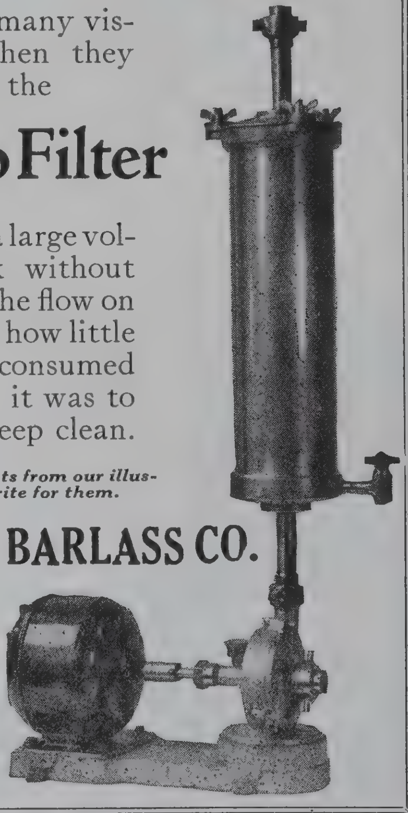
SURPRISED!

That is what many visitors were when they saw how well the

Chicago Filter

could handle a large volume of milk without detriment to the flow on the milk line, how little floor space it consumed and how easy it was to install and keep clean.



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cream mixes for fat, solids not fat, and total solids. Much time is given to solving those factors which tend to cause undesirable flavors, texture, body and color to appear in the finished product.

Dairy Bacteriology. This course is offered because of the demand that dairy plants manufacture products with a low bacterial count, and a working knowledge of the application of sanitary principles must be thoroughly understood by all employees. The manufacturer should acquaint himself with the common types of bacteria and their relation to milk and its by-products.

Judging Dairy Products. The work consists of judging butter, ice cream, cheese, and market milk, and will enable the student to recognize the various grades and their market value.

Dairy Mechanics and Refrigeration. A study of the management, care and operation of power machinery for dairies, including all types of modern plant equipment, and in addition, steam boilers, engines, electric motors and refrigeration plants.

Creamery and Plant Management. This includes a thorough study of the organization, management, and administration of dairy manufacturing and distributing plants. Particular attention is given to the study of overrun, various tests, cost of production of cream, markets, advertising and business methods. A similar study is made of milk, ice cream and cheese.

Tour of Inspection of Creameries, Ice Cream Factories, Cheese Factories, and Market Milk Plants. A trip to Kansas City or St. Louis may be arranged during the last week of the course, for the purpose of inspecting and studying the operation of creameries, ice cream factories, cheese factories, and market milk plants.

For further information concerning the short course in dairy manufactures, write Prof. W. H. E. Reid, Dairy Dept., College of Agriculture, Columbia, Mo.

Several Acknowledgements of the Value of the Course.

"I am now capable of manufacturing a product of which I am proud because I have a thorough knowledge of the fundamentals and their application in addition to the modern processes involved in butter manufacture. Had I not received this information when enrolled as a student in the special creamery course," Edmund P. Mueller states, "I would not have continued in the creamery work.

Before taking the special creamery course, W. H. Miller of California, Mo., was a churn helper; now he is manager of both the butter and ice cream departments.

"Knowledge received in dairy bacteriology concerning the control of bacteria, mold and yeast growth made it possible for me to save the company with which I am associated several thousands of dollars in one shipment of butter to the Alaskan government," write Wm. K. Moseley, who specialized in dairy manufactures at the Missouri College of Agriculture and who is now with the Board of Health of Indiana as assistant supervisor of inspection service.

J. D. Ridgeway of Ollie, Ia., has been able to increase his produce business materially because of his having attended the special creamery course at the Missouri College of Agriculture. He highly recommends the course to any person interested in any phase of butter, ice cream, cheese manufacturing, and the market milk industry.

Glenn M. Young, present manager of the Brookhaven Creamery of Brookhaven, Miss., writes: "During my studies at the Missouri College of Agriculture, I spent a great deal of my time in the dairy department and can say that all my associations with that department have been very pleasant and satisfactory. I attribute my success to the information gained from the courses given by the dairy department."

Introducing

ROBERT CAREY SNOWDAY

REPRESENTING

MAXWELL CASE

MILK SALES PROMOTION

NEW ROCHELLE, NEW YORK

Bacteria Causing Different Colors in Milk

Not Harmful, But Causes the Consumer to Become Suspicious of the Quality of the Milk

By PROF. W. H. E. REID*

MICRO-ORGANISMS, as known to the dairy industry, are entirely too small to be seen by the naked eye. They remained unknown until they could be observed and identified by the use and application of magnifying glasses or lenses which make up the microscope.

The actual number of different types of bacteria present in milk and its by-products is really astounding were it not for the presence of so many kinds of bacteria. The time, effort and cost of producing and subsequent caring for or handling the milk and the different products into which it is manufactured, would be simple. Therefore, the success of the entire dairy industry is dependent upon our knowledge of the principles underlying dairy bacteriology. The market milkman, with comprehensive understanding and practical, as well as scientific knowledge of how to treat with bacteria in the field of dairying, should be capable of controlling the bacterial flora throughout the various processes involved in producing and afterward handling the milk supply.

The bacteria, as a class, are among the smallest of living things and for that reason they remain quite unknown to the average layman. Their presence is made evident by the changes they produce in the materials and products in which they are growing, as in milk which they cause to coagulate, rapidly deteriorate or produce many other changes.

To the unaided eye, milk appears as a yellowish white, somewhat viscous, opaque fluid with a homogeneous structure. The natural color of milk and its by-products is of considerable commercial value because the consuming public regards this property of milk as a true indication of its quality.

The substance which imparts the true yellow color to milk has been named "lactochrome," although little is known of its real nature. During the summer season milk and butter acquire a very desirable and attractive yellow color, especially when the cows are feeding on green grass. The yellow pigment of the milk fat, which imparts the yellowish hue, is due to the presence of two distinct classes of yellow pigment which are common in green plants and known as carotin and xanthophylls. Experimental work has proven conclusively that dairy cows, exclusive of breed, are entirely dependent on the carotin and xanthophylls in their feed for the pigment of their milk fat which gives to milk its richness of color.

It is common knowledge that milk from the Jersey and Guernsey breeds has a richer yellow color than that from the Holstein and Ayrshire breeds. The Jersey and Guernsey breeds are spoken of as color producing breeds, while the Holsteins and Ayrshires are thought of as non-color producers, due to the appearance of the milk secreted. The question of feed is a vital factor in accounting, in part at least, for a difference in shades of true colors produced by the different dairy breeds. Other factors are also responsible, among which are the changes due to different types of bacteria.

One of the most striking results of bacterial activity is the phenomenon of color production. The particular color which may be produced as a result of bacterial reaction may be almost any one throughout the range of the entire spectrum, though shades of yellow, blue an red are of the more frequent occurrence.

Occasionally it happens that milk assumes a pecu iar color after it has remained standing for a conside able length of time. This change in color is due i most instances to the multiplication of a certain pi ment-forming bacteria. These color-producing organism are almost universally present in milk, but ordinaril do not grow in sufficiently large numbers to impart the peculiar pigment to the milk. Thus, milk at times ma appear blue, red, yellow, or chocolate brown in color.

A knowledge of the color-producing organisms is importance to the producer and distributor of our cit milk supply because of the absence of warning as to ju when the milk may acquire one of these undesirab colors.

The bacteria producing these colors are not relate to each other in such a manner as to form a distin group. The principal property which they have in com mon is their ability to produce their respective pigment or colors, otherwise there is no marked resemblanc This point can be clearly illustrated by stating that yellow sarcina produces a yellow pigment in milk, baci lus prodigiosus produces a red pigment and bacillu cyanogenes, a blue pigment. The pigments, strange state, are not always in evidence even when the respe tive type of organisms capable of producing the pigmen are present, as certain conditions are requred for the fo mation of pigments. Acid is often inhibitory to pigmen formation, as in the instance of the fluorescent pigmen of bacillus fluorescens. The acid which develops milk soon after being produced prevents the formatio of the fluorescent pigment, even though the organism may be present in large numbers.

The blue pigment produced by bacillus cyanogen becomes more intense in color when the acid develo ment occurs, although in this instance the intensity the pigment is probably due to increased growth rath than to formation of a pigment of greater color strengt A metabiosis or relationship which exists between the dinary lactic acid bacteria and bacillus cyanogenes, pigment producer, is responsible for the decided grow of the latter in the presence of acid, rather than in absence of acid.

When these many different colors do make their a pearance in the market milk supply, they appear ne the surface of the milk more so than in the deeper laye This is due to the necessity of free oxygen in the p duction of the pigments or colors by the various p ment-producing organisms. There are, however, exce tions to this understanding, as bacillus cyanogenes for a pigment in the absence of oxygen, although it does velop a pigment under aerobic conditions.

Temperature is a very important factor in the velopment of a particular color, retarding the grow of the bacteria producing the pigment or capable of f nishing the color. At a temperature of 37 degrees (98.6 degrees F.) many of the chromogenic or color-p ducing bacteria do not produce a pigment, while a lower temperature it may be formed in abundan It is of the utmost importance from the standpoint the milk distributor that all of the different color-p ducing bacteria be destroyed before the milk is coo and thus held for an appreciable length of time at a l

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* Associate professor dairy manufacture, University of Missouri, Columbia, Mo.

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"The Choice of Careful Buyers"

Greatest Value in Insulation History—

You buy NOVOID CORKBOARD for a much lower price than would be possible were it not for the fact that it is made exclusively in the utilization of "cork waste" by the largest cork products manufacturing organization in Europe.

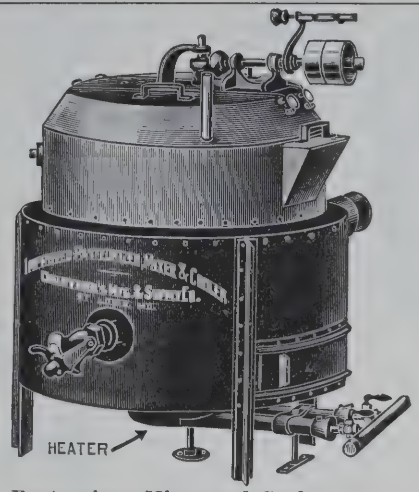
And since NOVOID CORKBOARD costs no more than competing brands, though superior in six important respects, it is proper to say that its purchase and use offers the greatest value in insulation history.

In no other way could the universal acceptance and prestige accorded NOVOID CORKBOARD — **one board foot per second**—be satisfactorily explained!

Write Dept. 23 for new literature.

CORK IMPORT CORPORATION
345-349 West 40th Street, New York City

The Dairymen's Gas Heated Improved Pasteurizer, Mixer and Cooler



Gas Heated Pasteurizer, Mixer and Cooler.

THE IMPROVED PASTEURIZER, MIXER AND COOLER is furnished complete with tight and loose pulleys, belt shifter, long stem Brewers type thermometer, which extends down into the center of the milk container, insuring accurate reading of temperature, and sanitary outlet gate and burner. The heating unit is an extra jacket around the outer jacket of the pasteurizer proper made of extra heavy iron, under which a gas heater is placed.

The only machine of its kind not requiring a boiler for heating. Actual tests have shown that the water can be heated to 140° F. in 45 minutes, and is cooled by using ice in the outer jacket.

Capacity gallons	Price without coil, each	Price with copper circulating brine coil, each
30	$215.00	$250.00
50	250.00	300.00
100	315.00	380.00

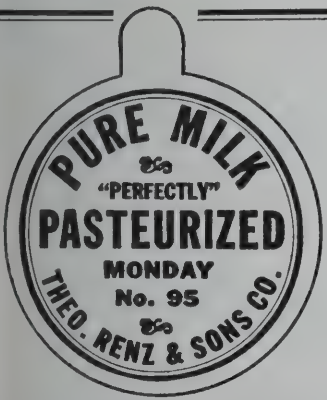
Price includes burner and long stem thermometer.

Special discount for October.

HAINES-CARPENTER DAIRYMEN'S CO.

Complete Equipment, Machinery and Supplies for the Creamery, Dairy, Milk Distributor, Cheese Factory, Condensery and Ice Cream Manufacturer.

405 North First Street ST. LOUIS, MO.



There's Real PULL to this Cap

The Best Pull MilkCap

Once used, customers demand it.
Can be used on any Capping Machine, the same as round caps.
Three slight changes only.
Satisfaction to you and your customers guaranteed.

Write for samples and prices.

Sanitary Milk Cap Co.
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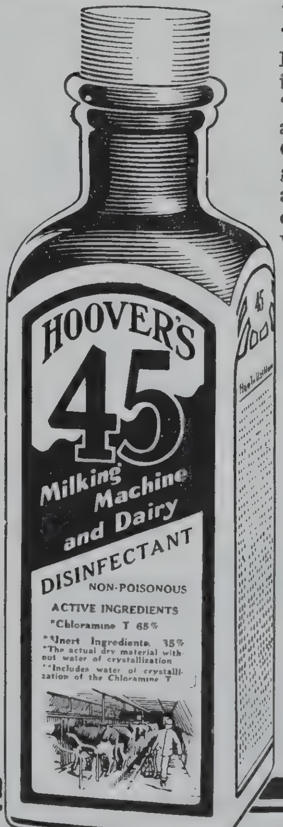
A Powerful, Economical Disinfectant *for* Cleansing Dairy Equipment



Dairies, milk plants, creameries, ice cream factories, etc., find "Hoover's 45" an ideal cleansing agent, disinfectant and deodorant. One 10-oz. bottle will make 475 gallons of powerful solution suitable for flushing out milking machines, cleansing milk cans, milk vats, ice cream freezer cans, etc.

"Hoover's 45" is a non-poisonous white powder that is a germicidally active compound, yet non-poisonous. It is readily soluble in water and its action is very efficient and thorough. Aside from its use as a disinfectant and cleansing agent, it is also a valuable deodorant.

Quantity production places us in a position to offer very attractive prices.

Write for descriptive literature and quotations covering your requirements for a product of this kind.

UNIVERSAL MILKING MACHINE COMPANY
Dept. M Waukesha, Wis.

temperature, if colors in the milk are to be avoided should that particular type of organism be present in the milk.

Light has an inhibitory effect on pigment or color formation, but in an opaque fluid like milk, light is unable to penetrate to an appreciable depth, and pigment bacteria are not materially influenced.

Bacteria have a tendency to rise with the cream, so that the cream layer frequently shows the presence of different colors when the skim milk below has a normal appearance.

Colored milk has never, to the best knowledge of our scientists, been produced by the bacteria that are injurious to health. However, the appearance of colored milk naturally arouses the suspicion of the consumer, and is, therefore, frequently the source of considerable annoyance to the producer and distributor. Colored milk is an annoyance for the additional reason that the milk usually shows no evidence of color when it leaves the producer's or even the dealer's place of business. The pigment furnishing the color usually appears after the milk has been standing for some time, enabling the pigment-forming bacteria to have an opportunity to multiply.

As indicated, the pigment frequently affects only limited portions of the milk. The surface may be uniformly colored; no colored spots appear which gradually expand and coalesce, and finally penetrate to some depth; or the whole volume of the milk is affected; or, finally, the pigment may in rare instances appear in lower portions of the milk only.

There are occasional instances when milk is colored by agencies other than micro-organisms. The presence of blood is not an infrequent cause of a red tint in milk. Milk which has been allowed to stand in iron dishes for several hours may assume a bluish-gray color, due to a solution of some of the iron. Milk from diseased udders may have a decided yellowish tint. Pasture plants which are eaten by cows may influence the milk so as to produce coloration, but observations of this sort are not entirely trustworthy.

Blue color in milk has probably been more frequently observed than any other "color fermentation." Sometimes the blue pigment appears only after the acidity of the milk is pronounced, and becomes more intense as acidity increases. This phenomenon is not due to a chemical influence as much as to the fact that the milk becomes more suitable for growth of the organism when acidity develops. This is an example of an associative effect of lactic acid bacteria and the pigment-producing types. It has been observed that the pigment develops more rapidly in raw milk than in pasteurized milk, and in pasteurized milk more rapidly than in sterilized milk. A blue color develops quite rapidly in pasteurized milk when the milk may curdle promptly. The influence c lactic acid bacteria is quite obvious, since raw milk sour more rapidly than pasteurized milk, and pasteurize milk more rapidly than boiled milk. As a matter of fac boiled milk does not usually sour.

Bacillus cyanogenes or bacterium syenaneum probably the most common cause of blue milk. It ha been found in this country as well as in Europe, an therefore, may be assumed to be widely distributed. Th color is not produced in milk kept at 37 deg. C. The di tribution of the color seems to be more uniform throug the volume in pasteurized milk than in raw milk.

Blue milk has been observed more frequently in sun mer than in winter. It is thought that the feeding c turnips or of clover mixed with horse tail may be th cause of the blue pigment appearing in milk, and that change of food will relieve the trouble. The micro-o ganisms producing the pigment are disseminated b these feeds and consequently they are also present i cow feeds, and may gain entrance to the milk from th source.

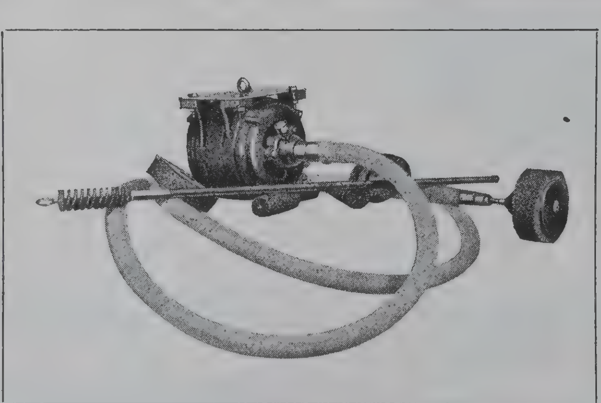
The red pigments or colors develop in milk less ra idly than the blue colors and appear, generally, after lapse of two to three days, which indicates to the co sumer that the milk was delivered in apparently goo condition.

Red milk is probably caused by bacillus prodigi sus more frequently than by other red pigment-formin micro-organism. Usually, the cream alone appears co ored as the bacteria rise with the fat globules. Suc milk is, of course, entirely harmless and objectionab only on account of its appearance.

Bacillus fluorescens, which is a common inhabita of water and feces, and consequently, of milk, has fluorescent pigment, which appears but rarely, since ac prevents its formation. Yellow milk is very uncommo although it has appeared in several instances. Sarci lutea may form a yellow pigment of color in milk, b the pigment settles and does not impart a yellow col that diffuses throughout the milk. This one organis is a small bacillus that coagulates the milk and dissolv the casein, resulting in a lemon-yellow fluid.

The producer and distributor must take every pr caution to safeguard their milk supply against the e trance of pigment or color-producing bacteria. The organisms increase the total number of bacteria in t milk and produce colors which are entirely offensive the consumer and this is particularly true since the mi is the product which is expected to be free of all qu tionable appearances.

A milk supply which is produced under modern, sa itary conditions and carefully guarded in the subseque processes until consumed, will not be troubled by col producing bacteria.

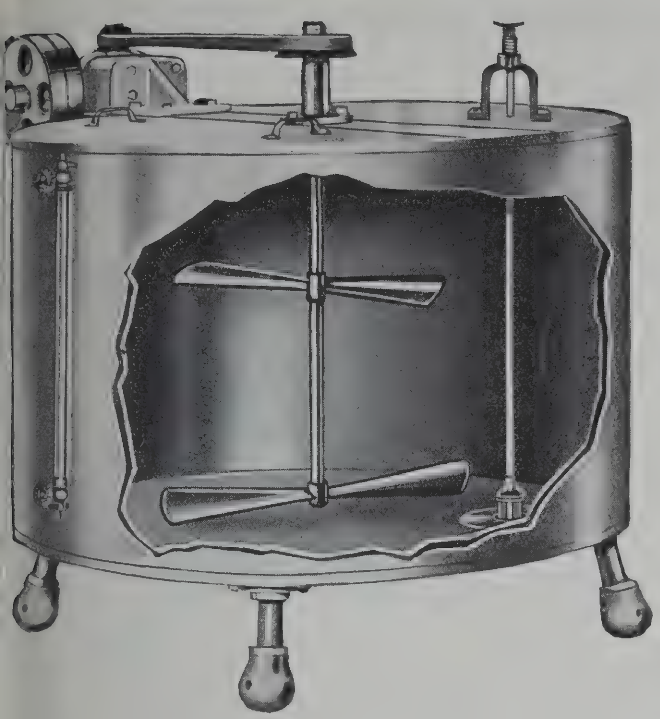


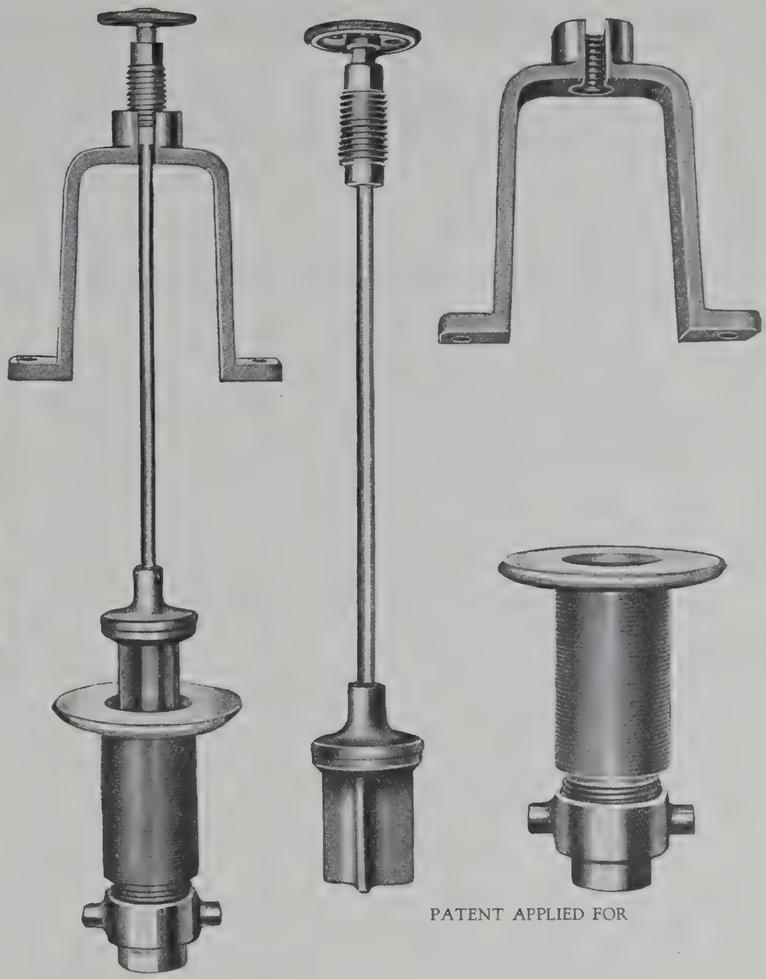
The King Cleaner *vs*. Steel Wool and Harsh Brushes

RESULTS—Both will keep Sanitary Piping and tubular pasteurizing equipment perfectly clean,—but—the King Cleaner will not ruin the tubing, and requires far less time and effort for the work.

Send us diameters and lengths of tubing in your equipment and we will advise you size and price of Cleaner needed.

King Sanitary Pipe Cleaner Co., Inc.
SANDY HOOK, CONN.





The Cresco Flush Valve sets flush against the outlet inside the bottom of the Cresco Pasteurizer. The beveled ground seat makes a perfect fit.

PATENT APPLIED FOR

Cresco Pasteurizer

Outstanding superiority characterizes this economical machine for the perfect pasteurization of market milk. Years of satisfactory service in America's milk plants prove its honest value.

Start with one unit. As your business grows add other units. Economy of operation and long life construction, together with low first cost, make it an ideal equipment for progressive milk men.

The Cresco Pasteurizer insures the full cream line in the bottle, retains the natural raw taste in the milk, and obtains the low bacteria count so necessary in building a bigger milk business.

WRITE FOR COMPLETE INFORMATION

Cresco Creamery Supply Company

1845 W. Van Buren Street CHICAGO, ILL.

Ins and Outs of Business Law

How NOT to "Fire" an Employee

By O. H. BRINKMAN, Attorney at Law

"I WANT to get a warrant,'' said the client.

''Who for, what for, and why for?'' queried his lawyer in the casual manner of one who refuses to get excited about other people's troubles. Lawyers do get that way for some reason or other!

''Well, this fellow Joe Spavins, whom I brought into the business when he was just in knee-breeches, has got so that he thinks he knows more about it than I do, and he's going to leave me at the end of the week and try for himself. And he's got my full list of customers, my price lists and my buying records, and I might just as well kiss my business good-bye as let him get away with that stuff. Of course I don't mean to say that Joe would actually take anything that belonged to me, but I know he has copies of everything because I saw him making some of them, and he even had the bookkeeper help him. So I want him arrested, because I know the law won't let him get away with that kind of stuff.''

''True enough,'' replied the barrister, ''but the law won't put him in jail—at least not yet. If and when we get an injunction against him, and if and when he violates it, we might have him committed to durance vile for contempt of court. However, the first question is whether the information he intends to use was gained in confidence, and whether it is a particular secret of your own business and not matters of general knowledge to the trade.''

''Why sure,'' the client said, ''I wouldn't have let Joe or anybody else have the list of my accounts, or our credit records, or any of the other stuff he's been copying, unless it was in confidence. Of course, I didn't have anything in the way of an agreement in black and white with him, but—''

''Oh, that part's all right,'' the lawyer interrupted. ''Joe has been your manager, and even if he had been merely a clerk, the law still implies a duty on his part not to divulge trade secrets. Even if he did not intend to go into business himself, he could be restrained by an injunction from giving a competitor a list of your customers, etc. Even ideas for advertising campaigns can be protected against disclosure to somebody else. And some businesses have operated for years under secret processes, not patented, for manufacture of various articles and compounds, simply because the law protects what we call 'trade secrets.' ''

''Well, the worst is yet to come,'' said Joe's employer. ''He even wants me to give him a letter of recommendation, or a letter saying that he is quitting of his own free will. If I give him a letter, it will be the kind that has to be written on asbestos paper.''

''Well now I know I can charge you a good fee, and with a clear conscience, too,'' was the reply. ''We have a law in this state, and they have practically the same thing in several others, providing that upon request of an employee, either leaving voluntarily or 'by request' the employer shall give him a letter stating the nature and character of service rendered, and the reason for the severance of employment. For failure to do so, the employer can be fined $500, or imprisoned for not more than a year in jail. Possibly the law is unconstitutional, but why take a chance, and spend the money to test i when that can be so easily avoided? Furthermore, fo an untruthful letter written to anyone concerning former employee, where malice can be shown, there i possibility of judgment for libel. Furthermore, if wage or salary are withheld from an employee who is leaving and payment is not made within seven days, the la provides that the man shall be considered as remainin on the payroll indefinitely—until such time as the em ployer does make payment. Of course these laws aren in effect in all states, but in most states there are pro visions designed to 'protect' the employee; and when man quits or is discharged, the best thing to do is t pay him in full and proceed to forget him. This 'gettin even' idea is never profitable, in my estimation.''

''How many more such laws are there?'' asked th client, with considerable asperity.

''Oh, we have one that prohibits blacklisting an em ployee; another that provides a corporation must gi 30 days' written notice before reducing wages, and sti another requiring payment of wages not less than twi a month. The bankruptcy laws gives preference to em ployees for past-due wages, and so on. Then, too, yo can't withhold wages due an employee who quits wit out notice and who has failed to finish a particular pie of work for which he was hired, or on which he w engaged.

''The law, of course, gives the employer protectio in some cases, such as upholding written contracts wit the employee that he will not engage in the same bus ness for himself or others in a certain location for a lin ited time. It also gives you action for damages again anyone who entices away a valuable employee; damag from the employee himself who leaves in violation of contract, and you can even restrain him from enterin the employ of someone else if you can prove that h services require special skill or knowledge not possess by others and which you cannot duplicate. These latt cases are very rare, however. You can also recover fro an employee secret commissions that he may have o tained while engaged in your business, such as a 'rak off' from the firm that has been doing your truckin and the like.

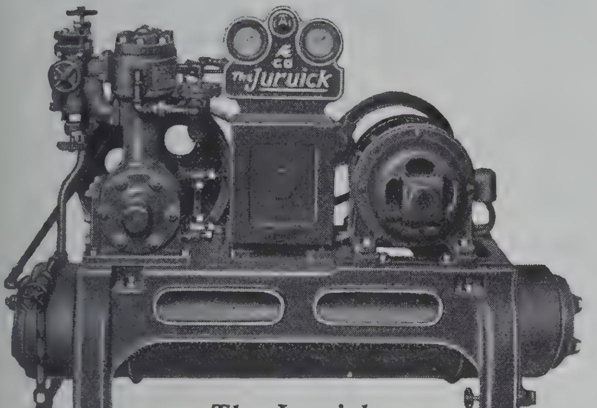
''But all this doesn't worry you just now, and I su gest that you send or bring Joe in, with or without a la yer of his own, and I believe we can straighten the ma ter out.''

The result of the conference was that Joe stayed wi his employed, with a share of the profits, and ever body lived happily ever after—except the lawyer, w had trouble collecting his fee!

* * *

If you want a Manager, Superintendent, Expe Chemist, Bacteriologist, Buttermaker, Pasteurizer Ma or Ice Cream Maker—**or help of any kind**—''The Mi Dealer'' can help you find the best available man.

Juruick
REFRIGERATION



The Juruick
Refrigerating Unit

Cool your milk with a JURUICK. Economy of power and water, automatic operation and absolute reliability make the JURUICK Automatic Unit the ideal method of refrigeration for both large and small dairies. When you install a JURUICK you can forget your refrigeration troubles because a JURUICK automatically keeps the temperature just right and runs only when necessary, so that it uses the absolute minimum quantity of power and water.

Send for Juruick folder today.

American Engineering Company
2417 Aramingo Ave., Philadelphia, Pa.

For Sale!

Buttermilk Cultures which will positively give your customers a fine tasting, delicious buttermilk of uniform high quality, every day in the year.

The directions are practical and easily followed.

The cultures are ready for immediate use. They do not require the temper provoking transfer of Starter for several days, with uncertain results.

Lactea-Lac Cultures

for making Blended Bulgarian Buttermilk	$5.00
for making Special Lactic Buttermilk	$2.50

These prices include our Mail Laboratory Service, which insures uniform quality at all times.

We will gladly mail you Free samples of Buttermilk made from Lactea-Lac Cultures. Judge for yourself the delicious flavor and quality.

LACTEAL ANALYTICAL LABORATORIES
INCORPORATED
176 FRANKLIN ST. BUFFALO, N. Y

NEW!

"Testing Dairy Products"
By J. A. NEWLANDER

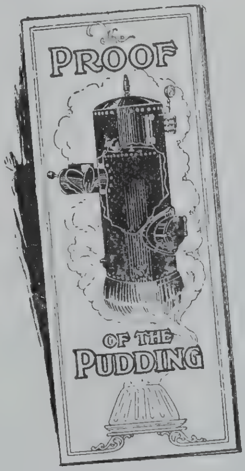
The newest text book on testing dairy products is especially arranged for Dairy School Work or those who want to get a better fundamental knowledge of dairy tests.

Price $2.00
Sent postpaid on receipt of remittance.

The
Olsen Publishing Co.
501 Cherry Street Milwaukee, Wis.

There is Only One "Original"
Gem Flueless Boiler

Steam users from coast to coast are solving their Steam Problems, Saving Time, Labor and Fuel, Eliminating Repair Bills, Enjoying Higher Efficiency.



Read What They Say in

"The Proof of the Pudding"

This new booklet contains interesting reports also names and addresses of users from coast to coast who formerly spent time and money repairing their boilers. Read what they are Saving

It's Absolutely FREE

Send for your copy today

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Without obligation mail me a copy of your latest booklet, "The Proof of the Pudding".

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Street..

City..

SOUTHERN DAIRIES DOES EXCELLENT WORK IN FLORIDA RELIEF.

The Southern Dairies, Inc., operating sixty or more creameries and ice cream plants throughout the Southeast, with the main office in Washington, D. C., established an enviable reputation during the recent disaster in Florida. This company operates four plants in the storm area: At Miami, West Palm Beach, Ft. Lauderdale and Sebring, but, fortunately, suffered very little property loss due to the steel-concrete construction of the buildings, two of which have been completed within the past year at a cost of over a million dollars.

When the Washington office of Southern Dairies received word of the hurricane Col. VanAken, director of manufacture, left immediately to supervise the company's work in the storm area and arrived at Miami Monday morning, September 20. He found the conditions in that city were very bad but that relief work had been started and was just getting under way. There was no light and power in Miami nor in the surrounding country, food was scarce and there was fear of an epidemic because the water supply had been cut off or contaminated.

On Sunday (the day after the storm), Southern Dairies put two cars of milk, cream and butter into Miami from Selma, Ala., routing them by way of Jacksonville. This shipment was the first relief to reach the stricken city and preceded, by almost a day, the relief trains sent by the citizens of West Palm Beach and Jacksonville. By special order of Mayor Romfh, Southern Dairies' was the first plant of any nature in Miami to receive light and power and by four o'clock Monday afternoon it was in full operation.

All employees of Southern Dairies were given special permits to pass police, military and Red Cross lines and the delivery of milk was started Monday evening. Considerable quantities of milk were also put into the general relief channels through the Red Cross and other agencies and the company supplied, at their posts, the police and military guards who had been on duty continuously for two days.

The Miami plant also released thousands of milk cans for use in bringing drinking water from West Palm Beach and other nearby places.

Although the local supply was reduced 50 per cent, Southern Dairies co-operated with the other dairies in Miami, pasteurizing and bottling enough milk for them to supply their regular customers. In addition, Southern Dairies donated large quantities of milk to the Red Cross and other relief organizations and took care of its old and 2,000 new customers who called upon them for service. The plant worked day and night and people came there by the hundreds to obtain milk.

On Tuesday, September 21, a special crew was sent by the Pennsylvania Railroad from York to the Southern Dairies' creamery at Hanover, Pa., to be loaded with milk and was returned in time to catch the fast baggage train for Jacksonville that same day. This car arrived in Miami on the twenty-fourth, after traveling about 1,350 miles, and aided materially in supplying the milk needed by that city. This car was 30 per cent over-iced so as to insure the contents remaining in good condition for twenty-four hours after the arrival in Miami. Southern Dairies sent at least one car of milk into the devastated area from their creameries in Selma and Montgomery, Ala., Woodstock, Va. and Hanover, Pa., every day since the hurricane, thus assuring an adequate supply.

In the vicinity of Sebring, considerable damage was done, but the Southern Dairies plant escaped and was able to care, in a great measure, for the refugees from Moore Haven and other nearby towns which were entirely wiped out. Col. VanAken arrived in Sebring on Wednesday, the twenty-second, and in spite of the stric military supervision of the single, working telegraph wire out of that town, Southern Dairies prevailed upon the authorities for its use and a car of milk came int Sebring that night on the first passenger train to arriv from West Palm Beach. This milk was sorely neede and was deeply appreciated by the residents and th homeless refugees who fled here.

The hurricane gave Southern Dairies a chance to abl demonstrate that it is a well directed, efficient organization that could not be adversely affected by a seriou local condition but could rise above it and, because of it expensiveness, continue to deliver, uninterruptedly, hig grade dairy products throughout the entire southeaster section of the United States.

* * *

FORMAL OPENING OF ALABAMA PLANT.

Formal opening of the new plant of the Montgomer Dairy Products Co., a branch of the Southern Dairies located at Montgomery, was celebrated early in Octobe with a barbecue and refreshments. Invitations wer issued by L. T. Wells, manager, and the general publi was welcome to make an inspection tour of the moder plant.

The new plant is said to be one of the most moder milk and ice cream plants in that section of Alabam and is the third to be located in Alabama by Souther Dairies. The other plants of the company located i that state are at Selma and Birmingham.

BOWMAN DAIRY COMPANY
160

Why take off Wheels to Grease Wagons?

Use Axle Valves and Grease Gun

Send for price list.

They help this man to grease 250 wagons as fast as they pull in.

NO JACKS--- NO WRENCHES

We are now making our own "Avco Super Axle" complete with Axle Valves installed.

The Axle is made with high grade screw stock steel and furnished in all sizes and types to fit specifications.

THE AXLE VALVE COMPANY
INCORPORATED

CHICAGO
2 West Walton Place

NEW YORK
152 W. 42nd Street

Only 100 dollars will put in your plant:

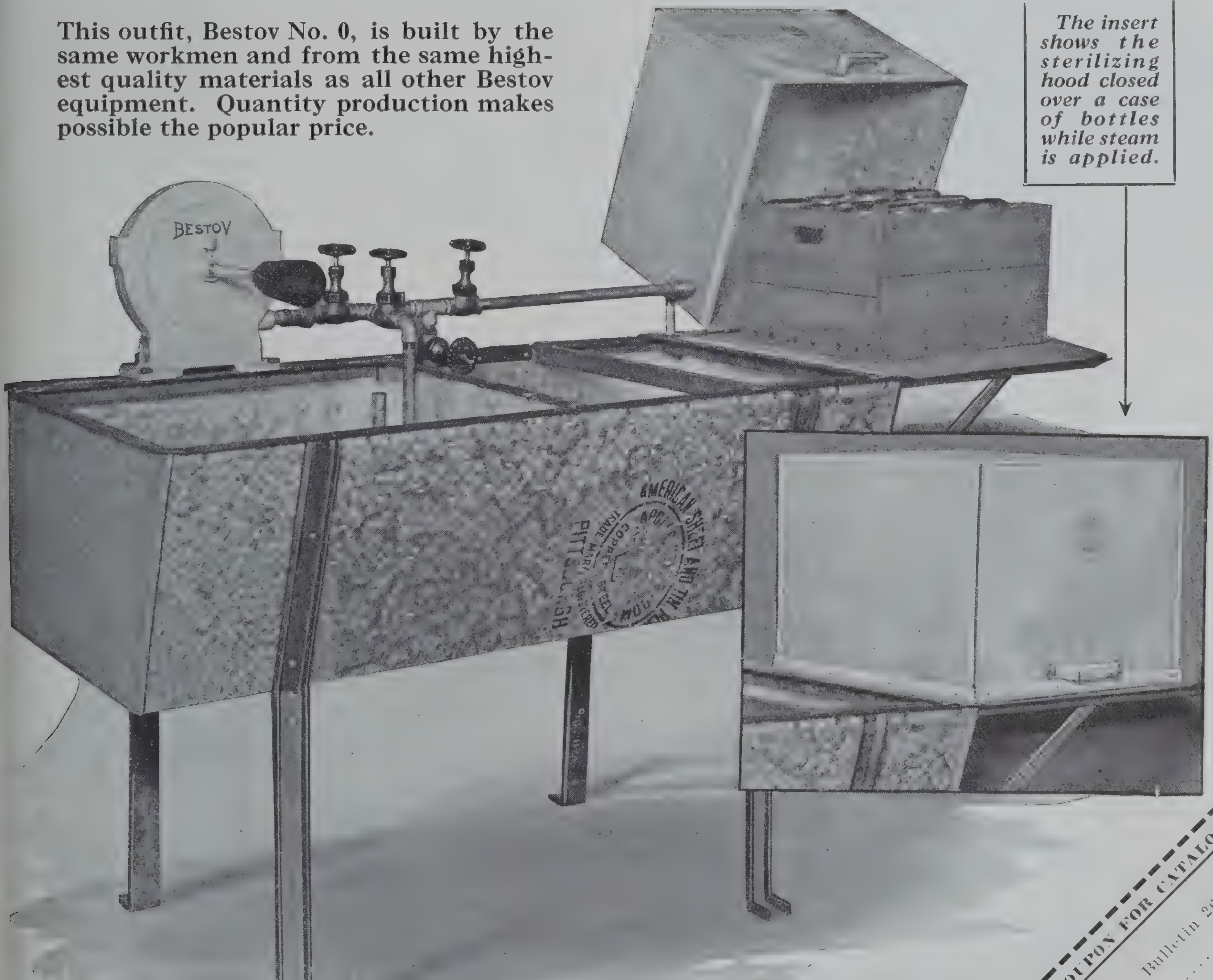
A two section soak and rinse tank for bottles,

A steam operated bottle brushing unit,

A steam sterilizing unit which handles a full case of bottles at a time,

—all assembled ready to thoroughly soak, brush, rinse and sterilize your daily batch of bottles. An easy job for one man.

This outfit, Bestov No. 0, is built by the same workmen and from the same highest quality materials as all other Bestov equipment. Quantity production makes possible the popular price.



The insert shows the sterilizing hood closed over a case of bottles while steam is applied.

OPTIONAL BRUSHER UNITS
With 1-brush, belt driven $91.00 complete.
With 3-brush, belt driven $112.50 complete.

Do this NOW →

FILL IN AND MAIL THIS COUPON FOR CATALOG

Cherry-Bassett:
Without obligation, send me Bulletin 2603.
Name............................
Street............................
P. O............................
State............................

STIMULATED INTEREST IN BETTER CREAM.

Quality cream is in demand. The milk plant uses it, the ice cream factory needs it and the creamery requires it. Its acquirement may spell success or failure. So the struggle for quality cream continues. But how secure it?

Two words answer the question: Education and grading.

While the grading of cream may be defined as the application of constructive selection to industry, it is sometimes lacking in practicability. On the other hand, education may fail for want of the "after punch" to sustain interest.

Some of the winners in the dairy products exhibit at the 1926 Oklahoma Free State Fair at Muskogee. Note the five gallon can of hand separated cream. The hand separated cream class has stimulated considerable interest in cream improvement in and about Muskogee. The shepherd boy and dog are modeled out of butter.

Therefore, any idea to help sustain that interest is well worth considering. Such was a plan credited equally to officials of the Oklahoma Free State Fair Association at Muskogee and to two intensely interested competitive creamerymen of the same town.

Someone suggested a sour cream exhibit, with plenty of cash for premiums. The idea went over "big" and the plan, let us call it the Muskogee plan, fostered largely by the secretary of the fair and the two creamerymen, R. W. Brice and C. E. Kerns, continues to grow.

That was two years ago. The state fair catalog came out offering attractive prizes to the twelve highest scoring five-gallon cans of hand separated cream. Sixty dollars in premiums were offered; certainly an inducement to say the least.

An entry list of some forty cans was expected, but the unexpected happened and one hundred and fifteen entries arrived.

Hand separated cream; sour cream. I wonder how many of our readers appreciate the full meaning of the term? To some, sourness is only relative. To me, it now signifies exactly what it spells.

But the cream wasn't only sour; some was sweet and some combined other flavors like high acid, bitter, rancid, cheesy, musty, oily, stale and yeasty. Yet, requirements demanded that it be tasted.

Likewise, the texture was noted. Greasy, crumbly, mealy, grainy, thin, and thick were among the common defects.

To complete the placings, the fat content was considered. For our purpose a full score was allowed if the test ran 35-45 per cent.

Selection of the best cans was made according to a process of elimination, and it was interesting to note that, with one exception, the twelve highest scoring samples were in new, bright, shiny, clean smelling cans.

One month following the contest reports were sent to each exhibitor, with a personal letter telling wherein his entry was deficient and how it could be improved. An invitation was also included for a next year's "return engagement."

Apparently the invitation was heeded, for 135 entries were on the secretary's books at the opening of the 1925 fair. And entries were not the only thing that increased. The amount of quality cream was almost trebled. It was smoother in texture, cleaner in flavor and decidedly lower in acid. It was evident that suggestions for cream improvement had not only been noted, but had actually been carried out.

Needless to say the venture was a success. The two competitive creamerymen demonstrated the value of friendly co-operation. They stimulated interest in the project; they gave their time to assisting each other in entering patrons as well as non-patrons, and they stored the cream until the judging date. As a result both plants profited by securing a better quality cream and turning out a correspondingly better flavored butter. That I can vouch for after several years experience as judge of dairy products in Oklahoma fairs, as well as in some other states.

As for the Oklahoma Free State Fair Association, this organization, judging by the outcome of the dairy products exhibit, is one that is doing its part in helping solve present day dairy problems.

Why not every state fair a party to the good cause?

A. D. BURKE.

IT'S YOUR AIM THAT COUNTS.

By Vernon Varney.

You may have a good gun
And the best bullets in it,
But without a good aim
Could you hit a tame linnet?

You may have a good bow
And the best balanced arrows,
But without a good aim
What harm to the sparrows?

You may have two good hands,
And a brain that's O. K.,
But with no aim in life
Can you win Bradstreet's AA?

Oh, it isn't the weapon
That wins you the prize;
It's the aim that you take
That hits the bulls-eyes.

Aim straight and aim true
At the mark you would win,
Then laugh at the handicaps
Fate has thrown in.

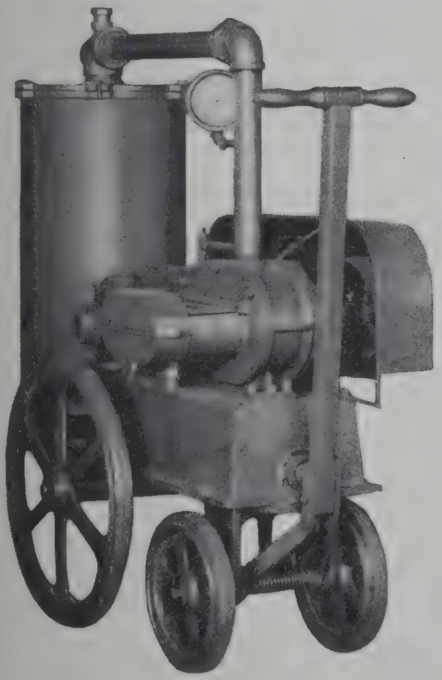
For the best equipped man
Will but fall in his tracks
If his aim has been faulty,
His purpose grown lax.

While the fellow who keeps
His aim in life level
Will WIN — though he START
With a PICK AND A SHOVEL!

* * *

If you want a position "The Milk Dealer" can hel you—as it has helped thousands of others—to secur a good position.

Sheffield Farms,	*New York*
Bowman Dairy Co.,	*Chicago*
Wieland Dairy Co.,	*Chicago*
Fairfield Farms,	*Baltimore*
H. P. Hood & Sons,	*Boston*
Whiting Milk Co.,	*Boston*
Rieck-McJunkin,	*Pittsburgh*
Gridley Dairy,	*Milwaukee*
Harbison's Dairy,	*Philadelphia*
St. Louis Dairy Co.,	*St. Louis*
Tennessee Dairies,	*Dallas*
Cloverleaf Dairy Co.,	*Minneapolis*
Pure Milk Co.,	*San Diego*
Broadview Dairy,	*Spokane*
B. Davies & Sons,	*London, England*
London Wholesale Dairies,	*London, England*
Guaranteed Milk Co.,	*Montreal, Canada*
Los Angeles Creamery Co.,	*Los Angeles*
Roberts Sanitary Dairy,	*Omaha*



French Bros.-Bauer Co.,	*Cincinnati*
Portland-Damascus Milk Co.,	*Portland*
Belle Isle Creamery Co.,	*Detroit*
Polk Sanitary Milk Co.,	*Indianapolis*
Gray-Von Allman Dairy,	*Louisville*
Borden's Farm Products Co.,	*New York and Chicago*

The above, foremost in the dairy industry, among hundreds of others have adopted the—

ATWOOD
— FOR —
HORSE GROOMING

There's a Reason

WRITE US FOR INFORMATION

ATWOOD-STEWART VACUUM MACHINE CO.

4525 RAVENSWOOD AVE. :: :: CHICAGO, ILLINOIS

NEW CALIFORNIA PLANT OPENED FOR BUSINESS.

Last year an earthquake all but destroyed Barbara, Calif. The earthquake shook a good many things, but it did not shake the faith of the men back of the Los Angeles Creamery Co., a company serving over 75,000 homes daily, in their community. The fine new plant at Barbara is striking to their faith.

The last issue of "The L. A. Lily," their house organ, carries a story about the opening of the new plant from which we quote as follows:

> Amid the tinkling of Spanish guitars and the smiles of pretty senoritas, the new Santa Barbara plant of the Los Angeles Creamery Company was opened August 28.
>
> The Spanish effect was occasioned by the fact that the opening was held during Santa Barbara's Spanish Fiesta, when most of the residents were in costume and the city was gaily decorated.

NGELES CREAMERY CO

Part of the crowd that visited the new Santa Barbara plant on its opening day, August 28, 1926. In the foreground can be seen the Spanish orchestra retained by the L-A to regale the visitors. At the left of the photo can be seen a chubby Senor and his smiling Senora, who are familiar to members of the L-A family. These foreigners couldn't speak a word of English, but my how they could eat! They were disappointed at not finding hot tamales being served, but were finally satisfied with Lily Brand baby bricks. George Bailey (at the extreme left) got a sore arm from handing victuals to these hungry foreigners who "crashed the gate."

Crowd Estimated at 3,000.

> Judging from the number of Lily Brand baby bricks and bottles of milk and buttermilk, to say nothing of the Lily Brand cheese, that was given away, it was estimated that fully 3,000 people visited the plant at its openng.
>
> A good number of these were in costume, which, together with the decorating of the building and the Spanish orchestra hired for the occasion, made the whole affair very colorful.
>
> The Spanish orchestra in costume had been engaged to entertain the visitors. Some of them succumbed to the catchy melodies and danced on the broad paved driveway. Street dancing was one of the features of Santa Barbara's Spanish Fiesta and the L-A visitors did not overlook an opportunity to enjoy themselves whenever the orchestra struck up a tune.

Many Enjoy L-A Products.

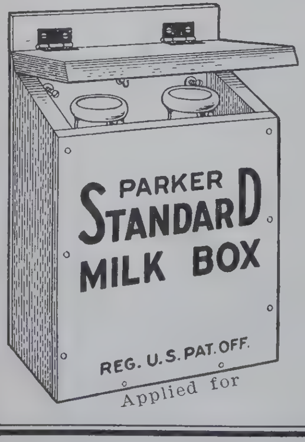
> The Fiesta started on Thursday, August 26, two days prior to the opening of the plant, and the L-A did not overlook the opportunity for advertising among the thousands who thronged the streets of the Channel City.
>
> Arrangements were made for the serving of Lily Brand baby bricks to all who visited the old Spanish galleon anchored off the wharf. This galleon played an important role in Thursday's pageant and was thrown open to visitors on Thursday evening and all day Friday and Saturday.
>
> On Friday, August 29, permission was received from the chief of police to place a freezer at a prominent corner, where there was a large crowd enjoying street dancing. George Bailey, manager of the Santa Barbara plant, and two pretty misses in Spanish costume, passed out 1,500 baby bricks to the dancers in hardly an hour's time.

Sanitation Featured in Plant.

> It is difficult to express in words the wonderful sanitation features of the L-A's new Santa Barbara plant. One trip through the building and grounds makes us mighty proud that we are connected with so progressive a company.
>
> Highly glazed tile covers the walls and even ceilings of the milk receiving room, pasteurizing room and bottling room.
>
> Plate glass partitions permit the public to view the pasteurizing and bottling of the milk.
>
> The plant has a Permutit system that provides soft water for the bottle-washing machine and boilers.
>
> Four large refrigerated rooms assure ample storage facilities.
>
> There is an abundance of windows, providing plenty of sunlight. Particular attention has been paid to the matter of ventilation, the building being arranged to secure a constant circulation of fresh air.
>
> The plant is situated on more than an acre of ground. It has a cemented yard, on which the garages are built. A large, well-kept lawn adjoins the yard.
>
> No horse-drawn vehicles will be used in the operation of the plant. Deliveries will be made by a fleet of ten motor cars.

Will Retail Milk.

> The new plant will enable the company to go into the retail business, which field it entered September 1.
>
> Only milk, cream and buttermilk will be sold on the retail routes. A-Dof-Lus will be added later. The sale of L-A butter and cheese will be confined exclusively to grocery stores, as in the past.
>
> In discussing the company's retail activities in Santa Barbara, employees of the L-A are urged to impress upon their listeners that butter and cheese will NOT be sold on the routes.
>
> For more than twenty years the L-A has sold these products through the grocers of Santa Barbara, and it is intended to continue with this policy.
>
> George R. Bailey, who has been connected with the Santa Barbara branch for several years, is manager of the new plant. He is a brother of W. D. Bailey, manager of the San Luis Obispo plant.



RETAIL TRADE GOOD WILL

Secured at LOW COST

A practical plan to secure you this added SERVICE awaits your inquiry to

Parker Standard Milk Box Co.

228 No. Warren Ave. - - Saginaw, Mich.

let's BUILD see Webster- a motor!

TRADITION
PROGRESS
THE LINC-WELD MOTOR

—*for the Dairy Industry*

Here lad, the brine pump is out of commission again and we're held up right in hot, humid weather. You've had too many shut-downs in the plant this summer—whose fault is it?

Yours, pop . . . .

Our pumps, ventilators, washers, refrigerators and elevators are all new—all good—all representative of the best practice today—but you crabbed my game for the best non-stop plant in America when you dragged in that old crony of yours and told him and me that his motors were to drive our model plant.

His is a good old company, neatly bound by stiff-backed traditions, but not a motor *specialist*, and not willing to alter design to meet industrial progress until long after the procession has passed.

Primarily the Linc-Weld motor is particularly suited to the dairy industry.

Aside from its fine operating characteristics it is the one motor that is thoroughly waterproof—not moisture proof—but waterproof—it will run when completely submerged in water—the trademark of the Linc-Weld is a motor running under water.

Due to its specially developed insulation worked right up into the slots, you get two factors which work against shut-downs.

(a) Thorough proof against moisture.
(b) Age-long proof against drying-out and cracking.

Write for that illustrated book which gives you the qualities a motor should have in order that a dairy plant can *keep* running—economically.

build (5) to increase and strengthen:
to increase the power and stability of:
to settle or establish and preserve:
—*Webster.*

The Lincoln Electric Company
CLEVELAND, OHIO

LINC-WELD

COUPON
To The Lincoln Electric Co., Cleveland, Ohio
Please send to Mr. ....
Company ....
Address ....
The Motor Book ☐

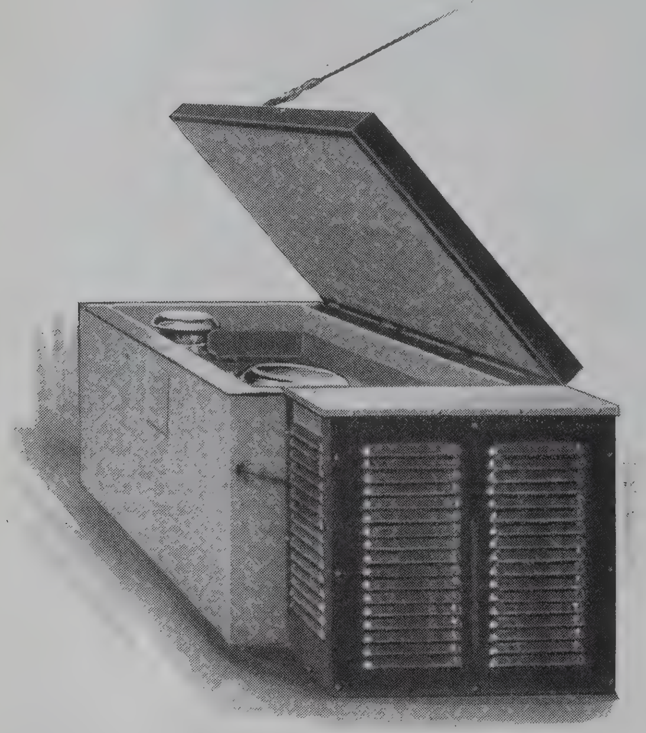
NOTES OF THE TRADE

News of Interest Concerning What Our Readers and Advertisers are Doing
to Develop the Industry. We Invite Correspondence Relative
to New Products and New Equipment.

ELECTRICALLY REFRIGERATED MILK COOLER.

Dairymen can now construct a home built electrically refrigerated milk cooler with little trouble. Such a cooler is offered by Frigidaire Corporation.

Plans for the cooler were worked out for owners of small dairies who wanted an inexpensive installation which would fit their requirements. Construction of such a cooler which will accommodate six 10-gallon cans should cost less than $500, including the electric refrigeration units.



As shown in the accompanying photograph, the farm cooler is constructed of cork and concrete and uses a commercial air or water cooled electric refrigeration unit. A cooling coil is placed at one end of the tank, which is filled with water.

Operation is simple. Milk as it comes from the cows is poured into cans which have previously been sterilized. These cans are then placed in the cooler which contains approximately 150 gallons of water at temperatures varying between 35 and 40 degrees F. After the milk has been reduced to 50 degrees, the electric refrigeration system will maintain this temperature until the cans are removed.

Interior dimensions of the six-can tank are, width 30 inches, depth 24 inches, and length 63 inches. Approximately 63 square feet of cork board, seven sacks of cement, 11 bushels of sand, and 21 bushels of gravel or half inch stones are required. The tank is so constructed that a continuous insulation of cork board rests between two layers of cement. A galvanized iron tank lining is placed inside to counteract wear and tear from the metal cans. By following carefully prepared instructions, construction work will not be difficult.

Two copper tubes connect the cooling coil in the tank with the compressor, which can be placed in any convenient spot. The local dealer in electric refrigeration equipment will take charge of its installation and see that units of proper size and type are used.

A factory built milk cooler is also offered. It is equipped with an aerator for use in larger dairies where pre-cooling may be used.

DIVCO TRUCK FOR MILK DEALERS.

An innovation in the milk industry for delivery is a truck controlled and manufactured by the Detroit Industrial Vehicle Co.

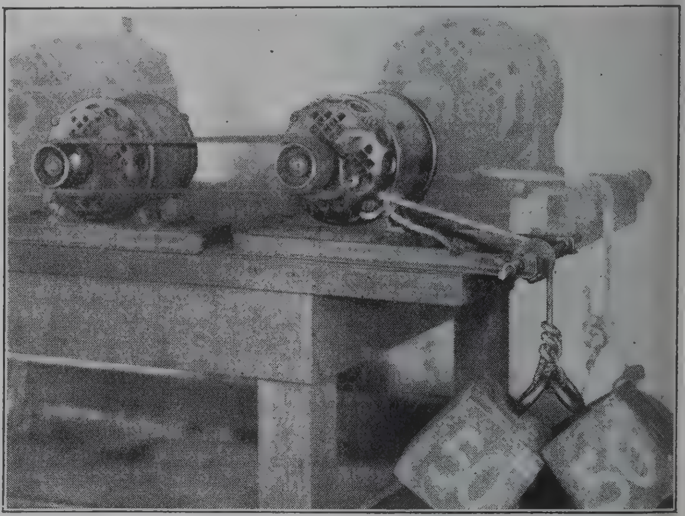
The new truck is unique in that it can be controlled from the seat or from the running board, in the same manner as the horse driven milk wagon. The capacity of the truck is 50 cases, with added room on the top of the truck for an additional ten empty cases.

The Divco truck, as it is called, has been designed with the thought of economical operation of foremost importance. It has a four-cylinder governed motor capable of attaining a speed of 18 miles per hour. The manufacturers of the Divco point out that one of the strongest points in connection with its use will be the elimination of branch plants, which is made possible by the speed of delivery in this type of truck.

* * *

ELECTRIC MOTOR IN UNUSUAL TEST.

An interesting experiment was conducted by the Century Electric Company of St. Louis, manufacturers of the Century Motors. Two ¼-horsepower Century Repulsion-start Induction Single-phase motors, one driving and one driven, belt connected under exceptionally heavy belt tension were run under test at full speed for a total of 18,384 consecutive hours, and are still running. This is a total of 766 24-hour days. These were run with about two and one-half times normal bearing pressure and, according to the company, show no trace of wear on shaft or bearings. The bearings were cast phosphor bronze and the lubrication is the wool yarn system. Oil wells contained only the oil held in suspension by the wool yarn. Holes drilled in the bottom of each oil well allowed escape of excess oil, none being added since the test was started.



Century motors are manufactured in sizes from one-eighth to 40 horsepower, and are adaptable to all kinds of equipment, including electric refrigerators, ice cream cabinets, pumps, oil burners, etc.

* * *

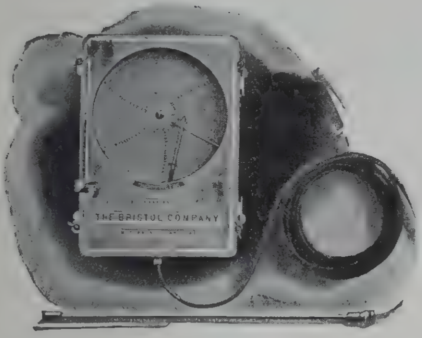
SANITIVE BOTTLE SEALING MACHINE.

A new automatic bottle sealing machine is now on the market, manufactured by the Lakewest Corporation, a division of the American Machine & Foundry Co., Brooklyn, N. Y.

The new machine which is made in both the small hand size and the large automatic size, seals milk bottles in a manner that is highly sanitary, for not only does it cover the mouth of the bottle but also covers and seals the entire lip.

The seal is a five-ply paper which is chemically treated

Get the Facts with Bristol's



BRISTOL'S—The most extensive line of recording instruments, including — Pressure, Liquid Level, Temperature, Electricity, Motion, Speed, Humidity, etc. Ask for our catalogs.

Know what is going on inside your tanks. Know what changes are taking place in your milk as it passes vital points on your milk line.

Know whether these changes are conducive to a good product or a poor one.

Bristol's Will Tell You

and you will not have to wait until your product has gone through its final stages to know whether you have been right or wrong.

Besides—there is a satisfaction in KNOWING that your product is progressing correctly and having an indelible record to check the results and profit by past experience.

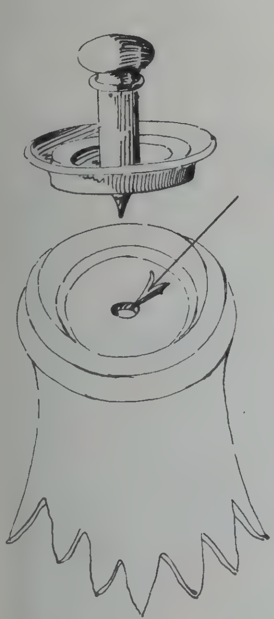
Have you plenty of Bristol's in your plant?

The Bristol Company, Waterbury, Connecticut

FOR 36 YEARS MAKERS OF BRISTOL'S RECORDING INSTRUMENTS

Ask Any Technical Engineer

New and Practical
Sanitary Milk Cap Piercer



for use in

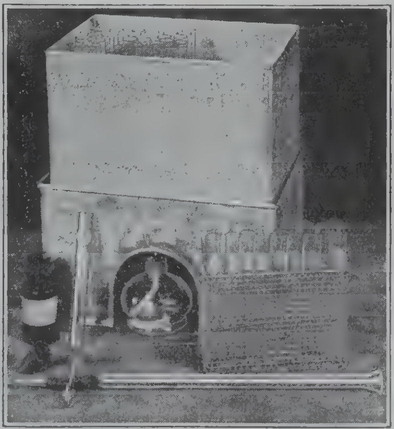
SCHOOLS or anywhere that straws are used.

Do away with high priced Pull Caps. Saves time and is SANITARY. Pierce cap and insert straw. Milk will not spill.

New England Brush Company
Box 558 **HARTFORD, CONN.**

USE THE
Nafis Reductase Test
to Grade Milk for Bacteria

Dependable — Simple — Economical



Also known as the Methylene Blue Reduction Test. Enables any intelligent person to make a rapid survey of milk supplied.

Buy through your jobbers. If they do not stock NAFIS GLASSWARE, do not accept substitutes but write for our catalog and the names of our distributors in your territory.

LOUIS F. NAFIS, Inc.

Manufacturers of Scientific Glass Apparatus
for Testing Milk and Its Products.

17-23 North Desplaines St. **Chicago, Ill.**

ASK THE MEN WHO USE IT

with deodorized resin. The seal is heated by steam in the machine where it is applied to the bottle. During the process the resin is softened and when it again hardens it forms a perfect seal.

The manufacturers claim the seal to be impervious to moisture. They further point out that it will fit any type of bottle.

* * *

HANSEN SAFELY REACHES DETROIT.

O. I. HANSEN.

Co-incident with the announcement that O. I. Hansen has recently joined the sales staff of Mojonnier Brothers, milk engineers of 4600 West Ohio St., Chicago, Ill., comes the report that Hansen arrived safely at the Detroit convention of the Dairy Industries Exposition.

Mr. Hansen was in a serious motor mishap while driving from Chicago to Detroit, and was badly shaken up and bruised. He was taken from the scene of the wreck and returned to a Chicago hospital, but recovered in two or three days and was seen at the convention with his well-known genial smiling countenance, though, to be sure, he sported a cane and wore a slight limp.

Mr. Hansen is well known in our industry, having been connected with the Creamery Package Manufacturing Co. for five years, and before that time having served the Diamond Crystal Salt Co. In his work with Mojonnier Brothers, Hansen will work in Wisconsin, Michigan, and sections of the city of Chicago.

* * *

SIR ALFRED MOND SPENDS A MONTH IN "THE STATES."

Sir Alfred Mond, chairman of the board of the Mond Nickel Co., Ltd., London, Brunner, Mond & Co., London, Victoria Syndicate, Ltd., of Canada, Henry Wiggins & Co., London, and the Amalgamated Anthracite Co., Swansea, South Wales, has returned to England, after a month's visit in the United States and Canada. During this trip Sir Alfred, accompanied by Robert, Emile and Philip Mond, also of the Mond Nickel Co., visited the company's ore properties in the Sudbury area of Ontario, the smelter at Coniston, Ont., and the recently formed subsidiary for the United States, the American Nickel Corporation, Clearfield, Pa.

The subsidiary company, using Mond nickel, produced under the process developed by Dr. Ludwig Mond about 1900, is entering into the manufacture of nickel products, including rods, bars, sheets, tubes, wire and castings of 99 per cent pure nickel, as well as 70 per cent and other alloys. Among the more highly manufactured products of the company are pure nickel condenser tubes and turbine blades, and a line of domestic utensils for use in large institutions as well as the average household. Sir Alfred points out that while cooking equipment of pure nickel has been in use in European countries for many years, its use in the United States has been limited. It is also intended to manufacture large pure nickel equipment for use in the pasteurization of milk and for similar purposes.

In addition to his connection with various British companies, Sir Alfred Mond has been a member of Parliament for the past 20 years and was minister of public works and later minister of health in the coalition cabinet during the war.

* * *

WINDEMERE PRIZE WATCH AWARDED TO GEORGE SAMPSON.

To George Sampson of the O. J. Weber Co., Los Angeles, Calif., goes the honor, glory and satisfaction of winning the beautiful watch which was offered by the Windemere Products Co. of East Cleveland, Ohio, to the salesman who sold the greatest quantity of their rubber aprons.

This contest closed during the Dairy Products Exposition at Detroit, and attracted a great deal of interest during the progress of the show. The watch was on exhibit at Detroit and Mr. Sampson is certainly a lucky man to be rewarded so handsomely for his efforts and sales ability. His total was 432, and his nearest competitor had but 180 to his credit, showing the large lead which Sampson garnered.

* * *

MILK PASTEURIZED IN BOTTLE.

As an added attraction to the Barry-Wehmiller Machinery Co. booth at Detroit, milk pasteurized in the bottle by the New Haven Dairy Co., a subsidiary of the Eastern Dairies Co., was shipped to Detroit and served at the booth of the St. Louis machinery manufacturers.

The milk was pasteurized by the use of the Barry-Wehmiller machine, and although five days old when it was served, it was in perfect condition and received the commendation of the Detroit health authorities who visited the exhibit.

F. J. BRESNAN. L. H. EVERS. M. A. AKIN.

Three Pfaudler men whose connections with the company have been effected by recent shifts in the organization. Mr. Bresnan succeeds I. E. Colvin, resigned, as Chicago office manager. Mr. Evers is now with Mr. Bresnan in Chicago and Mr. Akin represents the company in Florida.

Pat. Sept. 16, 1919

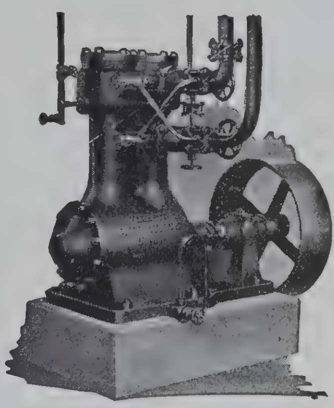
It's Self-loading

Nutting Milk Case Truck

No other truck made handles milk cases so quickly and easily! The Nutting has no nose to pry under the pile. An adjustable hook slips into the hand-hole of the bottom case. No extra shoving. Thousands in use. Ask your jobber or write us.

NUTTING TRUCK CO.
1282 Division St. Faribault, Minn.
Floor Truck Specialists for the Dairy Industry

Vilter Enclosed Type Ammonia Compressor



An ideal ice machine for the moderate size plant. Modern in design, made of high grade materials and thoroughly inspected and tested. Let us send a copy of our Bulletin No. 29R to you. It tells of the force feed lubrication to the piston pins, the easily operated Vilter plate valves, the oil sealed stuffing box and gives other information of value.

Let us Submit quotations on your requirements —no obligations to you.

The Vilter Manufacturing Company
ESTABLISHED 1867
875 Clinton Street Milwaukee, Wis.

Leffel CREAMERY BOILERS

Save Time Labor Fuel

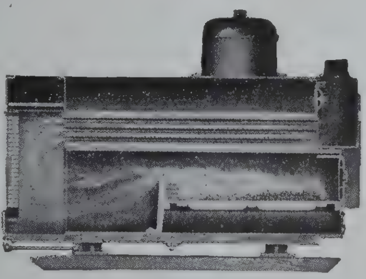
A tremendous saving in fuel costs at your plant, can be effected by using Leffel Creamery Boilers, because they get double service from every pound of coal used.

The hot gases are **compelled** to travel twice the length of the boiler through water surrounded passageways.

Even the ash pit is surrounded by water, thus utilizing every possible heat unit to produce steam.

Because of this highly efficient application of heat, owners save 30 to 50% in fuel costs.

In all sizes 6 to 150 H.P.—workmanship and quality guaranteed—will meet all state boiler laws.



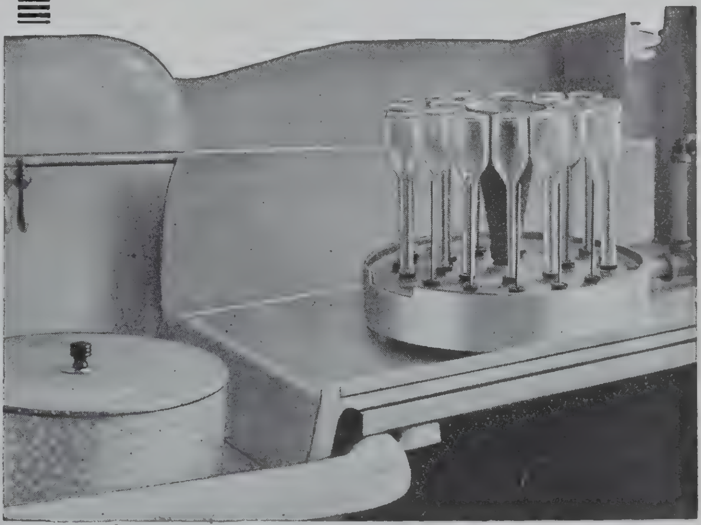
Full description and prices on request.

The James Leffel & Co. BOX 330 SPRINGFIELD, OHIO, U. S. A.

3

Wilson Test Bottle Washer

A Steam and Hot Water Pressure Washer



Simple to Install—Washes Quick and Clean.
Made in 2 sizes to wash 24 or 36 Milk or Cream Bottles—*and it does it in 2 to 3 minutes.*
No Brushing — Stops Breaking of Bottles.
Send for Leaflet explaining operation.

Stout Mfg. Co., 610 Sycamore St. Milwaukee, Wis.

SCHWAGER WITH NEW SERVICE CORPORATION.

Charles F. Schwager, Omaha, Neb., formerly general manager of the Alamito Dairy Company in that city, now heads the Service Sales Corporation, 354 Omaha National Bank Building.

Mr. Schwager has been very successful in building up "sick" milk plants, his latest success along that line being the Alamito business. Three years ago he took hold of the business after it had passed into the hands of a receiver. He paid off old obligations, reduced operating expenses over $60,000 per year, and left the business on a sound basis and with bright prospects for the future.

Through the Service Sales Corporation Mr. Schwager offers his experience to the trade.

* * *

MANY DAIRIES ADDING BOTTLE CLEANERS.

The Geo. J. Meyer Mfg. Co., Milwaukee, Wis., announces recent installations of the Meyer Dumore Junior bottle cleaner in the following plants: Burr Creamery Co., Glendale, Calif.; Pinellas Dairy Co., St. Petersburg, Fla.; Glenview Dairy Co., Chicago; National Milk Co., Chicago; Rabe Dairy Co., Elmhurst, Ill.; Standard Dairy Co., Maywood, Ill.; Hammond Dairy Co., Hammond, Ind.; Hamtramck Creamery, Detroit; Kroger Grocery & Baking Co., Cincinnati, and Slate Hill Milk & Cream Co., Slate Hill, N. Y.

* * *

A DEPARTMENT OF DAIRY ENGINEERING AND DAIRY ARCHITECTURE.

Officials of The Dairy Laboratories, Philadelphia, have announced the formation of a new department, the Department of Dairy Engineering and Dairy Architecture.

This has been accomplished by adding the services of a dairy engineer with large technical and practical knowledge and of an architect of unusual ability, both these men having had excellent experience in the design, layout, construction and equipment of dairy plants. They will be assisted also by the present large staff of technical and practical dairy experts.

Steadily increasing competition in the dairy industry, greater exactions by boards of health, the necessity of keeping operating costs as low as possible, in the face of increasing costs of construction and equipment, labor, etc., and at the same time of improving the quality of milk and its products, along with many other vital considerations, have brought about an acute need for expert knowledge in the design and construction of the plant and its equipment.

Officials of the company believe, therefore, that they can materially increase their service to the industry which they have served for over sixteen years, by offering and assuring expert practical knowledge to all who have new plants to build, old plants to remodel or enlarge, or engineering problems of any kind to solve.

Further information on request, addressing The Dairy Laboratories, 23rd and Locust Sts., Philadelphia.

⁂

If that business of yours does not suit you, somebody else will be glad to get it. Let them know about it through a "Milk Dealer" Want Ad.

CULTURES

By CLELLAN D. CURTIS

It will be a matter of some time before banks certify milk.

* * *

The reason some drivers don't pick up empty milk bottles is because they see through things easily.

* * *

A salesman is an ordertaker who has learned how to sell the other half of the milk order.

* * *

Milk bottles, like silk hosiery, are naturally transparent for a reason.

* * *

A milkman never lacks thrills as long as children leave roller skates and kiddie cars in dark alleys.

* * *

The step on which a milkman delivers milk is often determined by the length of a dog's leash.

* * *

He is a milk salesman, who gives his customers the products and sells them the service.

* * *

The milk habit in early life is a boomerang which returns as good health in after years.

* * *

The taller the apartment house, the greater the number of notes requiring extra trips to the top floor by milkmen.

* * *

Carelessness is a byproduct of familiarity.

⁂

CALIFORNIA COMPANY EXPANDING.

The Dairy Delivery Co., with headquarters in San Francisco, will build a $60,000 addition to its branch at Burlingame, Calif. A two-story concrete building wil be started at once, according to S. Perham, manager The new building will house a pasteurizing and bottlin plant with a capacity of 4,000 gallons daily and a labo ratory for testing milk.

MISS PEVELY
PEVELY DAIRY CO.
The Freshest Milk from The Healthiest Cows
PEVELY
THE BEST MILK
The FOUNTAIN OF HEALTH
HEALTHY · HAPPY · HUSKY
PEVELY
PEVELY

Two floats entered in the "Trade Mark Parade" in St. Louis by the Pevely Dairy Company of that city. The parade covered a distance of five miles through the main streets of the city and "Miss Pevely" created a real sensation.

:·: National Golf Tournament :·:

The national golf tournament of the Dairy and Ice Cream Supply Men's Association was held in Detroit, Saturday, October 9, at Hawthorne Valley Country Club. The weather was ideal.

Those who participated in the tournament include L. B. Swift, J. H. DeVisser, J. Ely, L. T. Meyer, H. Weil, A. R. Sanna, C. A. Gould, H. Black, L. B. Esmond, C. B. Dalzell, C. Bates, C. Krulein, R. Ryan, J. A. Wise, H. B. Dowell, G. W. Getters, D. M. Taylor, H. H. Evans, H. R. Chandler, C. A. Luckenbach, C. M. Anderson, Jos. Graaing, John W. Ladd, L. H. Payne, H. L. Neumeister, A. MacDougall, C. Blake, Mrs. A. MacDougall, H. A. Morris, W. L. Johnson, F. E. Boyd, A. D. Shaefer, G. S. Woodford, E. J. Smith, E. M. Holmes, P. Howes, C. W. Ebling, A. C. Henry, C. B. Harpster, W. W. Lapham, Carl Sielaff, E. Risdon, R. Risdon, E. O. Kayser, O. M. Jeffries, R. E. Howell and Mrs. E. Holmes.

Honor prizes were won by A. C. Henry, Carl Sielaff, E. O. Kayser, W. W. Laphan, R. Risdon, E. Risdon, C. W. Ebling, C. Bates and E. C. Holmes, representing the manufacturers. The supplymen who won honor golf prizes include L. B. Swift, J. Ely, H. L. Neumeister, H. A. Morris, C. Blake, S. Casler, L. H. Payne and A. MacDougall.

After the players came in from the course luncheon was served in the main dining room and immediately thereafter a special putting contest was held on the green. The putting contest was probably the most amusing event of the day. Special balls were provided and given to the players as souvenirs. First and second prizes were won by G. L. Woodford and C. B. Dalzell.

Another contest supposed to be for championship driving was won by H. A. Morris, first, and L. T. Meyer, second. This event consisted of driving a "floater" out of a tank of water. No extra charge was made for the bath.

A real approaching contest was won by A. MacDougall, first, and C. B. Dalzell, second.

The prizes consisted of eight cups, three cigarette cases, three MacDougall putters, five dozen red golf balls, six dozen Dunlop golf balls, one gold medal, one knife and chain, two flasks, one combination cigarette and match box, one fountain pen and one cigarette box.

The committee in charge of the meet was John W. Ladd, chairman, assisted by Lewis Frank, E. C. Holmes and A. C. Henry.

⁂

ALTOONA PLANT IS IMPROVED.

The public of Altoona and vicinity were invited to nspect the modern plant of the Morrison Cove Co-operative Association, located at 1115-19 Twentieth Ave., Altoona, Pa. A number of changes in the dairy plant have just been completed, bringing it to a modern standard in safeguarding the health of the consumers n pasteurizing and bottling milk. The installation of he new equipment made necessary the erection of a wing, 22 by 22 feet.

Carl S. Taylor, general manager, arranged that the demonstrations included the entire process of pasteurization and bottling of milk so that the association's patrons and the general public might know the sanitary safeguards that surround the supply of milk furnished.

A CONNECTION THAT PAYS!

The Milk Dealer, in choosing a partner, should select one who knows the three essentials of conducting a profitable business. These are:—

1. To turn out a uniform, high quality product day after day.

2. To know the correct cost of running the various departments of the business, where to look for leaks and how to stop them.

3. To have real sales ability so that routes are kept well loaded and new routes constantly added.

All these qualifications are hard to find in a single individual. They are present and waiting for you in the National organization built up by Fink and Paine, Inc.

After years of experience in serving scores of dealers, Fink and Paine, Inc. have entered the field of milk plant ownership. Already our experience in operating dairies is showing excellent profits in plants where we are part owners.

We seek more of these openings. If you want a partner of excellent character and proven ability—a partner with a vital interest at stake—a partner able to supply extra capital, if necessary—one who will take hold of your business with a vim and make more money for you than you have ever made for yourself—then write, without obligation, for an interview with one of the principals of our organization.

FINK & PAINE, Inc.
299 Madison Avenue
NEW YORK CITY

Making Your Can Investment Go Farther

RETINNING your cans is true economy when done right, because the extra service re-tinned cans will give, pays for the cost of the work many times.

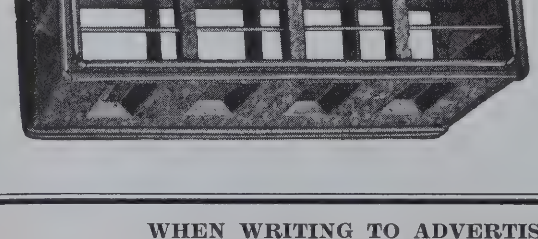
ONE LOT WILL
CONVINCE YOU

Thompson-Bremer & Co.
1750 Carroll Avenue
CHICAGO, ILLINOIS

CLIPPER
All Steel
Bottle Cases will reduce your case "turn over." When you buy a lot — *They Last!*

TRY THEM AND SEE

Made by DEFIANCE PRESSED STEEL CO.



"PLEASE PASS THE MILK."

To assist in maintaining the health of its employees and to relieve the between-meal fatigue that comes from laboring over machines and desks, the Gisholt Machine Co. of Madison, Wis., has started distributing milk twice each day to its workmen.

The scheme is an experiment, having been started 10 days ago in the main works of the company at Baldwin St. and E. Washington Ave., where close to 600 men are employed, and will, if it is deemed a success, be extended to the foundry and the northern works.

Under the present plan, several hundred bottles of milk, buttermilk and milcolate, purchased from the Kennedy Dairy Co., are distributed through the shops at 9 A. M. and at 3 P. M. by an employee of the company.

The men pay for their milk and according to G. E. Gernon, secretary of the company, the plan is proving a success. He is enthusiastic over the results already and believes that the milk distribution scheme will be made a permanent feature. Mr. Gernon says that each day the amount of milk purchased by the employees is increasing.

There is another angle to the plan which the Gisholt company is not overlooking; the firm expects that it will result in increased production.

⁂

WHOLESALE vs. RETAIL.

In last month's issue we published the opinions o several milk distributors relative to the comparative value of the wholesale and retail branches of their business. The following letter from a Pacific Coast deale reached us too late for that issue and we gladly give i space as follows:

"All of our business is wholesale, that is, to stores, restaurants and bakeries. We have not had any retail business fo the past five years.

"Inasmuch as our delivery conditions here are much different from any of the Eastern cities, and the number o dealers are about two hundred, to deliver retail a truck mus cover at least fifty miles for a small load, and much more i the load is as much as five hundred units. On the wholesal routes we put out from 1,200 to 1,800 units per truck, usin all two-ton trucks. There is less trouble with customers an collections, and our trucks last about three times as long o wholesale, as against retail routes.

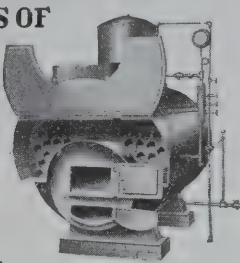
"Most of the better plants here go after the wholesal business and leave the retail for the little one-to-ten co dealer. Personally, I will never have any retail unless something unusual turns up that may make us go after that trad to live.

"This plant specializes in just milk, cream, whipping cream and cultured buttermilk in bottles. We let the othe fellow sell a little of everything, and many do not kno where they stand on any part of their line."

⁂

NEW BUILDING FOR PENNSYLVANIA FIRM.

A new building will be erected by the Kane Dair Co-operative Assn., Kane, Pa., on a site recently purchased on Chase and Kinzua Aves. The dimensions o the structure will be 65 by 70 feet and it will be on story high, constructed of brick. The building will b designed by McCormick Co., Philadelphia architects, an will be equipped to meet all requirements of a moder milk plant, with the latest equipment that can be secured, containing receiving and pasteurizing room bottle room, storage room, mechanical refrigeratio room, bottle and washing room, by-products room, boile room, men's lockers, lavatories and shower bath. Th office and salesroom will be located in the front end o the building facing on Chase Street. The shippin platform will be constructed on the south side of th building, facing Kinzua Avenue. The operation of th whole plant will be visible from the street.



MURRAY IRON WORKS COMPANY
BURLINGTON, IOWA
INCORPORATED FEB'Y 1,1870

STEAM BOILERS OF ALL STYLES AND SIZES

The cuts show vertical and horizontal boilers requiring no brick work

We build also Water-Tube and Tubular Boilers to be set in Masonry

Insure and Protect the quality of your products

with B-K Bacili-Kil

The application is simple, the results positive, the cost negligible. Best, Most Economical and Dependable Preventative for High Bacteria Count, Sour Milk, Ropy Milk, Stinky Cheese, Low Score Butter, Odors, Mould.

Write us for information
Consultation Free

GENERAL LABORATORIES
Dept. 13 K MADISON, WIS.

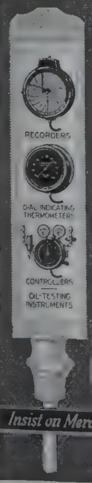
FILTERING STERLING PADS

"Sterling" Cotton Filtering Discs are made from the highest quality of cotton, and will fit all standard milk strainers. All sizes in stock for immediate delivery.

Warranted Full Count and Perfect Circles.

Use "STERLING" Discs and have CLEAN MILK.

SANITARY COTTON CO.
1417 W. JACKSON BOULEVARD CHICAGO, ILLINOIS



For Every Process there is ONE BEST Temperature

For Every Temperature Application there is ONE BEST Instrument

What is your process? On receipt of your brief mention we shall gladly send you an illustrated bulletin with special reference to your industry.

C. J. TAGLIABUE MFG. CO.
18 TO 88 THIRTY-THIRD ST. BROOKLYN, N.Y.

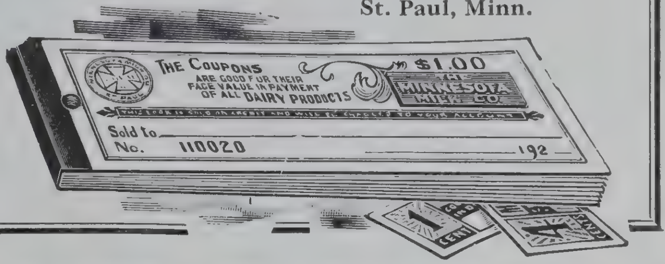
Insist on Mercury Thermometers with the TAG-Hespe RED Reading Column

TAG
SINCE 1769

National Dairy Coupons
Simplify Route Records and Collections.

Used with Success Everywhere—Write

National Checking Company
St. Paul, Minn.


THE COUPONS ARE GOOD FOR THEIR FACE VALUE IN PAYMENT OF ALL DAIRY PRODUCTS
$1.00
MINNESOTA MILK CO.
Sold to
No. 110020
192

The Gaulin HOMOGENIZER
"STANDARD OF THE WORLD"

For 15 Years Gaulin
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REMITTANCE MUST ACCOMPANY ORDER.

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NOTE: Names and addresses of advertisers using blind addresses cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of this paper.

NOTICE

The publisher disclaims any responsibility for the reliability of parties advertising in the Want Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting suspicious dealings.

We reserve the right to refuse to accept advertisements which we believe are detrimental to the dairy industries.

Want Ads are accepted up to 7th of month preceding date of issue. Forms close on that date.

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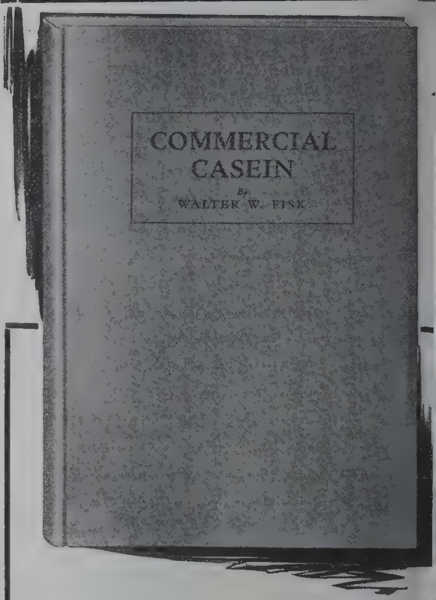

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What it is
How to make it
The Equipment Needed

A good outlet for surplus skim milk.

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WHEN WRITING TO ADVERTISERS PLEASE MENTION THE MILK DEALER.

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4 Pointed Paragraphs on C-P Glass Lined Tanks

EXPLAINING WHY THEY ARE WORTH MORE

1. Header and Jets

Twelve or more removable brass spray jets, equally spaced at top of jackets, give perfect distribution of heating and cooling medium. Jets are designed to spray steam or cooling medium, thereby assuring maximum heat transference. Cooking on is practically prevented by this method.

2. Jackets

Inner and outer jackets are of heavy rust-resisting Armco iron with gas welded seams. Glass coating on inner jacket is of very highest quality, thoroughly fused to the metal and will not chip or crack. Commercial solvents and corrosives, or alkalis, do not affect it whatever.

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Standard equipment on all *CP* Tanks. It is conveniently controlled from top of tank by a lever (hand wheel on 50 gal. size). Valve proper is made entirely of bronze and can be removed for cleaning in a few seconds time. Outlet is threaded for I. A. M. D. Union Nut with reducing elbow for connecting to sanitary pipe line.

4. Safety Features

Jacket outlet is equipped with permanently open overflow which makes pop valves and pressure gauges unnecessary. This overflow forms a seal and prevents escape of steam vapor, yet allows condensation to pass off freely. With this feature it is impossible to get boiler pressure within the jackets.

The CP Tank costs more to make

therefore, it must sell for more. Yet, with all its expensive and noteworthy features, it costs but a trifle more than ordinary tanks. Remember---good equipment pays.

PRICES

Prices shown are for 100 gallon size as illustrated. Price of motor drive includes 2 or 3 phase 60 cycle A. C. motor. F. O. B. Factory.

$450.00	$497.50
BELT DRIVE	MOTOR DRIVE

THE CREAMERY PACKAGE MFG. COMPANY

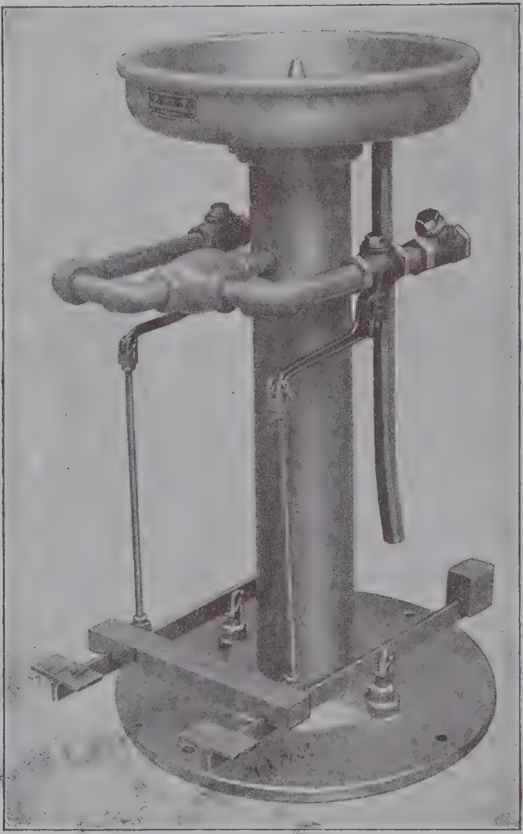
61-67 W. Kinzie Street — *Sales Branches Everywhere* — CHICAGO, ILL.

EQUIPMENT BEARING THIS *Trade Mark* IS ALWAYS HIGHEST QUALITY

''FOR BETTER MILK HANDLING''

Clean Cans mean more Business for YOU . . .

The YORK Can Washer and Sterilizer will give you clean cans at a minimum cost



The YORK Can Washer and Sterilizer

Press the pedal on the right and you get cold water. Press the pedal on the left and you get steam. Press the cross bar in the center and you get hot water.

The can is inverted over the nozle which sprays in all directions. The hot water washes. The steam sterilizes and the cold water rinses.

Nothing could be simpler or more efficient than the YORK Can Washer and Sterilizer. It does the job quickly and thoroughly.

This piece of machinery is made by us "for better milk handling."

It is fitted with standard plumbing valves and guaranteed to stand up under constant use.

Write for information and prices

YORK MILK MACHINERY CO.

Manufacturers of Milk Handling Equipment

York, Penna.

THE
MILK DEALER

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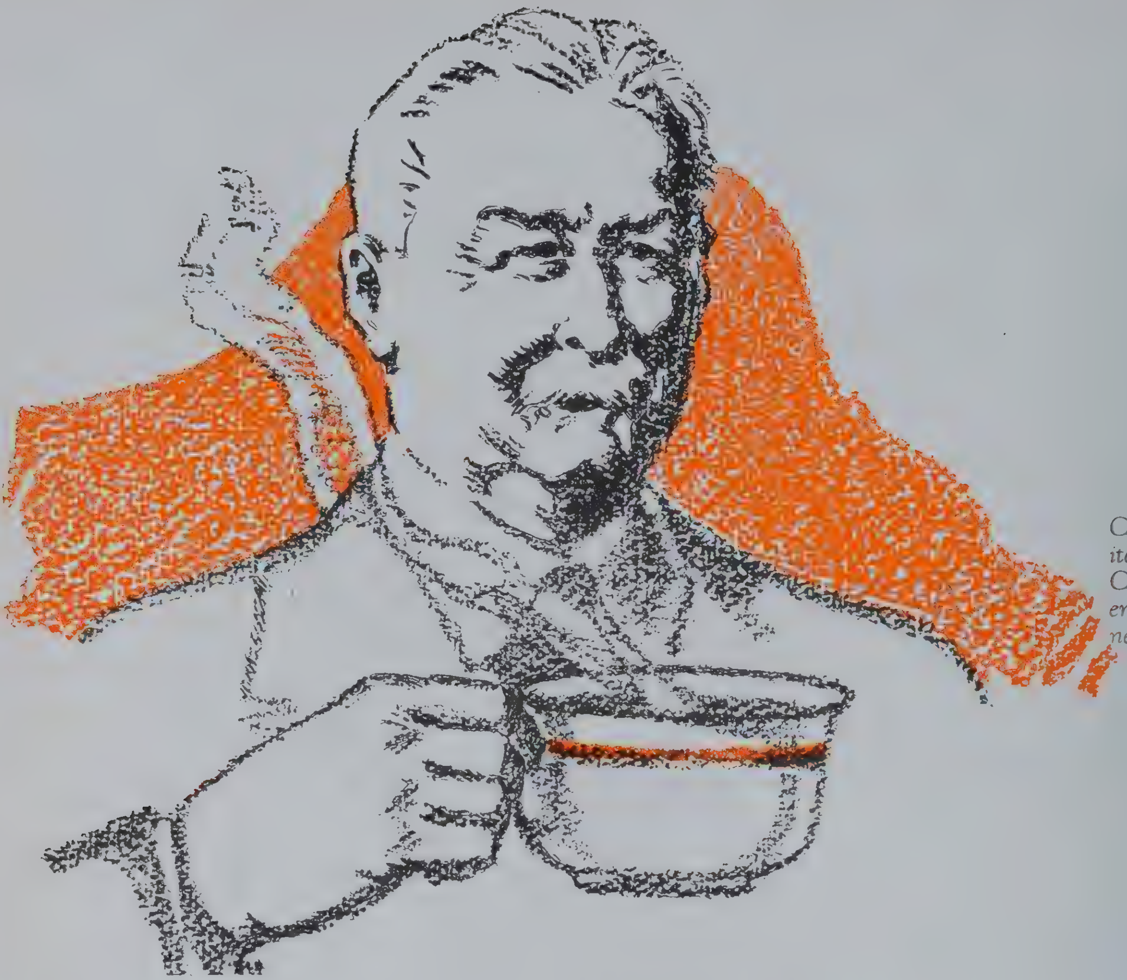
makes a difference

Volume 16 *NOVEMBER, 1926* *Number 2*



Coffee! America's favorite drink. And now comes COFFEE-MILK--all the energy of coffee and goodness of rich milk in one.

Hundreds of *New* Milk Customers *for* YOU!

Coffee lovers everywhere welcome this new drink. Thousands now drink COFFEE-MILK who never drank or liked milk before. Get your share of these *new* customers.

In *your* town, bigger business is waiting for you. New customers everywhere for this tremendously popular drink—COFFEE-MILK [Arabian Brand]—in stores, offices, shops, restaurants and homes. A wholesome, zippy and invigorating beverage. Easy to make; just mix the syrup with milk. Easy to sell; once started, it will sweep through your whole community.

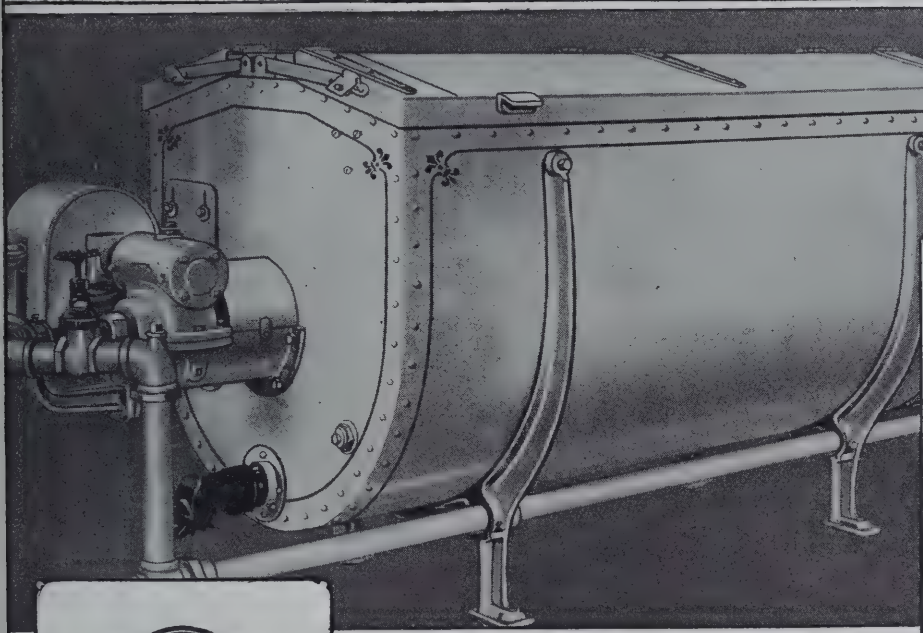
Arabian Brand Coffee Syrup is made from selected full-flavored, fresh roasted coffee, highly concentrated. No sediment; it mixes perfectly, and keeps well. Write for prices and sample bottle.

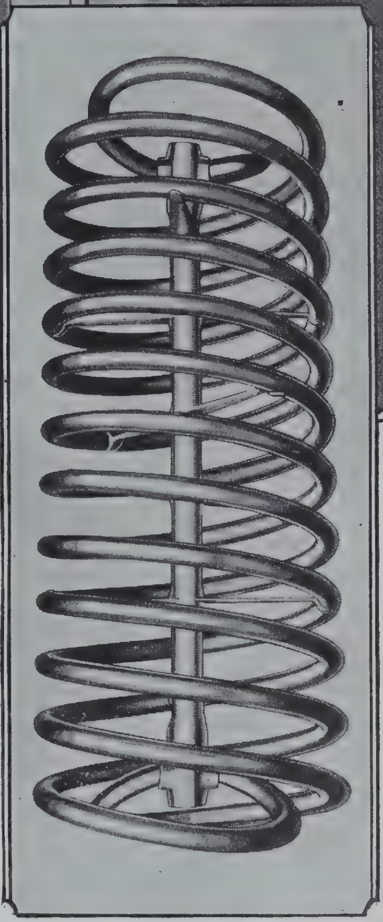
D. ABELSEN & SON, - - Providence, R. I.
Central States Representative: M. C. DRESHFIELD, 405 East Main St., Kalamazoo, Mich.

ARABIAN BRAND
COFFEE SYRUP

Sold in 12 oz. and 16 oz. bottles for home use and in one gallon and ten gallon jugs for milk dealers.

Cherry Uses Pure Nickel





J. G. CHERRY
EST. JG CO 1880
COMPANY

New Class "L", 300 gal. capacity pasteurizer, with pure Nickel lining, coil of seamless Nickel tubing, Nickel coil arms, and covering for coil shaft. Made by THE J. G. CHERRY COMPANY, CEDAR RAPIDS, IOWA.

THIS PURE NICKEL CHERRY PASTEURIZER

Safeguards the Purity and Lowers Cost of Dairy Products

AFTER two years of careful study—of exhaustive experiments—of tests of many different materials—The J. G. Cherry Co. finally came to the conclusion that only one material—Pure Nickel—would provide the properties that are essential for quality dairy equipment.

They found that Pure Nickel safeguards purity. It is rust-proof and highly corrosion-resistant. It is easily cleaned and kept clean—further assurance of wholesome operating conditions.

Pure Nickel equipment is economical. It is tough and strong as steel, will not chip or crack, and thus stands up under hard use. Its long life and wearability lessen the need for costly repairs, recoating and replacements.

Pure Nickel is now used for many standard types of dairy and ice cream equipment. Your manufacturer can give you full information or you may write direct to us.

Coil of seamless Nickel tubing used in new Class "L" pasteurizer made by THE J. G. CHERRY CO. OF CEDAR RAPIDS, IOWA.

SEND FOR "LIST B" OF NICKEL & MONEL METAL LITERATURE

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Truck Drivers Like Walker Electric Trucks

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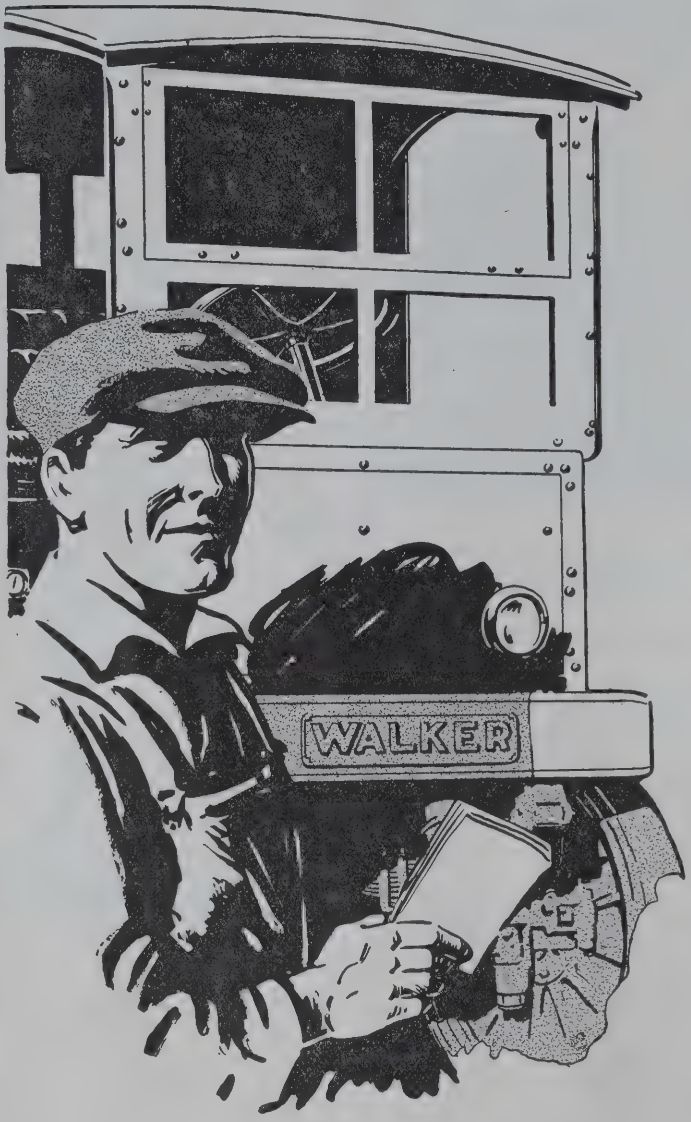

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Truck owners and superintendents nowadays know it pays to keep drivers happy. The driver of a Walker Truck gets more results for you — and gets them easier.

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CHICAGO

WALKER ELECTRIC TRUCKS

LOWEST TRUCKING COST ON CITY ROUTES

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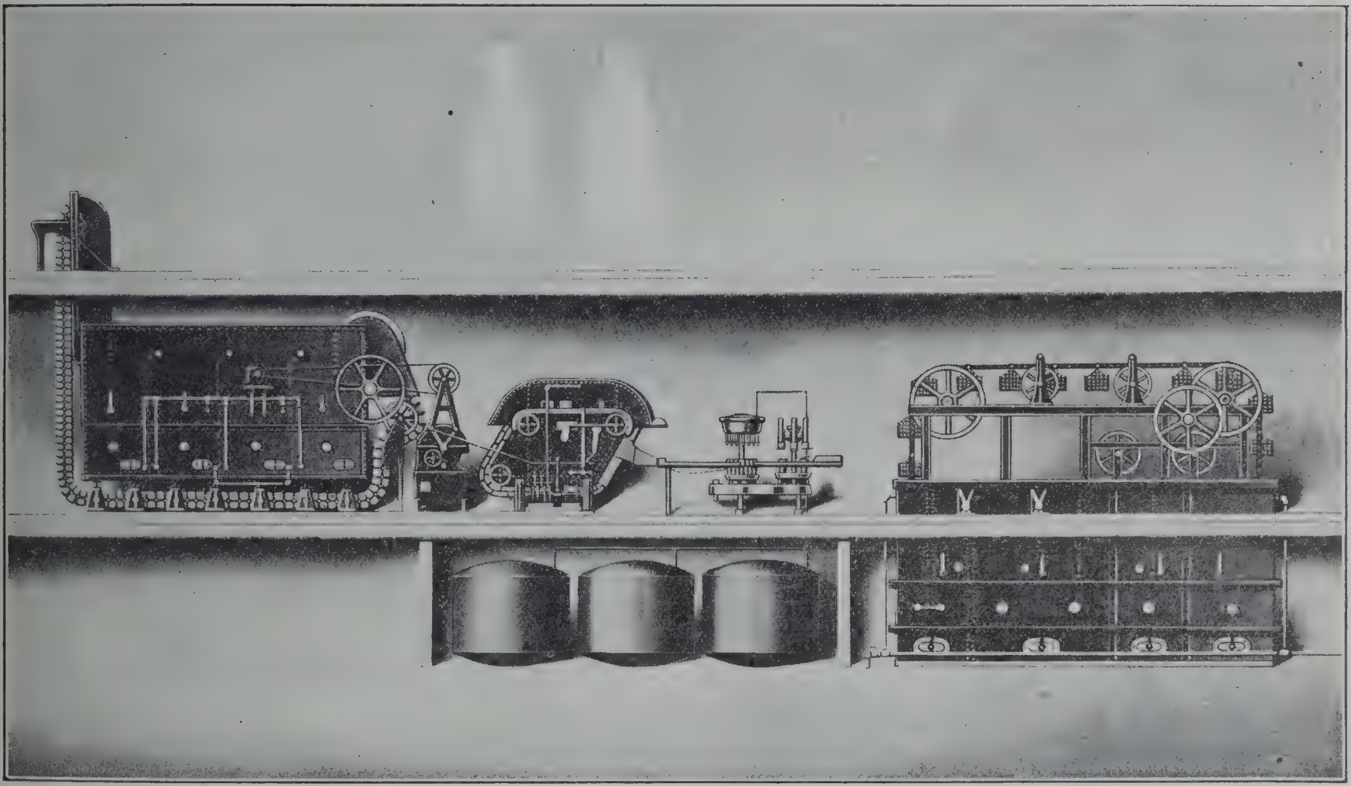
ST. LOUIS, MISSOURI

Bottle Cleaning, Sterilizing Filling, Capping and Pasteurizing

All in one complete, uninterrupted, continuous process

MAXIMUM PRODUCTION—MINIMUM LABOR AND COSTS
POSITIVE RESULTS

From the unclean bottle to the filled package at a cost of not more than **$2.00 per 1000** bottles.

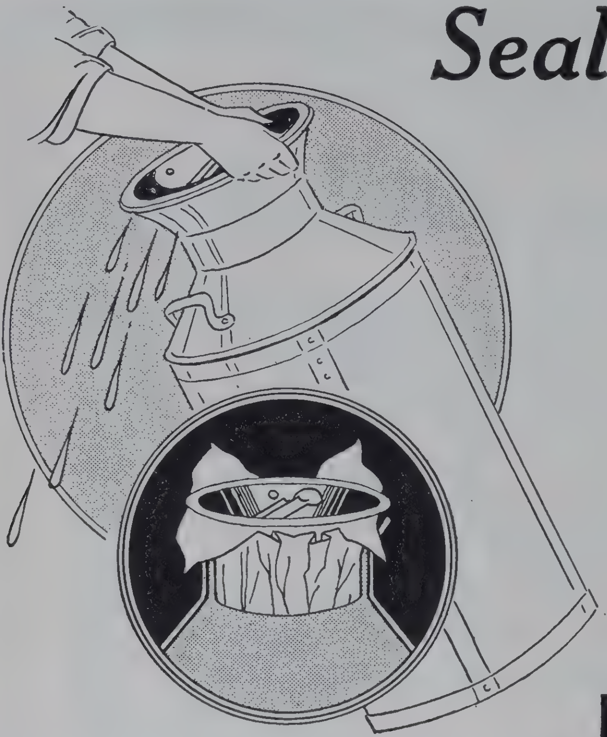


**Complete system used for twelve years by New Haven Dairy Co., (subsidiary of Eastern Dairies Co.) New Haven, Conn.
Deerfoot Farms Dairy, Southboro, Conn., for four years.
A. Stapleton & Sons Dairies, Stoke Newington, London, England, two years.**

See these installations in operation and INVESTIGATE THEIR AMAZING RECORDS!

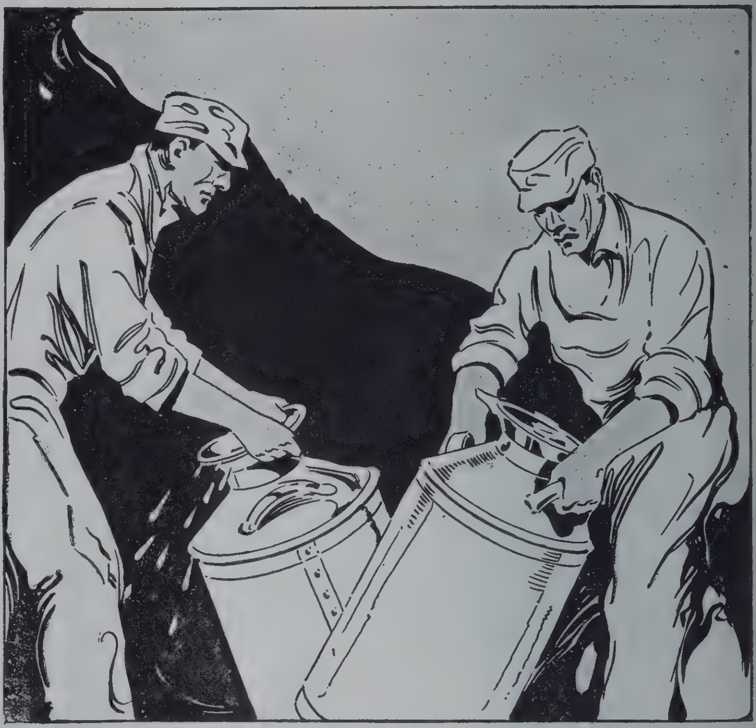
See our ARISTOCRAT Bottle Cleaners now being installed at Sidney Wanzer & Sons, Chicago

BARRY-WEHMILLER MACHINERY COMPANY
4660 West Florissant Avenue - - St. Louis, Mo., U. S. A.



Seal Your Lost Profits
with Parchment Gaskets

Cream that slops when the can is "rolled" is lost—gone forever—and so is the money you would have received for it, if *Parchment Gaskets* had been used.



Nine reasons why you should use Parchment Gaskets

1. They prevent waste.
2. Reduce sediment.
3. Maintain a low bacterial count.
4. Save time in fitting lids.
5. Prolong the life of the cans.
6. Eliminate railroad claims.
7. Prevent cream from churning in lids.
8. Prevent contamination from "rusty lids."
9. Prevent sifting of dust between metal lid and neck of can.

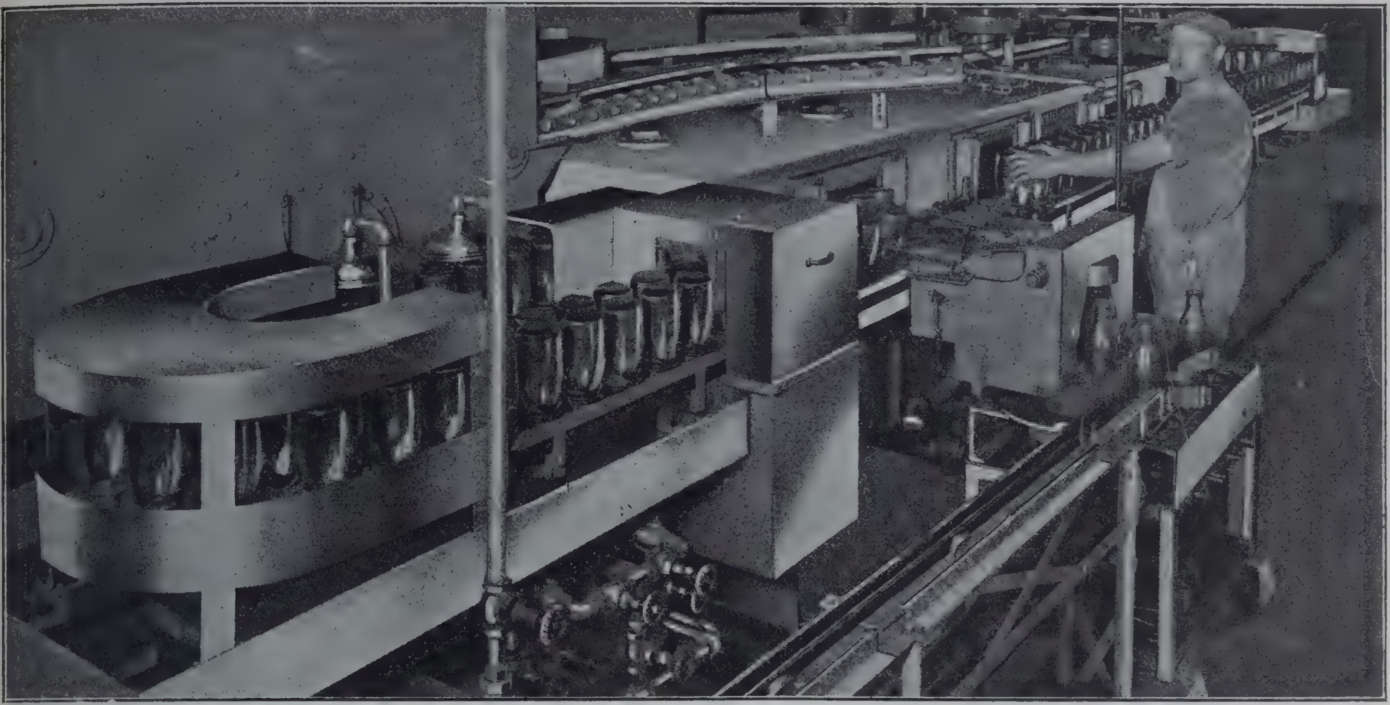
Milk Can Gaskets are made from sturdy *Paterson Vegetable Parchment* from both 40 and 50 pound substance (50 pound recommended), size 11″ x 11″, fits any type can.

Write for samples and prices and circular No. 347, "Making Milk Shipments Pay."

THE PATERSON PARCHMENT PAPER CO.

PASSAIC, N. J.

San Francisco Chicago



Speeds Up Bottle Washing

Cuts Overhead in Half—

THE MILLER HYDRO has made possible the only way known to twentieth century engineering genius of washing bottles chemically sterile in a quick mechanical operation.

In addition, it does away entirely with brush contamination, broken bottles and expensive delays. Only one man is needed to operate it where three to five men are required to operate other machines of similar capacity.

Consider for a moment the thousands of dollars the Miller Hydro can save annually right in your own plant. Before you finish paying for it, the Miller Hydro will pay for itself in overhead savings alone. No other bottle washing machine on the market can equal its performance in turning out clean, sterile milk bottles.

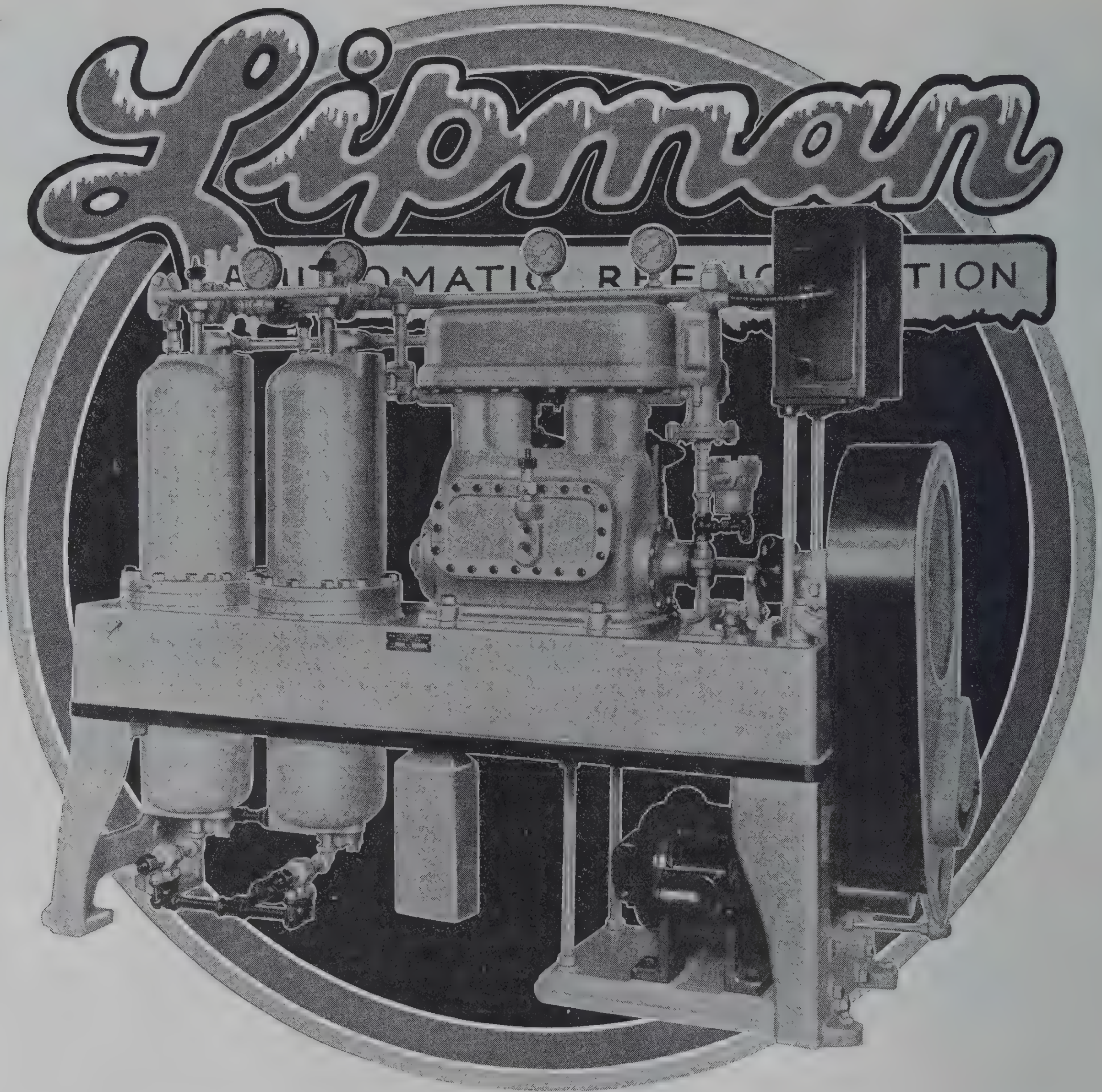
The Miller hydraulic way is safe and sure; its efficiency proven by over three thousand bottlers of carbonated beverages, breweries and dairies of enormous capacity.

Write us today for catalog and names of large dairies who have tested the Miller Hydro under every condition. Without obligation on your part . . . let us supply full and complete information.

THE MILLER MANUFACTURING CO., Bainbridge, Ga.
Chicago Office: 1305 Monadnock Block
New York Office: 105 W. 40th St.

The MILLER-HYDRO
Bottle Washer and Sterilizer

from Dirty ONE CONTINUOUS OPERATION **to Clean**



Cooling Milk at Less Expense

Lipman Full-Automatic Refrigerating Machines, by virtue of their initial operating economy, as well as through their remarkable freedom from repairs, are unquestionably among the most economical commercial machines to operate. And a fraction of a cent less in cooling each quart of milk runs into real money fast.

Investigate! Find out why Lipman Machines last so long, run so smoothly, cost so little. Post yourself on the Special Lipman Features for they mean dollars to Lipman Owners. Ask the Lipman Sales and Service Station near you for details and a demonstration.

Write Today for our Illustrated Folder, "For Protection and Profit." See our exhibit at the Pacific Coast Dairy Show, November 13th to 20th.

General Refrigeration Company
116-194 Shirland Ave. Beloit, Wisconsin

GR CO.

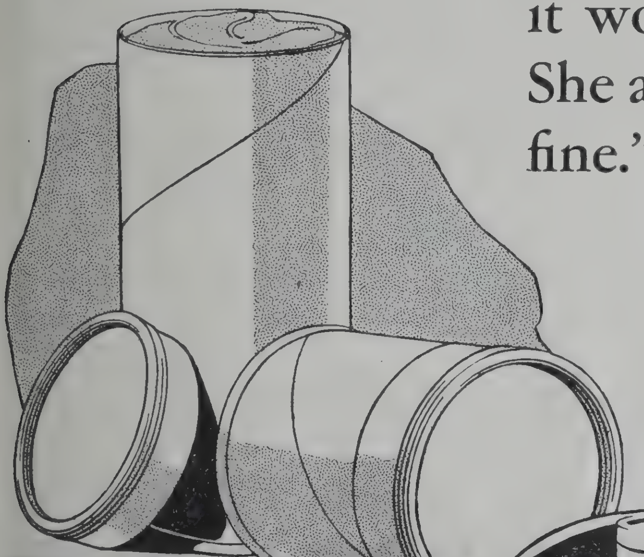
THE DRY, CONSTANT COLD OF THE MOUNTAIN TOP

*All liquids or moist products are most safely packaged in Saniseal Containers.

Ice Cream
Fountain Drinks
Coffee
Soup
Delicatessen
Syrup
Molasses
Cheese
Butter
Lard
Oysters
Hamburger
Salads
Cream
Milk

YES . . . SIR!

"Mother says to please put it* in a Saniseal, 'cause it won't leak and soil my coat. She and dad think Saniseals are fine." — *What they ALL think!*



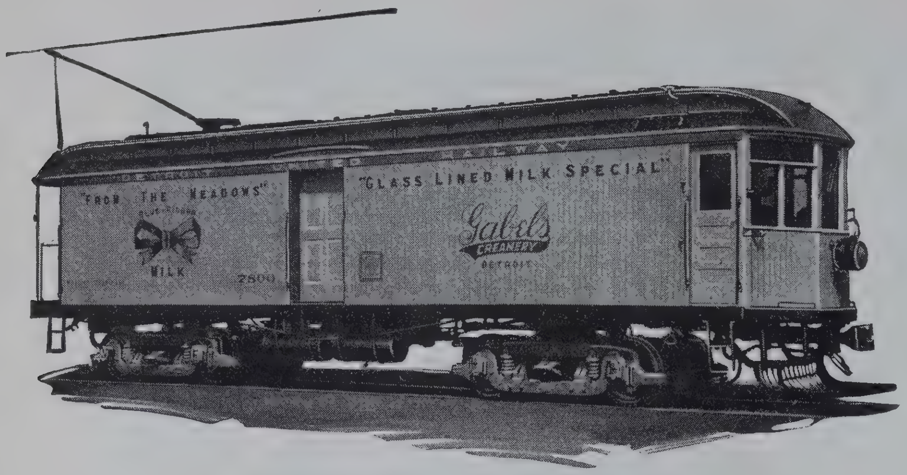
Saniseals are hard-finish board cans with *moulded* — not crimped — closures. They *can't* leak! Every can guaranteed. They help make steady customers out of occasional ones — increasing your sales and profits. Write for name of nearest jobber.

Smith - Lewis Fibre Can Corp.
555 Bostwick St., Lowville, N. Y.

New York City *Cincinnati, O.*
Boston, Mass. *Baltimore, Md.*

SANISEAL

Sanitary fibre containers for liquid, moist or dry products



(General American Milk Tank Car, interurban type, owned and operated by Gabel Creamery Company, Detroit.)

The illustration below shows the General American Milk Tank Car Equipment for interurban service. Two 2500 gallon, glass lined, seamless, one piece tanks mounted on General American patented cradles. Tanks are insulated and equipped with all accessories.

Now! Interurban Lines to Haul Your Milk

Read What This Progressive Dealer Does.

FROM their country plant, right through the heart of the city and over a switch into their own building. From Flint, Michigan to Detroit, a distance of 73 miles at a cost of 22 cents per 100 pounds. That's how Gabel Creamery Company in Detroit use interurban cars with General American Milk Tank equipment. Rapid, economical, safe transportation. Less handling, no spillage, or spoilage. An efficiency builder and money-maker for Gabel's.

This new General American development opens up new opportunities for dairymen whose plants adjoin interurban lines. No change of milk temperature, no duplication of labor, no loading and unloading overhead...just direct-to-destination, rapid transportation, proved and profitable.

This was made possible through the foresight of the Detroit United Railway and their co-operation with General American engineers.

Write us if you are interested. A letter to our nearest office will bring the detailed facts to you.

DO NOT EXPERIMENT
WE HAVE DONE IT FOR YOU
GA
GENERAL AMERICAN
LET A CAR BUILDER
BUILD YOUR CAR

GENERAL AMERICAN CAR COMPANY

DIVISION OF GENERAL AMERICAN TANK CAR CORPORATION

General Offices: 940 Illinois Merchants Bank Bldg., CHICAGO

Eastern Offices:
17 Battery Place, New York
327 Ford Bldg., Detroit, Mich.
Munsey Bldg., Washington, D. C.

Pacific Coast Offices:
Rialto Bldg., San Francisco, Calif.
Bartlett Bldg., Los Angeles, Calif.

Midwestern Offices:
1946 Railway Exchange, St. Louis, Mo.
502 Cosden Building, Tulsa, Okla.

Southern Offices:
Union Indemnity Bldg., New Orleans, La.
Magnolia Bldg., Dallas, Texas

Glass Lined Refrigerator Milk Tank Cars

? - ? - ? - ? - ?

Here is a photo of several milk bottles as they came back to the dairy. Thousands of bottles like these, containing sour milk, butterfats, dirts, etc., which will not drain out by gravity, are returned to every dairy daily. A record made for one day's run in a plant where approximately 15,000 bottles are washed per day showed that over 256 pounds of this dirt, refuse, etc., still remained in the bottles when they were fed into the washing machine. Tests also showed that these substances could not be flushed from the bottles by merely giving them a light rinsing with hydrant water.

Do you think that these contaminating and objectionable deposits should be carried into the soaking tanks of the bottle washer and allowed to accumulate for weeks?

Under such conditions can an alkali solution continue to be a clean and sanitary washing medium?

Can such a solution maintain a uniform degree of alkali strength without continually adding large quantities of alkali to it?

Can a bottle containing a quantity of this dirt, butterfat, etc., receive the same chemical treatment from the alkali solution as one that enters the solution free from these deposits?

We dare say that the unanimous answer to these questions is NO. Then why use bottle washers which operate under these very conditions?

The CLEVELAND BOTTLE WASHERS are the only machines that remove all deposits from the bottles before they enter the soaking compartments.

The CLEVELAND METHOD of treating bottles not only means sanitary and efficient washing and sterilizing but also means a great savings in alkali, which amounts to hundreds of dollars per year.

The CLEVELAND BOTTLE WASHER insures you of the most modern, efficient, and economical method of washing and sterilizing bottles.

Built in all sizes and to meet every condition. Write for full particulars.

THE UNION ENGINEERING CO.

Cuyahoga and W. 4th Street CLEVELAND, OHIO

"Something ought to be done about it"

If you read the "Letters from the People" column of the daily papers, you will see how frequently the milk-man is numbered among those who cause annoyance by awakening people in the early morning hours. "Something ought to be done about it" say the writers of these letters.

The one to "do something about it" is the milkman himself — for surely the good-will of his customers means more to him than to anyone else.

The consideration your men may show in walking softly through apartment halls, and setting bottles down quietly, cannot make up for the clattering noise of the horse and wagon which heralds their approach. The call of a milkman becomes a thing to be dreaded.

Dairy companies who have substituted the quiet Ward Electric for the noisy horse-and-wagon say that their customers are exceedingly grateful for the improvement. Put yourself in the customer's place. Other things being anywhere near equal, wouldn't you take your milk from the company which delivers it without awakening you from a sound sleep? The importance of this feature of your service—*quiet delivery*—cannot be overemphasized.

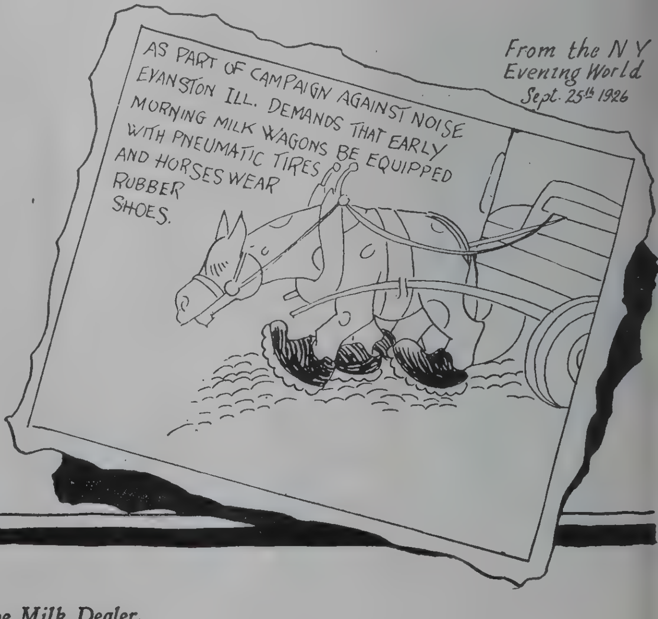
This superior form of delivery is faster than the "horse that knows the route"—proven by actual stop-watch tests in leading dairies. And companies which keep accurate cost records report that the substitution of Ward Electrics for horses has lowered their delivery costs considerably.

You will be interested in reading about our new retail milk truck and the ingenious method we have devised for delivering a load of 35 trays so that each tray is handled only once.

Write for our retail milk delivery folder.

WARD MOTOR VEHICLE CO.
MOUNT VERNON, N. Y.

New York Philadelphia Boston Baltimore Buffalo
Detroit Chicago St. Louis San Francisco Los Angeles


AS PART OF CAMPAIGN AGAINST NOISE EVANSTON ILL. DEMANDS THAT EARLY MORNING MILK WAGONS BE EQUIPPED WITH PNEUMATIC TIRES AND HORSES WEAR RUBBER SHOES.

From the N Y Evening World Sept. 25th 1926

REMEMBER
THE NAME
American
MALLEABLE
Nickel
99%
+

SPECIFY this better metal, if you would have your coils, tanks, holders, etc., made of the best. ¶Costing no more, it is available to every producer of your plant equipment — no purer metal is obtainable—and it is free from cobalt.

American Nickel Corporation
CLEARFIELD, PENNSYLVANIA
Exclusive American Representatives of the Mond Nickel Co., Ltd.

If you wish to know the names of equipment builders who use this better metal
WRITE US

Specify American Nickel insist on it and you will get the best

Pop Gets Hot About a Hot Motor

TRADITION
PROGRESS

"Lad—

I'm running to the ground every one of these shutdowns we've had on the bottle cleaners. They're nearly all due to your lack of regular motor inspection. Here's a case where this fan was all loose and bent. Of course the motor heated up because you didn't catch the trouble. Then you blame it on the motor."

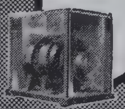
"Yes, Pop—

did you expect when yc bought those motors from your non-develo ment gang that you'd have to spend the pri of the motors each year for private detecti service to watch over the crimes that the mak put into them? That could never — ye NEVER—happen to a Linc-Weld motor b cause they make their fans by punchings fro He-Steel welded (Stable-Arc of course) smac up against the rotor end plate."

See how they do it — Page 9 of the Motor Book. If you haven't a copy write to

The Lincoln Electric Co., Cleveland, Ohio

"Linc-Weld"

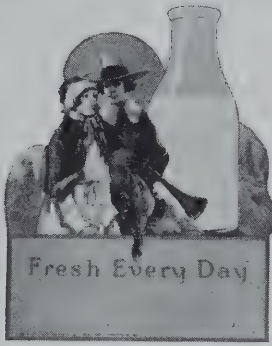


LINCOLN MOTOR

MA-1

YOUR DAIRY COMPA
DAIRY COMPANY
MILK

Giving YOUR BUSINESS a Personality —


Fresh Every Day

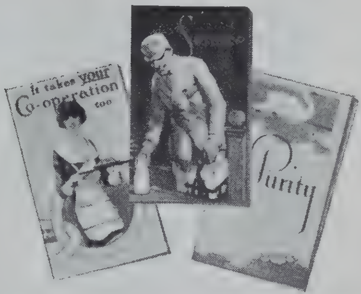
ON the loading platform of your plant it is "*your milk*"—is it still "*your* milk" when it reaches the homes of your customers or is it just "milk"?

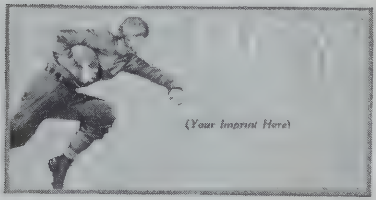
The answer to that question depends entirely on whether you preserve your identity clear through to the homes you serve. And it's a mighty important question because millions of gallons of milk flood the cities of this country every day. And if you're spending money to get good milk and to give good service, you can't afford to submerge the personality of your business in the daily Niagara of milk that pours out over the country.

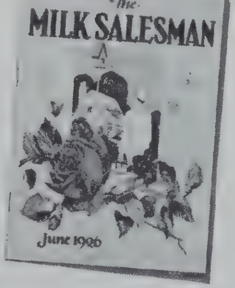
That's what advertising is for.

Never mind now about education. The purpose of advertising isn't to educate—it's to sell goods. And you can use it, if you like, to make *your* milk stand head and shoulders above the common level.

Let us tell you how we are helping other dealers do this job. We've had a lot of experience in the milk business. We know the milk man's message and the milk man's market. Maybe we can help you. Drop us a card.

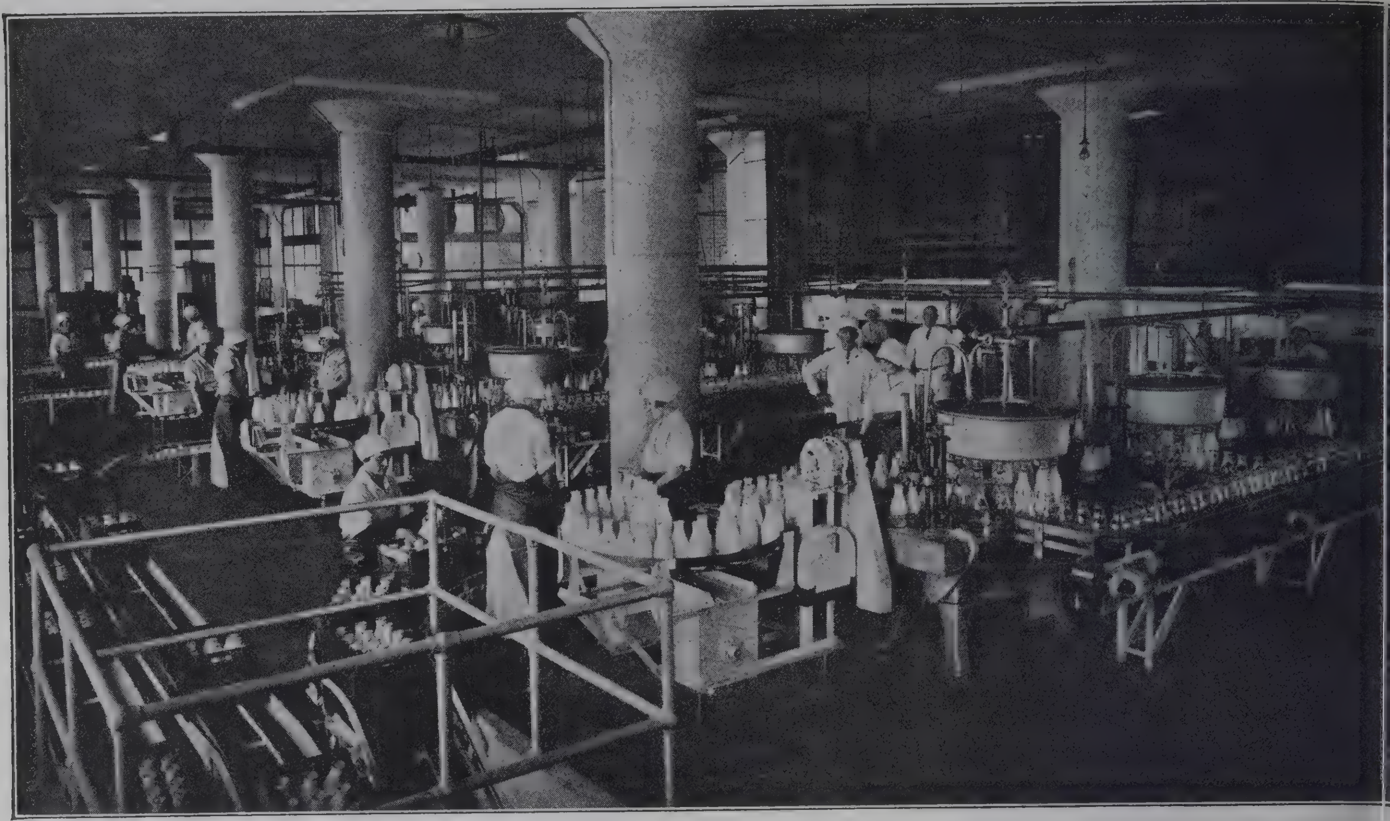

It takes your Co-operation too
Purity


(Your Imprint Here)


The MILK SALESMAN
June 1926

THE FARRAR ADVERTISING COMPANY

108 FULTON BUILDING :: :: :: PITTSBURGH, PENNA.



A Wonderful Achievement in Milk Plant Engineerin

It's the Air Brush

If you don't know about it, ask us.

HERE was a problem that required real engineering skill. The soaking and washing of the bottles is done in the basement—two floors below the bottling room.

Clean bottles at the rate of 480 per minute are delivered and distributed to the fillers in this room.

Three Large YUNDT
MILWAUKEE AIR BRUSH
MILK BOTTLE WASHERS

automatically feed these nine type L Milwaukee Fillers. All operations are synchronized to harmonious operation of the various units. Everything is controlled automatically.

What Yundt engineers and Yundt Milwaukee Air Brush Milk Bottle Washers have done for the Pevely Dairy Co. in this plant at St. Louis, Missouri, they can do for you. The size of your problem is no obstacle. A small problem receives equal consideration.

Manufactured and Sold by

MICHAEL YUNDT COMPAN

MILWAUKEE, WISCONSIN U. S. A. WAUKESHA, WISCON

Fifty Years of Honest Equipment

O & B
Purity
Line
Cattaraugus
N.Y. U.S.A.

THROUGH more than fifty years of honest manufacture, O & B Purity Milk Handling Machinery and Supplies emerge secure in public favor. Their value and lasting satisfaction are due in large part to high quality materials and thoroughly skilled and contented workmen.

Here in beautiful Cattaraugus among the enchanting foothills of the Alleghenies, our community of O & B workers thrive and prosper, generation after generation.

Good goods at reasonable prices are the natural results. Why not enjoy these advantages? You do so when you purchase O & B Equipment.

Write for descriptive folders.

O & B Purity Pasteurizer, Mixer and Starter Can, specially designed, propeller type agitator and a current deflector producing perfect results at low cost. Fitted with noiseless steam jet water heaters for pasteurizing and with new double agitator for ice cream mixture. Inner can of heavy, tinned copper.

akes & Burger Co. Inc.

ESTABLISHED 1873

CATTARAUGUS, N.Y. ERIE, PA., U. S. A.

Local, State or Regional Associations

United States and Canada

INTERNATIONAL ASSOCIATION OF MILK DEALERS
F. H. Kullman, Pres., Bowman Dairy Co., Chicago.
R. E. Little, Secy., 139 N. Clark St., Chicago.

SOUTHERN CALIF. MILK DEALERS ASSOCIATION
Ross D. Weaver, Pres., Los Angeles.
Harry A. Walsh, Secy., 1236 Compton Ave., Los Angeles.

ALAMEDA COUNTY MILK DEALERS ASSOCIATION
Oakland, California
Jos. Davidson, Pres.,
W. Sush, Secy.

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C. A. Fieweger, Secy., Walnut Grove Cry. Co., Oakland, Calif.

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Sam H. Greene, Secy.-Treas., 216 Pine St., San Francisco, Calif.

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W. A. Wentworth, Secy., 5 East Long St., Columbus.

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Edw. Oberdoerster, Secy., 2758 West 15th St., Cleveland, O.

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W. E. Ziegler, Treas.-Secy., J. C. Ziegler Co., Reading, Pa.

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MILK DEALERS ASSOCIATION OF STATEN ISLAND
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Prof. W. P. B. Lockwood, Mgr.-Dir., 51 Cornhill, Boston, Mass.

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According to State

INDIANA ASSOCIATION OF MILK DEALERS
KANSAS STATE DAIRY ASSOCIATION
WATERBURY MILK BOTTLE EXCHANGE, WATERBURY, CONN.
MILK BOTTLERS ASSOCIATION OF NEW JERSEY
MILK BOTTLERS FEDERATION OF NEW YORK
MILK MERCHANTS ASSOCIATION OF NEW YORK
CREAMERYMEN'S MUTUAL AID SOCIETY, NEW YORK
ALLEGHENY COUNTY MILK EXCHANGE OF PITTSBURGH, PA.
PHILADELPHIA MILK EXCHANGE
C. R. Lindback, Pres., 3033 Chestnut St.
Jos. H. Gravenstime, 1537 N. 23rd St.
KENOSHA MILK BOTTLE EXCHANGE, KENOSHA, WIS.

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W. J. Wharton, Pres.

SEATTLE DAIRY COUNCIL, INC.
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NATIONAL DAIRY COUNCIL OF CANADA
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D'Arcy Scott, Secy., Central Chambers, Ottawa, Ont.

CANADIAN MILK SHIPPERS ASSOCIATION
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Associations Given With No Officers

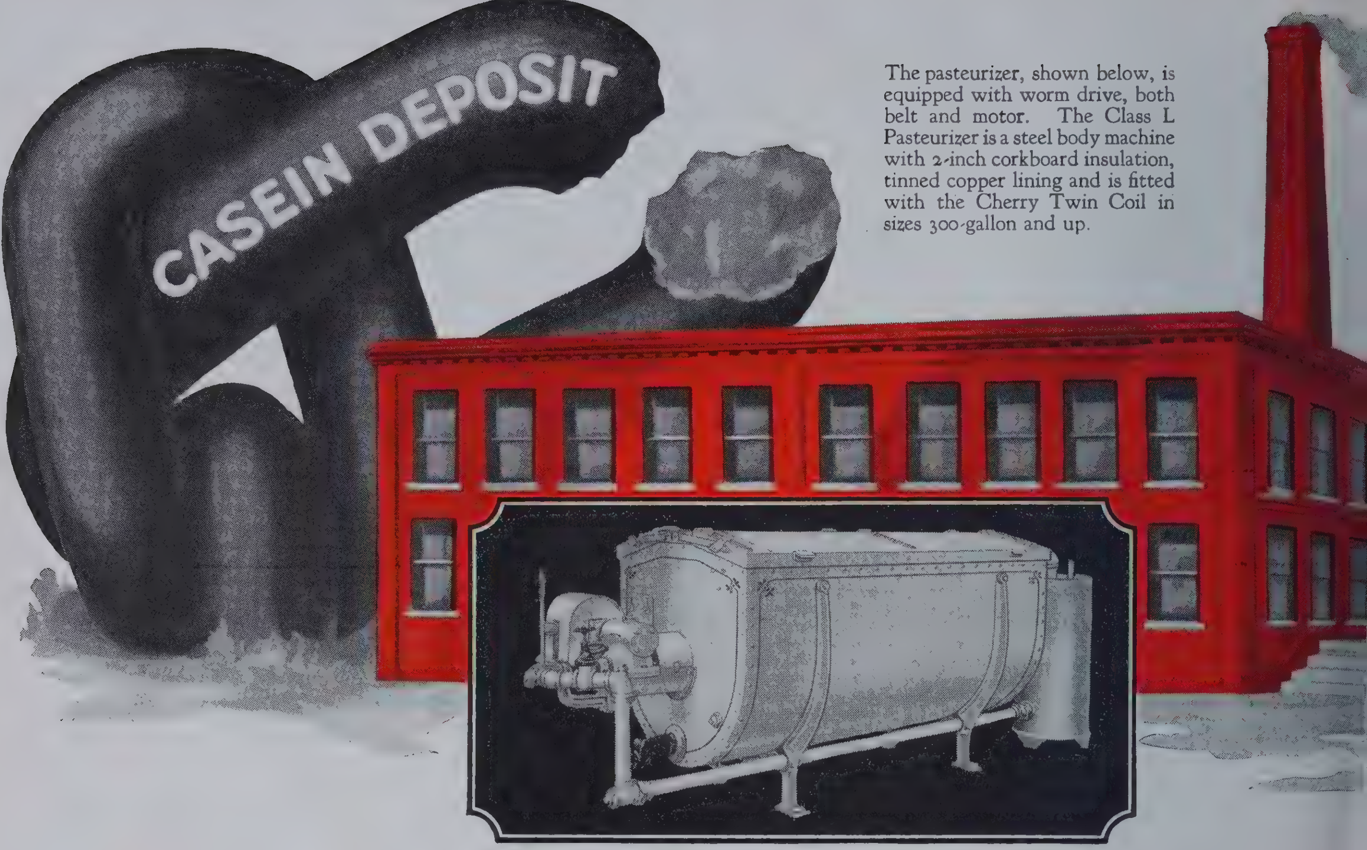
Canada

MANITOBA DAIRY ASSOCIATION
MANITOBA DAIRY MANUFACTURERS ASSOCIATION

Casein Deposit hinders sales and hampers profits–reduces cream line and lengthens cleaning time–and it is needless!

Free Your Plant

TOO LENGTHY
CLEANING TIME
SEIN DEPOSIT
POOR
CREAM LIN



The pasteurizer, shown below, is equipped with worm drive, both belt and motor. The Class L Pasteurizer is a steel body machine with 2-inch corkboard insulation, tinned copper lining and is fitted with the Cherry Twin Coil in sizes 300-gallon and up.

The Class L Cherry Coil Machine — Motor Drive.

With Cherry Coil Pasteurizers From Casein Deposit's

CASEIN deposit, milk stone, cream plug — they're all names for the same thing and they all foot up to the same result — *needlessly* lengthened cleaning time and heating time, added labor cost and lessened profit, a poor cream line and diminished sales, plus the ever present danger of a poor cleanliness rating by the Health Department.

Are your sales and profits hampered and hindered by these casein deposit shackles? Is your pasteurizing equipment difficult to clean and slow to heat up? Are you paying out needless payroll dollars and cutting slices off your profits? Do your competitors' bottles show a deeper cream line and win customers away from you? Then learn now how you may free your business from these costly, unnecessary chains.

The work and worry, the cost and loss, due to casein deposit—steel wool, steel brushes and backbreaking, time consuming hours of hand cleaning—are absolutely needless where Cherry Coil Pasteurizers are employed. For when you say that a Cherry Coil machine is easy to clean you only say half of it—the other half is that it takes deliberately improper operation in order to cause casein deposit in a Cherry Coil Machine.

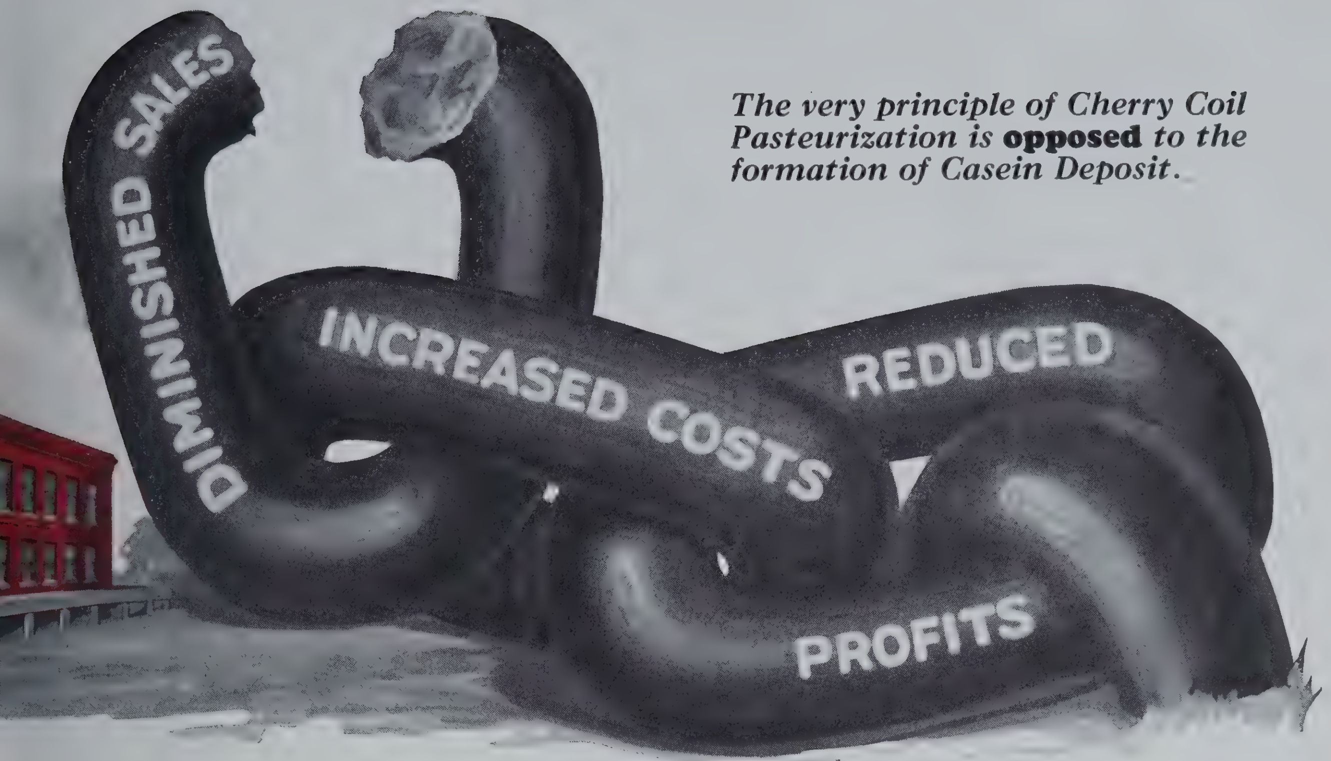
J. G. Ch

CED

ST. PAUL, MINN.

AM

Now Get All the Facts on the World's Most Sat



The very principle of Cherry Coil Pasteurization is **opposed** *to the formation of Casein Deposit.*

r Plant May Be Freed Forever
t-hampering Shackles

n a Cherry pasteurizer the heat is rapidly and evenly diffused by the Coil
hroughout the entire contents of the vat. Excessive temperature is unneces-
ary and detrimental. Too lengthy a heating period is equally unnecessary.
'o heat the contents at the center of the vat to the proper degree it is needless
raise the temperature at the sides or wall of the vat to the high degree
hich causes casein deposit.

nd because the proper temperature is evenly and rapidly diffused through-
ut the entire contents of the vat, heating time need never be prolonged to
e detriment of the cream line. The Cherry Coil principle, you see, fights
ff casein deposit and makes cleanliness easy — protects the cream line and
leases your customers.

herry Coil Pasteurizers are made in practically every size and capacity. With pure nickel coils and linings or with coils and linings of heavily tinned copper. Motor driven or belt driven. Wood bodies or steel bodies. A machine to fit each and every need. Find out more about them. Get our free, descriptive, illustrated bulletins which give you the whole story on the entire line. Clip the coupon or send a postcard.

mpany

PEORIA, ILL.

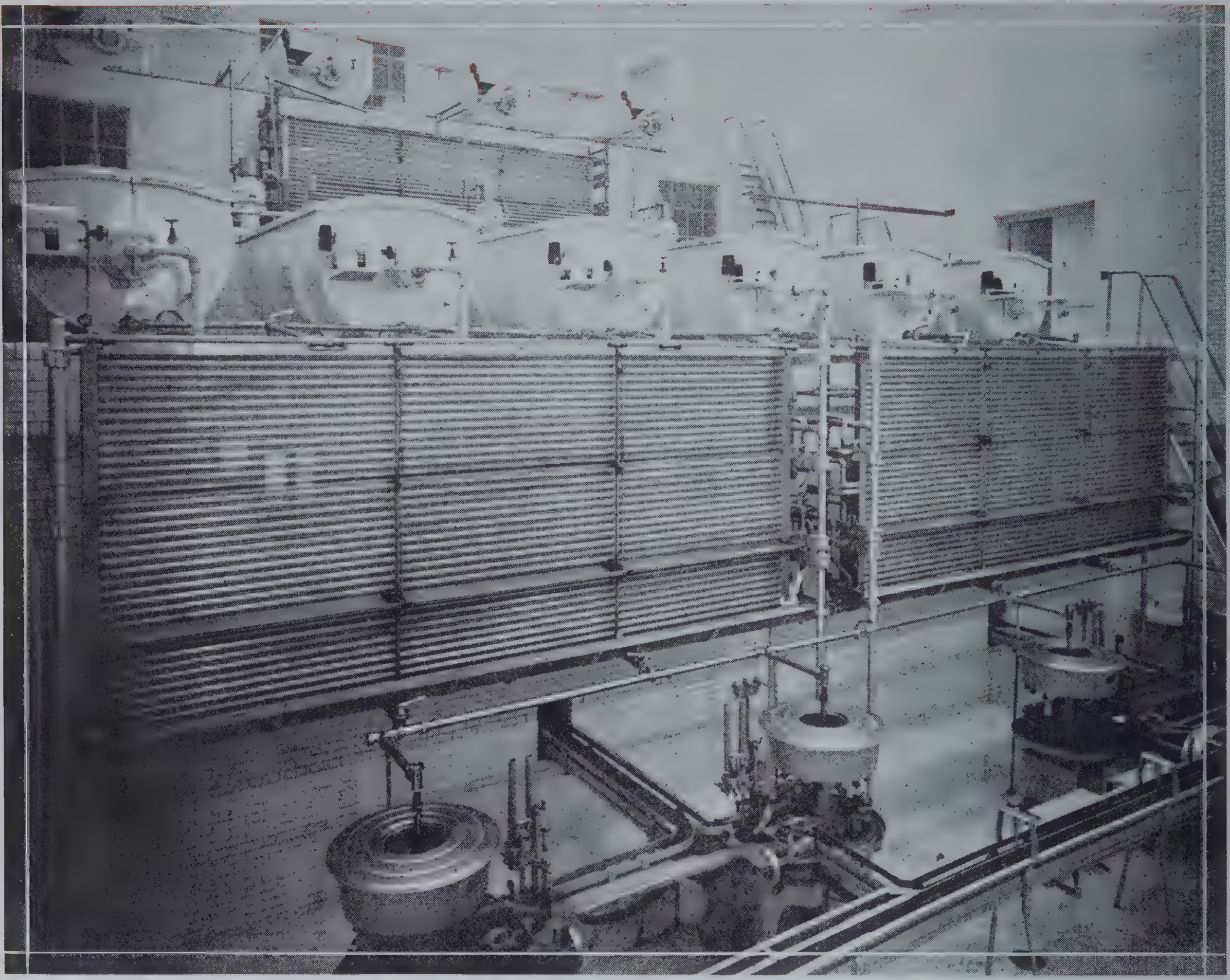
Pasteurization Method

J. G. CHERRY COMPANY,
Cedar Rapids, Iowa.

Send me, without cost or obligation, your descriptive literature on Cherry Coil Pasteurizers. We are at present using .... equipment. We bottle about .... gallons daily.

Firm Name ....

Address ....



The Gravity System of pasteurization with Cherry Coil Pasteurizers, Tubular Coolers and Bottling equipment is employed by the famous Chestnut Farms Dairy of Washington, D. C.

No Casein Deposit Troubles in the Cherry Equipped Chestnut Farms Dairy!

Health Department regulations governing milk production in our nation's capital are very strict. Chestnut Farms Dairy operates not only one of the most profitable and successful milk businesses in the capital but also one of the most perfect from the standpoint of compliance with Health Department regulations.

Note below the rating of the Health Department for January, 1926, for instance. See how the Chestnut Farms Dairy bettered the requirements of the department and made a perfect score. No casein deposit troubles in this plant.

HEALTH DEPARTMENT RATING—Chestnut Farms Dairy, Washington, D. C.—January, 1926

Factors considered by Health Department for rating Dairies

	Perfect	*Allowed*
Wholesomeness, cleanliness and keeping qualities as determined by bacteriological tests	33.333	33.333
Nutritive Value	16.666	16.666
Pasteurizing and Bottling Plant	16.666	16.666
Cattle—Health and Cleanliness	16.666	16.42
Dairy Farms—Sanitation and Equipment	16.666	14.946
	100.000	98.031

J. G. Cherry Company

CEDAR RAPIDS, IOWA

ST. PAUL, MINN. *TAMA, IOWA* *PEORIA, ILL.*

TO the ideals of basic healthy economic development, of modern management practice, of increased efficiency in handling of materials, production and distribution, for and within the dairy products industries, this Association in its own interest is committed.

The machinery man, the supply man, are vital contributors to the efficiency and welfare of the great industry of market milk.

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION, INC.

1328 Broadway New York City

THE
MILK DEALER

PUBLISHED THE FIFTEENTH OF EACH MONTH BY
THE OLSEN PUBLISHING COMPANY
H. P. OLSEN, President and Manager
LESTER S. OLSEN, Vice-President
E. K. SLATER, Secretary and Editor
Also Publishers of
"BUTTER, CHEESE & EGG JOURNAL" and "THE ICE CREAM REVIEW"

FIFTH AND CHERRY STS. MILWAUKEE, WISCONSIN

We will not accept responsibility for the views or opinions expressed by contributors nor for news sent us for publication, nor for statements made by advertisers in their advertisements.

Entered as second-class matter December 1st, 1911, at the Post Office at Milwaukee, Wis., under the act of March 3rd, 1879

Requests for CHANGE OF ADDRESS must be received not later than the 10th of the month to insure delivery of that particular month's issue at New Address. **Old Address** as well as **New Address** must be given us as all records carried by us are "Geographically arranged" and not "Alphabetically arranged."

Subscription in United States, U. S. Possessions, and Foreign Countries taking U. S. Postage................$2.00 per annum
Canadian and Foreign Subscriptions............$3.50 per annum
Payable in Advance.

OFFICIAL ORGAN OF
The International Association of Milk Dealers
Dairy Products Association of Kentucky, Inc.

NOVEMBER, 1926

BULLETIN *of* EVENTS

Pacific Slope Dairy Show—Will be held at the Civic Auditorium in Oakland, Calif., on November 13 to 20, inclusive, 1926. Robert E. Jones is secretary-manager, 1404 Franklin St.,

Indiana Manufacturers of Dairy Products—Annual meeting at Claypool Hotel, Indianapolis, December 14, 1926. R. L. Hammond, 306-307 Chamber of Commerce Bldg., Indianapolis, general secretary.

Michigan Allied Dairy Association—Annual convention and exposition to be held at Jackson on February 7 to 11, 1927. Exhibit will be staged at Fair Grounds, five blocks from Hotel Hayes, which will be convention headquarters. Secretary, Lloyd H. Hughes, 1815 Franklin St., Detroit.

Dairy Products Association of Kentucky—Final meeting of the spring and summer season will be held in Cincinnati, O., on Wednesday, April 21, at the Gibson Hotel. Carlton Ball, 206 Republic Bldg., Louisville, is general secretary.
Oakland.

A MILK dealer in a city of about 15,000 inhabitants, tells us that as the result of a price war in his town he is now making a little money where formerly he had hard work to keep up with expenses. Along last Spring he was getting 12 cents per quart for his milk. Peddlers were under selling him, one and even two cents per quart. He tells us that he decided to make life interesting for them and with one blow put the price down to eight cents per quart. At the same time he staged an advertising campaign, emphasizing the superiority of pasteurized milk and now he has most of the milk trade in his community.

"That's what volume does," was his parting comment and we pass it on to our readers for just what it is worth.

⁂

WE HAVE always taken pride in the high caliber of the dairy industry's representation in the advertising columns of The Milk Dealer. More than once we have pointed out to our readers that the list of our advertisers is well nigh a complete roster of the reliable
and progressive members of the milk trade supply i
dustry. We were particularly reminded of this in sca
ning the list of exhibitors at Detroit who were appealin
to the milk bottling industry. We are mighty proud
the firms that are represented in our columns.

⁂

A SOUTHERN Indiana milk dealer says that he ha
solved the problem of how to get his customers
visit his plant. For a long time he has invited folks
his town to come and look over his bottling plant,
which he is very proud. Several weeks ago he issued
premium catalog, offering a variety of useful items fr
in return for caps taken from his milk bottles. He us
a specially printed cap and these caps cost him abou
one cent per quart of milk when exchanged for prem
ums. He puts the caps only on quart bottles.

He offers an aluminum pan, for instance, for 26 mil
caps. If the customer wants the pan delivered by th
driver she must so notify him and turn over 26 mil
bottle caps. She is urged, however, to deliver the ca
to the plant and carry her premium home with her. I
such case she is credited with five bottle caps. Or i
other words, she gets the aluminum pan for 21 caps.

As a result very few of his customers have asked th
drivers to deliver the premiums. Practically all of the
visit the plant, where they are welcomed and escorte
through. A nice increase in business has followed an
of course, the milk dealer is happy.

⁂

THE city consumer awakes to find a bottle of milk
his door step. A telephone call will bring his su
ply of other food items from the grocery store. If th
purchaser looks upon milk as he does other items
food—something to eat and that's all—possibly he ca
not be blamed. Possibly it is the fault of the man wh
sold him the bottle of milk.

Under normal trade conditions many articles of fo
reach the consumer in the same condition that they le
their source of production. It requires little care an
little expense to keep them in the same condition.
they are of fine quality, their condition is apparent
everybody, and they command a price accordingly. T
consumer can eat them with the assurance that his heal
is protected. Take a sack of flour, for instance.
one needs to take a loss in handling flour, except p
haps through market fluctuations, and no expensive m
chinery is required to maintain its purity and who
someness. The consumer need give little concern to
source of production or the method by which it has be
handled.

A bottle of milk on the consumer's door step is
entirely different product. It may or may not be in
wholesome condition as when it left its source of prod
tion—the dairy cow. If the owner of the cow takes c
of the milk so as to preserve its purity, and tests
cows regularly to keep them in a healthy condition,
is entitled to extra pay and the consumer should be g
to give it to him. If the dealer has invested money

gh priced equipment for the purpose of preserving the urity of the milk, he is entitled to extra pay and the nsumer should be glad to give it to him.

Some consumers gladly pay for pure, wholesome ilk. They realize the difference between a bottle of ilk and a sack of flour. Others are paying reluctantly. hey don't seem to realize the difference between the vo products. The size of the package is about the only easuring stick they apply, if they attempt to judge lative merits. They don't know what expense and efrt the milk dealer has put into that milk bottle from e time the milk left the farm until it reaches the door ep to make its contents pure and wholesome.

Many consumers are becoming better informed lative to food values and many of them are buying ilk more cheerfully and more of it than in the years one by. They are recognizing the superior value of ilk as a food, but if they are going to consider only the od value of the milk then a bottle of clean milk is orth no more than a bottle of unclean milk, for all the oney and effort that a milk dealer puts into a bottle of ilk doesn't add to its food value; the cow puts that ere.

It is all very well to emphasize the splendid work at the cow has done, but it is a mistake to overlook hat the milk dealer has done in co-operating with the w in furnishing the city consumer with a product that not only high in food value, but also pure and wholeme.

We have said before in these columns that milk deals are often too modest. They apparently don't like to lk about what they are doing. Some of them perhaps not fully realize the important part they are playing this great food game.

* * *

T'S SUCH an easy job for the most of us to run the other fellow's business, you know. His job looks so sy sometimes that one wonders what kind of wood or one his head is made of anyway.

Take your job for instance. We wonder sometimes we visit milk bottling plants and talk with proprietors, perintendents and sales managers, why they grow rinkles and gray hairs. Taking nice pure milk, runng it through up-to-date machinery of various kinds d setting it on the door step of the consumer, who ust have it, looks like a simple job. In spite of its aprent simplicity milk men seem to have troubles all eir own. It is just possible, too, that if you were to ckle our job you would experience an awakening.

If we were to change jobs about the time we got our t ideas into full running order the business possibly ould be all messed up. You might do better on this b than where you are and we might do better where u are, and then again we might not.

We do know, however, that both of us would meet with some surprises. There are some kinks in this siness that you probably never dreamed about and we e sure we would find some in your particular job that uld keep us humping. Probably we hadn't better trade jobs after all and if we can help each other a little as we go along we can serve better right where we are. There is a lot of satisfaction in trying to serve, however, and if a goodly percentage of the folks we are trying to serve appreciate our efforts we ought to be happy.

This is a great business for service, this milk business. To supply pure milk for the family table is more than a job. It is a privilege and it carries with it a responsibility. A man who keeps trying all the time to raise his standard of quality and service should be happy if he is making progress. He is the last fellow on earth who should get out of sorts with his job. No matter how small a place you fill in your organization, you have a right to feel "chesty" if your organization is supplying human beings with pure milk and pure milk products.

While you are doing it we are going to try to keep happy in the knowledge that some folks, yes, a lot of them, seem to gain inspiration by the contact they enjoy with others in the same line of business through the columns of The Milk Dealer. If we bring all of you folks closer and closer together as the years go by that is a job big enough for us.

* * *

"THE Milk Dealer is getting better every month," remarked a kind friend one day recently as he went on his way. We are inclined to believe that our friend is right; in fact, we don't want to believe anything else. We want to believe we are traveling in the right direction. The business of publishing a trade paper like The Milk Dealer is just like any other business. Such a business can't stand still; it must either go forward or backward. We do know it is costing us a whole lot more money to publish each issue of The Milk Dealer than it did one year ago, two years ago, or at any other time in the past. It is not only costing us more money but it is costing us more effort all along the line.

In telling us that the paper is getting better each month our friend added another to many compliments that we have received. We greatly appreciate these splendid friends and we pledge them that we shall keep right on going in the right direction. The milk bottling industry is, we believe, still in its early stages of development. As it grows in the years to come we aim to establish a record for accomplishments for The Milk Dealer that will compare favorably with that of the industry.

* * *

THE magnitude of the milk dealers' job is better understood when we search out comparative figures. In weight there is more milk consumed in a large city than flour, bread being nearest to milk in volume of weight, after which follows sugar, of which every inhabitant consumes nearly a hundred pounds a year. Other important food products are potatoes, onions, spinach and grape fruit. The weight of the milk consumed is greater than any of these.

Milk in Factories

Increased Consumption of Milk in Factories Reflects also on Home Consumption

MATERIAL in the form of posters, leaflets and a booklet describing the advantages and methods of serving milk to employees, is the newest product of the National Dairy Council. Although there is some discussion among milk dealers as to the value of this factory business, the council has found in a survey of the country that many large companies have been using a regular mid-morning and mid-afternoon milk service for as long as fifteen years.

There is undoubtedly a big field open in this direction, the survey points out, and checking up on the reports of those who are serving milk we find that in addition to the six main reasons listed here for serving it to employees, there has followed an increased home consumption in most cases, which followed the factory service.

Here are some benefits as disclosed from experience:

It reduces the number of accidents, because the mind is more alert, the body less tired, and nerves are steadier.

It greatly reduces the percentage of time lost on account of sickness.

The employees perform their work with greater ease, accuracy, and efficiency.

It reduces doctor bills because of improved health.

It helps build up those who have low vitality from any cause, and who should take added nourishment in order to continue to do their work more efficiently.

It helps to build morale in the men because they perform their labor with less fatigue of body and mind, and after the day's labor is over they are better able to enjoy their home life and recreation.

What Is Your Experience?

Many dealers are finding that in addition to the increase in business from serving milk in factories, where of sufficient size, they are also getting an increased consumption in the homes of these same factory employees. Others believe that the extra service, the trouble of convincing employers that milk drinking is a good thing for their men, and the bottle wastage is too big a handicap. Through the columns of The Milk Dealer, we invite YOUR opinions and experience in factory serving.

Three large posters, one of which is reproduced on the cover of this issue of The Milk Dealer, can be secured from the dairy council or its branches, to encourage the drinking of milk in factories. A booklet has been prepared which tells about the serving of milk, especially to interest factory executives. It is called "Industrial Milk Service." Other leaflets can be secured to place in the hands of the employees, and booklets which give ways of using dairy products efficiently and economically in the home are available from the council.

Less Absence in Factories Where Milk is Served.

Typical of the letters received from concerns where milk has been served for a number of years is this one from a factory production manager at Syracuse, N. Y.:

"During the summer of 1921," writes William Dunk, production manager of the H. H. Franklin Manufacturing Company, "the factory began an experiment to distribute milk to employees during the working hours. We picked what we considered the best source of supply and contracted for a minimum number of pint bottles of milk to be delivered twice daily, unsold bottles to be returned. Chemical tests of milk from various producers were made at the very start to make sure that the milk to be sold in the Franklin plant was the purest that could be bought. Arrangements were made for refrigerating the milk so that it could be delivered to the employees ice cold.

"Various stations were provided, and from these stations men with small trucks delivered the milk throughout the plant to all employees who wanted it. Incidentally, most of them did want it. The summer of 1921 was a hot one; at times the heat was almost unbearable. We had a heavy production of cars to get out and there was no question in my mind but that the serving of ice-cold milk to employees during working hours helped to maintain their bodily vigor and render them less liable to fatigue. The milk was on sale also during the noon hours.

"I have noticed that there was actually less absence in the departments where milk sales ran unusually high than in other departments, and the productiveness of these departments seemed to be greater. During the summer of 1921 we had an average of 2,000 employees. Milk sales averaged 2,000 pints daily. On one day over 2,500 pints were sold."

Included in the booklet on industrial milk service are letters of a similar nature from such firms as the Boomington, Illinois, office of the Chicago & Alton Railroad, the Seaman Body Corporation, Milwaukee, Wis., the Caswell-Runyan Co., Huntington, Ind., the Huntington, Ind., Shoe and Leather Company.

Time Off for Employees to Get Milk.

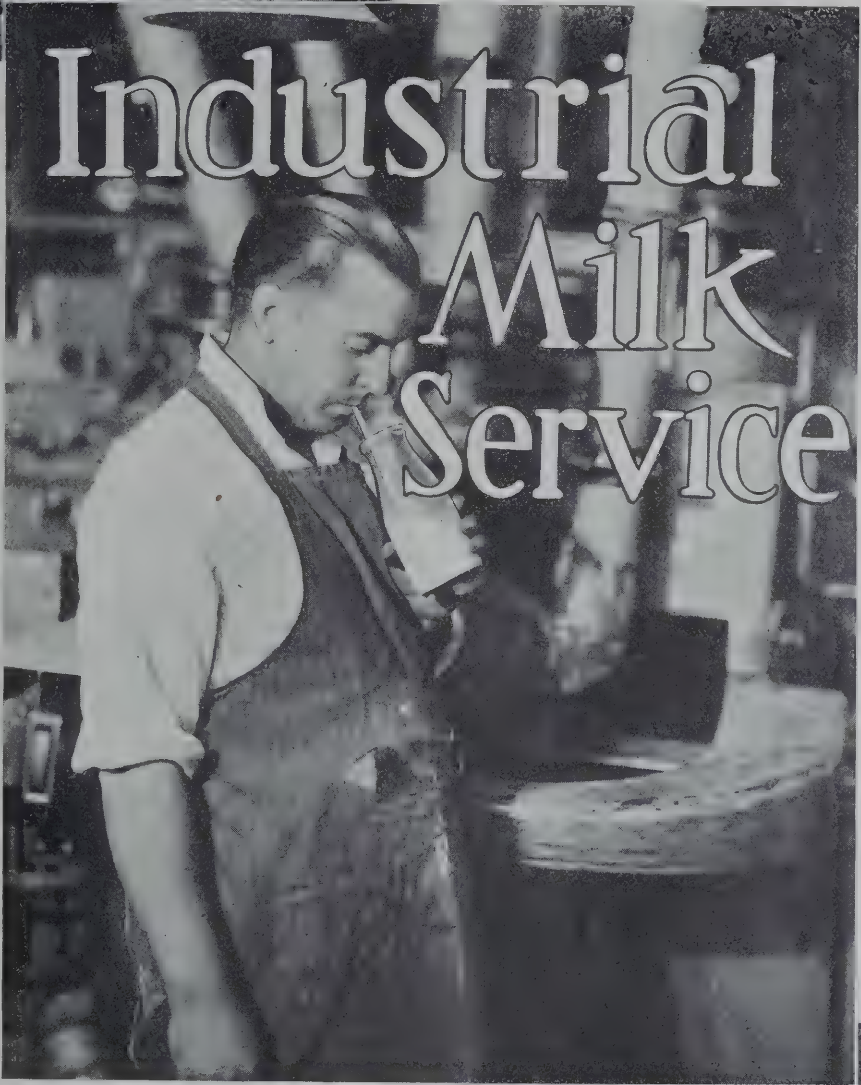
Insurance companies at Hartford, Connecticut, report that they find it profitable to supply milk free of charge to their employees who are undernourished or have a tendency toward ailments. They allow time off for these employees to go to the cafeterias during the forenoon, and find that their sickness and accident records show up much more favorably as a result.

Plans for distribution of the milk, which in the case of some organizations averages over 2,000 pints daily, are summarized by the dairy council as follows:

Factory Distribution Plan.

The factory buys the milk direct from the milk dealer and has the milk distributed to the employees through the factory by means of a milk cart or wagon on a definite schedule, each man being served at his post of duty. In such a case, collection is made for the milk as it is passed out, or a coupon is taken from a coupon book which the employee has previously purchased. Sometimes a ticket purchased by the

Industrial Milk Service



employee to be punched is used. In case the plant has a cafeteria, milk service is handled directly through such cafeteria.

Milk Dealer Distribution Plan.

The factory organization authorizes some milk dealer to go into the factory at stated periods, calling upon each worker and supplying those desiring milk with a bottle and straws accompanying it. In such cases the milk dealer collects direct from each person taking milk or keeps a record of those taking milk and gives this record to the manager, who in turn deducts the cost of the milk from the employee's pay check and turns it over to the milk dealer deivering in the factory. Distribution by the milk dealer and collecting directly from the employee seems to be the plan most generally used. In some cases, instead of the milk dealer making the distribution, some person establishes the service with the consent of the factory management and makes collection directly from the men. This system has been very successful in the factories in Huntington, Indiana.

Milk Station Plan.

Milk stations are established throughout the factory, and workers are permitted to go to the stations for milk either once or twice a day, buying the milk directly from the person in charge of the milk station. As a general custom, straws are furnished with the bottle so as to eliminate the necessity of using glasses or paper cups.

Industrial milk service will be a principal project throughout the organized dairy council territory with the securing of this new material to augment work which has already been done in factories and schools. Through the service bureau of the National Dairy Council in Chicago this same material is made available at cost to all dairymen, and the dairy council now has sufficient supplies to accommodate any number of requests from milk dealers or producers.

As an example of the "pulling power" of the work being done by the National Dairy Council in its promotion work to increase the sale of milk in factories, the work that it did among the Wisconsin Manufacturers' Association serves as an excellent illustration. Some time ago the council secured permission from this association to send a letter to all of its members to promote the practice of drinking milk at the factory. Although but one letter was sent out, the response was far beyond expectations; and as a direct result, many factories that it had been impossible for milk dealers to enter before were thrown open to them.

In most cases, the manufacturers allowed the council to enclose literature pertaining to milk in the payroll envelopes of the employee — a thing that would be next to impossible to perform if attempted by individual or groups of dealers.

Reviewing the Past and Planning for the Future

Address by President F. H. Kullman at Nineteenth Annual Convention of the International Association of Milk Dealers, Detroit, Michigan

ON ACCOUNT of the continued illness of our president, Samuel O. Dungan, it has become my duty to preside over this, our nineteenth annual convention.

I know that we have all looked forward to the time that our dear friend Sam would preside over this convention. I am sure that you all feel as I do—that to miss his greeting and the opportunity to be with him as president of our association is a real loss to all of us.

Throughout all the years of the existence of the organization, no man has been more proud, worked harder, or more willing than Sam Dungan. We have all been cheered by his hearty greeting and inspired by his example.

The royal way that he and Mrs. Dungan entertained us at Indianapolis last year can never be forgotten.

I ask your indulgence and consideration in my effort to humbly carry on the duties that he could so well perform.

Adopted at the Detroit Convention

WHEREAS, It is generally conceded that pasteurization consists of heating milk to a temperature not lower than 142 degrees F. and holding same at this temperature for 30 minutes,

THEREFORE, BE IT RESOLVED, That the International Association of Milk Dealers, in convention assembled, recommend that the Committee on Standardization of Equipment of International Association of Milk Dealers, investigate this matter, using such assistance as it may deem necessary to determine what types of equipment will provide that all the milk in any part of the equipment is held at a temperature of not less than 142 degrees F. for not less than 30 minutes.

As you know, President Dungan was taken ill immediately following the convention of last year. From time to time we heard that he was making progress. He was only able to attend one executive meeting during the year, but we all felt that there was no doubt that he would be able to enjoy presiding over this the nineteenth annual convention. However, he has advised us that it would be impossible for him to undertake the duties, and I am sure that our united prayer will be for his early recovery and return to our future meetings.

Owing to Mr. Dungan's illness, the duties of his office, according to the constitution and by-laws, has fallen upon me as vice-president and I have endeavored to discharge them to the best of my ability. This report, however, will not be complete without paying my respects to the other members of the executive committee, Dr. Walmsley, and the entire board of directors for their splendid help and co-operation, without which my task would have been a difficult one. I shall endeavor to make a very brief review of the association's activities for the year as they have passed through the executive committee's observation.

The Eighteenth Annual Convention Group Section Meetings.

The eighteenth annual convention, not having become a reality at the time of the last presidential report, I think deserves passing comment. Those of us who attended the last annual conclave of our industry are, I am sure, of one mind that it marked a very great stride—in the value of association service to the dealer.

The group plan of meeting, which was first attempted at Milwaukee, was amplified at the eighteenth meeting and to the same extent that it was larger in form, it was greater in interest and value to our members.

Practically nothing but favorable comment was received during and after the convention from every part of the country. The members were high in their praise of the program and the way the officers of the several sections arranged and conducted their programs. The only complaint, if such it can be called, was to the effect that more of the members could not have sat in more of the meetings.

Our section officers have endeavored to overcome this to some extent but in the few days set aside for the annual convention, it would be absolutely impossible, as you well know, to so arrange a program that every department of our business can receive attention and still make it possible for every member of the convention to attend every meeting. To do so would involve sessions of 15 to 20 days. A very decided effort, however, you will note, has been made to make the service available to a great number this year. Your association was practically unanimous in its demand for the perpetuation of this form of annual meeting.

District Conferences.

I think you are all familiar with the very distinct and valuable service that is being rendered by our association through its Accounting Bureau and Controllers' Council, particularly through the sessions known as the district meetings in the different parts of the country during the year.

The board of directors has received suggestions from the membership to similarly organize the sales and advertising section, arranging to bring the sales and advertising managers together, possibly at the same time we are holding the district meetings of the controllers' council. It was thought that in this way the very best sales and advertising ideas from all over the country could be reviewed during the year, and from these sectional studies an annual program arranged that would bring together the very best experiences o the year past.

I would like to have this suggestion given some thought by the sales and advertising group this yea and possibly a recommendation of some kind brough in upon it. We want, of course, to creep before we walk and not plunge into these things too rapidly for they certainly are worthy of study, and the consideration of these suggestions by the groups themselves is the bes place to bring the matter before the attention of th board. If such a plan should work out successfully, w may look forward to the creation of such activitie

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The Percentage and Cash System

Building Business by Making Employees More Efficient and Developing Their Initiative. How We "Sold" Our Employees on Our Product So That They Could Sell Others

By W. H. RICHARDS*

THE most discussed problems today of the milk business are "How to Increase Your Sales" and "How to Reduce Losses in Collections."

The first problem, which is sales, has been best taken are of by us through the inauguration of a straight perentage plan of paying salesmen, rather than a straight alary or a salary and percentage.

The second problem, or collections, has been elimnated through the inauguration of the cash system hich discontinues the handling of all customer accounts n the office, and makes the salesman on each route reponsible for all products sold by him.

Percentage.

For several years we operated on a straight salary asis, with the result that our business was at a standtill. This condition was partly overcome by allowing he men a percentage on all sales over and above a cerain quota. This plan was not entirely satisfactory, as bout half of the men would work for the extra percentge and the others were satisfied with the regular uarantee.

We finally arrived at the conclusion that there was nly one way to get results, and that was to pay the nen entirely on a percentage basis in order to get all f them to increase their sales. It had the immediate ffect of weeding out the poor salesmen as soon as they egan to see that it meant an extra hour or more every ay soliciting for new business in order to show an ncrease.

The weeding out of poor salesmen meant a large urnover of men, which was expensive, and which we ere unable to account for until we organized a class in alesmanship. It was then we began to realize that a umber of our men knew little or nothing about our roducts or how to present them for sale.

We immediately began the study of our products from he source of supply at the farm to the housewife's door, nd it was surprising how little any one of the men knew bout grading, pasteurizing and preparing for market ur regular pasteurized milk. They knew less about our ertified milk, and the conditions under which it must e produced and handled in order to pass the state reuirements.

These problems were discussed by everyone and we ook each man through the plant, one at a time, and explained every stage of the process so that everyone had good working knowledge of the products to be sold. ext we picked out two of our "go-getter" salesmen to repare the sales talk to be used in presenting our goods, hich covered most every point that a prospect might ring up.

Now that the boys knew the products and the reasons hy the housewife should buy them, there was one more oint to consider and that was the courage to approach prospect and tell her what they knew. For this lack f courage to get up on their feet and talk, we secured he services of a public speaking instructor at a small ost (paid by each salesman) and each man had to stand p in front of the class and tell his own little story. We had each one act as critic at different meetings, and it was his duty to criticize the speaker whenever he made a mis-statement. This was the best thing we ever did to give the boys confidence in themselves, and it has made real salesmen out of them.

We employ only men who have had experience in meeting the public, with a fair education, and who have not worked for a competitor. This gives us good material to build from, and has made some A-1 salesmen for us. In fact, several of our boys have stepped up from milk salesmen to city and traveling salesmen for national selling organizations.

Cash System.

Our cash system is not a cash system in the sense that our salesmen collect for every article sold each day, but it is a cash system in that we carry no customer accounts at the office. The only accounts we have are with the salesmen who turn in their cash each day for the difference between what they take out in the morning and what they return in the afternoon.

Our men are furnished with a certain amount of milk and cream coupons (with the value printed on each coupon) and these are charged to their account the same as so much money. They may sell these coupons to the trade for cash, and in that way collect in advance for the products, or they may sell for cash each day. In some instances the men carry accounts with a few customers that are prompt pay, providing they pay on the fifteenth and last day of each month, which are the dates the salesmen must settle up with us for any amount they might owe us through a shortage in their accounts.

Our percentage system of paying salesmen is based on the money turned in rather than on the products sold, which means that they must turn in their money promptly in order to get their percentage.

This means that we get the cash for every dollar's worth of merchandise that leaves our plant and losses on collections have long since disappeared.

The saving in bookkeeping, paying special collectors and losses through bad accounts can be used partly to increase the percentage to the salesman on his sales, as a real incentive to build up his business. This has been done by us to the mutual advantage of both salesmen and employer so that we have a collection of real "go-getter" salesmen as you may see by the following articles:

By M. W. Moore, Salesman.

During the time we have used the cash system there has been much less trouble and discontentment among the salesmen and customers than during the time we operated the credit system. It saves the driver considerable time in not having to mark down the amount each customer takes, and also relieves the customer's mind of being overcharged. It gives the salesman more time to go after business that increases their pay through the percentage system.

The percentage system of paying salesmen is the most satisfactory way of paying because each man has a personal interest in the business the same as if it were his

(Continued on page 110)

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* Hazelwood Co., Ltd., Spokane, Wash.

Making the Game of Dairy Health Interesting to the "Poor Little Rich Kiddies" in School

DeCoursey Cream Co. of Wichita Proves, by Interesting Game of Health, How Children of all Classes may be made Interested in Drinking More Milk

THE "poor little rich boy" has been the object of the pity of moralists and philosophists for many years, and the milk dealers, who have a more practical interest in child welfare than anybody else, have gone further and seen the distress of the poor little rich girls as well.

There are two most important phases of milk merchandising today. One is the matter of getting the interest of children of all classes. The other, and bigger one, is getting the interest of the wealthy people.

We human beings seldom think of wealth and trouble in the same breath, and yet most of us realize that money, instead of being an absolute guarantee of happiness, is anything but conducive to the proper mental frame such as only can come from a satisfied mind.

The DeCoursey Cream Co. recently launched a movement that promises to show the way for milk companies all over the nation to increase sales. This company devised and put underway a system of health games for school children that have proved to be most successful in getting the interest of the kiddies.

Most of us who can go back as far as the beginning of the war—rather the beginning of America's participation—will recall the alarm that was created when it was announced that approximately one-third of our young men of the land were physically deficient. Perhaps that was the beginning point of a great health urge that, in the last few years, has fairly swept the country. We do not have to go by our own thoughts and guesses in the matter, but it is a point of record that some of the "best sellers" in the literary market today are works on health, treatises on ways to improve physical well-being, dissertations on better mental systems, etc.

There is nothing strange about this extraordinary activity in the direction of better bodies and better minds in the country. The singular part of it is that the milk dealers of the land have been so slow to take advantage of the condition. The National Dairy Council long was as "a voice crying out in the wilderness" to arouse the members of this industry to their opportunities in the direction of increased public health sentiment.

Yet, with the exception of leading minds here and there, comparatively few of our industry ever gave the council the proper support—this despite the fact that in all other industries of the food family, organized health publicity work was going on all the time, notably in the bread industry, the soft-drink bottling industry, the pickle, sauerkraut and canned goods industries, etc.

A man in Wichita, however, has been using his head for purposes other than a hatrack. He was working on the theory that the little rich kiddies of the nation, instead of being proper objects of envy, were if anything in worse condition than their friends of the poorer classes, insofar as regards health. This man, H. T. Corson, decided that through the welfare boards the children of the poorer classes were benefited much more largely than the others. Civic clubs and other organizations were taking care of those in homes where there was no wealth, making it possible for them to receive milk, figuring that their own "well-cared-for" children were all right, having everything money could buy.

"Upon coming to Wichita, in 1924," says Mr. Corson, "I found the same condition. A survey had been made and showed that about one-third of the school children were underweight, more than ten pounds underweight. Clubs had been organized and had raised a milk fund, and milk was being distributed in some of the schools mostly in the poorer districts, and underweight childre who could not afford to buy the milk were being served free from this fund."

He continued:

The school nurses, under the able leadership of Miss Gene vieve Lill, supervisor of health, had been doing a fine piec of work, but were not getting the co-operation they shoul from the schools in the wealthier districts.

Some times the best way to get one aroused is to step o their toes. I was invited to talk before one of the clubs o the city, and the chairman, in introducing me, told how thei club had raised money, etc., to care for the poorer childre of the city.

I complimented them on this wonderful work, but state that they would undoubtedly find more undernourished chil dren in the schools in the richer districts than in the poore districts, as they had taken care of them and let their ow children go.

Needless to say, I was criticised in the paper and other wise.

The nurses had just completed a careful survey of th schools for children of more than ten per cent underweigh and found that one school in the wealthier districts ha thirty-two per cent of children more than ten per cent unde weight, while one school of the poorer district had only nin per cent. These figures commanded attention, and from tha time the health work was much easier.

The first year's work was financed by the DeCou sey Cream Co. Lectures on milk for health wer given before the children of all of the schools, from th kindergarten up. A pair of guinea pigs, one had r ceived milk and the other had not, held attntion an put the lesson over in good form.

A series of free educational picture shows, featurin milk and dairy products for health, was also put on, wit good results.

"The results of this year's work was very satisfa tory, and the second year was financed by all of the pa teurization plants," said Mr. Corson. He then explaine

A program was worked out, in connection with the scho nurses, and the "Health Game Contest" was put on.

Cards were printed for each school child, credits giv for following the various health rules, and drinking at lea a pint of milk each day, each school was a unit, and the roo in that unit which had the highest per cent of points at t end of the contest received a nice picture as a prize, whi

(Continued on page 126)

New Series De Laval Separators

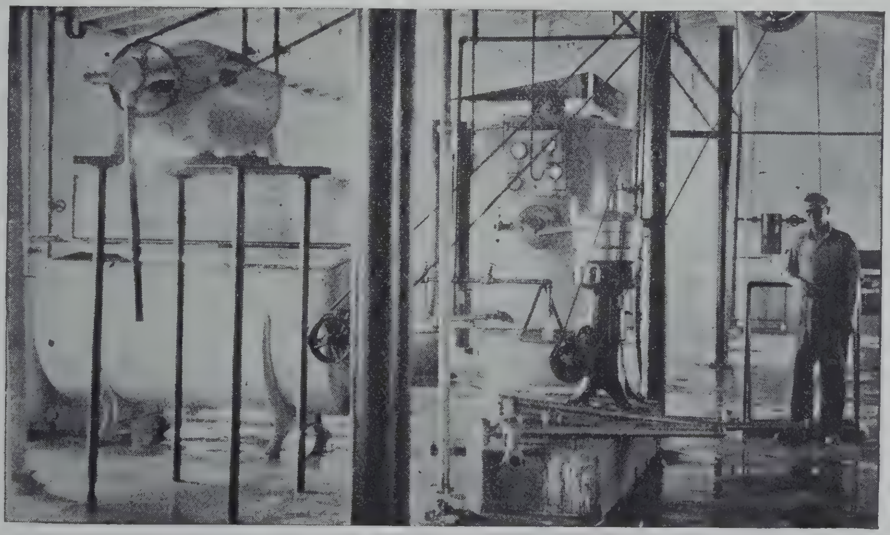
"Our New Series De Laval leaves only 1/2 of 1/100 of 1% fat in skim-milk"

For five months the De Laval Company has used this space to tell you in various ways that a New Series De Laval Separator in your plant will save enough butter-fat to quickly pay for itself.

Now let a user tell you about the skimming efficiency of these New Series machines. Mr. Wallace H. Gillette, manager of the West Branch Creamery Co., West Branch, Mich., writes:

"We have installed one of your New Series No. 70 Separators in our new plant here and it is skimming the cleanest of any machine that we have ever operated. Butter-fat tests on the skim-milk from this machine have shown that there is only ½ of 1/100 of 1%. We have used De Laval Separators for many years and the service you have rendered us has always been the best and is highly appreciated."

New Series De Lavals skim clean at any reasonable temperature when run at their full rated capacity and when producing cream of any density. Write for full details.



The De Laval Separator Company
NEW YORK ~ CHICAGO ~ SAN FRANCISCO

A New World's Standard of Skimming Efficiency

Using Graphs in Cost Accounting

Financial Activities May Be Expressed Logically in Graphical Form. Don't Depend on Your Balance to Tell You Whether the Year's Business Shows a Profit or a Loss

By PROF. H. E. REID*

THE increase in the size of our dairy manufacturing companies, from a one-man plant to the present day plants employing several thousand persons, and the development of greater competition in the business world have necessitated better and more complete methods of internal control. One of the outstanding control mechanisms which has received increasing attention in recent years is cost accounting, especially that part which has to do with the cost of manufacturing the product from the raw ingredients. It can be said that cost accounting, as practiced in our more efficiently operated plants, is essentially a part of the factory records and is a means of expressing, in dollars and cents, what goes on in the plant proper.

Unless one is entirely familiar with the detailed operations that take place daily in the factory he is not properly equipped to operate or direct the operation of a modern day cost accounting system. At the same time no one is adequately trained for this task unless he has working knowledge concerning general accounting methods. The cost accounts, to be of value to the plant executives, must synchronize with the standard financial accounts.

Often times the executives of our dairy manufacturing plants and the professional accountant are unable to understand one another, when delving into the cost records of the plant, particularly with regard to the way they are maintained. This difference of opinion can logically be said to be due to lack of familiarity, on the part of one or both parties, with the fundamentals of accounting or the detailed plant operations. Cost accounting is in reality simply a means of tying together the factory and the general accounts.

The executives of our modern dairy manufacturing plants are today searching for a system which will set forth, visually, the facts of the company's business in a condensed form. Figures have been used for many decades to indicate actual conditions in the production, manufacturing, sales and other departments of the average business house. Days and weeks have been consumed by the managerial force of our plants in compiling figures from vast amounts of data to demonstrate to the board of directors whether or not the respective companies have experienced a loss or profit for the month or year just closed.

The number of boards of directors who do not request an annual trial balance sheet, say nothing of the indifference accorded the annual statement of income and profit and loss are quite numerous. What is the reason for this lack of interest in behalf of these valuable instruments? Can it be that some few executives are satisfied to permit their bank balance to serve as an index of the company's financial condition? In some instances, the answer would be "Yes." The system of keeping an account of the business for this type of loosely operated firm is entirely inadequate. With such a system, of course, knowledge of the company's assets are not known at the beginning or the end of the business year. Money expended for equipment is not properly recorded. Inventories of the raw product, product in process, supplies, etc., are entirely unknown. When the end of the year arrives and the firm's bank balance indicates an increase of several thousands of dollars, some men are prone to believe that the increase at the bank represents the actual profits for the year's business. However, should a decrease appear, regardless of all improvements made in the plant, or extra supplies purchased or equipment installed and paid for as the cash became available, the assumption is that the company lost money and experienced an unprofitable year. These deductions are absolutely erroneous and the manager and board of directors are simply deceiving themselves by not knowing the true facts of the company's business.

It is one thing to operate and maintain a modern accounting system in a plant manufacturing one product only. It is another thing to operate and maintain a modern accounting system in a plant manufacturing two or more products. As the number of products manufactured increases the system of accounting used becomes more complex and intricate. Exacting knowledge of bookkeeping and accounts must be possessed by the persons charged with the responsibility of recording the company's financial operations. When the cost system applicable for more than one product has been devised and set up it is an easy matter to expand the system so as to include almost any number of products. In time it becomes so simple that it is difficult to go wrong in its application. As the system is expanded to include more than one article the cost of keeping cost records for each product is materially reduced. This remains true only as long as one class of articles are manufactured. When the company's interests are diverted and the classes of articles are enlarged, particularly if the products vary greatly, the cost keeping becomes much more difficult and expensive. Notwithstanding this, nearly all strictly dairy manufacturing establishments have fairly satisfactory cost accounts.

Unfortunately, no uniform cost system can be devised for the various dairy manufacturing plants throughou the country. A successful accounting system must be developed for each of the several by-products of milk or milk itself, and so arranged as to meet local conditions. There are, however, fundamental principles o great importance which are applicable to all systems i practice in dairy plants. These principles, however, ar not entirely recognized, at least they are violated dail in many plants, and until these misdemeanors are corrected, actual costs of operations and raw material throughout the plant are impossible.

A well conducted dairy manufacturing establishmen fears to have as its competitor one or several organizations which do not know their costs and do not care t know them. The danger of having such a competito lies in the possibility of this opposition underbidding firm which desires only a moderate profit on its sale The company operating with known costs has no re desire to see such competition go into bankruptcy, reali ing that a firm with less knowledge of costs may appe upon the horizon. These conditions entirely demorali business and they will continue until actual costs a own by all competing companies. This latter fore- ing illustration explains in part, at least, the cause for e remarkable variations in bids submitted for a cer- in patron's business, be it milk, butter, or ice cream. e conditions at all plants may be the same and still a riation in the bids of as much as twenty-five to thirty- e per cent is not uncommon.

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* Associate Professor Dairy Manufacture, College of Agriculture, University of Missouri, Columbia, Mo.

What is at the foundation of so few accurate cost stems in our dairy manufacturing plants? In my dgment there are three basic reasons. The first is ually found present in the medium-sized or small plant. e system followed is entirely inadequate, due to the anager's lack of cost information. He is usually a man ho has started out in a small way keeping a very ordi- ry set of accounts. Fair success in his endeavor to cord his costs was attained because of his intimate owledge of every detail of the work. As his business veloped he employed men who could perhaps keep oks but lack of working knowledge of the plant and preciation as how best to set up a system suitable to s particular plant. The manager is too busy to notice at keen competition is about to, or has, crept in, de- anding that he account for the expenditure of every nny. His records are unable to do so. He concludes at an elaborate accounting system is unnecessary, as s past successes did not require such. One thing he es understand is that modern equipment is essential here a quality product is demanded. This was learned years of cold, practical experience. Although he may vn and operate the most modern plant in the commu- ty, from the standpoint of plant structure and equip- ent, he remains out of date with his methods of keep- g his costs. This is not his loss and he cannot be made realize that a modern cost system is a pecuniary ad- ntage or profit. He is, therefore, a liability and a umbling block to the industry.

The second basic reason which may explain why cost stems are inadequate, is due to the fact that some- mes a manager erroneously believes himself to really progressive regarding his cost records. He has given nsiderable of his time to reading articles treating on st keeping or has heard a discussion of a very modern stem. The bookkeeper to whom this task is assigned nerally had made no special study of the subject and proves the present system by adding a few forms used some other firm. Quite frequently, no improvements e made and the additional forms are simply useless ports. The bookkeeper, however, states that decided nefits have been attained by the addition of these new rms. The manager, who is little interested in account- g and knows but little of cost keeping, accepts the atements regarding the reported improvements and is parently satisfied, though no improvement has actually en made. Indifference to modern cost systems is a bility to the plant and must not be tolerated.

The same plant executives who have been impressed th the value of cost systems and observed the decided ed for the improvement in their cost systems employ perts to re-construct their system so as to meet their eds. Many of these men who are experts in their par- ular field have no appreciation of the operations that ke place daily in the plant. The result is that the so- lled improvements are really impractical, inasmuch they are not best suited to the business and represent compilation of unnecessary records. Where is the viding line between cost keeping and accounting? Cost eping as it is understood is only concerned in giving, a direct way, the cost of everything that enters into e make-up of the total cost of the product. To be of al value to the manager, these costs should be so recorded as to display at once all excessive costs, whether they be direct costs or an element of the expense burden. Scientific plant management and effective cost keeping are inseparable. Without accurate costs of all phases of the plant operation, efficient management cannot exist. The true function of costs is to assist in obtaining better management, increased efficiency and a true reduction in the cost of manufacture.

Assuming that the average dairy manufacturing plant is conducted on a very efficient operating basis, the cost records and general accounts are sufficiently detailed to furnish necessary information as to the costs from production through to completion of details involved in selling the finished product and closing out the transaction as far as the records are concerned.

The board of directors call for a report of the company's business each month. What is the best method to follow in presenting the report to the board so that it appears logical and can be comprehended with ease by all members. The method of presentation is of the utmost importance. Some executives require a detailed record of all operations while others request only a statement of the outstanding facts which relate to the prevailing financial and operating conditions.

There are four general methods now used in presenting, accurately, accounting data to executives. The first is the written report, which may be brief or detailed, depending on the enormity of the business, whether one or more products and departments are involved and the type of report requested. This form is most commonly used and is often strengthened by the use of tables representing a compilation of much data. The second method is to present a report made up entirely of tables with or without written explanatory material. The facts are set forth in cold figures and when properly arranged represent the true condition of affairs. The third method is by the use of graphs which, during the last few years, has grown tremendously in its popularity among executives. In its use and application it is possible to represent in graphical or pictorial form, the relative changes in the business that take place with the process of time.

The fourth method may be described as a combination of the three preceding methods. This latter method is used principally when lengthy reports are necessary and by heavily financed enterprises.

The graphic charts are becoming more effective because they appeal to the mind of the executive through the eye. Graphic charts can be made to present a clear, definite, businesslike picture of the manufacturing costs, dividends, profits, sales, material costs, inventories, cash balances, payroll analysis, advertising, collections and many additional phases of the business, all of which are of direct importance to those charged with directing of the organization's progress.

The reason for the increased popularity of this style of report is that when facts are stated in shape of a curve these facts are more deeply impressed upon the mind because the shape or trend of the curve can be remembered. A mental picture is obtained which is lasting. A curve is much easier to remember than is the trend of a vast column of figures and data. It is indeed surprising how mentally economical and convenient this procedure really is. Fatiguing of the mind is almost eliminated, since the grasping of the necessary facts, memorizing the same and the mental classification and comparison are performed without the necessity of but several mental processes which are absolutely necessary when figures are used to convey the same information. The shape of a curve imparts a mental picture of the trend of your sales, corresponding to a definite period, without translating figures into a particular mental conception that best fits the wants of our mentality. Then, the active business man can, with greater ease, absorb or incorporate in his mind a larger number of curves in the course of a day's work, and retain a mental picture of them, if he does so through the medium of graphic charts than if he resorts to tables of figures. This is a scientifically proven fact concerning which there is no question.

The constant use of graphic charts prompts and develops analytical thinking and investigation of every phase of your business. In the case of cold figures they are at times very fatiguing and bewildering.

The efficient manager requires that daily reports of the business be presented to him to be analyzed and compared. When these reports are prepared graphically the executive can know at a single glance the condition of that particular phase of the business. A perfect picture of the events of his business stands out clearly before him and suggests constructive procedure as to what action is necessary.

The use of graphic charts is without question the last work in statistics, for usually after a table of figures has been compiled the next logical step is to illustrate their value and the use of charts is usually resorted to. It is absolutely necessary to analyze the existing conditions. A sudden decrease in the company's profits, or a rise in the cost of manufacturing, demands an immediate explanation.

The following are several simple illustrations whereby a comparison of the same facts are set forth as a table of figures and then in graphical form:

Table No. 1—Showing Gross Market Milk Sales Over an Eleven Year Period.

Year	Gross Sales	Year	Gross Sales
1915	$25,000.00	1921	$53,000.00
1916	37,000.00	1922	64,000.00
1917	46,000.00	1923	71,000.00
1918	61,000.00	1924	76,000.00
1919	67,000.00	1925	93,000.00
1920	58,000.00		

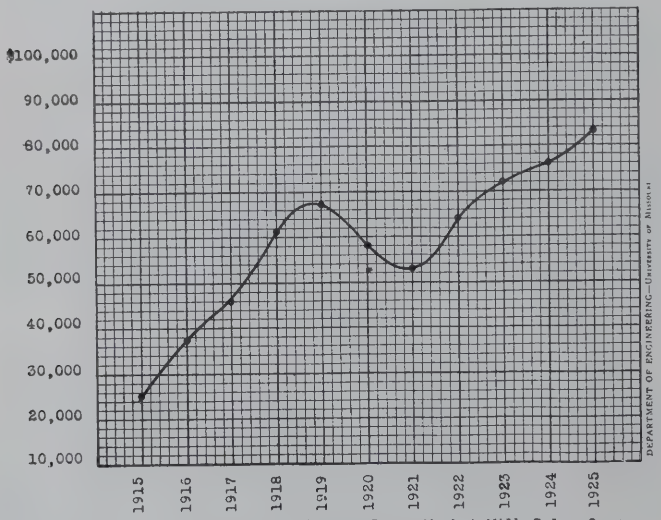


Fig. 1. Graphic Chart Showing Gross Market Milk Sales Over An Eleven Year Period.

Table No. 2—Showing Monthly Gross Sales of Market Milk.

Month	Gross Sales	Month	Gross Sales
January	$33,000.00	July	$50,000.00
February	38,000.00	August	46,000.00
March	44,000.00	September	56,000.00
April	47,000.00	October	68,000.00
May	51,000.00	November	71,000.00
June	48,000.00	December	74,000.00

It appears very evident from the foregoing compari
sons of the same facts presented in table and graphica
forms that once the information desired is properly se
forth that a single glance of the curves tells of the con

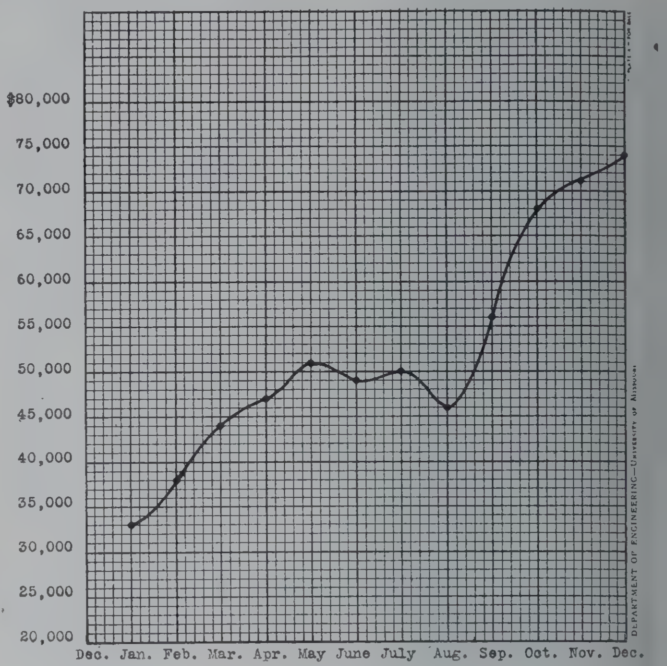


Fig. 2. Graphic Chart Showing Monthly Gross Sales of Market Milk.

Table No. 3—Showing Monthly Gross Retail Counter Sales Market Milk.

Month	Gross Retail Counter Sales	Month	Gross Retail Counter Sale
January	$4,600.00	July	$5,400.0
February	4,200.00	August	5,600.0
March	4,400.00	September	5,200.0
April	4,800.00	October	4,900.0
May	5,100.00	November	4,200.0
June	5,300.00	December	4,500.0

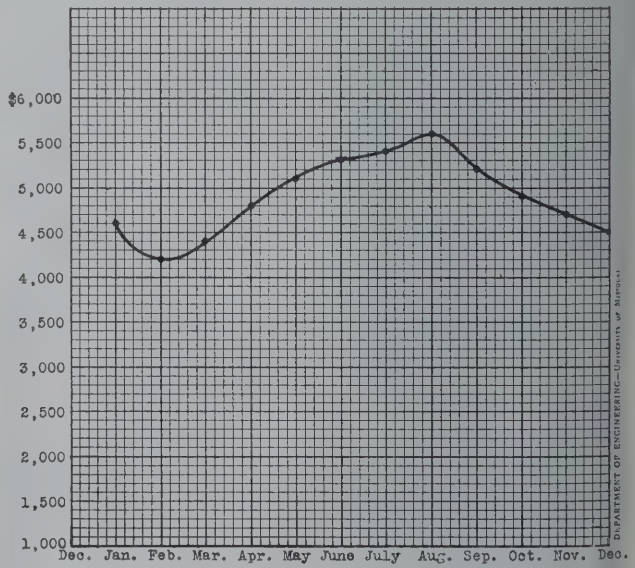


Fig. 3. Graphic Chart Showing Monthly Gross Retail Counter Sales of Market Milk.

Table No. 4—Showing Average Yearly Price Paid for Mil

Year	Aver. Price	Year	Aver. Pr
1915	$2.10	1921	$2.5
1916	2.20	1922	2.5
1917	2.60	1923	2.6
1918	3.15	1924	2.5
1919	3.00	1925	3.0
1920	3.55		

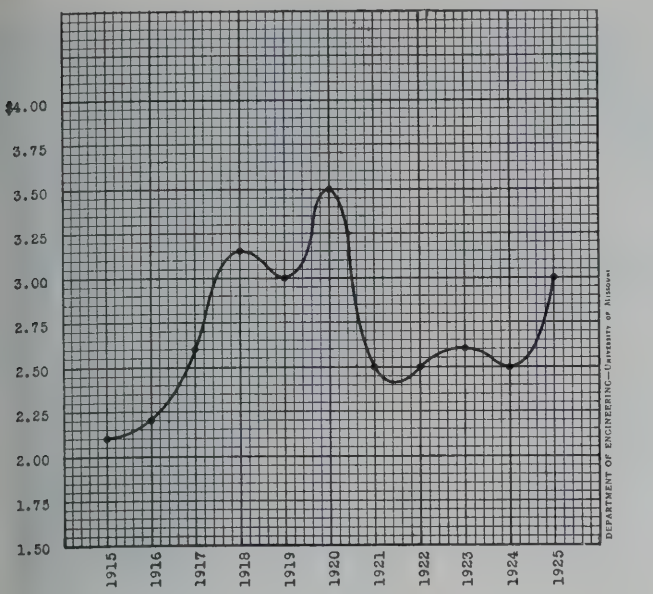


Fig. 4. Graphic Chart Showing Average Yearly Price Paid For Milk.

itions as they exist, assuming, of course, that the source f the information is accurate. The company's financial ctivities are made clear, concise and in a business-like orm.

There is no limitation of the cases to which graphical resentation of financial facts or other facts desired in ne plant to be used by the executive in charge. Items f interest can be charted at intervals of days, weeks, ionths, or years, completed to afford the most efficient ontrol. In addition to the illustrations presented, the ollowing is a list of charts which are very essential for fficient control and are suggested only as a means of iving opportunity of familiarizing oneself with the possibilities of the graphic method of presenting statistics, uch as labor, rate of wage, material prices, supply prices, emperatures, accounts receivable, collection, accounts ayable, labor turnover, unit costs of production, progess charts, costs of manufacturing, cost of packing and hipping, cost of lighting, heating, performance of salesien, advertising inquiries and results obtained from dvertising.

No matter how small the business of a company may e, some consideration should be given to a method of resenting the facts in a graphical form. The smaller he organization the system would relatively be more mple when compared to a large, complex and complete ystem of a million dollar corporation.

WE EAT LESS AND WANT IT PLAIN.

Where are the red roast beef and the mallard ducks yesteryear?

They're in sandwiches, to be washed down with ottles of milk, aboard the dining car of the present ay, says A. E. White, commissary chief of the Chicago, urlington & Quincy railroad, who recently completed iirty years of serving patrons.

"Twenty-five years ago," said the amiable superchef, people ate much more than they do nowadays. A meal as an occasion. They ate red meat and beefsteaks and sed whiskey to work up an appetite. And they ate allard ducks, black bass, pies and plum puddings.

Eat Less and Want It Plainer.

"Today they eat less and want it plainer. A ndwich and a glass of milk constitute a luncheon for iousands of travelers."

A Thoroughbred Thief

Milwaukee milk dealers were put to their wits' end recently to locate the cause of complaints of non-deliveries of milk. The milk companies sent out investigators but they and several policemen failed to locate the cause.

At last a Milwaukee housewife, on going out to get her morning's delivery of milk, saw a police dog slink up, get the bottle of milk in his teeth and run off. A member of the local humane society was detailed to capture the thief.

The dog was finally captured after being forced out from under an old barn where he had made his home. He proved to be the property of a prominent citizen who had given up his valuable dog as lost.

Guilty — Police dog vag captured after stealing milk bottles from consumers' porches. (Photo by Milw. Journal.)

A large number of milk bottles was found under the barn. The clever animal would lay the bottle down and poke his paw into the cap until it was forced out. He would lap up the milk as it flowed from the bottle.

Being a highly intelligent dog, he was apparently familiar with the superior food value of good milk and no doubt felt the need of the vitamines contained therein. Anyway, it's a dog-gone good story, and a true one, too.

MOURN SUDDEN LOSS OF CANADIAN DAIRY LEADER.

The dairy industry is mourning the loss of one of its counsel, D'Arcy Scott, who for seven years has been directly concerned with the advancement of Canada's dairy industry. He was active up to the day he died, as general counsel, secretary and treasurer of the National Dairy Council of Canada.

Among the Canadian council's achievements under his guidance were: Prevented increased rates on milk shipments, both in baggage and express cars, and a similar service for the cheese shippers; secured legislation against oleomargarine in Canada; secured removal of sales tax on milk powder, condensed milk and ice cream; conducted milk campaigns in many provinces of the dominion; prepared and distributed large quantities of educational literature and many other acts to warrant the favor of the dairy industry among Canadians.

On the day of his death Mr. Scott dictated a letter to the National Dairy Council at Chicago but did not live to sign it. His council used much literature and many health education projects of the National Dairy Council and its president had been invited by Mr. Scott to address the annual meeting of the Canadian council in November.

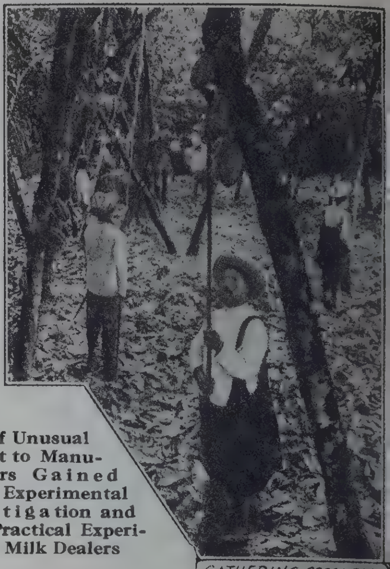
* * *

One of the best milk slogans we have heard in many a day is employed by the Franklin Co-operative Creamery Association, Minneapolis. They urge their customers to "Co-operate With Health—Drink Franklin Milk."

Methods of Processing Chocolated Milk

By F. J. DOAN
Assistant Professor of Dairy Manufacture, the Pennsylvania State College*

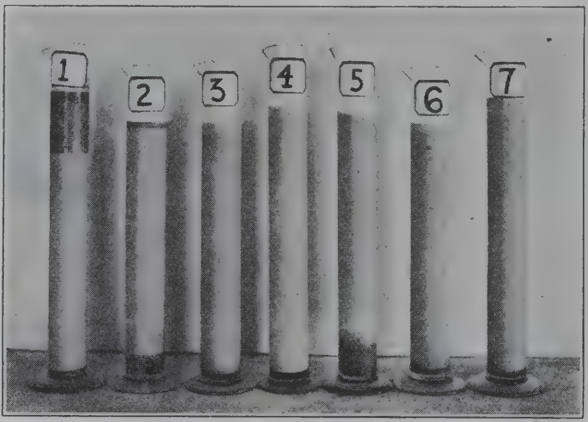
Facts of Unusual Interest to Manufacturers Gained From Experimental Investigation and From Practical Experience of Milk Dealers



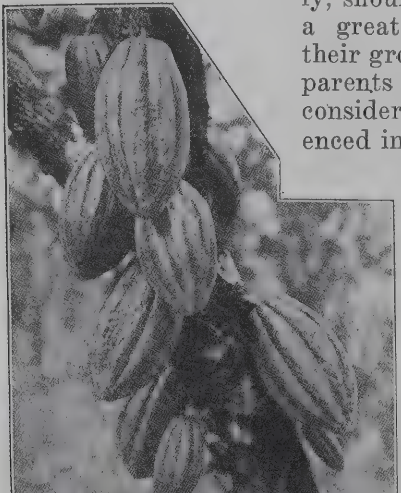
GATHERING COCOA PODS

CHOCOLATE milk is a fluid milk drink that has been gaining in popularity in many sections of the country. Formerly its sale was restricted almost entirely to the soda fountain, but in the last few years many milk dealers have found it a profitable side line to carry on their regular milk routes. Some dealers have also worked up quite an extensive wholesale trade with restaurants, cafes, roadside stands, soda fountains, etc. Most of the milk, whether for wholesale or retail outlets, is bottled in the regulation one-half pint milk bottle, the price to the consumer being in most cases five cents per bottle.

Essentially this drink is fluid milk containing a chocolate flavor (usually cocoa) and enough sugar to give a pleasing taste. Many dealers prepare their own chocolate syrup from cocoa, water and sugar while perhaps a greater number purchase the syrup already prepared under various trade-marked names. Some of these names have been nationally advertised, and the user of the flavor receives exclusive right to the name in his territory, paying a royalty on the amount of drink sold in some cases, and in others simply purchasing the flavor from the concern owning the trade mark.



Chocolate milk finds a real demand in the fact that many persons who dislike milk itself and who realize the benefits to be derived from it can drink chocolate milk with relish. Children, especially, should be required to drink a great deal of milk during their growing period, and many parents have found that where considerable trouble is experienced in getting the youngsters to consume their quota of milk, because of their dislike of the flavor, no trouble is experienced in persuading them to drink chocolate milk. It has also been found that even with persons who like milk and drink a considerable amount, the availability of the chocolated drink allows more variety and more milk is consequently used.



COCOA PODS

A questionnaire was recently sent representative milk dealers in the northeastern states regarding chocolate milk. Twenty seven replies were received. Eleven dealers, representing both large and small establishments, made and sol chocolate milk in some form. One dealer sold the chocolate milk to his customers who mixed their own drin as they wished. Fourteen dealers, two of whom had a one time made and sold th product, were not making it a the time of inquiry. This survey shows that the sale of chocolate is becoming fairly genera and if the concerns replyin can be taken as representativ of the market milk industry i this section, it is safe to assum that at least one-third of th dealers are selling this produc It must be admitted, howeve that the manufacture of chocolate milk by the milk dealer more general in the smalle towns and cities than in th larger ones. Before discussing experimental results obtained in the mixing and processing of chocolate milk, might be well to show the diversity of opinion regardin this product as shown in answers to the questionnair

Of the eleven dealers selling this product, eight so only retailed bottled chocolate milk, two sold only wholesale and one sold both at wholesale and at reta Two sold some in bulk at wholesale.

In answer to the question regarding complaints fro the trade, seven claimed there were none, two admitt complaints on the keeping quality and two said the were complaints on the appearance due to cocoa sediment and an unsightly cream layer.

It was asked if the dealer believed a cream layer be objectionable. Six said "yes," and five said "no" When asked why it was objectionable—of the six—fi said because of poor appearance and one did not answ Of the five, however, three claimed the cream layer be darker than the main body of product and two sa it was lighter.

Four dealers were preparing their own syrup a seven purchased the flavor ready-prepared.

Concerning the fat content of the product, two mak used whole milk, four standardized the product to t

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The Answer
to a vexing problem

"Only Gaulin can build a Gaulin"

Chocolated Milk Made Smooth

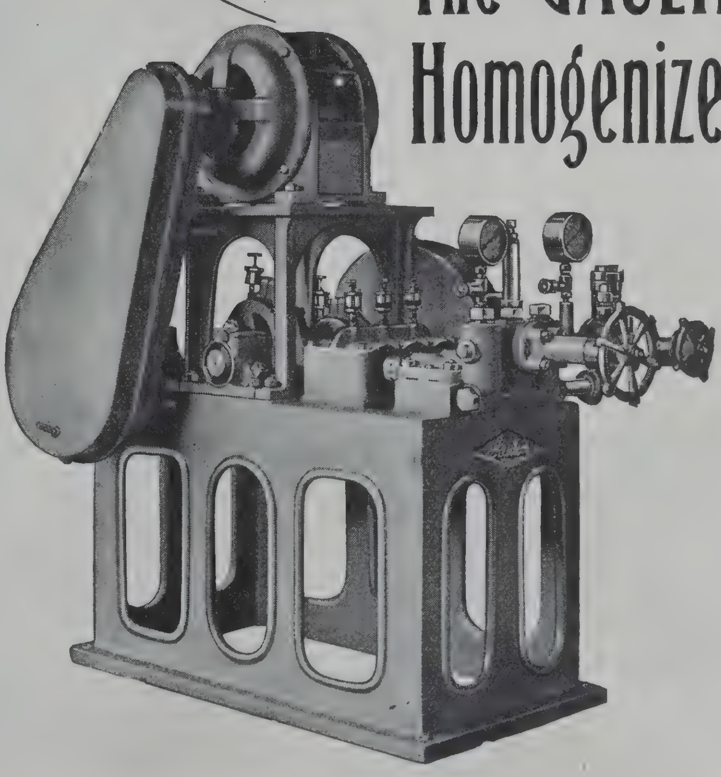
nd uniform from one day to nother, also more palatable y merely passing it thru a

GAULIN HOMOGENIZER

efore bottling. Having done is, you need have no anxiety bout the syrup settling out or e cream rising to the top. The hole contents of each and very bottle will be uniform and will stay uniform.

Dear Sir:—We are having considerable difficulty in getting chocolate syrup to be completely soluble and to mix in with whole milk without a sediment taking place.

The GAULIN Homogenizer



Gaulin Homogenizers are made in many sizes.

Send for our interesting booklet on the Gaulin Homogenizer and ask about its application to Chocolated Milk.

Ianton-Gaulin Mfg. Co.
Elkins St. BOSTON, MASS.

per cent and five used half whole milk and half skim milk.

Six dealers pasteurized the milk before adding the syrup and five pasteurized the product after mixing.

Four of the eleven answers stated that the homogenizer was used. All four of them homogenized the product after the addition of the syrup. The pressures used varied from 2,000 pounds to 3,000 pounds, and the temperature from 80 to 120 degrees F. The remaining seven did not use the homogenizer. The question was asked, whether it was believed that homogenization decreased the sediment formed. Three answered, "yes"; one, "probably not," and two, "no."

All of the answers stated that the product was bottled by machine. Seven stated that there was no trouble experienced with cocoa settling in the bottling machine hopper. Four stated that they did have much trouble, one of whom said, "A man stirs the chocolate milk during bottling."

In answer to the question, "Does the cocoa settle quickly after bottling or after several hours?" the answers were as follows: Three said, "quickly"; four said, "after several hours," and four said, "in about two hours."

The question was put as to whether some brands of cocoa or syrup gave better results than others regarding settling. Six replied that they did; four said that they did not know, while one reply stated that four different brands of cocoa and three different prepared syrups had been used and the results were almost identical where the product was treated similarly and contained approximately the same amount of flavor.

Eight replies claimed there was a worth-while demand for the product, two were doubtful and one said there was not. In addition, of the dealers who did not sell the product, six gave as their reason the fact that the demand was not worth while. All admitted the demand to be greater in the summer, and three stated that the sale of chocolate milk aided in the solution of their surplus problem.

From the above answers it can be seen that there is considerable variance in the manufacturing process for chocolate milk as well as a difference of opinion regarding the value of it from a sales standpoint. The latter, of course, would be expected due to the fact that in some localities the drink is well recognized, while in others considerable advertising will be necessary if a sufficient demand is to be stimulated.

Because of the great lack of any common procedure in making chocolate milk, the difference of opinion existing, and the large number of inquiries received regarding the processes to use, some experimental work was undertaken in an effort to ascertain the effects of different treatments on cocoa separation, cream separation and general quality.

Whole Milk vs. Skim Milk.

Four lots of chocolate milk were prepared from skim milk, two per cent milk, four per cent milk and six per cent milk, respectively, as the base, using the same amount of a chocolate syrup flavoring in each case. These lots were examined before and after pasteurization, before and after homogenization at various pressures and before and after heating to 160 degrees F. for 15 minutes.

In all cases the product made from the six per cent milk was judged the best flavored drink and the one having the most pleasing "body" and appearance. The product made from four per cent milk was judged second best followed by that made from two per cent milk. The product having skim milk as a base was noticeably darker in color, thinner in appearance, and had a watery taste. A very pleasing "milk chocolate" flavor v noticed in the higher fat samples which was distinc lacking in the product made from skim milk. From t trial it was concluded that a high quality chocolate m can only be made from whole milk or milk contain not less than three per cent fat.

Effect of Cocoa on Quality.

Several different brands of "dutch process" co were used in another trial series of samples in order determine the effect of different makes of cocoa. Th samples were then compared with three samples p pared from commercial chocolate syrups and pas made up according to directions furnished with the voring material. The drinks prepared from the coc had roughly about the same intensity of flavor but quality of flavor differed in that some seemed to be so what reinforced with spices or vanilla which gave a tinct difference to the taste. It was not possible to that one was particularly better than any of the oth Personal preference varied and all were of pleas flavor. More difference was noted in comparing drinks made from the cocoa syrups with those m from commercial syrups and pastes. The latter ha more intense flavor, and the suggestion of spices flavors other than chocolate was more noticeable. H ever, nothing was known about the proportion of co to milk in these samples and in two of them it was lieved that "chocolate liquor" had been used rather t cocoa as a source of the flavor. The only thing that be said regarding the effects of different cocoas on flavor of chocolate milk is that all of them used in study produced a pleasing drink, how pleasing depe ing on personal preference.

Methods of Handling and Processing.

In the following studies three brands of cocoa w taken as being fairly representative and were used in trials made for comparison unless otherwise no Where the method of preparing the chocolate syru not mentioned, the following formula was used:

1 lb. cocoa   7 lbs. sugar   2 qts. water

The sugar and cocoa were thoroughly mixed a which small amounts of water were added successiv with constant stirring, forming a paste which then solved itself to a smooth viscous syrup. This was he to 180 degres F. and held for 30 minutes before cool

This syrup was mixed in the proportion of one of syrup to seven parts of milk by weight. The stu in this group were made primarily to note the effect cocoa sediment formed and cream layer.

Pasteurization Temperature.

Samples of chocolate milk prepared from the t brands of cocoa were allowed to stand in 250 CC. c ders for 12 and 24 hours at 50 degrees F., after w the amount of sediment deposited and the depth of cr layer formed were measured. The samples were e ined in the raw state and after pasteurization at 14 grees F. for 30 minutes, 155 degrees F. for 20 min 170 degrees F. for 10 minutes and 190 degrees F. fo minute. The results are given in Table I, and show ra definitely that higher heats in pasteurization reduc amount of the dark colored cream layer rising to top of the milk but increase the amount of cocoa ment deposited. The latter is a detriment, while former is an advantage.

In these studies it was noticed that samples sho a heavy sediment deposit were lighter in color thr the main body of liquid than samples having lesse posits. Holding the samples for 24 hours, instead hours, generally increased the cocoa settling bu

(Continued on page 54)

Iowa Dairy

found it easy to increase Milk Sales 30%

THE Superior Dairy Co., Davenport, Iowa, uses this recipe to build greater sales!

> *"We find that the campaign on "A Bottle of Milk Is A Bottle of Health" has increased public interest in milk as a health food, and has resulted in increasing the consumption of milk by both old and young. Using Thatcher Posters on our wagons and tying-up to Thatcher Bottle advertising in The Saturday Evening Post and Good Housekeeping Magazine has been profitable to us. Our milk sales increased in one year 30%!"*

What the Superior Dairy Co. is doing, dairymen all over the country are doing. The average increase in milk sales last year among Thatcher Bottle users was 23%! Were you among the money-makers?

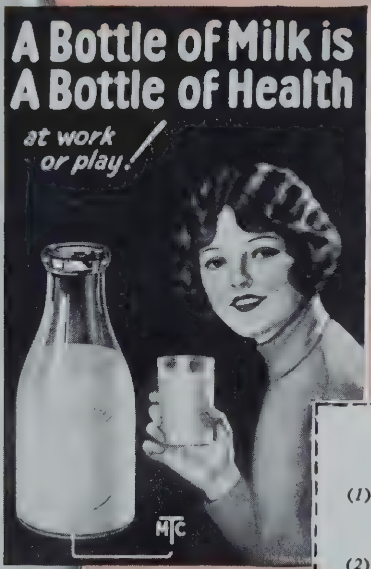
"MORE TRIPS PER BOTTLE"

The most important item in buying milk bottles, is the final cost per bottle to you. The first cost or purchase price means little or nothing to you. From the actual experiences of dairymen and from exhaustive laboratory tests, it has been definitely proved that Thatcher Superior Quality Milk Bottles will give you more trips per bottle. For Thatcher Bottles are tougher, more uniform in quality, have a better distribution of glass, and consistently perform better in actual service than any other bottle made.

Specially designed lehrs, used exclusively by Thatcher, help to give Thatcher bottles that superior quality and wear-resisting toughness not found in ordinary bottles. The Thatcher Trade-mark is blown on every Thatcher Bottle for your protection and guarantee.

Then too, millions of milk users see and read the celebrated "A Bottle of Milk Is A Bottle of Health" advertisements of Thatcher Bottles in The Saturday Evening Post and Good Housekeeping Magazine. If you want to increase your milk sales, fill in and mail the attached coupon. It will pay you to act at once.

THATCHER MANUFACTURING CO., Elmira, N. Y.
Operating several plants throughout the country, each strategically located and devoted exclusively to making Superior Quality Milk Bottles. Prompt, efficient service—always.



Put this Attractive Poster on Your Wagons and Windows. Get your supply now.

Mail This Today

THATCHER MFG. CO., Elmira, N. Y

(1) Send me prices and further information regarding Thatcher Superior Quality Milk Bottles. We use approximately ...... bottles a year.

(2) Send me........ Thatcher Posters. I intend to use these Posters on my wagons...... , windows........

Name...

Address...

City.............................State......................

Cost Less Because They Last Longer

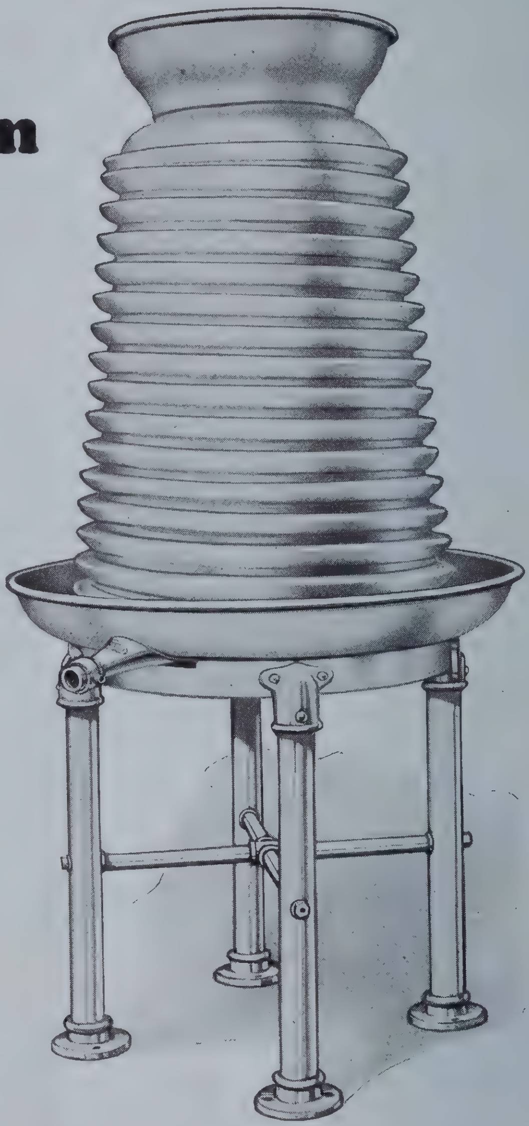
THATCHER
Superior Quality
MILK BOTTLES

Tested and Approved 2517 by Good Housekeeping Institute Conducted by Good Housekeeping Magazine

THE
H·H·MILLER INDUSTRIES CO.
CANTON, OHIO.

Chilly King Milk and Cream Coolers

Unexcelled for the cooling of Fluid Milk, Heavy Cream and Pasteurized or Homogenized Ice Cream Mix.

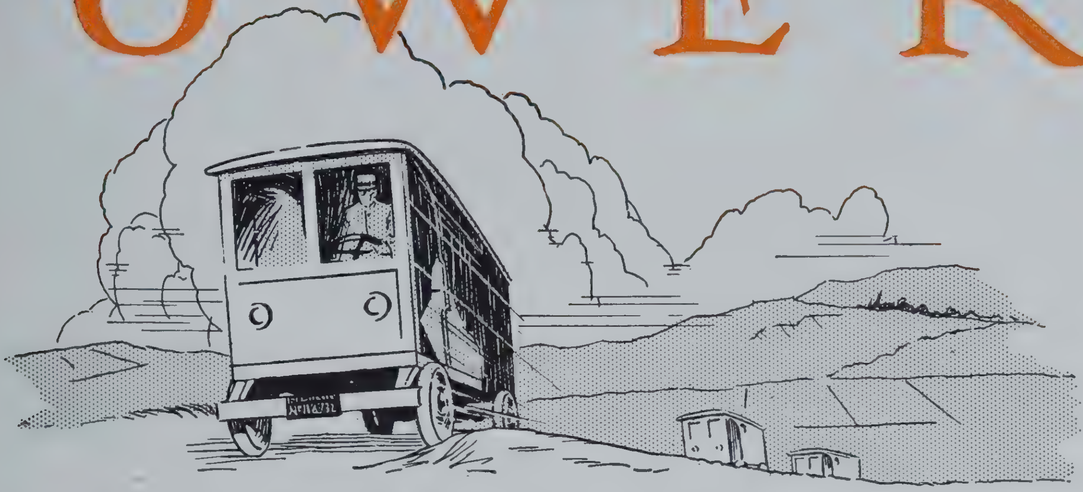


Made in sizes
1,000 to 10,000
lbs. per hour.

Also manufacturers of MILLER BRINE ICE CREAM FREEZERS, MILLER PASTEURIZERS, AUTOMATIC MILK HOLDING MACHINES, VATS, TANKS, M&M BOTTLE WASHERS, ETC.

Please Ask for Bulletin and Prices

POWER!



an Edison Battery Characteristic

Ten years ago in the "hill city" of Pittsburgh, a little less than thirty per cent of the electric street trucks in use were equipped with Edison Batteries.

Today, over sixty per cent are Edison Equipped.

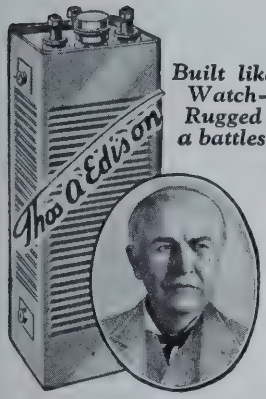
In Kansas City, another territory with severe grade conditions, ten years ago, Edison Storage Batteries furnished the power for only forty-three per cent of the trucks then in service.

Today, nearly eighty per cent of all street trucks in this section are operated by Edison Batteries.

Battery characteristics have given Edison this great preference—*power:* the power reserve for hills and heavy going in snow clogged streets, *dependability, long life and low costs*—these are the important things to consider.

Our nearest representative will be glad to tell you more.

EDISON STORAGE BATTERY COMPANY, ORANGE, N. J.



Built like a Watch—Rugged as a battleship

Edison

STEEL-ALKALINE*

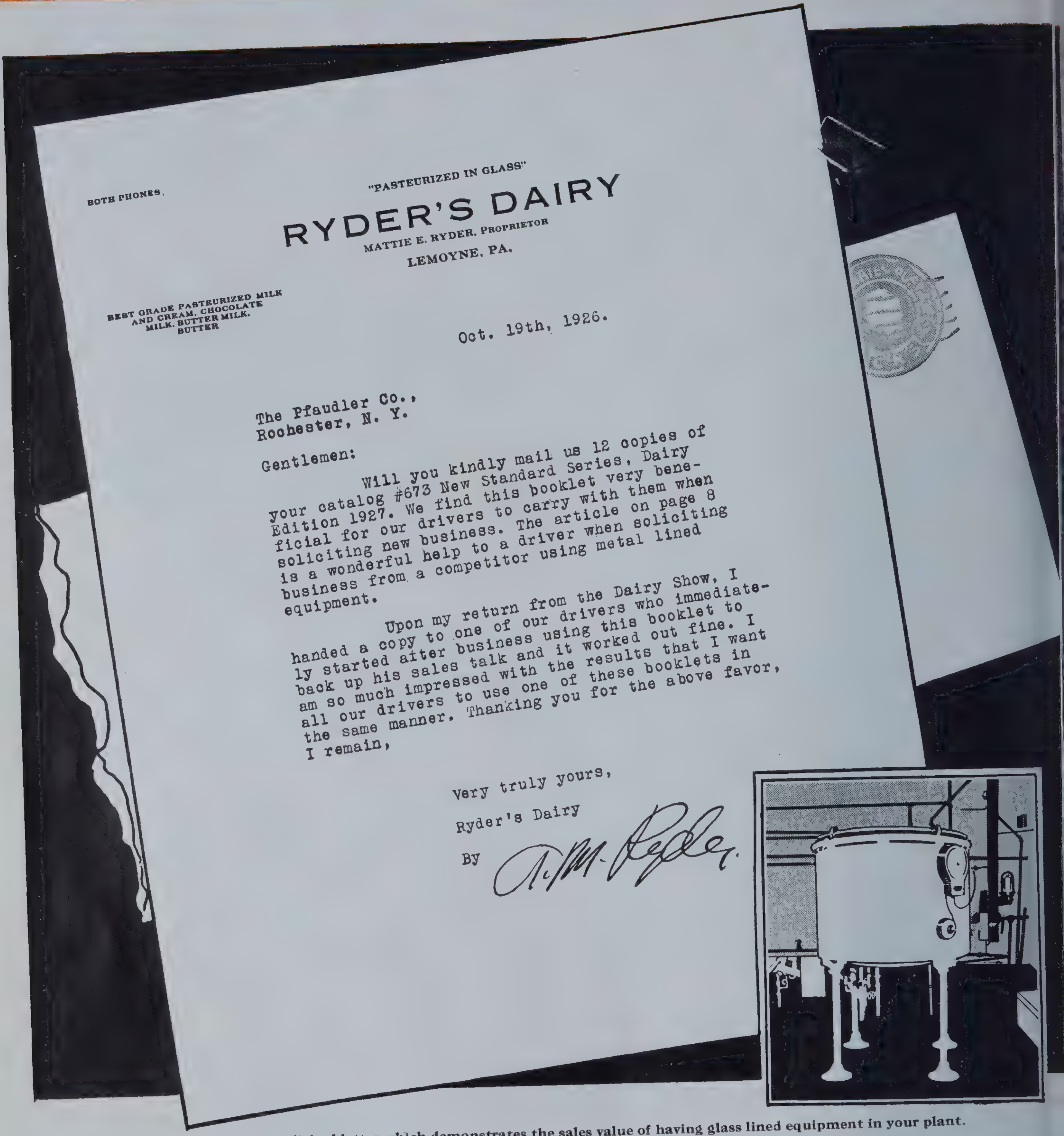
TRUCK BATTERIES

*There is no iron at all in any battery of commercial importance except the Edison. There is no nickel at all in any battery of commercial importance except the Edison. There is no lead at all in the Edison Battery. There is no acid at all in the Edison Battery.

ATLANTA BOSTON BUFFALO CHICAGO CLEVELAND DETROIT HUNTINGTON LOS ANGELES
NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH SAN FRANCISCO SEATTLE ST. LOUIS WASHINGTON

Export: 26 West Broadway, New York *Canadian Distributors: International Equipment Co., Montreal, Quebec*

HAUL MORE FOR LESS MONEY



BOTH PHONES.

"PASTEURIZED IN GLASS"
RYDER'S DAIRY
MATTIE E. RYDER, PROPRIETOR
LEMOYNE, PA.

BEST GRADE PASTEURIZED MILK
AND CREAM, CHOCOLATE
MILK, BUTTER MILK,
BUTTER

Oct. 19th, 1926.

The Pfaudler Co.,
Rochester, N. Y.

Gentlemen:

Will you kindly mail us 12 copies of your catalog #673 New Standard Series, Dairy Edition 1927. We find this booklet very beneficial for our drivers to carry with them when soliciting new business. The article on page 8 is a wonderful help to a driver when soliciting business from a competitor using metal lined equipment.

Upon my return from the Dairy Show, I handed a copy to one of our drivers who immediately started after business using this booklet to back up his sales talk and it worked out fine. I am so much impressed with the results that I want all our drivers to use one of these booklets in the same manner. Thanking you for the above favor, I remain,

Very truly yours,

Ryder's Dairy

By A. M. Ryder.

An unsolicited letter which demonstrates the sales value of having glass lined equipment in your plant.

PFAU

This Booklet.....is a wonderful help to a driver

WHEN SOLICITING NEW BUSINESS IN COMPETITION WITH A CONCERN USING METAL LINED EQUIPMENT."

(*Signed*) RYDER'S DAIRY
Lemoyne, Pa.

¶ Ryder's Dairy believes not only in the sales value of handling their product in glass; they also point to the disadvantages of using metallic equipment.

¶ The article in our Catalog No. 673 (New Standard Series) to which they refer is entitled "What Happens When Copper, Nickel, and Other Metals Come in Contact With Milk."

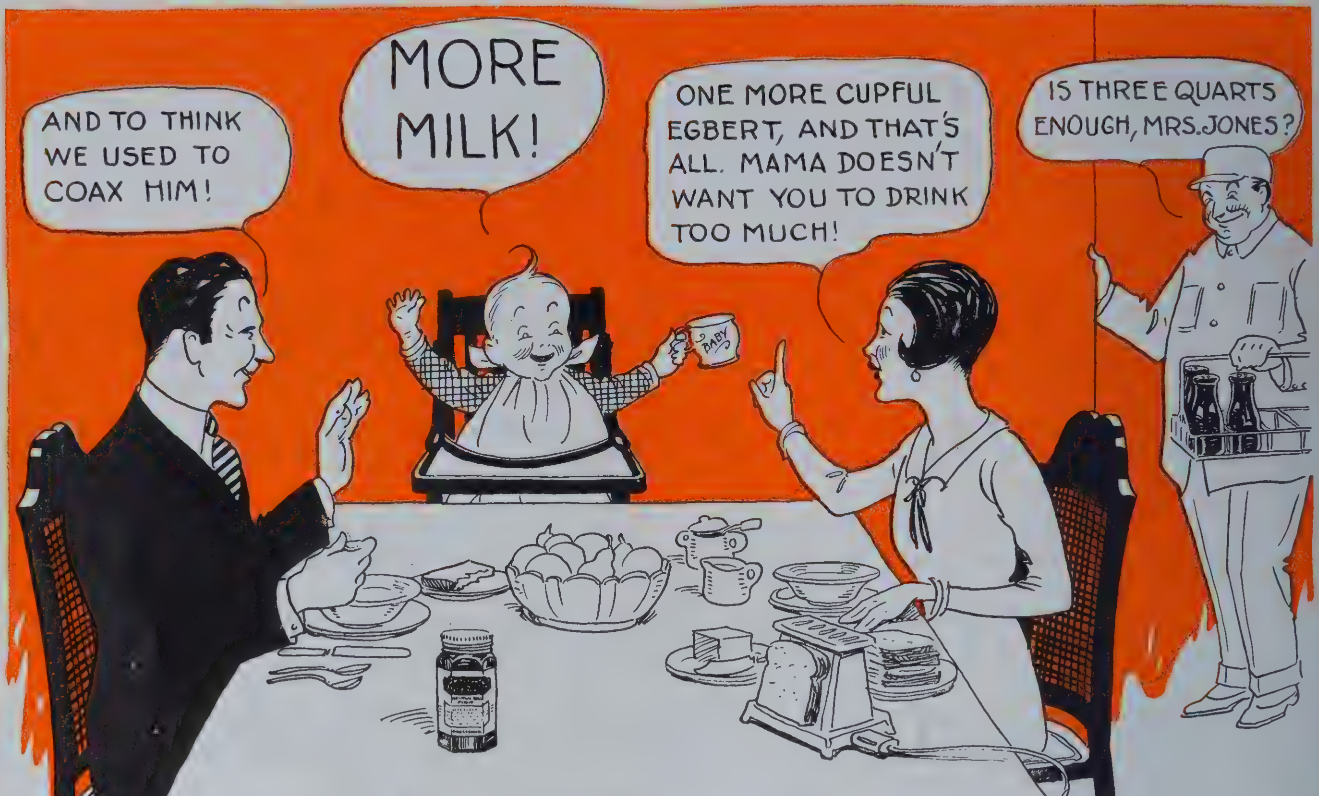
¶ Each of Ryder's drivers now carries a copy of this catalog which he uses to solicit new business.

¶ The definite advantages of using glass lined equipment are set forth in this New Catalog. Send for your copy today.

THE PFAUDLER COMPANY
Dairy Division ROCHESTER, N. Y.

Pfaudler

DLER glass lined


AND TO THINK WE USED TO COAX HIM!
MORE MILK!
ONE MORE CUPFUL EGBERT, AND THAT'S ALL. MAMA DOESN'T WANT YOU TO DRINK TOO MUCH!
IS THREE QUARTS ENOUGH, MRS. JONES?
BABY

Why Mrs. Jones Increased Her Milk Order

Milk is the best food for the growing child—but what if he doesn't drink it? What can the milk dealer do about it? The baby is rightfully a customer of his—yet refuses the privilege.

Here's what to do, dealers! Sell the family a jar of delicious Chocolated Dairy Drink Syrup. Then you'll find the baby can scarcely get enough milk to satisfy him. In thousands of American homes this has happened, with better health to the children and more profit to the dairyman.

You can handle Chocolated Dairy Drink Syrup two ways—as a sideline for the customers to mix, or mixed and bottled by yourself. Either way, there's a real profit.

Have you seen the "Milk-cap Booklet"? A hit with milk dealers for the business it brings them. Send for sample of both D. D. Syrup and booklet.

DAIRY DRINK COMPANY
4830 S. Turner Avenue CHICAGO, ILL.

Chocolated Dairy Drink
SYRUP

CHOCOLATED
Dairy Drink

Formerly "400"

Write us or ask our jobbers

A. H. BARBER-GOODHUE CO.
Chicago, Ill.
J. G. CHERRY CO.
Cedar Rapids, Iowa

NATIONAL DAIRY EQUIPMENT CO.
Utica, New York
STEVENS-ADAMS-CYR CO.
Charlestown, Mass.

H. A. SHELLENBERGER SUPPLY CO.
Salt Lake City, Utah
CORLL DAIRY SUPPLY CO.
Youngstown, Ohio

Getting Quality into Powdered Milk

By Which Surplus Milk is Turned to Greater Profit !

THE Rogers Way of reducing Surplus Milk to its most concentrated form results in a product highly superior in texture, color, solubility and minimum moisture content.

Experienced buyers readily appreciate the quality milk powder made the Rogers Way. It assures a better market and a better market seldom fails to reflect itself in more profit for the seller.

The Rogers Way

Let us tell you all about the Rogers way of reducing surplus milk to powder—the market for the product and the experience of users.

USE THE COUPON.

C. E. ROGERS
731 Witt St. Detroit, Mich.

C. E. Rogers,
8731 Witt St., Detroit, Mich.
Tell us how to make more profit out of surplus milk.

Company ....
By ....
Street ....
City .... State ....

The BEST BULWARK

CLEARNESS
ACCURACY
STRENGTH
ATLANTIC
Milk
Bottles

CLEARNESS

—that the customer may see the quality of milk you are distributing.

ACCURACY

—that the customer may get the amount that he or she buys.

STRENGTH

—that the bottle may last the dealer as long as pssible. Bottle loss is one of the milk distributor's problems. Less breakage, less cost.

ATLANTIC BOTTLE CO.

FACTORY: BRACKENRIDGE, PA.

90 W. Broadway, New York

[illegible] S. La Salle St., Chicag

DAIRY MANUFACTURING SHORT COURSES AT PENNSYLVANIA STATE COLLEGE.

For the thirty-fourth year the dairy department of the Pennsylvania State College will offer short courses in dairy manufacturing. These courses and their dates are listed below:

1. Testing dairy products and the manufacture of butter and cheese. January 6 to 21, 1927.
2. Ice cream making. January 24 to February 4, 1927.
3. Market milk and milk condensing, February 7 to 18, 1927.

These three separate courses, each continuing for two weeks, have been scheduled to replace the eight weeks creamery course given in former years. Under this plan men who found it impossible to be away from their plants for eight weeks will find it profitable to spend two weeks in gaining information in their particular field of work. It would be advisable for those who have had no experience in creamery work to take all three courses.

During the past thirty-three years over eleven hundred young men have been trained at State College in various lines of creamery work and are now filling positions in dairy plants throughout the country. While the college does not agree to find positions for students, the demand, at good salaries, for men who understand the principles which may be learned in these courses, and who can put them into successful practice in the plant, has always exceeded the supply.

The Pennsylvania State College maintains the largest commercial college creamery in the country. This creamery, in the dairy building, is in operation throughout the entire year, and manufactures every dairy product except milk powder. It is in this creamery that the student puts into practice the theories of the lecture room.

Cost of Courses.

In addition to traveling expenses there is a registration fee of $10.00 per course. Board and room cost from $9.00 to $10.50 per week. Students may bring their own white suits, thus saving the expense of buying them.

Anyone interested in the above courses who desires further information should write Professor R. G. Bressler, Director of Instruction of the School of Agriculture, The Pennsylvania State College, State College, Penn.

Work Covered in Courses.

Course No. 1—January 6 to 21, inclusive.

The work covered in this course includes the testing of milk, cream, buttermilk, whey, for butterfat; the testing of butter for moisture, fat, curd and salt by the Kohman method; acid testing, testing milk for solids, standardizing of milk and cream, calibration of glassware, the churning process, standardization of composition of butter, overrun problems, butter defects, the making and propagation of starters, plating for bacteria, the manufacture of cheddar, cottage and cream cheese.

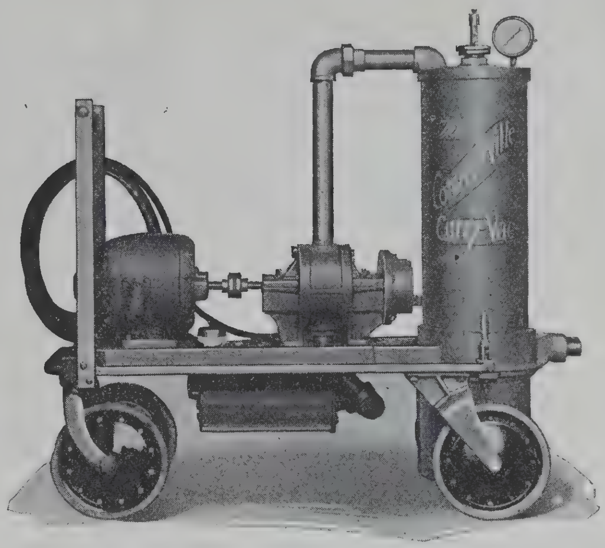
Course No. 2—January 24 to February 4, inclusive.

Much of the time will be spent in calculating ice cream mixes and in freezing ice cream in the college creamery.

Course No. 3—February 7 to 18, inclusive.

This course will include lectures and laboratories in the chemistry of milk, clean milk production, dairy farm inspection, pasteurization of milk, testing for adulteration, cream line studies, testing for quality, separation of milk, transportation of milk, making soft cheese, chocolate milk drinks, cultured buttermilk and sour cream, the operation of the vacuum pan, making plain and superheated condensed milk.

Real Machines
for an
Important Job



Connersville Curry-Vacs increase profits by keeping both horses and cows thoroughly clean. They do the cleaning at a lower cost. When Curry-Vacs are used, the grooming is done in about half the time that it takes for hand currying.

Both horses and cows are more healthy, better spirited, and present a finer appearance, when they are kept thoroughly clean with Connersville Curry-Vacs.

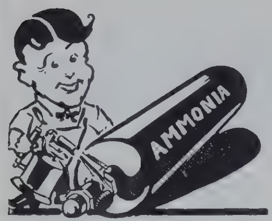
These machines make money by reducing the help required in the stable. Curry-Vacs also reduce veterinary and medicinal expenses. Both horses and cows are more healthy and less likely to become disabled through sickness. Curry-Vacs are "all-around" money-makers because conditions in the stable are generally bettered. Grooming is not only easy and speedy but it is no longer disagreeable. There is no dust flying in the air.

Send the coupon and let us give you more complete information.

Agents in All Principal Cities

United Vacuum Appliance Corp.
CONNERSVILLE Dept. M10 INDIANA

We are interested in Curry-Vacs to be used on.......... horses and..........cows.
Please send information on ( ) truck type, ( ) stationary type.
The electric current available is D. C.........volt—A. C. ....volt........phase........cycle.
Name ....
Street ....
City ....
State ....



Is Ammonia Combustible?

Are You Going to Be Afraid of Ammonia Hereafter? I'm Not.

By W. F. SCHAPHORST, M. E.

THERE still are some dairymen left who are afraid of refrigerating machinery because they think that ammonia is combustible. They think that ammonia burns like gasoline or kerosene, and that it explodes like dynamite.

False reports have been spread, not only through newspapers but through business and technical papers, whose editors should know better. So, under the circumstances, those dairymen who have been misinformed can hardly be blamed for feeling shaky about using ammonia.

Not long ago a client put the same question up to me. I had read a positive declaration shortly before, in a "technical" engineering paper, that ammonia IS combustible under certain conditions. And at about the same time I heard a vehement denial by a man who had been in the ammonia business most of his life.

Lacking the facilities for making exhaustive tests myself I did what I believe nobody else has ever done: I wrote to all of the foremost chemists in the United States, all of the leading engineering colleges, and all of the big manufacturers of ammonia and ammonia machinery. I made the question just as plain as I knew how to make it.

Feeling that excerpts from the replies received will prove of value and interest to dairymen, I am reproducing them herewith.

As will be noted, I have endeavored to divide the replies into two divisions—"Yes" and "No"—but it is difficult to do so on account of the conservatism to be found in a number of the letters.

The extracts, verbatim, are as follows:

One of the following came from a director of chemistry; one from the "department of chemistry," without mention of title; and the other four came from the professors of chemistry. All are from large universities:

"Pure dry ammonia will not burn in the air. It will burn in oxygen."

"I believe pure ammonia gas will not burn as a jet of gas in air, but will explode mildly when mixed with pure oxygen and ignited. It will burn if passed into a flame of some other burning gas, but its own heat of combustion is not sufficient to maintain the ignition temperature in air."

"Pure anhydrous ammonia is **not** inflammable in atmospheric air, but can be made to burn **in pure oxygen.** In regard to the combustibility of ammonia in oxygen see Roscoe and Shorlemmer's Treatise on Chemistry, vol. 1, page 505 (1911 edition.)"

"In the ordinary sense in which the word is used, anhydrous ammonia would not be properly spoken of as an **inflammable** substance. The word **inflammable** here used implies 'capable of burning when in the presence of or mixed with air under ordinary conditions.' The word **burning,** as used above, signifies progressive combustion without the introduction of external heat and in the absence of a catalyzing substance.

"Anhydrous ammonia is, however, **combustible.** That is, when mixed with pure oxygen or with air to which has been added an excess of oxygen, it will burn with the production of a flame, and it can also be oxidized readily when mixed with air in the presence of a catalytic agent or at artificially maintained elevated temperature."

"No information that I have available here would indicate that anhydrous ammonia is inflammable and, **personally, I have considered it to be absolutely non-inflammable,** even under excessively high pressure and in the presence of oxygen."

"A jet of ammonia gas escaping into the air at low velocity will burn in the air if a flame is held in contact with it. Combustion will cease when the flame is removed. If, however, the ammonia jet is surrounded by a larger tube through which oxygen is passed, the ammonia gas will burn in the atmosphere of oxygen if its velocity is not too great."

The chief chemist employed by the department of safety in a large American city wrote this:

"I have never found pure NH_3 to be combustible in any degree, in fact, we have several instances of its liberation extinguishing fires in a building.

"There are records of explosions resulting from this gas but on investigation it has been found that disassociation had occurred and the hydrogen of the ammonia molecule exploded when it became mixed with the oxygen of the air.

"I have just had a case where an explosion occurred in a refrigerating plant when the gas was accidentally liberated, carrying with it a large percentage of oil vapor which ignited from an open fire in the room, causing the explosion, but it was the oil vapor that exploded and not the ammonia, the latter having the effect of extinguishing the fire on different objects in the room, before the arrival of the fire department.

"Text books claim that the pure gas will burn in pure oxygen, but that it is extremely difficult to ignite it in the air.

"The liquified gas often expands and bursts its containers which are called explosions, but fire resulting therefrom is rare."

The chairman of a prominent engineering research committee wrote:

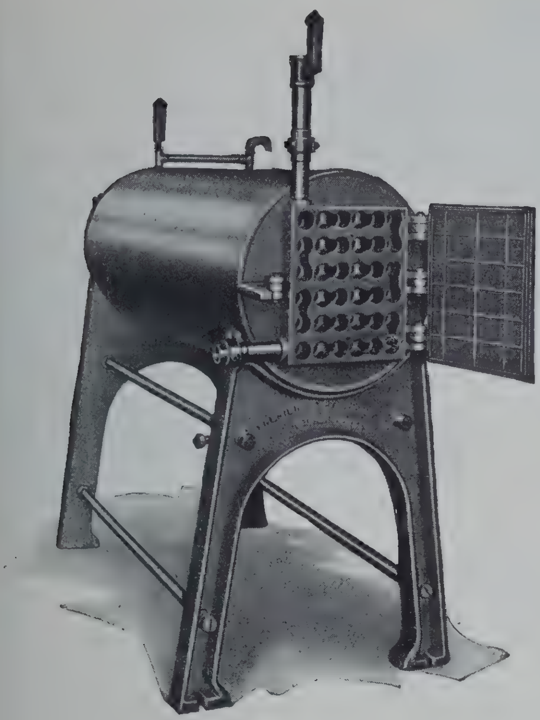
"Our Dr. —— of the department of electro chemistry states that ammonia will burn in oxygen, and whe passed over a catylist with oxygen, nitric acid will b formed. In air, although it may be lighted, combustio will not continue. The ammonia in a closed system o a refrigerating plant will probably contain gases fro disassociation and **from the oils which are hightly inflammable and explosions may occur."**

A well known manufacturer of refrgeratng machinery wrote:

"We have never heard that pure ammonia is inflammable and we do not think that it is considered so b any of the railroads or insurance companies."

This came from a professor in a large engineerin college:

"Ammonia vapor unmixed with air is entirely iner One pint of ammonia vapor with about four parts of ai will burn if heated at atmospheric pressure and will for



The
Indiana Condensed Milk Company
Indianapolis, Ind.

USE TWO
CHESTER BARREL HEATERS

One at their Flora, Indiana Plant

At this plant a No. 4 Chester Barrel Heater, having a capacity of 9,000 lbs. per hour, is used as a preheater before their glass holding tanks for sweet cream. All the heating is done by the Chester, the tanks being used merely as holders.

A similar installation can be made in your plant without changing your other equipment. No motors, pumps, or other special apparatus are required with the Chester Barrel Heater.

One at their Sheridan, Indiana Plant

Here a Chester Barrel Heater is giving consistently satisfactory service in solving a somewhat different problem. At this plant they use a No. 7 size delivering a continuous flow of 20,000 lbs. per hour as a preheater for their cream separators.

Chester Barrel Heaters are solving the heating problem in all sorts of milk plants all over the country and we would be interested in helping you solve yours.

We can furnish a complete line of modern dairy equipment and milk handling machinery. Write us for detailed information and prices.

CHESTER DAIRY SUPPLY CO.
Ninth and Hyatt Streets
CHESTER PA. U. S. A.

The Sign of Service

Please Mention The Milk Dealer.

nitrogen and water vapor. I do believe that ammonia and air if in the proportion given above will not stay ignited if issuing from a jet, and it would take very considerable adiabatic compression to ignite the mixture. If air and light hydrocarbon vapor along with ammonia were compressed suddenly an explosion would doubtless result, **but not due to the presence of the ammonia.** On the contrary, the ammonia would probably act as a dilutent. I have to be very particular about the quality of the lubricating oil I use in my liquid air compressor plant. A too volatile oil will cause ignition."

The following seven replies from manufacturers of ammonia are negative:

"Anhydrous ammonia is not considered an inflammable material. When contaminated with oils, greases and gases, it is the inflammable matter of the contamination that ignites rather than the ammonia."

"We believe that anhydrous ammonia is not inflammable in itself under any conditions, but is, of course, explosive as is any compressed air."

"It is a well-konwn scientific fact that ammonia gas can be burned in pure oxygen, and it will maintain a flame in air if a high enough temperature exists. The reaction is, however, a very feeble one and the tendency of the flame would be to go out.

"**If enough oil or other gases were present to maintain a suitable temperature, the ammonia gas would probably burn and the combustion sustain itself.** The question of the inflammability of ammonia has, to my knowledge, never been brought up before and is not a serious factor in its use."

"Anhydrous ammonia is not inflammable under the commonly accepted term, and is accepted and shipped on the railroads with the non-inflammable green labels."

"Pure ammonia is non-inflammable and is so designated by the bureau of explosives, carrying a green label and accepted by all common carriers."

"Pure NH$_3$ is non-inflammable in air in the sense that it will not sustain its own combustion. If a jet of pure NH$_3$ is blown through the flame of a bunsen burner or other source of heat of high temperature it will ignite and remain burning so long as the bunsen is kept in position. On removal of the bunsen, however, the flame will immediately go out."

"We believe that pure ammonia gas is not inflammable. A Dr. —— claims to have established the fact that a mixture of ammonia gas and air in certain definite proportions is explosive. This we doubt, but even if this statement is correct, it would have nothing to do with the inflammability of ammonia gas.

"Explosions have occurred through the bursting of **cylinder heads on compression machines where ammonia** was spread into the air, intimately mixed with oil from the compressor, **which oil, evidently mixed with air,** caused an explosion and fire."

A well known authority on refrigeration wrote this:

"Anhydrous ammonia is not inflammable except under conditions which are causing it to decompose into elementary gases of hydrogen and nitrogen, the hydrogen component being proportion of three atoms to one of nitrogen which is inert, makes it very inflammable and explosive when combined with the oxygen of the air. The temperature required from decomposition of ammonia under normal conditions is between 900 and 1,000 degrees F. Where catalytic conditions are present it has been known to decompose slowly at temperatures at, or near, 500 degrees F. When contaminated with oil,
greases, etc., it is usually the hydro-carbon gases fro
the oil which is the inflammable element rather th
the ammonia."

A chemical engineering consultant wrote this:

"Ammonia is not combustible. A flame is exti
guished if plunged into a gaseous space containing on
ammonia. If ammonia is mixed with oxygen, the
sultant gas may be ignited and it will burn with
yellowish flame with the production of water vap
nitrogen and nitrogen oxides. The burning of air a
monia gas mixtures is facilitated by contact with va
ous metallic surfaces, such as those of platinum, copp
etc."

The following three replies came from professors
chemistry in prominent universities:

"Mixtures of ammonia and air are inflammable
the same way that mixtures of gasoline and air are
flammable, although not to the same extent. Pure a
monia is inflammable as well as that which may be co
taminated with oil vapors."

"One of my assistants tells me that while taking
course in ——— college, the professor there used
burn ammonia in an ordinary burner similar to tho
used on gas stoves. He would first warm the burner
using illuminating gas in the usual manner. Then
would switch to a current of ammonia gas, which cou
then be burned readily. I have never seen this expe
ment tried myself, however. It is possible that in th
experiment the iron and iron oxide of the burner m
have a catalytic influence in accelerating the oxidati
of the ammonia."

"I have seen a lecture table experiment, in whi
ammonia was used as the second element of a high te
perature blast, which seemed to be a flame fully as h
as that of the oxy-gas blast."

"It seems hardly probable that concentration cou
be obtained in the normal operation of the refrigerati
apparatus which would permit ammonia to burn. T
would seem, however, to be a matter for careful expe
ment rather than "belief," and I do not wish you
place any unusual confidence in my personal opinion
the matter."

The exact meaning of the following, by a promin
chemist, is not perfectly clear to the writer:

"I believe it is safe to state that under suitable c
ditions ammonia can be considered inflammable. Y
understand, of course, that the word 'inflammable' d
not limit the reaction to oxygen combustion."

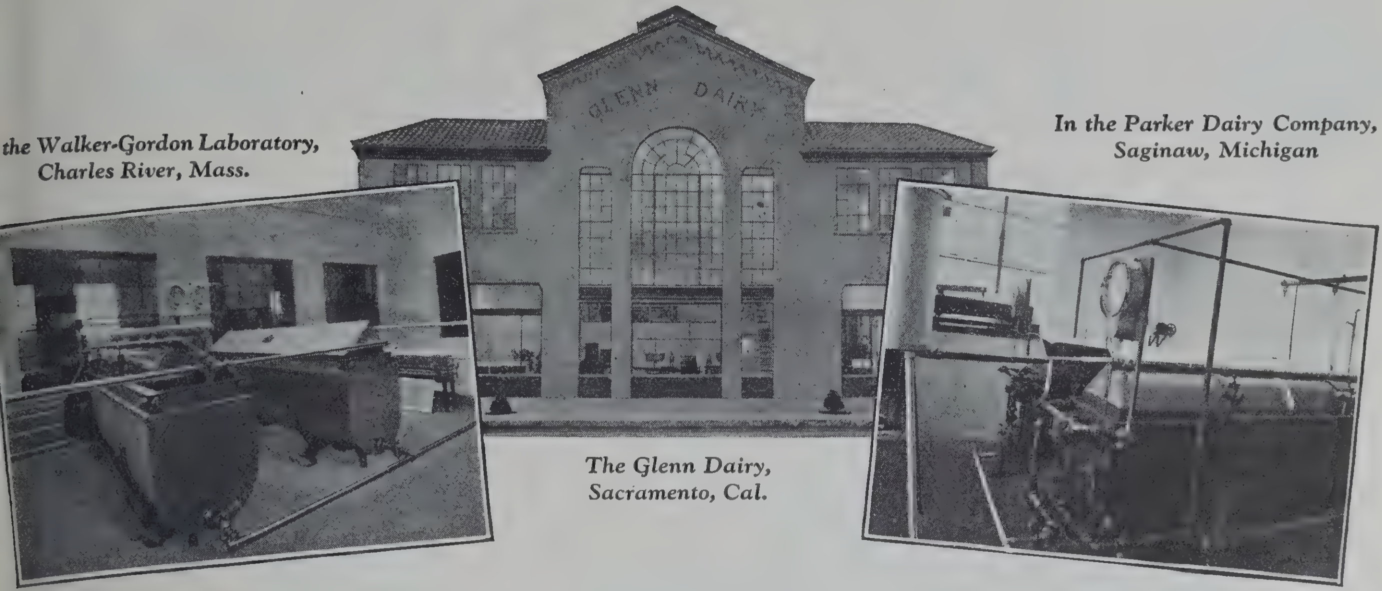
A large manufacturer of ammonia wrote:

"Ammonia is feebly combustible in atmospheric
and may be seen by holding a taper just within
mouth of an inverted bottle of gas which burns wit
peculiar kind of flickering light around the flame,
will not continue to burn when the flame is removed.

My Own Conclusion.

After carefully studying the above letters, my rep
to my client was that pure anhydrous ammonia carb
burned UNDER COMPULSION in the presence of in
Its combustibility need not be feared, however, un
it is mixed with oils, greases, or some gas that is kn
to be combustible.

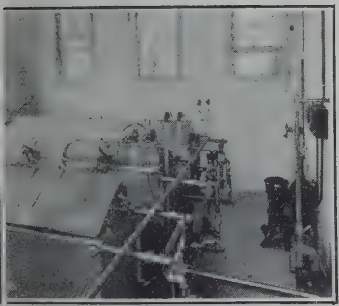
And now, Mr. Dairyman, what do YOU think?
you going to be afraid of ammonia hereafter? I'm


the Walker-Gordon Laboratory,
Charles River, Mass.

The Glenn Dairy,
Sacramento, Cal.

In the Parker Dairy Company,
Saginaw, Michigan

Getting Deep Cream Lines Low Bacteria Counts and Fine Flavor


In the Norwalk Dairy, Norwalk, Conn.

In the Earl E. Blain Dairy, Cleveland, Ohio

Here are some of the plants that are consistently getting deep cream lines, low bacteria counts and fine flavor in their milk. And there's a reason—they are using Burrell-Simplex Spray Pasteurizers.

And why are deep cream lines, low bacteria counts and fine flavor in the milk so consistently obtained with Burrell-Simplex Spray Pasteurizers?

(1) The *Deep Cream Lines* are made possible by the use of *low temperature heating water* and *gentle agitation* in the Burrell. (2) The *Low Bacteria Counts* are secured, first, because of the absence of stuffing boxes or bearings inside the vat, and, second, because the smooth, flat interior surfaces may be easily and thoroughly cleaned. (3) The *Fine Flavor* results from adhering to the latest accepted principles of pasteurization, namely, the combination of low temperature heating water, gentle agitation and simple, sanitary construction.

The use of *low temperature* heating water in theBurrell is made possible, first, because the milk comes into contact with a larger heating surface —25% to 50% greater—than in any other batch pasteurizer; and, second, because the heating water, sprayed against the vat lining, flattens into a rapidly-flowing film and transmits heat to the milk with great efficiency.

The *gentle agitation* in the Burrell is effected by wide, flat paddles which swing to and fro with a long, slow, sweeping movement. This forces every particle of the milk across the *broad heating surfaces* of the lining. Yet, the motion of these paddles is so slow and gentle that no churning action or violent agitation results.

The *simple, sanitary construction* of the Burrell facilitates absolute sanitation. The plain, jacketed milk vat is completely free from all bearings, gears, stuffing boxes and other obstructions. There is nothing below the milk line except *broad, flat, smooth, easy-to-clean* surfaces.

Illustrated catalog, fully describing the Burrell-Simplex Spray Pasteurizer will be sent gladly upon request.

D. H. BURRELL & CO. INC. **LITTLE FALLS, NEW YORK**

TRADE MARK REG. U. S. PAT. OFF.

BURRELL

SIMPLEX

Dairy Creamery Cheesery and Milk Plant Apparatus

Prof. Burke's Inquiry -:- Department -:-

Correspondence Covering a Variety of Sub- jects of Interest to Milk Distributors

Dear Sir:—Will you please advise me if there are any books on the market in regard to vitamines? Would like to know why they are essential to health, and what effect lack of certain vitamines would have upon the health, and in fact all the information I can get in regard to them.

Reply: A vitamine is defined as a dietary essential. It is a constituent of certain foods which have been found to be essential to health, growth and well-being. There are three vitamines in which we are especially interested.

Vitamine A is found primarily in butterfat, cod liver oil, eggs and the vital organs of animals. This vitamine is growth-promoting, and its deficiency in the diet produces certain eye diseases and general malnutrition. Vitamine B is found chiefly in leafy vegetables and fruits. It also occurs in milk, cheese, yeast, etc. It, like vitamine A, is necessary for growth, but it appears to prevent neuritis and other certain diseases, such as beriberi. The third vitamine, known as vitamine C, is found chiefly in vegetables and in fruit juices. It is readily destroyed by heating, and for that reason may be deficient in pasteurized milk. It is the vitamine which prevents scurvy. There are, at present, two other vitamines which are sometimes listed. Vitamine D being claimed to prevent rickets, and vitamine E necessary for reproduction. However, the latter two appear to be the subject of much discussion and controversy at the present time.

You ask regarding publications on the subject of vitamines. You will find these discussed quite thoroughly in the following texts: "The Vitamines," by Funk; published by the Williams & Wilkins Co., Baltimore, Md.; "The Vitamines," by Sherman & Smith, Chemical Catalog Co., 1 Madison Ave., New York City; "The Newer Knowledge of Nutrition," by McCollum, published by the MacMillan Co., New York City.

Any of these publications should give you full information regarding vitamines up to the time they are printed. You must remember, however, that a great volume of material is published in magazines regarding this subject, as it is of great interest. Therefore, what is accepted as a fact today may be altered tomorrow.

* * *

Dear Sir:—Am going to make ice cream on a small scale. I have got just an ice cream freezer. I will harden my cream with ice and salt. Will have an ice box four by twenty feet for hardening. I have an improved starter can pasteurizer.

Can I keep milk and cream from morning until night before pasteurizing, or will I have to pasteurize twice a day? Will I have very good success pasteurizing without homogenizing? I want to make good cream.

Will the ice box I spoke of, insulated with six inches of cork, three thicknesses of lumber and one of tar paper, made air-tight, do for hardening, and will it keep ice fairly well?

Reply: In answer to the questions regarding the manufacture of ice cream and pasteurization of milk, I beg to state that you can keep both milk and cream from morning until night and then pasteurize, providing the products are cooled very promptly to below 50 degre F. and held at that temperature until they are dumpe in the vat for pasteurization. However, I believe yo would find it more satisfactory to hold the night's mil until morning and pasteurize as the nights are muc cooler than the days, and there is no great difficulty i keeping the product cool. If you find that the milk ca not be handled in this way, it will, of course, be nece sary for you to take the matter up with the dairyme and get them to produce a very sanitary product whic will keep the required period. Otherwise you will hav to pasteurize twice daily. This should not be necessa if the milk is sanitary and kept cold.

I note that you are not planning on homogenizin your mix. This being true, it will be very necessary tha the mix be cooled to at least 40 degrees F., preferabl lower, before you put it in the freezer, otherwise it ma churn. You should be able to make a very good produc for home use and small trade if you are careful wit your manufacturing process and the ingredients whic you use.

The ice box whch you speak of should be satisfactor as a hardening box. I have used similar apparatus i making ice cream and, while utilizing a considerab amount of ice and necessitating extra work, it did ser the purpose for which it was intended.

In pasteurizing your milk, cream or the ice crea mix in the starter can you must be careful to preve steam from striking the heating surface directly. Othe wise, casein will bake on the sides and form a socall "milk stone," which is rather difficult to remove a forms a good insulating coating over the interior of t vat. There is also the possibility that steam striking t heating surface will give the product a slightly cooke flavor. However, if you are careful I believe these di- culties can be avoided and you should obtain satisfa- tory results with the process.

* * *

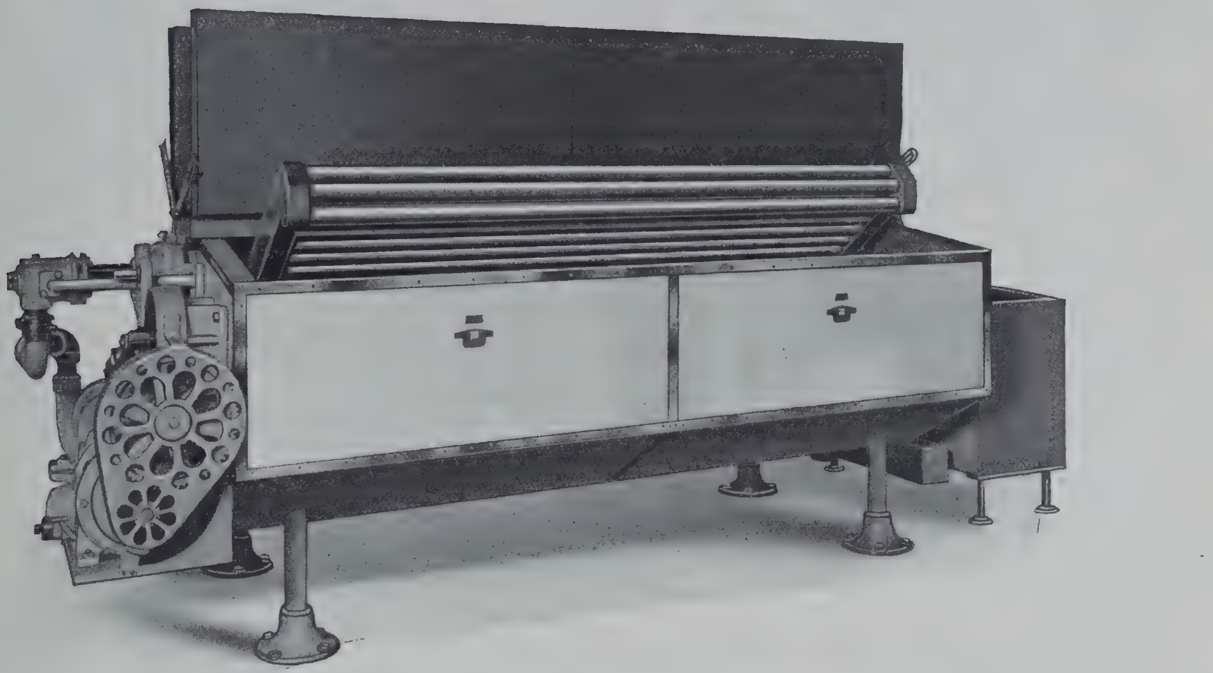
Reply to J. W. B.: Your letter relative to difficulty with milk churning has just been received; also the sample of milk. The milk was sour upon its arrival and I was unable to make a thorough test of the sample.

Perhaps your difficulty is traceable directly to the length of time the cow has been giving milk. Cows which have been milked for long periods and are near the end of their lactation period produce milk which is frequently very difficult to churn and occasionally fails entirely to make butter. If this is the difficulty it will be readily overcome when the cow again freshens.

Still another cause might be that the milk contains bacteria which cause it to curdle without souring. This would be true if cows were permitted to wade through contaminated water. The bacteria would get on their hide and later on might fall off into the milk pail, thus contaminating the milk. Thorough steaming of utensils used in hauling the milk and preventing cows from wading in infected water would tend to overcome the difficulty.

A third possible cause would be feeding the cow too much cottonseed meal or feeds which make a hard but-

"AMERICO" THE PASTEURIZER WITH A PURPOSE



The new "AMERICO" with improved coil control and new flush outlet valve

RECENT "*AMERICO*" INSTALLATIONS

In the purchase of an "AMERICO" pasteurizer, you not only get the value of a well constructed machine but through its improved principles of operation, the "AMERICO" places a greater value on the product it turns out.

Its mild agitation, the use of low temperature heating medium, no stuffing boxes nor bearings in the batch, its flush type outlet valve and the assurance of thorough cleaning made possible by the feature of raising the coils out of the vat are accountable for the wonderful results being obtained with the "AMERICO" Pasteurizer.

Users boast of their cream line and flavor.

List of Installations

The Matthews Selected Dairies Co. Cincinnati, Ohio	6 Machines
The Kroger Grocery & Baking Co. Cincinnati & Dayton, Ohio	10 Machines
Townsend Bros. Milk Co. Cincinnati, Ohio	1 Machine
The Hyde Park Dairy Co. Cincinnati, Ohio	1 Machine
Risdon Creamery, Inc. Detroit, Mich.	2 Machines
Wilson & Co., Chicago, Ill.	2 Machines
Lange Creamery, Inc. Kansas City, Mo.	2 Machines

Representative Chicago District
A. J. EDHOLM
P. O. Box 1793 Chicago, Ill.

Two-Speed Belt Drive Machine

Further details on request

AMERICAN COPPER & BRASS WORKS
MANUFACTURERS OF DAIRY EQUIPMENT
610-616 E. Front Street - Cincinnati, Ohio

terfat. In this case the butter might fail to come or if it did churn, would be especially hard and difficult to make hold together. In this latter case it would be necessary for you to feed the cows some succulent feeds such as beets or good green alfalfa hay. I am inclined to believe, however, that the difficulty is probably caused by the first factor which I mentioned.

* * *

Dear Sir:—I live on a farm and milk two cows. They are fat, have wild pasture and Turkey Creek runs through the pasture. They have tank water pumped from the well every day. Their milk looks all right when drawn from the cows but when separated, the cream is ropy. We can't understand what could be the reason for the ropiness.

Reply: Ropy milk and cream is a common trouble which occurs frequently on different farms and in some milk plants. The ropiness is caused by bacteria which get into the milk and in some cases enables the milk and cream to be drawn out in long threads. The bacteria appears to frequent water and I am led to believe this is what is causing your trouble. If the cows get the water on their hides and it dries it is very easy to brush any small particles of dust from their hides into the milk pail which would, of course, infect the milk. I suspect the cows wading through Turkey Creek have gotten the bacteria on them.

I suggest you whitewash the barn and prevent the cows from wading in the water. While one type of bacteria which usually produces ropiness is harmless, they are rather difficult to get rid of once they get started in a certain location and, of course, milk which is ropy is discriminated against.

The fact that the cream on your milk gets ropy quicker than the milk itself is because as the cream rises it tends to carry with it some of the bacteria in the milk. Therefore, it is more heavily laden with the ropy organisms than the milk. I would suggest the following to enable you to overcome the difficulty:

1. Prevent the cows from wading in Turkey Creek or any stagnant pools.
2. Whitewash the interior of the barn and scatter lime about.
3. All manure piles should be hauled to the field and lime scattered about.
4. Sterilize all utensils with live steam or boiling water.

* * *

Dear Sir:—Please give us some information on the American association test to determine the loss of fat in the buttermilk, as I read in one of your replies in the June issue of The Milk Dealer that it is a better method than the sulphuric acid one.

Reply: The American association test for fat in buttermilk consists in using normal butyl alcohol in addition to sulphuric acid for liberating the fat from buttermilk. The results obtained are considerably higher than those of the regular Babcock method and are considered much more accurate.

The equipment you will need for running the test is as follows:

1. The ordinary skim milk test bottles, preferably reading ½% (50/100%).
2. A 9 c.c. pipette.
3. Normal butyl alcohol. About one-half pint should suffice for approximately 120 tests. (You should be able to obtain this from any chemical supply house).

In operating the test, proceed as follows and add the reagents in the following order:

1. Transfer 2 c.c. of the normal butyl alcohol to a skim milk test bottle.
2. Add 9 c.c. of buttermilk and mix thoroughly.
3. Add 7 to 9 c.c. of sulphuric acid, a few cubic centimeters at a time, and mix thoroughly.
4. Centrifuge 6 minutes and fill the test bottle to the base of the neck with hot water.
5. Centrifuge 2 minutes and fill the large bottle neck with water which serves to bring the fat into the small neck.
6. Centrifuge again for 2 minutes.
7. Remove from the tester and place the bottles in a water bath heated to 130 to 140 degrees F. for 5 minutes. Read as for milk and multiply the reading by 2.

This test conforms closely to the chemical extraction methods.

* * *

Dear Sir:—We are operating a small dairy here in a town of about 5,000, selling pasteurized and clarified milk and are having trouble during summer months in determining whether the milk is sweet or sour. I have tried different tests but never had very much success with any of them.

I was employed for nearly two years at a large dairy as engineer's helper and at this plant they used a pink liquid in the receiving room. They took a small portion (a few c.c.) of milk in a cup then added the same amount of this pink solution, stirred the two together and if the milk turned pink it was sweet and if it remained white, it was sour.

This solution was never used after it was over 30 days old. I have tried different places to get this testing solution or the formula to have it made, but have never been able to get it. I would be very glad to get any information on the testing solution.

Reply: The pink solution which you refer to as being desirable for determining acidity in milk is undoubtedly prepared from Farrington's alkali tablets. These tablets can be purchased from practically any dairy supply house in small boxes of a thousand. From them a solution of alkali of any strength for determining the acidity of milk can be made up.

The solution to which you refer is made up in any quantity desired by dissolving two tablets in each ounce of water. The solution thus made up will show whether or not milk contains more or less than .2 per cent acidity, if equal parts of the milk and solution are mixed together in a white cup. If the milk contains above .2 per cent acid it remains white. If it shows less than .2 per cent it remains pink.

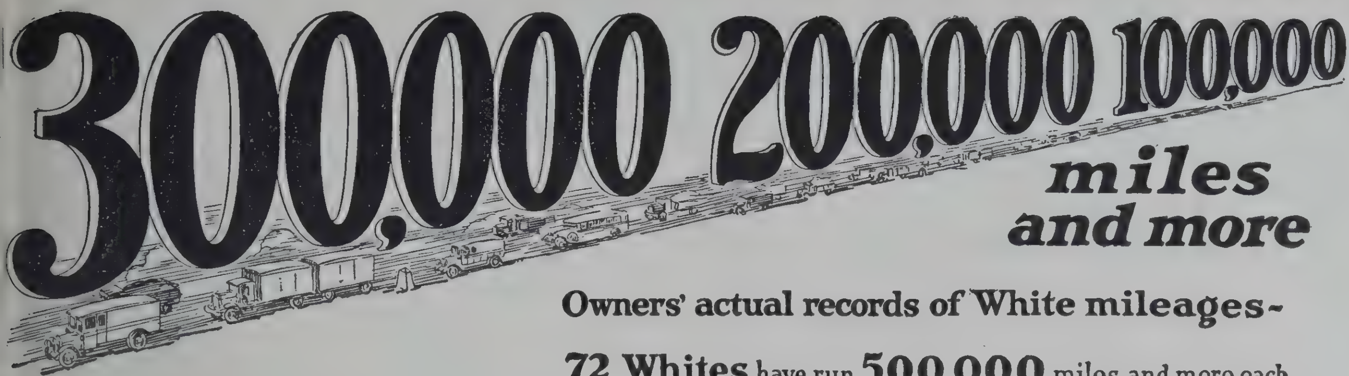
Full directions for the preparation of this solution or a solution of any desired strength are given in the folder which accompanies each box of tablets or you can find directions in practically any dairy analysis book published within the last ten years.

NORTON JOINS BORDEN COMPANY.

M. J. Norton, vice-president and general manager of the Carnation Milk Products Co., at Oconomowoc, Wis. has severed his connection with that company and has joined the Borden company of New York in the capacity of vice-president. Mr. Norton has been with the Carnation company since 1906.

He began his career on the Pacific Coast and when Carnation plans began to develop here in the middle west he was sent East as manager of the Eastern plants.

When the Oconomowoc plant was built, the Eastern offices were moved there from Berlin, Wis., and later it was largely through the influence of Mr. Norton tha the general offices of the company were brought to Oconomowoc from Chicago.



Owners' actual records of White mileages~

72 Whites have run **500,000** miles and more each

384 have run between **300,000** and **500,000** miles each

951 have run between **200,000** and **300,000** miles each

1658 have run between **150,000** and **200,000** miles each

4959 have run between **100,000** and **150,000** miles each

giving the astounding total~

8024 Whites have run **100,000** miles and more each

No owner will operate a truck or bus long enough to run 100,000 miles, unless those miles are *money-earning miles*

100,000 miles—White miles—mean more than an exceptionally long distance; more than an exceedingly durable, well-built, well-serviced motor truck or bus.

They mean unusual profits. They mean net earnings—in excess of all costs. They mean continued earnings long after the original cost has been written off the books.

200,000 miles mean all that—doubled. 300,000 miles mean all that—trebled. So on . . . . Picture the earnings of the scores of Whites that have exceeded 500,000 miles. Then picture what these mileages would mean in your own business, knowing your average mileages for a week or a month or a year.

White 100,000-mile records are not isolated performances, not special achievements under especially favorable conditions. Whites, by the thousand, exceed 100,000 miles with a regularity that makes it standard performance. . . . . All models do it. They do it in all lines of business. They do it everywhere, under all conditions of load, road, weather and climate. They do it in fleets and in single installations.

More than 8,000 Whites have run 100,000 miles and more. More than 1,400 have run 200,000 miles or more. More than 400 have exceeded 300,000 miles. The original cost of most of these 8,024 Whites has been written off the owners' books. . . . . And these mileages are actual owners' figures. They do not include many hundreds of additional Whites that have passed 100,000 miles, but whose owners have not sent us accurate records. Neither do they mirror the splendid earning records of thousands of Whites that have been serving dependably for ten, twelve, fourteen years, carrying their pay loads, without reaching the 100,000-mile mark.

This record, published annually, stands alone. No other truck manufacturer has ever published such a volume of evidence of dependability, long life and continuous earning power. No other truck manufacturer can.

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Our new "300,000 Miles and More" booklet is just out, with the names of all the owners and the number of Whites each owns in each mileage classification. You will find leaders in all industries, firms in your own line of business, your neighbors, your business associates. We will gladly send the booklet free. Write for it.

Before you buy a truck or a bus see the Whites at any of our 75 factory branches or 500 dealers. There is a White model to meet every transportation need.

Truck Chassis

Model 15	— ¾-Ton	$2,150
Model 20	— 2 -Ton	2,950
Model 51	— 2½-Ton	3,750
Model 40-A	— 3½-Ton	4,350
Model 52	— Heavy Duty	5,100

(Several types of power dumping bodies and hoists available)

Bus Chassis

Model 53	16 to 21 passengers	$4,250
Model 50-B	25 to 29 passengers	5,350

(All prices f.o.b. Cleveland)

WHITE TRUCKS

AND WHITE BUSSES

METHODS OF PROCESSING CHOCOLATED MILK.

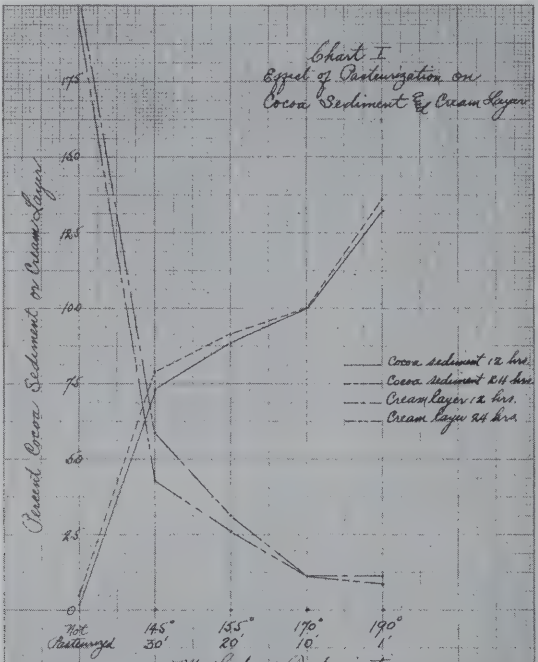
(Continued from page 36)

creased slightly the cream layer. It might be said at this point that the cream layer is dark in color, due to fine particles of cocoa carried up with the fat. In samples where the ability of the fat to rise was destroyed by heat, the cocoa that otherwise would have been absorbed into the cream layer was found in the increased amount of sediment. At the higher temperatures the cream layer was light and appeared more on the order of a cream plug.

Table I—Effect of Pasteurization on Sediment and Cream Layer.

Trial	12 Hrs. at 50° F. Cocoa sediment per cent	12 Hrs. at 50° F. Cream Layer per cent	24 Hrs. at 50° F. Cocoa sediment per cent	24 Hrs. at 50° F. Cream Layer per cent
Sample I raw	0	20	.5	18
Sample I 145°—30′	7	5	8	4
Sample I 155°—20′	8	5	8	3
Sample I 170°—10′	8.5	1.5	8.5	1
Sample I 190°— 1′	12	1	13	1
Sample II raw	1	24	1	22
Sample II 145°—30′	8.5	5.5	8.5	4
Sample II 155°—20′	10	2.5	10.5	3
Sample II 170°—10′	11.5	1	11	1
Sample II 190°— 1′	15	1.5	15	1
Sample III raw	0	17.5	.5	17
Sample III 145°—30′	6	7	7	5
Sample III 155°—20′	8.5	2	9	2
Sample III 170°—10′	10	1	10.5	1.5
Sample III 190°— 1′	13	1	13	1

To show more clearly the effects of heat on the cream layer and on the amount of cocoa sediment the data in Table I has been illustrated by use of Chart I. In making the curves the data for samples I, II and III were averaged so that but one curve is shown for each set of conditions, but this illustrates very well the general effect.



Single Stage Homogenization.

The three brands of cocoa used in the studies on pasteurization temperature were used in the following work dealing with the effects of homogenization on cocoa sediment and cream layer. In making the studies the samples were first pasteurized at 145 degrees F. for 30 minutes and then homogenized at various pressures. The results of these trials are shown in Table II. As the pressure of homogenization increasd the amount of sediment increased, but in all of the homogenized sa
ples, regardless of the pressure used, the cream layer w
entirely destroyed.

Sample number III, in Table II at 4,000 poun
showed no sediment, due to the fact that the high pr
sure partially coagulated some of the milk protei
which were evidently less stable than usual. The cu
was not granular but very smooth and the chocolate mi
was very viscous. In this case the sediment was ov
come but the product was judged of inferior quality d
to the thickness. The product was not satisfying as
drink, it did not satisfy a thirst and left a thick, fuz
taste in the mouth. It will be noticed that the sedime
deposited in 12 hours at low pressures is less in volu
than that at 24 hours; while at high pressures the
verse is true. At high pressures a very floccular con
tion in the cocoa is produced, which causes it to settle
a loose condition. This loose mass of sediment gradua
contracts and mats together on standing, thus decreasi
the volume faster than additional cocoa particles settli
tend to increase it.

Table II—The Effect of Single Stage Homogenization on Cre Layer and Cocoa Sediment.

Sample and pressure used	24 Hrs. at 50° F. Cocoa sediment per cent	24 Hrs. at 50° F. Cream Layer per cent	12 Hrs. at 50° Cocoa sediment per cent	12 Hrs. at 50° Crear Laye per ce
Sample I no pressure	10	4	9.5	3
Sample I 500 lbs.	2	0	2.5	0
Sample I 1000 lbs.	2.5	0	3	0
Sample I 2000 lbs.	3	0	3	0
Sample I 3000 lbs.	4.5	0	5	0
Sample II no pressure	8	5	7	4.
Sample II 500 lbs.	1	0	2	0
Sample II 1000 lbs.	1.5	0	1.5	0
Sample II 2000 lbs.	3	0	3.5	0
Sample II 3000 lbs.	5	0	5	0
Sample II 4000 lbs.	8.5	0	8	0
Sample III no pressure	7.5	4.5	8	3
Sample III 500 lbs.	1.5	0	2	0
Sample III 1000 lbs.	2	0	2	0
Sample III 2000 lbs.	2	0	3	0
Sample III 3000 lbs.	3.5	0	4	0
Sample III 4000 lbs.	0*	0	0*	0

* This sample partially coagulated making a very visc
smooth product which was so thick that the cocoa was hel
suspension almost in total.

Two Stage Homogenization.

Samples were made up as in the previous study, is
teurized and homogenized — using two homogeni
valves instead of one, the two being set at various p
sures. One run was made, using one valve at 10
pounds for comparison. The results shown in Table I
and Chart II indicate that the use of two valves ins
of one tends to reduce the amount of sediment some
where the first valve is set at the same pressure as
in single stage homogenization. Furthermore, the
ment is more compact and darker in color than with
valve; just as the sediment deposited in homogen
chocolate milk is more compact and darker than tha
posited in chocolate milk that has not been homogen
It will be noticed that the maximum pressure rea
(the highest valve) seems to have more influence o
amount of sediment than the absolute pressure of ho
enization (difference in readings of the two val
Here again a distinct increase in sediment occurs
increasing pressures of homogenization, the best re
being had at 1,000 and 500 pounds in all three c
Where no pressure was used all of the samples ha
jectionable cream layers.

In all cases where homogenized chocolate milk
compared with unhomogenized the main body o

SANITARY·FARM·DAIRIES
Sanitary FARM DAIRIES
REFRIGERATOR MILK SERVICE
Sanitary FARM DAIRIES

This modern Refrigerator unit of the Sanitary Farm Dairies, St. Paul, Minnesota, consists of a tractor-truck and a Fruehauf Semi-Trailer. Truck and Trailer are detachable and interchangeable with other hauling units.

Trailers Will Earn Huge Profits For You

ASK any Milk Dealer who uses Fruehauf Trailers and he will tell you that a Trailer is one of the most profitable investments he has ever made in the Milk business. He can give you figures to back up his statement. He can show you how *three times the load can be carried at half the cost* of old-fashioned methods!

And, if you could inspect the fleets of Milk Dealers throughout the country, you would find that many have standardized on Fruehauf Trailers to bring about low-cost transportation. They have found that the simplicity of Fruehauf design and the ruggedness of Fruehauf construction insure 7-days-a-week service year in and year out.

Fruehauf Trailers increase the productive capacity of the motor truck two and even three times. Heavy Refrigerator bodies that carry tremendous loads can be handled easily by a moderately sized truck. Thermos tanks are also used with equal advantage.

If so many other Milk Dealers are using Fruehaufs with marked success, isn't it logical to believe that you can use them, also, and gain the same advantages? Our Engineering staff is always ready to analyze your hauling requirements, without obligation, and help you find the most efficient solution.

Pioneer Builders of Semi-Trailers, Four-Wheel Trailers and Adjustable Pole Trailers.

BACKED BY 35 YEARS' EXPERIENCE

FRUEHAUF TRAILER COMPANY

BRANCHES AND DISTRIBUTORS IN ALL PRINCIPAL CITIES

10942 Harper Avenue
Detroit, Michigan

liquid had a smoother appearance, a somewhat lighter color and was more uniform in all respects.

A curve showing the effects of two stage homogenization at various pressures has been superimposed in Chart II for comparison with single stage homogenization.

Table III—Effect of Two Stage Homogenization on Cocoa Sediment.

Pressure	Per cent Cocoa sediment 12 hrs. at 50° F.		
	Sample I	Sample II	Sample III
No. pressure	8.5	6	8
1 valve 1000 lbs.	3	2	2.5
2 valves 1000 and 500 lbs.	1	1.5	1
2 valves 2000 and 500 lbs.	2	2	2
2 valves 3000 and 500 lbs.	3	3.5	2.5
2 valves 2000 and 1000 lbs.	3	2	2
2 valves 3000 and 1000 lbs.	4	3.5	3
2 valves 3000 and 2000 lbs.	4	5	3.5

Effect of Homogenizing the Milk Only.

In the previous trials homogenization very materially increased the cocoa sediment deposited as the pressure was raised. It was thought advisable to observe the effect when the milk was homogenized separately and the chocolate syrup added subsequently. Accordingly, the three chocolate syrups were made up with milk which had been heated to 110 deprees F. and homogenized at various pressures. The mixtures were then pasteurized at 145 degrees F. for 30 minutes, cooled and samples placed in cylinders for observation. Comparisons were made with mixtures from the same milk unhomogenized. The results of these trials are given in Table IV and a curve of the average results put in Chart II for a general comparison with the other homogenizing studies.

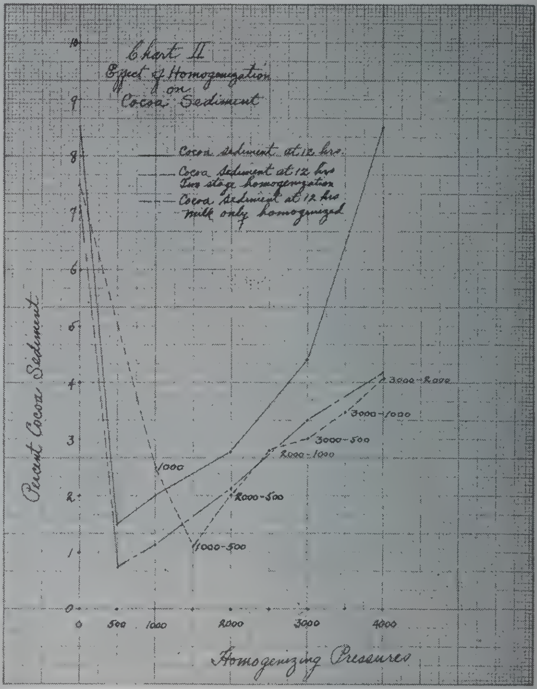
From the data it is seen that, even with the flavoring material absent at the time of homogenizing, the cocoa sediment appreciably increases with an increase of pressure used. From the chart, however, some improvement in the amount of sediment deposited is noted, compared to the results obtained in homogenizing the product with the flavor. The degree of improvement is so little that it would not seem worth the extra work involved in this method of processing.

Table IV—Effect of Homogenizing Milk Only on Cream Layer and Cocoa Sediment.

Description		12 hrs. at 50° F. Per cent cocoa sediment	Per cent cream layer
Sample I	Milk unhomogenized	6	3
	Milk homogenized 500 lbs.	.5	0
	Milk homogenized 1000 lbs.	1.5	0
	Milk homogenized 2000 lbs.	2.5	0
	Milk homogenized 3000 lbs.	3.5	0
	Milk homogenized 4000 lbs.	4	0
Sample II	Milk unhomogenized	7.5	2
	Milk homogenized 500 lbs.	.5	0
	Milk homogenized 1000 lbs.	1	0
	Milk homogenized 2000 lbs.	2.5	0
	Milk homogenized 3000 lbs.	3.5	0
	Milk homogenized 4000 lbs.	3.5	0
Sample III	Milk unhomogenized	8	5.5
	Milk homogenized 500 lbs.	1	0
	Milk homogenized 1000 lbs.	1	0
	Milk homogenized 2000 lbs.	1.5	0
	Milk homogenized 3000 lbs.	3	0
	Milk homogenized 4000 lbs.	5	0

Temperature of Homogenization.

The temperature at which homogenization is carried out was investigated. The three samples of chocolate milk were prepared using a greater amount of syrup than usual, and pasteurized at 145 degrees F. for 30 minutes, after which they were homogenized at 500 pounds pressure at the following temperatures: 145 degrees F., 85 degrees F., and 55 degrees F. Results were averaged and are shown in Table V. The results do not show enough difference to indicate any distinct advantage for any particular temperature, although the lower temperatures may give a slight improvement in the amount of sediment forming. These results cannot be directly compared with the others because of the greater amount of chocolate used in the samples.



Effect of Temperature of Homogenization.

Temperature at which homogenized at 500 lbs. pressure	Per cent cocoa sediment 6 hrs. at 50° F.		
	Sample I	Sample II	Sample III
145°F.	6	6.5	6
115°F.	6.5	5.5	5.5
85°F.	6	6	4
55°F.	4.5	5	4

The accompanying photograph shows visually th effects produced on chocolate milk by various temperatures of pasteurization and various pressures used i homogenization. The unprocessed sample (No. 1) contains the least amount of cocoa sediment but has a ver deep dark colored cream layer. The samples which wer pasteurized (Nos. 2 and 5) contain the largest amoun of cocoa sediment and still have a slight cream layer, no very noticeable in No. 5 because the higher heat seem to prevent the cocoa from being absorbed by the cream The samples homogenized at low pressures (Nos. 3 and 6 do not show any great superiority over those homogenized at higher pressures (Nos. 4 and 7) in this serie Usually the difference in cocoa sediment is more notic able. These four samples, however, present a far bette appearance than Nos. 1, 2 and 5, which were not homogenized. Comparing samples 2 and 5 it is seen tha the use of higher heats than 145 degrees F. for pasteu ization gradually reduces the dark colored cream laye

Tubes of Chocolate Milk Processed in Various Ways after Holding for 12 Hours at 50 F.*

Tube 1—Raw chocolate milk unhomogenized.
Tube 2—Pasteurized (145°—30 min.) chocolate milk unhomogenized.
Tube 3—Pasteurized as No. 2 and homogenized at 500 pounds.
Tube 4—Pasteurized as No. 2 and homogenized at 2,000 pounds.
Tube 5—Pasteurized (180° for 1 min.), unhomogenized.
Tube 6—Pasteurized as No. 5 and homogenized at 500 pounds.
Tube 7—Pasteurized as No. 5 and homogenized at 2,000 pounds.

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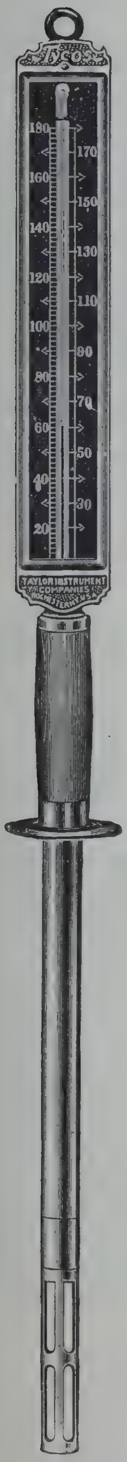
* See illustration on page 34.



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On vat pasteurizers having a small hole in the top of the apparatus, the stem handled thermometer shown on the left is extensively used in many of the milk plants of the country.

Tycos Stem Handled Pasteurizer Thermometer

This type of thermometer has an adjustable handle and flange below the scale case. The advantage of this arrangement is that the flange and handle can be moved up or down the stem and be carried in any desired position by means of a set screw, thereby making it possible to adjust the stem lengths to meet the requirements of various applications.

Tycos Handled Cold Milk Inspector's Thermometer

This type of thermometer was designed for, and for years has had extensive use on applications of this kind. The stem is of sanitary construction and of ample length to permit immersing the bulb the proper depth in the milk to give average temperature indication. The scale is protected by a glass front to keep it clean, thus insuring accurate, quick reading. The handle at the top makes it convenient for use and the ring in the top of the handle is for hanging when out of service. This instrument has open reading temperature scale and magnifying glass tube, making it easy to locate the top of the mercury column.

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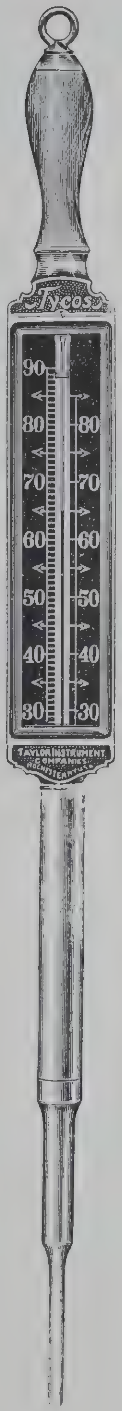
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and increases the amount of cocoa sediment settling, even though there is still present a tough skin-like cream layer, light in color and very shallow.

Clarification.

Chocolate milk may be clarified in order to remove the sediment but a large proportion of the flavor is also removed, and so much sediment is deposited in the clarifier bowl that the efficiency of clarification is impaired after only a short run. The first milk through contains much less sediment than the later portions. Clarification, however, is not practical because of the waste of flavoring material. In Table VI is given the results of one trial with the clarifier.

Table VI.—Effects of Clarification.

	% Sediment		% Cream Layer		Color
	3 hrs.	24 hrs.	3 hrs.	24 hrs.	
1. Unclarified	5.5	5	none	4	dark
2. Clarified	.5	1	none	2	medium
3. Clarified and homogenized at 500 lbs.	0	.5	none	none	light

The percentage of sediment was very small in the clarified samples, so small that in milk bottles none could be noticed looking at the bottle from the side.

Gelatine.

The use of gelatine was tried, both in the chocolate syrup and by adding to the mixture before and after homogenization, but no measureable improvement in the amount of sediment was apparent until the amount used was great enough to cause an objectionable thickening of the drink. It is, therefore, assumed that these protective colloids are of little benefit. The size of the cocoa particles composing the sediment is outside the colloidal realm and stabilization is probably not to be had by additions of the so-called protective colloids.

Method of Preparing Syrup.

Several methods of preparing the chocolate syrup were tried, such as boiling the cocoa in water for a considerable time before the addition of sugar and homogenizing the chocolate syrup before adding to the milk. The results regarding cocoa sediment, however, were practically invariable.

Some differences were noted when the formula used for the syrup was altered by substituting fluid skim milk and condensed skim milk for the water. This, of course, increased somewhat the amount of milk solids in the chocolate milk; and, in the main, less sediment occurred in the tubes made from these syrups than in the tubes made from the usual syrup. It is rather difficult to reconcile these results with those obtained using gelatine as a stabilizer and no attempt is made to do so. The data has been averaged and plotted in curves illustrated in Chart III. Chart IV shows the same samples of chocolate milk, but illustrates the effect of these factors on the cream layer.

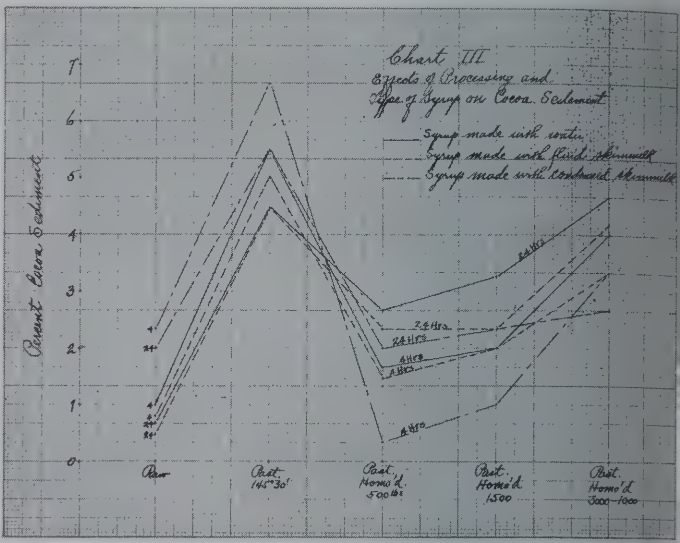
Charts III and IV are rather interesting from a number of standpoints, and, in a way, summarize in diagramatic form the results of all the experimental work covered by this paper.

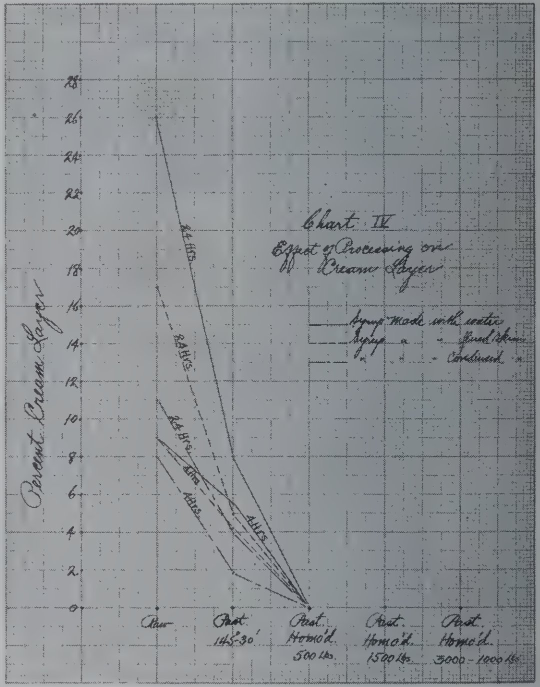
Summary.

Whole milk produces a chocolate milk with a better flavor and "body" than does skim milk or partially skimmed milk.

Different brands of cocoa give somewhat different flavors, but none perhaps can be said to have a bette flavor than another since personal preference varies.

Chocolate milk in the raw state unprocessed has a deep, dark colored cream layer after standing, althoug it shows very little cocoa sediment in most instances.





After pasteurization the cream layer diminishes ve greatly, but the cocoa sediment increases markedly amount. As the temperature of pasteurization is i creased the cream layer becomes less and less pronounc until, at 170 degrees F. and above, only a skin is form but the amount of cocoa sediment increases with the ri in temperature.

Homogenization of pasteurized chocolate milk at l pressure (500 pounds) destroys entirely any cream lay and causes a great reduction in the sediment. In so cases the amount of cocoa sediment is even less than shown by the raw unprocessed chocolate milk. Th

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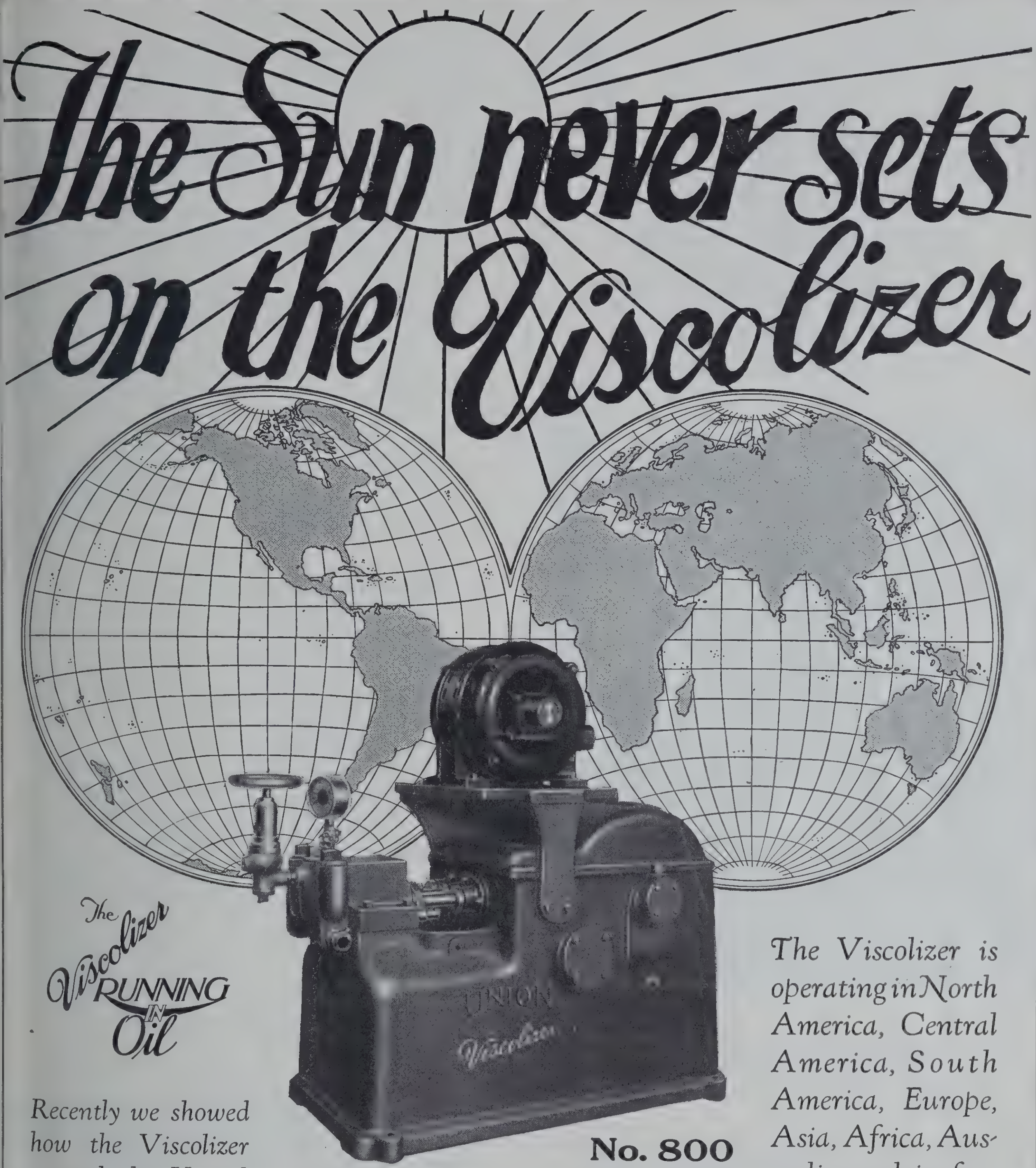

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seems especially true where the syrup is made w skimmed milk or condensed skimmed milk in place water.

As the pressure used in homogenization is increa the amount of cocoa sediment increases. This increas shown very pronouncedly at pressure in excess of 3, pounds.

Homogenization, using two valves, gives less sedim than where only one valve is used at a pressure equa the first valve of the two-stage method.

Homogenization of the milk separately before the dition of the chocolate syrup improves the sediment c dition, as compared with homogenization after mixi

Temperatures between 145 degrees F. and 55 degr F., at which homogenization is carried out, have little no effect on cocoa sediment.

Clarification of the chocolate milk is not a satis tory method of reducing the amount of cocoa sedim

The use of gelatine is not of any advantage in impr ing the quality or appearance of chocolate milk.

The use of skim milk or plain condensed skim m as a substitute for water in preparing the chocolate sy is of advantage, since in most cases the product a processing will show less cocoa sediment. This, howe does not hold true unless the product is homogenized

Conclusions.

From the trials made and the data recorded the lowing conclusions seem warranted:

1. Whole milk should be used as a base for chocol milk where possible or practicable.
2. The mixture should be pasteurized, and wh homogenization is not possible a high heat should used, possibly 155 to 160 degrees F. for 15 minutes overcome the unsightly cream layer.
3. The product should be homogenized where po ble at a pressure not exceeding 1,000 pounds.
4. If the manufacturer prepares his own choco syrup he should use a good grade of Dutch process co and should use condensed skim milk or fluid skim m in place of water in the syrup, except where the pro is not to be homogenized. In the latter event wat probably superior.
5. The chocolate milk should be placed in the ha of the consumer as soon after processing as possible.

(A large part of the experimental work quoted in h paper was done by L. D. Zern and H. B. Monier, student graduate student, respectively, in dairy manufactures at Pennsylvania State College.)

* * *

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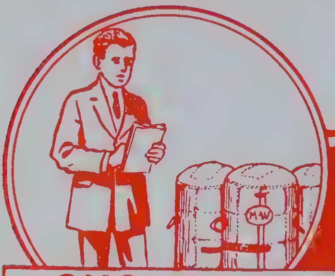

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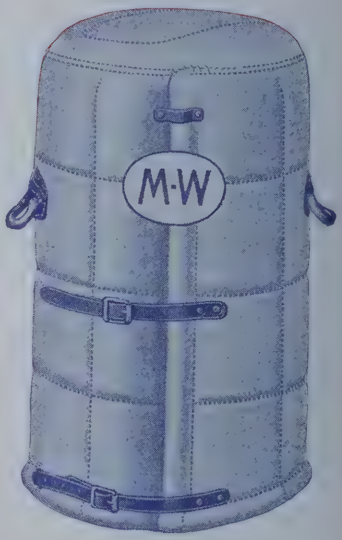

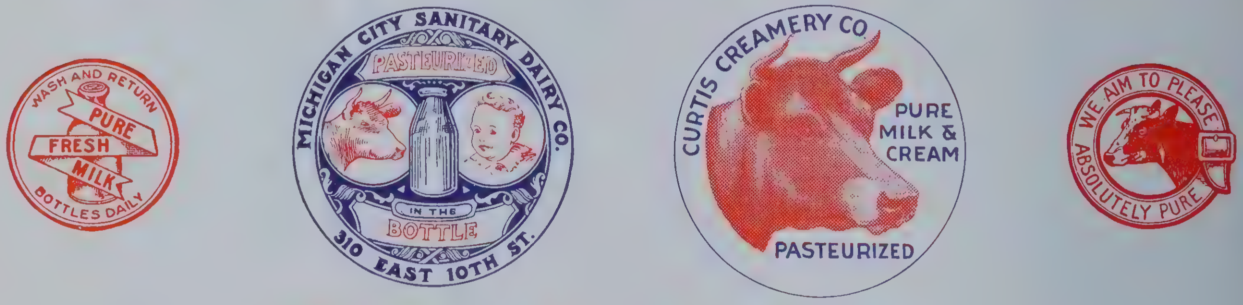
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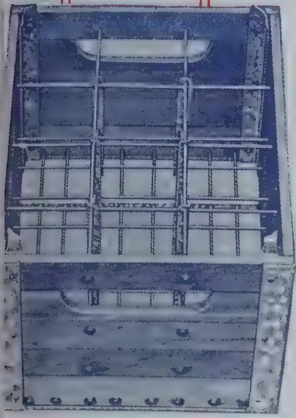

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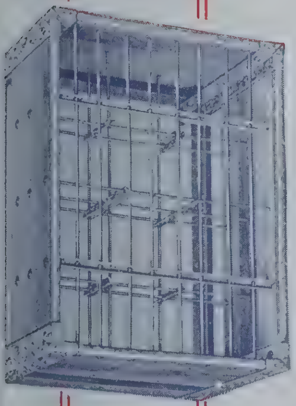

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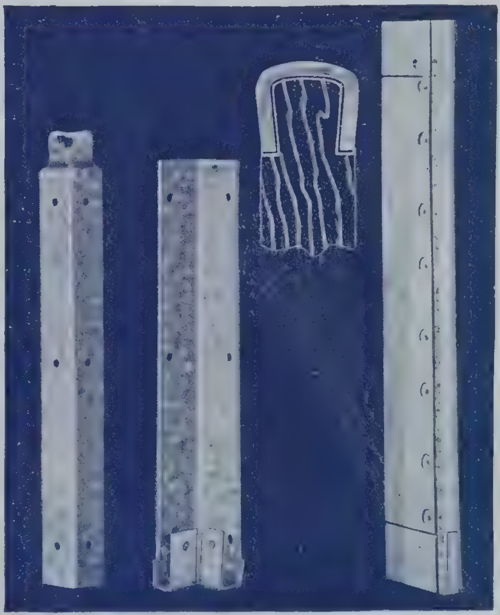

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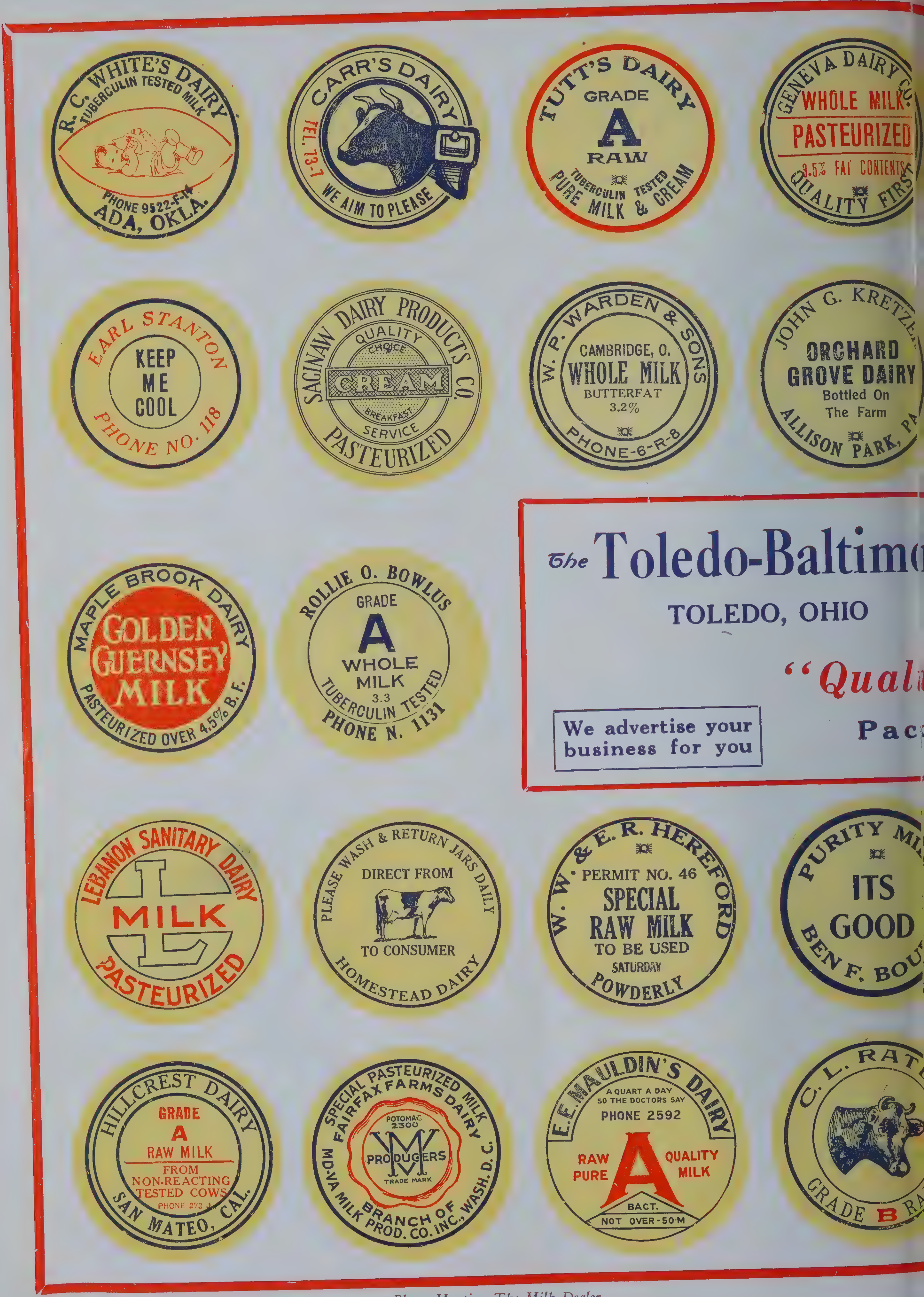
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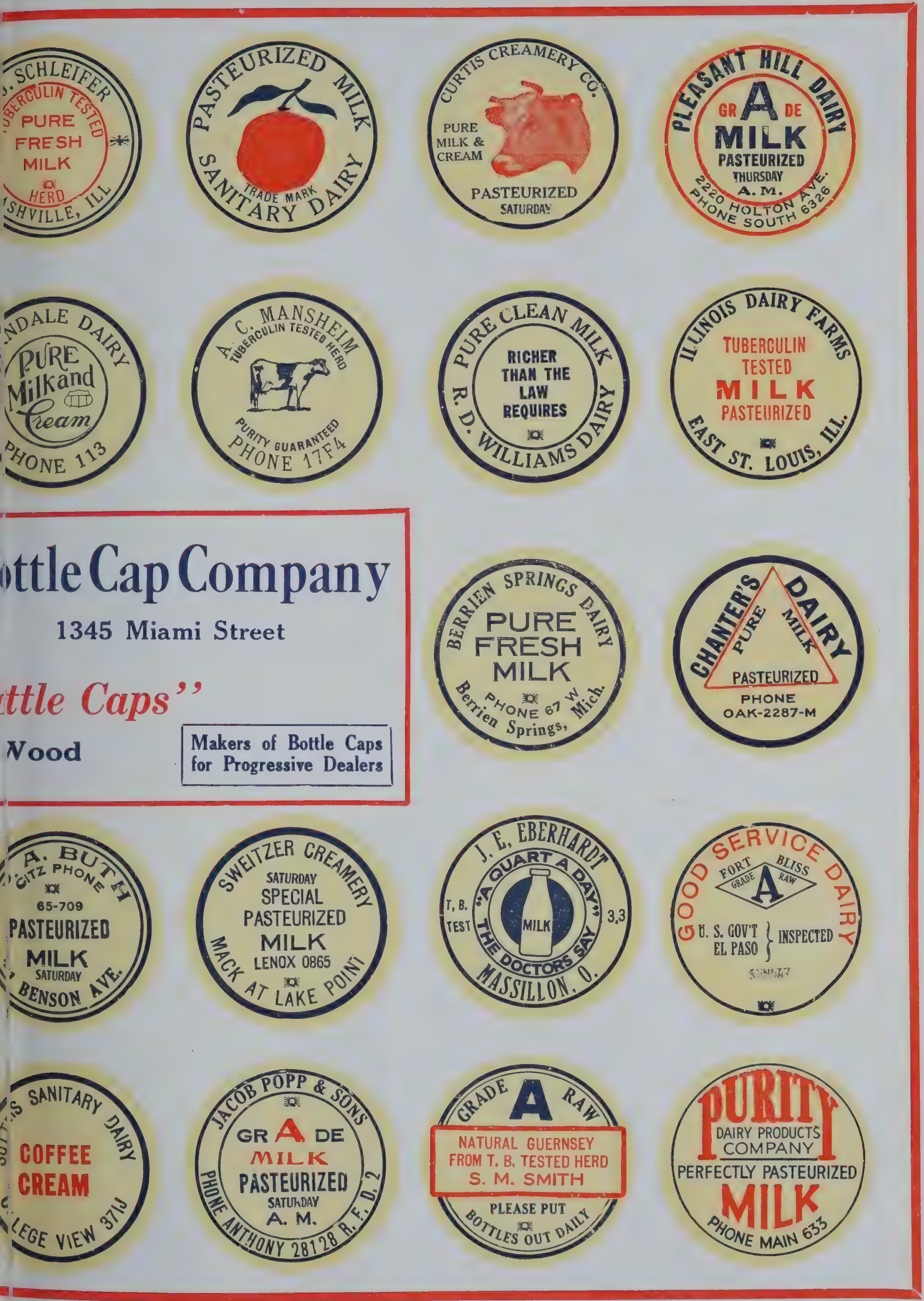
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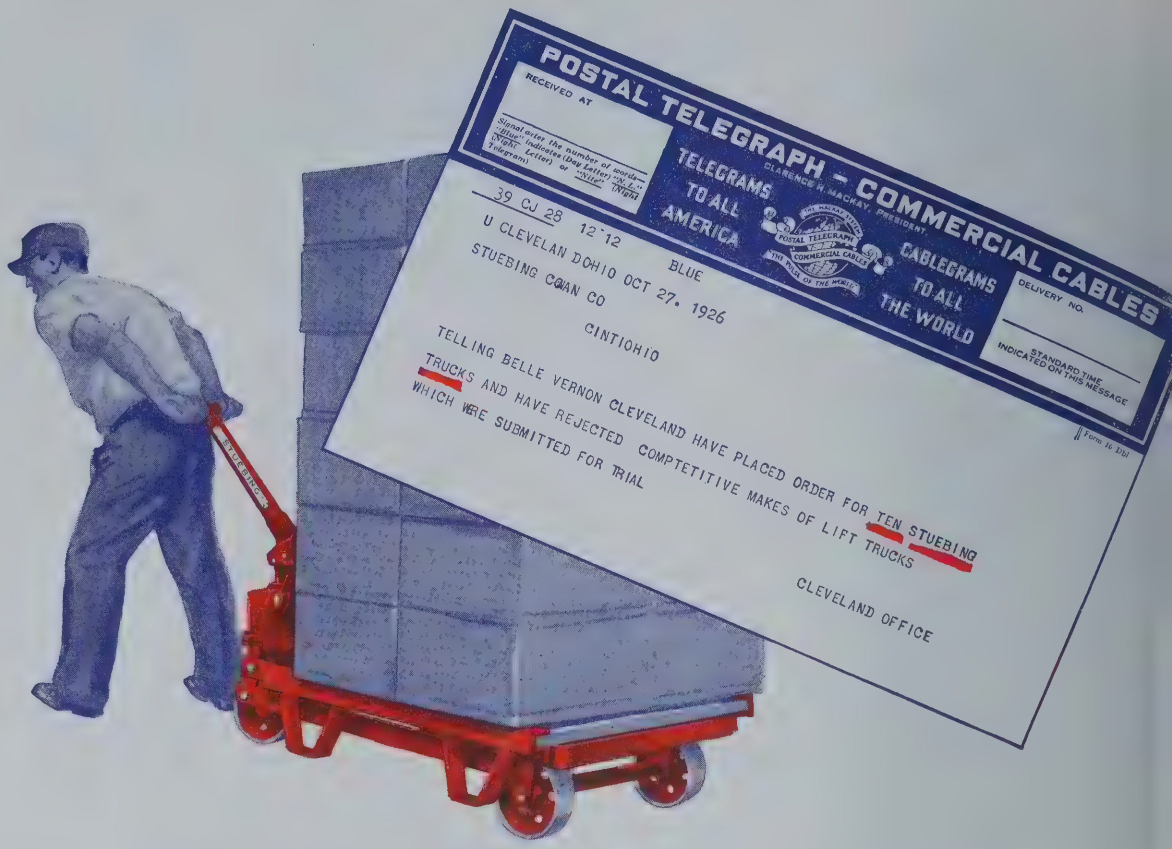
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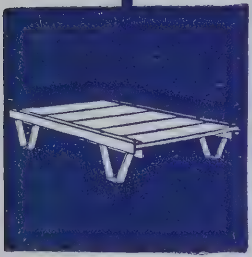
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Cincinnati, Ohio **The Stuebing-Cowan Co.** Holyoke, Mass.

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COWAN

CLEAN MILK PRODUCTION UNDER WINTER CONDITIONS.

In most parts of the country the conditions under hich milk will be produced during the coming winter onths will be different from those met with during the arm weather. During the summer months the dairy erd is in the open the greater part of the time, the arns being used only for milking and feeding, while uring the winter the cattle will spend the greater part f the time in the barn. Under these changed condiions factors not encountered during the summer will e met. These factors, such as stable conditions and ethods used in feeding, have a direct bearing upon he quality of the milk produced. The flavor and odor f the milk, as well as the health of the cattle, may be ffected by improper methods.

A thorough cleaning of the stables, together with ainting or white-washing, could be undertaken at this ime. It will be much easier and more profitable to have his done before the cattle are in the barn. Walls, ceilngs, floors, stanchions, and windows, when clean, do ore than add to the attractiveness of a stable. Under uch conditions high quality milk is more readily prouced.

Cattle should not be expected to keep in good health vhen housed in dirty, dark, and ill-ventilated stables. Iealth of cattle is dependent upon proper ventilation. itables with either too much or too little ventilation luring the winter are common. Proper ventilation and roper temperature are compatible. Many inexpensive ethods of controlling ventilation and still keeping the roper temperature are available. Farmers' Bulletin 393, Principles of Dairy-Barn Ventilation, gives direcions in this matter. Copies may be procured from the Jnited States Department of Agriculture, Washington,). C.

Under stable conditions more time and labor must e expended in keeping the cows clean than is necessary nder pasture conditions. However, clean cows are imortant if a good quality of milk is to be produced. 'his fact, although well known, cannot be emphasized oo strongly or too frequently.

Certain feeds, such as silage and roots, which are ommonly fed during the winter, may impart undesirble flavors and odors to the milk. To overcome any uch condition feeds of this kind should be fed one hour fter milking.

The proper cooling of milk is another important facor in producing milk of good quality. With the advent f cool weather many producers may have abandoned he use of ice in the belief that the air temperature is ufficiently low. A thermometer will show whether or ot they are justified in such a change. Prompt cooling f milk is important at all times.

These facts are not new, but their importance is so reat that it might be well to bring them once again o the attention of the producers before the change is nade from summer to winter conditions.—Milk Inspecion Letter, Bureau of Dairy Industry, U. S. Department f Agriculture.

* * *

BUTTER HAS PLACE IN REDUCING DIET.

In this age of starving, dieting and reducing, when sylphlike figure is the fundamental requisition of stylshness, it is good to note that a recent report of the U. 3. Department of Agriculture states that butter may ave an important place in the dietary of overweight ersons. It is pointed out that some years ago butter vas one of the things that was first taken from those vishing to reduce. Now we are first persuaded to give ıp potato, cereals and sweets.

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What and Why Is a Good Milk Salesman

An Inquiry Into One of the Most Important Phases of the Milk Business

By A STAFF REPRESENTATIVE

THREE milk sales managers representing three milk companies in one of the large cities of the country recently gave me some points on selling milk that I believe will cause some new lines of thought in this industry. We know the big thing in the industry is to sell more milk. But it is astonishing how little we are doing to achieve this end, how little we are working with the salesmen.

I obtained three viewpoints.

"How many men on your route?" I asked one sales manager.

"We have —— drivers," he answered, and he doubtless was right; they were drivers and nothing else. General appearances about the plant indicated that. Not that it wasn't a nice, large institution, but there was not that order, that smooth, consistency of operation that you find around a well organized plant where people are selling milk as it should be sold. The plant complies with all regulations as to sanitation; it would get a compliment from any inspector in the city—but it isn't selling milk. That being true, as Ella Cinders would say, the other qualifications don't matter.

"We have —— men trying to sell milk," said one conscientious sales manager with a drawn, worried look on his face, and I'll say for this fellow that he was doing his best; he was trying to get something out of his men, trying hard. He had obstacles. We'll come to them later.

"We have all the salesmen we need," smilingly said the third milk sales manager, thinking the writer was looking for a job. I have more respect for his judgment if he entertained any thought that this individual was looking for that kind of employment, for I learned, after a few minutes chat with this man, that a milk salesman—a real salesman of milk—is a highly specialized professional man.

But this man, who had "all the men needed," interested me greatly. He seemed to be sure of himself, to have a pretty good idea of what it was all about. His place of business indicated that he was following a sure-footed path, and investigation showed he was.

"We have been told," he said, "that we have the best milk salesmen in the Middle West." I had heard the same thing. "We have been given much credit for training them."

That was just the point. "How did you train them?"

He shook his head. "We didn't; they trained themselves. Of course, we had certain procedures, but in the first place, young man, a real milk salesman must be born to his job—must be talented for it just as surely as an artist is talented. With that foundation, then he can make something out of himself at selling milk—but we can't do it for him. Nobody can do anything for anybody else, except keep him guided, so far as is possible, on the right track."

The Trial Horse.

At this juncture a man entered. He wore the white overalls of a milk wagon driver, and such he proved to be—just a driver. Not a salesman.

"Want another horse," he said.

Without looking up the sales manager wrote something down on a sheet of paper. "What's the matte with your horse?" he asked.

"Why," replied the other, "he's just no good- crazy as a bat. Never can handle him. Can't train hi to do anything. Don't believe anybody can train him.

The sales manager nodded, smiled and said, "I'll se what I can do, old man. Wait a bit longer." Then h carefully folded the slip of paper, put it in an envelop and wrote something on the side of it.

"That man," he said, "is just the proof I need t show you that milk salesmen are born, never mad That's the reason we don't fool with them when the are not cut out for this work. It's an injustice—an i justice to us and injustice to our men. Now, that fe low, in the next job he gets, such as plumber's assistan apprentice printer, may be a whirlwind success, an that's no reflection upon those trades; it just mear that certain men are wonderful in certain places, an 'flops' elsewhere."

"But how did you find out so quickly about the ma and his shortcomings?"

The sales manager smiled, pressed a button an leaned back. When a girl entered the office and too the envelope from his hand, one could see what he ha written. The envelope bore the words "CASHIER."

"The gentleman is checking out on payday," h said, turning back to his interviewer. "He has just ha a thorough trial on our trial horse."

"Trial horse!"

"Sure. I know it sounds funny," and he laughe "We're always laughing about so and so being a tri horse, but in this organization we have a real trial hor —a horse that isn't fit for a thing in the world but try out new men, so we can see if they have the rig sort of stuff in them."

"What—what sort of a horse is it?"

"Just the kind that fellow said it is—the crazie, balkingest horse in the world, without a bit of sen without a bit of gumption whatsoever. We figure that two weeks is long enough to punish a man with that horse. If he finishes two weeks with that horse and still comes back for more, without complaining, then we know he's good—very good. That's the only kind f men we want. Now, this fellow who just went out isn't a bad kid at all; he's just too finely drawn. We really could keep him. If we were at all shorthanded, we'd just let this boy stay on, rate him down a bit as a man who would need a lot of care and training. But we don't need men just now—so we stick to those of the very best—no more."

"Now this trial horse," the sales manager resumed, lighting a cigar, "is not an accident. We went out and got him. It was a scheme that I wanted to try out. We figure that real salesmanship in the milk industry calls for patience, patience—PATIENCE! There is nothing in the world that so demands patience of a man as this business. Think of the milk salesman's hours; early in the morning; that is the very hardest time of the day for any man to be sane, normal, sunny-tempered— patient. It is the very time of the day when, snatched out of a sound sleep to begin a hard day's grind, that the average man's nerves are on edge. Now, you, for instance, impress me, upon first glance, as being just ex-

The interior of this new Grennan Bakery at Cincinnati won't need repainting for years. Barreled Sunlight remains white longest, resists dirt, and washes easily

12 *fine plants in one chain* painted with Barreled Sunlight

IN sending us the photograph reproduced above, Mr. K. L. Grennan, President of Grennan Bakeries, Inc., wrote—

> "This is the 12th Grennan Bakery to be painted with Barreled Sunlight. We find that Barreled Sunlight retains its whiteness, can be washed like tile, and can be easily applied, so that it actually costs less than any other paint we have ever used.
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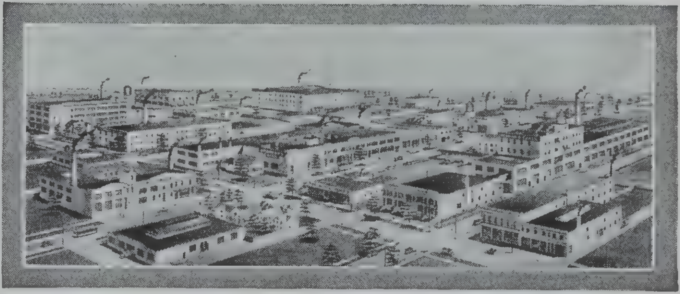

"Grennan Bakeries City"—a composite view showing several of the fine bakeries of the Grennan chain, prominent in the Middle West. All are painted inside with lustrous white Barreled Sunlight

MADE by the exclusive Rice Process, Barreled Sunlight is guaranteed to remain white longer than any gloss paint or enamel, domestic or foreign, applied under the same conditions—also, not to flake or scale if properly applied.

Its surface is so smooth—and so durable—that washing removes the dirt but not the paint.

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And the lustrous surface of Barreled Sunlight reflects light of just the right quality, as well as quantity, for ideal working conditions.

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actly the type of man who could do anything—almost anything in the world perhaps—except sell milk!"

He leaned back and smiled with the assurance of one who feels that he knows what he is talking about.

"You might make good on almost any job that calls for energy, dash, impulsiveness, for you seem to have plenty of fire. But the real milk salesman must have plenty of fire and at the same time plenty of patience. He must keep his fire smothered down, must keep control, keep his gear just right, ready at any moment to change speed, slow down or speed up. Some times a man may be at a point where he must do a lot of speedy work with his hands and feet and at the same time be ready to keep down, keep quiet and deliberative while talking. That is a milk salesman's job.

"We have men in this organization who wouldn't flinch if you were to fire off a cannon under their ears—"

"Training, eh?"

Sales Manager is not a Trainer.

The other shook his head. "Why," he asked, "do all of you fellows place so much store on training? You seem to have an idea that a sales manager is a sort of trade school teacher, a man who can train a man to do almost anything. That is wrong. No sales manager can do much training—I can't, I'm sure. The best thing that I have found out about selling milk is the best training is self-training. The man on the wagon knows a great deal about what he faces; I know something of that and something of other things on the side which he doesn't see, so I can guide him along a bit. But this thing came to me while I was on a route. Just out of college. I had studied salesmanship. Had an idea that all I had to do was go to some company and get a job as assistant sales manager and work up." He smiled reminiscently. "I got a job assisting one of the milk salesman on a route, and in five years I was one of the men in the sales manager's office—just one of the boys, not even assistant to the assistant.

"But I learned something. I noticed that our sales manager was very careful to keep up with his records, his routine—and to keep everything confidential. If somebody in the front of the office said something to him, he almost would throw a fit. He would then sit down and look worried. They probably had given him a little warming up about increasing sales. But his idea of getting action was—well, not my present idea. He got cross and went over his list and balled out all of the men whose work didn't look good. Then he tried to tell them how they ought to be ashamed of themselves, how he knew they could overcome this or that objection just by doing thus and so.

"He acted as though he felt he was a parent of all his men. He showed me just exactly—how not to sell milk.

"One of the first things I did—and still do—is to let my men know that they can see me any time they want to, and that I'm always ready to listen. Notice how that boy just walked in to tell me about that horse—no one to stop him. No one to say, 'Wait and I'll see if he's busy.'

"Furthermore, I let my men use their minds. No two men in the world are exactly alike. You can't lay down a set of rules and regulations governing every man. Some of our best milk salesmen are what people in other lines of business would call 'peculiar.' Possibly that's why they are milk salesmen—this is a peculiar business—a business of peculiar habits and hours—just exactly reverse to every other line of business. They get up just when some people are fixing to go to bed, just when most people are sound asleep. They go to sleep just while some people are getting ready to com to town.

A Rule is a Means to an End.

"I have found that the best rules are no rules. Th best governed people in the world are the least governe people. My boys have a free hand. They know only th general rules—what they call in the army 'genera orders'—the set rules about their hours, general conduc and general attitude toward people. They know tha they are not tried on rules, as to whether they keep ther or break them, but upon what they do, what they sel At the end of a certain period there is no argument; th records speak for themselves. Of course, if a certai man's sales begin to fall off steadily, that's no reaso why I should fire him; the chances are that somebody—some rival company—is 'working' his route in a merchandising drive for new customers. It's my busines to watch these things. I know his records better tha the man does himself. When I see a sales record fa off without any apparent reason, then I investigate Usually I find that the boy needs help; we must brin up some reinforcements to follow along behind and sav the business we have on that route. We have a system there that's all of a story in itself. There is no secret t it, and you might as well know. Here it is:

"My sales chart tells me that Frank Jones, on rout 17, sold less milk in September than he did in Augus Well, that isn't startling, for milk sales are liable t drop off in September, particularly if it gets a bit coo But I look back and see that the percentage of declin was greater than for the preceding September, and th weather is no cooler this year. Then I take a look ove his route, through some of my 'eye' men. My 'eye' me are boys who investigate routes to see if everything go nicely. Surely enough they'll uncover that Fran Jones' route is 'spotted.' Of course, you know wha milk men mean by 'spotted'—they mean 'spotters' a out trying to take away customers.

"Well, then we lay down a barrage of our own. W concentrate a bit of sales literature on this route. W step up a bit on service, send out a lady to advise th housewife about some particular dairy dishes. She take along a little butter and cheese and donate that a certain little party in that neighborhood, while man of our regular customers and prospective customers in. Our lady gives them a nice demonstration of the new dishes, and—well, does what she can by makin these people better appreciate our service.

"But the best milk salesman is the fellow who teaches himself, the fellow who can get along with people, the fellow who can keep from getting mad. He is not necessarily without faults. He can have a wicked temper. He can be just as full of faults as anybody, but he must be a fellow who knows his shortcomings and knows how to sit down upon them—a man with a passion for selling more milk—a man who will make this the greatest aim of his life.

"That, in short, is the only kind of man we can use. If he shows the symptoms, we let him develop them—but we can't do it for him. Neither can anybody else."

⁂

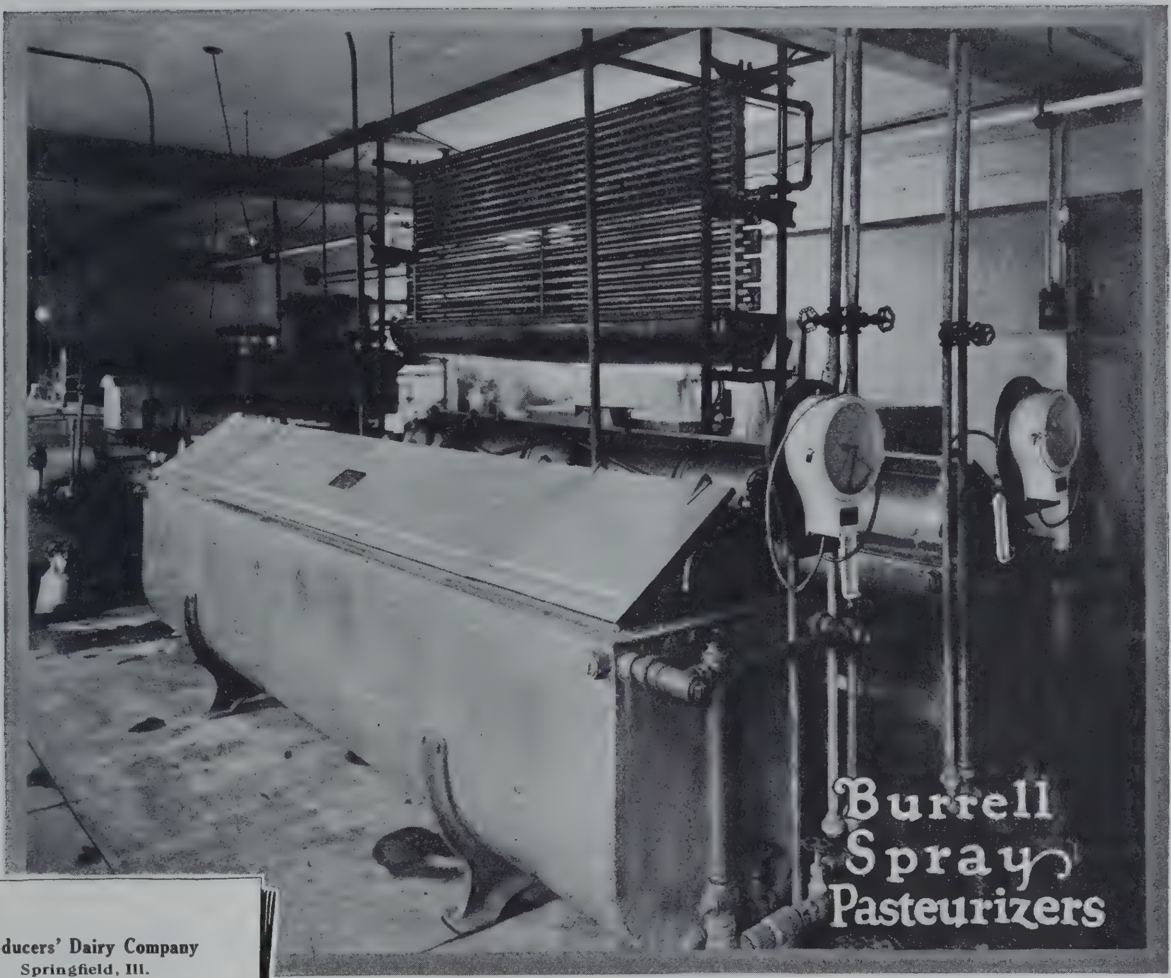
BORDEN COMPANY TO ESTABLISH PLANT IN THE SOUTH.

After several months' negotiations the Bordon Milk Co. has announced that a milk plant will be located in Pulaski, Tenn. The Pulaski chamber of commerce has given every aid to the company in getting a correct census on dairy cattle in Giles county.

The Giles County Co-operative Creamery will become property of the Bordon company in the deal.

Barber Goodhue
Everything for the Dairy Industry

ON DAIRY PRODUCTS ALL THRIVE



Producers' Dairy Company
Springfield, Ill.

Gentlemen:

We are using three of the 300 gallon nickel lined Burrel Spray Pasteurizers and are very much pleased with the results we get from them. We feel that we can secure a better product through the spray pasteurizer and can hold a better cream line than we could over the coil type of pasteurizer.

The simplicity of the machine makes it extremely easy to clean, therefore, we save some labor in the upkeep of the machine.

Very truly yours,
PRODUCERS' DAIRY CO.

"Better Product...Better Cream Line ...Extremely Easy to Clean"

THESE facts from the experience of Producer's Dairy Company, Springfield, Illinois, pretty nearly tell the whole story about the Burrell Simplex Spray Pasteurizer. *Better Product*—because it preserves the natural uncooked flavor, due to the use of a lower temperature heating medium. *Better cream line*—because it avoids excessive agitation. *Easy to clean*—because every inch of the vat is so easily accessible.

Write for complete folder explaining the Burrell principle and the many ways in which it can save time and make money for you.

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Is Your Horse Feeding Efficient?

Feed Your Horses the Skim Milk Instead of Running it Down the Drain, Thus Saving on Grain Costs

By J. A. SIMMS*

THE writer recently went through the stables of a large milk dealer who uses about 600 horses. The horses were in good flesh, the stables were clean, well lighted, excellently ventilated and entirely free from any objectionable odors. The barn and the condition in which it was kept were rightly matters of pride to the manager.

This firm can save $60,000 per year in feed bills without decreasing the efficiency of the horses by adopting as up-to-date practices in feeding horses as are used in handling milk provided the information given me concerning feeding methods was correct. The rations used are about as follows:

Timothy hay—30 pounds daily in three feeds.
White oats—16 pounds in three feeds.

Average weight of the horses is 1,550 to 1,600 pounds. Large quantities of skim milk, a valuable horse feed, are either trucked out of this city a considerable distance to be used for calf and pig raising or dumped into the sewers.

Fourteen pounds of hay is ample for horses of this weight and kind of work as proved by carefully controlled tests in this state and elsewhere. Skim milk should be used for feeding the horses instead of being turned into the sewers or carried out on farms. Probably half of the grain can be saved through substituting skim milk when a sufficient quantity of this dairy by-product is available. Corn, barley and wheat bran should be used at present prices as a substitute for oats. This mixture comprises a more nutritious ration than oats and costs less per ton. The rations being used and a good cheaper ration follow:

Present ration	and	cost per horse
Timothy hay	30 lbs.	37.5 cents
Oats	16 lbs.	28 cents
	—	—
Total	46 lbs.	65.5 cents
Cost per year per horse		$ 239.07
Cost per year for stable		$143,442.00

Suggested ration	and	cost per horse
Mixed hay	14 lbs.	15 cents
Ear corn	9 lbs.	12 cents
Crushed barley	4 lbs.	6.6 cents
Skim milk	10 qts.	3 cents
	—	—
Total	48 lbs.	36.6 cents
Cost per year per horse		$ 133.59
Cost per year for stable		$80,154.00

If the saving suggested is made in hay alone this will amount to $49,272 a year. Some feeders will object to the use of clover or alfalfa mixed with the timothy but these hays are superior to the best of timothy for the feeding of horses. Many of the finest stables of race horses in the East are fed at the present time on mixed clover and timothy hay. If the wind of the thoroughbred is not harmed by this roughage it is certain that the milk dealer' horses will not be either. Mixed hay is not only a richer feed than timothy but costs from $2 to $5 per ton less.

Even though no change is made in the kind of hay fed the use of fourteen rather than thirty pounds of timothy will effect tremendous savings. Numerous tests have proved conclusively that horses doing the type of work done by milk dealers' animals cannot use more than approximately one per cent of their live weight daily in roughage. Tests which we are now conducting under careful supervision in this state (Connecticut) may show that considerably less hay can be fed satisfactorily.

Most city horse owners feed straight oats as the only grain. Millions of farm horses in New Jersey, New York, Pennsylvania, through the entire corn belt, and in every Southern state are fed ear corn as either the sole grain ration or ear corn makes up the bulk of the ration Crushed barley because of its higher energy value is being substituted for part of the oats by a number of large city stables with entirely satisfactory results Wheat bran can also be included as a part of the ration if there is any fear that corn and barley are too heavy when bran is selling for a little less per ton than do oats With the present light crop of relatively high priced oats it is doubtful if the most efficiently fed horses will receive any oats in their ration for some months to come

Certainly no milk dealer can turn down the idea of the use of skim milk. This by-product which is often valueless to milk dealers, or nearly so, has showed its excellent qualities as a horse feed in fitting horses for show purposes as well as making up a large part of the regular rations of horses that are on regular milk routes Farmers are occasionally found who sell cream whos sole concentrate feed to their horses while idle or on light work consists of skim milk.

* * *

A COLD WEATHER DRINK.

A hot chocolate drink, "Rossmore," is featured during the colder months by Moores & Ross, well know milk dealers in Columbus, O.

"Rossmore" is made of Rona Dutch cocoa, can sugar, and Gray-Jensen spray powdered milk. The blen is adjusted so that with the addition of one ounce o this powder to a cup of hot water, a delicious hot drin is prepared. It is very soluble, has a smooth flavor an good body. It is not a cheaply prepared product, sinc the cocoa used costs four times more than the ordinar brands of cocoa on the market. Made with hot mil and topped with whipped cream, it is much heavier an a delicious drink.

Moores & Ross supply it in individual envelopes, 10 to the carton, and in 5, 10 and 25-pound tins, as well a in large drums, when required. Jobbers report it to b a great repeater and it is being sold by direct mail campaign and by salesmen. It is a type of product whic responds well to mail selling, since the sample sells itse in comparison with other products of similar type.

* * *

ANNUAL MEETING.

Notice is hereby given that the annual meeting of th National Dairy Council will be held at the Auditoriu Holtel, Chicago, Ill., on December 2, 1926, at 10 A. M

M. D. MUNN, President.
M. O. MAUGHAN, Secretary.

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*Extension animal husbandman, Connecticut Agricultural College, Storrs, Conn.

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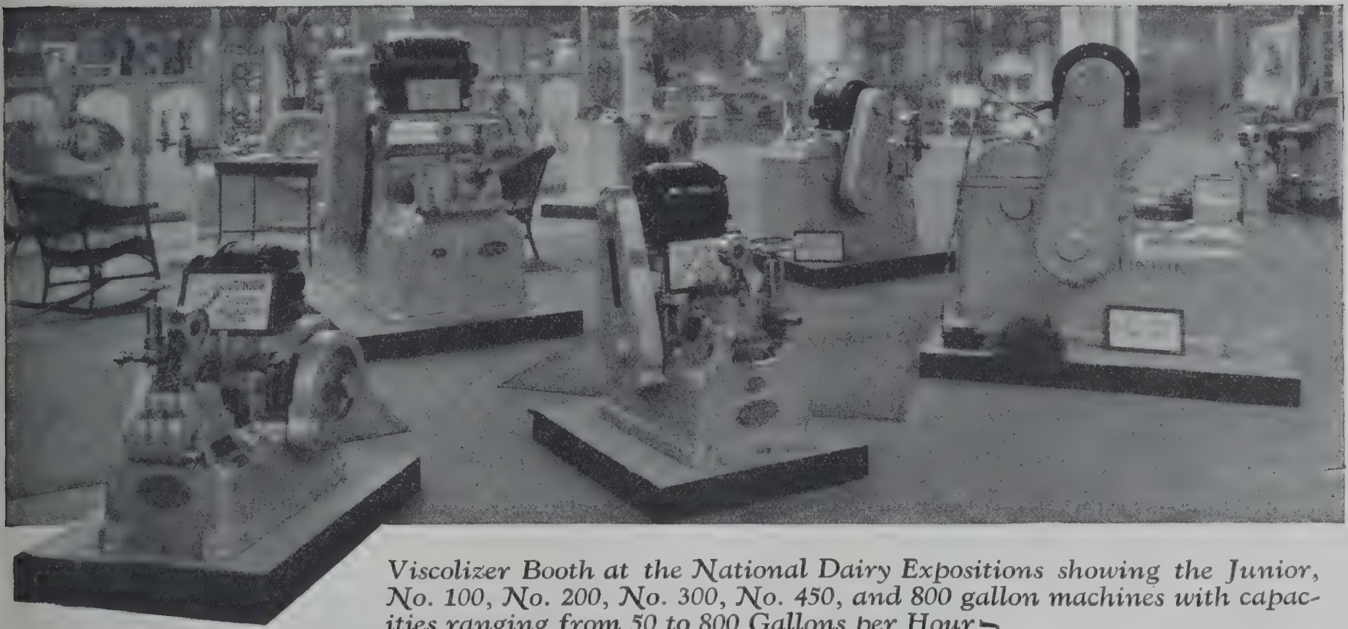

Viscolizer Booth at the National Dairy Expositions showing the Junior, No. 100, No. 200, No. 300, No. 450, and 800 gallon machines with capacities ranging from 50 to 800 Gallons per Hour—

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and 29 Recognized Dairy Equipment Houses—

Why Some Patents Are Worth So Little

Important Rules for Estimating the Value of a Patent, and Determining the Likelihood of Infringement

By LEO T. PARKER*

THE fact that an article is marked "Patented," means very little except, of course, that some kind of a patent is granted. Perhaps the notification refers merely to a minor improvement, or even to a design patent which is not intended to protect the mechanical or process features of the invention.

Almost every person has had occasion at some time or another to know the broadness or degree of protection afforded by a patent of special interest. However, few persons are inclined to advance the required fee to a specialist in patent laws to obtain the desired information without having definite prospect of profiting by the expenditure.

The result is that almost all of the general information circulating among the people on the subject of patents is "hearsay." And as a rule such information is very unreliable.

For example, many persons believe that a patent is ordinarily renewable—but it is not. The rumor is widely circulated that a "basic" patent is granted for 100 years—but it issues for a term of exactly the same duration as other patents. Many people believe that any person is privileged to make a patented device for his own use, without obtaining permission from the inventor—but such a person is an infringer. Almost all inventors are of the opinion that the patent will be awarded to the person who first files an application—but the established rule of the law is that the government may even **revoke** a patent, where it is shown among other things that someone made the invention before the patentee. Also, many manufacturers believe that there is a penalty prescribed by the law for the unauthorized making and selling of an invention stamped "Patent Applied For" or "Patent Pending,"—but there can be no infringement of an invention thus marked.

And so, it is obvious that much of the "hearsay" information pertaining to patents is very unreliable.

Now we shall assume that a device is marked "Patented," and that a manufacturer or other person desires to become informed of the status of the patent.

The first step of the procedure is to copy the serial number of the patent found stamped on the invention. Then address "The Commissioner of Patents, Washington, D. C.," enclose 10 cents (money, money order, certified check, or New York draft) for each copy of the patent desired, and dispatch the following letter:

"The Hon. Commissioner of Patents,
Washington, D. C.
Sir:—

Please find enclosed ......cents (money, money order, certified check or New York draft) for copies of patents number ....

Very respectfully.

If after the copy is received it is learned that the patent is on a design, then it is merely necessary to compare the drawings of the patent with another device to test infringement. If the two look alike, one infringes the other. But, if the designs are not similar to the eye there need be no fear of infringement. Recently a court explained that a design patent relates only to the exterior appearance of the article, and does not in any sense protect mechanical parts or operations. And, further, that the test for infringement of two designs is whether an ordinary and disinterested observer or pu chaser testifies that the designs are similar. In oth words, in deciding whether one design infringes anoth it is merely necessary to place the two designs before few disinterested persons for examination. If the i spectors decide that the designs look alike, probably i fringement exists, otherwise not. Because it is by th ordinary method of comparison that the court will a rive at a decision.

But let us assume that the copy of the patent r ceived from Washington is on a machine or mechanic device. Then the specification or complete reading ma ter, to the phrase "What I claim as new and desire t secure by Letters Patent is," should be examined car fully so that the investigator thoroughly understand the construction and operation of the invention. How ever, it must be remembered that this portion of th patent **does not** convey information with respect to th monopoly granted the inventor by the patent. As a ma ter of fact, this descriptive part of the patent generall includes a large amount of matter and mechanism c which the inventor has absolutely no protection, as i purpose is **not** to explain the exclusive patented featur of the invention.

After the operation of the mechanism shown in th drawings it is understood attention should be directe to the "claims," which are the only remaining part the patent and being numbered 1, 2, 3, etc., are readi recognized.

Irrespective as to what is contained in the previo descriptive reading matter, the "claims" is the hea so to speak, of the patent. In other words, the monopo granted by a patent is expressed in the claims.

To convey the attitude of the courts, when th validity of a patent is being adjudicated, the followi recent statement of a higher court is quoted:

"The monopoly or strength of a patent is express exclusively by the claims. And although a patentee deserves a stronger patent than is expressed by the clai, he loses the monopoly not described in them."

Also, the Supreme Court of the United States sai, "The scope of the letters patent should be limited to t invention covered by the claims." So, therefore, it i apparent that a person who is desirous of knowing t scope covered by a patent need only read the descripti portion of the specification for the purpose of accumulating sufficient information to be able to comprehen the claims.

The majority of persons labor under the false belief that the longer and more descriptive a claim is, the stronger it is. However, the fact is that a short, brief claim may be much stronger.

The reason for this is that the rule of the law is well established that any person may manufacture a device which contains **one less part** or element than are enumerated in the claims of a patent, and is **not** an infringer.

For illustration, where a claim reads: "A device comprising a base, a platform, and a support for said platform and connected with said base." The three elements in this claim are: the base, the platform, and the support. And any person may make, use or sell a device in which one of these parts is omitted, provided another part is not included which is equivalent to the

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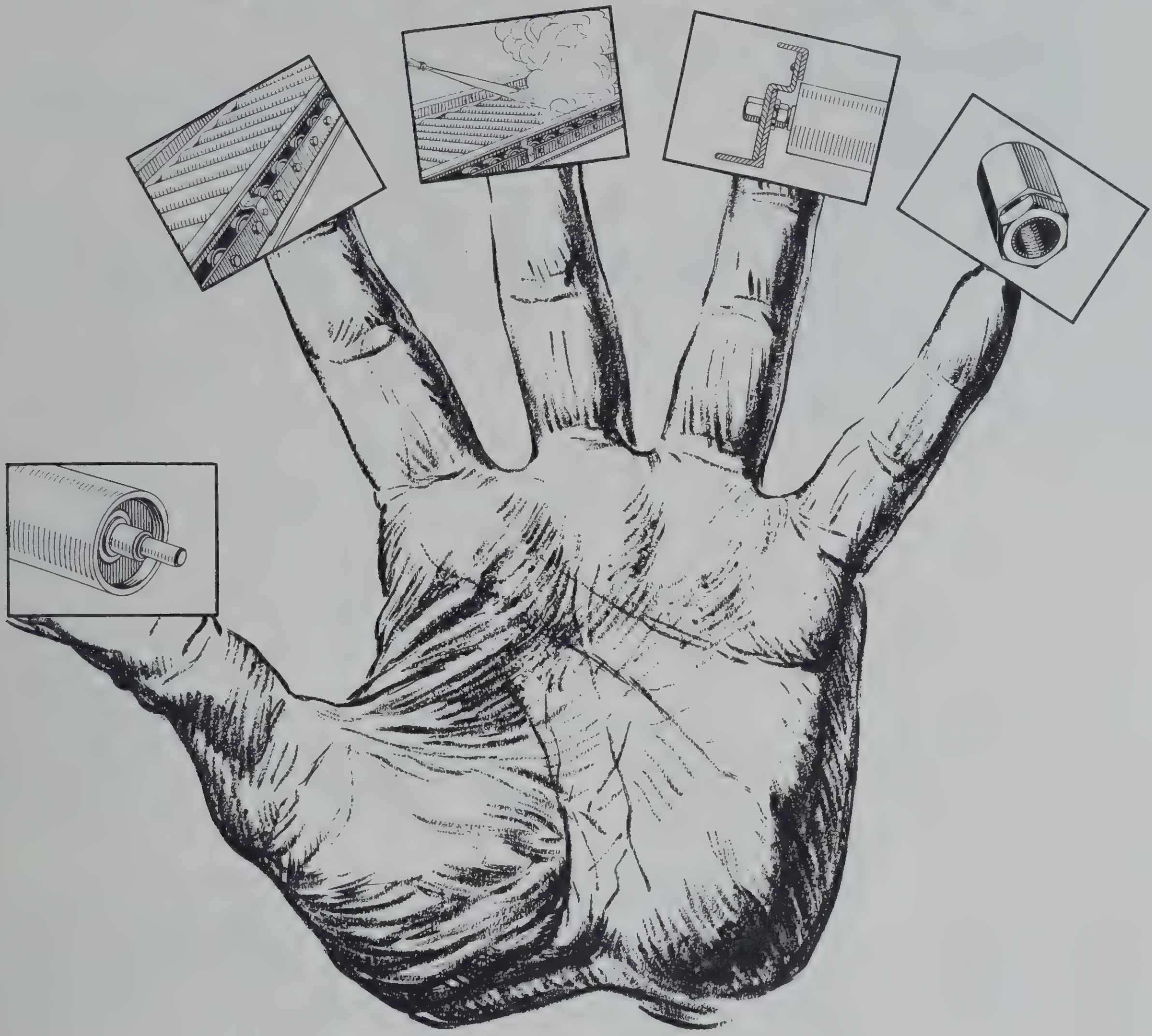
* Attorney and counsellor of the U. S. Court of Appeals.

5 Reasons



Why Lamson Sanitary Conveyors Last—

1 *Moisture can't get in.* Corrosion comes with moisture. Keep moisture out and you prevent corrosion. Lamson Rollers, extra-heavy throughout, have heads *welded in.* No joint through which moisture can enter. No inside corrosion. Remember that.

2 *Special guard rail over roller ends.* This heavy angle iron guard rail, setting in over the ends of the rollers, prevents can-chimes from dropping off and blocking the conveyors. *And this saves wear.* Sliding cans over rollers that can't turn wears out the rolls and the cans, both. The Lamson conveyor never stalls or blocks.

3 *Stands up under flushing and steaming.* Turn the hot water on it as often as you please. Steam it often as you want. You can't harm the bearings, you can't force any moisture into any part where it will be harmful. Lamson has designed this conveyor to stand a limitless amount of cleaning.

4 *Practical mounting.* The frame is so designed that it forms a cup-like protection to keep moisture and milk away from the shafts and bearings. This mounting maintains dryness of the moving parts even in conditions where a great deal of moisture is present. It adds greatly to the service of Lamson conveyors, and helps to prevent rolls from sticking.

5 *Non-corrosive bearings of special design.* The bearings are cast of a non-corrosive alloy. They are extremely resistive to all corrosive action. They are hexagonal in shape, so inserted in the frame that they can never turn with the shafts. Consequently, they cannot freeze, and always operate.

Lamson Sanitary Conveyors were specially designed for dairy and milk plant use. They pay for themselves in longer wear and freedom from repairs. Write for statements of users and full details.

THE LAMSON COMPANY, SYRACUSE, N.Y.

LAMSON CONVEYORS

omitted part. For example, where a claim specified gears the court held infringement was not avoided by omitting the gears and substituting sprocket wheels and chain. But where a part is omitted and no other element is substituted, infringement never exists.

By this simple method or rule any person, who understands the thing described in the patent and shown in the drawings, may arrive at a reasonably accurate decision as to whether an invention infringes a patented one.

Therefore, with this knowledge it is easy to realize why some patents are worth so little. Because an inventor may work to perfect a very complicated device or machine, and then file an application for a patent which contains several sheets of drawings, many pages of descriptive matter, and numerous broad claims. But when the application is examined by the patent office officials it may be necessary for the inventor to cancel the broad claims and substitute a few weak ones, particularly if the whole invention is found not to be new. Moreover, a patent that contains claims which describe a previously made invention is void.

Recently the patent No. 1,215,956, for a round box for containing cheese was held invalid, (283 F. 413). The claim of the patent reads as follows: "A round box of the kind described, including a body composed of two thicknesses of veneer bent together into round form, the grain of both thicknesses running in a direction around the body, the entrance being overlaped, and fasteners extending through said overlapped entrance, the said thicknesses lying loosely in direct contact with each other between the fastener ends."

The quite recently decided Bruckman patent litigation between American Cone v. Denaro (297 F. 913) conveys important information with relation to patents.

The facts of the case are that previous to Bruckman's invention of the cone machine in litigation, ice cream cones had been made by baking them in molds from which it was necessary to remove them by hand. This was hot work, and when sugar was used to sweeten the batter the cones adhered to the molds so that removing them was accomplished with great difficulty. Bruckman's invention consisted in making the molds in two sections and the cores are locked into the cones after the batter is poured. When baked, the cores are slightly raised, the mold is unlocked, and the cores are used to force the cones from the molds.

In an endeavor to have this patent declared invalid numerous previously issued patents were brought to the attention of the court, but none were the same, and the patent was held valid.

Practically the same rules apply to mechanical or process patents. And where one of the ingredients or steps specified in the claims is omitted, infringement is avoided.

An example of an invalid process patent is No. 1,356,340 which is for a method of evaporating buttermilk. The court in effect held that the process disclosed in the patent was practically the same as methods previously used. The court said:

"The process described in the specification and embodied in the claims of the patent in the suit......which makes use of a process in the manufacture of buttermilk powder, cannot be distinguished from the process followed and the machines operated by another, the Ekenberg Company, for the same purpose, except possibly, in two respects: (1) the Ekenberg machine was operated under ordinary atmospheric conditions, (2) in the Ekenberg machine the space pipes through which the liquid buttermilk was delivered upon the surface of the heated drum extended across the concave ends as well as along the sides of the drum, while in the Collis machine these perforated space pipes are placed along the sides of the drum and not upon its ends."

Process patents relate to a method of doing something, and a claim specified the acts or steps, instead of elements or parts as in mechanical patents.

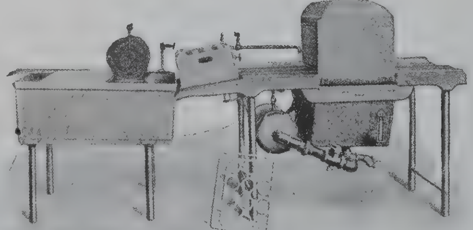
In (268 F. 368) is to be found the records of an interesting litigation in which patent No. 860,929 for a process for condensing and pulverizing milk was held infringed. One of the important steps of the process was the admission of heated air through **one slit** into the chamber containing the milk. Another person manufactured the same machine and included **several openings** through which the heated air was admitted into the chamber. However, while infringement of a patent may be avoided by omitting a step, adding to it will not accomplish the same result, and since the patent specified one opening, the person who utilized two or more openings is an infringer.

A SALES BUILDER.

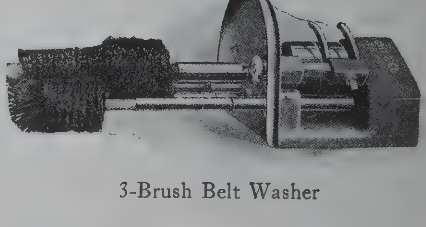
A 32-page recipe booklet, with a beautiful cover, was recently issued to its customers by the Waukesha Milk Co., Milwaukee. Pages and pages of recipes, "delicious when prepared with Waukesha milk," along with several pages devoted to interior views and a description of the milk handling process. A cut of a driver-salesman features the cover page along with:

The milky way is the right way,
It leads to health and happiness.
Digest the recipes within
If you and yours
Good health would win.

R. G. WRIGHT & COMPANY
BUFFALO, N. Y.

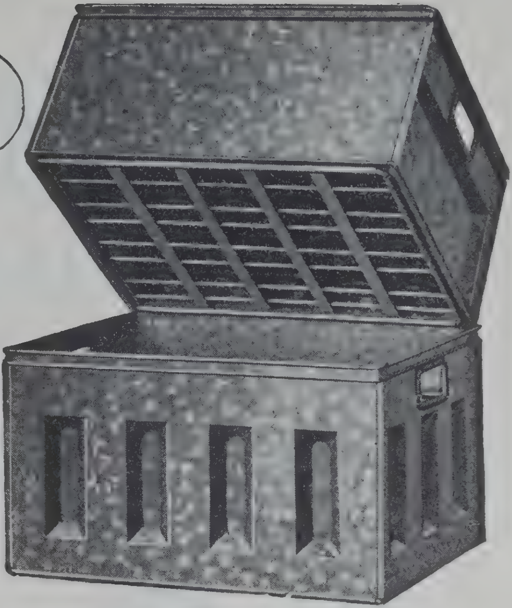


Wash Sink, Rinser and Sterilizer will do better work with less labor on account of its patented automatic features.



3-Brush Belt Washer

Write for Circular



Before long You will know

IN another month you will have a full twelve months to check for bottle case costs and repairs.

Then you can check your inventory and know how many have lost out in the past year's struggle for existence.

With such figures before you, you only know one half of the story unless you have cost figures and facts of how

CLIPPER CASES

Give Many Years of Service

Their cost you can learn Now. A trial for the next year will convince you of the all around economy of CLIPPER CASES.

These Jobbers Sell CLIPPER CASES

J. G. Cherry Co.	Cedar Rapids, Ia. St. Paul, Minn.
Meyer-Blanke Co.	Birmingham, Ala. Dallas, Tex. St. Louis, Mo.
Haines-Carpenter Dairymen's Co.,	St. Louis, Mo.
Miller-Lenfesty Supply Co.	Jacksonville, Fla. Miami, Fla. Tampa, Fla.
N. A. Kennedy Supply Co.	Kansas City, Mo.
Apothecaries Hall Co.	Waterbury, Conn.
Teague Hardware Co.	Montgomery, Ala.
Gowing-Dietrich Co., Inc.	Syracuse, N. Y.
John W. Ladd Co.	Detroit, Mich. Cleveland, Ohio Columbus, Ohio Cincinnati, Ohio
A. L. Davis' Son	Binghamton, N. Y.
Cherry-Bassett Co.	New York, N. Y. Syracuse, N. Y. Baltimore, Md. Philadelphia, Pa. Pittsburgh, Pa.
E. K. Owens Hardware Co.	Susquehanna, Pa.
National Dairy Equipment Co.	Utica, N. Y.
Hagan's Dairy Supply House	Greensboro, N. C.
Chester Dairy Supply Co.	Chester, Pa.
M. G. Newell Co.	Greensboro, N. C.
Oakes & Burger Co.	Cattaraugus, N. Y.
Ft. Wayne Dairy Equipment Co.	Ft. Wayne, Ind.
Thompson-Bremer & Co.	1750 Carroll Ave., Chicago, Ill.
John Pico	New Orleans, La.

The Defiance Pressed Steel Co.

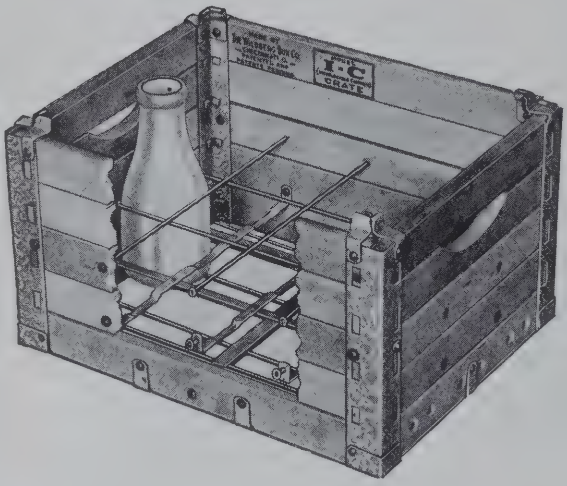
DEFIANCE, OHIO

A Milk Bottle Crate

is the HOME of the Milk Bottle

In your desire to keep down your bottle crate bills, be careful to avoid increasing your bottle bills—

The **MODEL I-C (Interlocking Corner) CRATE** will give you the long life and ease of repair you want, *PLUS Maximum Bottle Protection PLUS Ease of Handling*



Our lower row of division wires—twisted flat galvanized steel ribbons—is absolutely rigid and prevents contact between bottles at *Bottom, Shoulder* and *Lip.*

Most strenuous tests have proved that bottles will break easily in any case in which there is "give" in the division wires. Our lower row of division wires is immovable and gives bottle protection found in no other crate on the market.

At the same time, the upper row of division wires is *round* and permits perfect ease of removing two bottles with one hand which is impossible in the ordinary flat ribbon wire crate.

If you have not yet received your free sample of the ➔ fill in the attached coupon.

Carrying charges prepaid and no obligation on your part.

MODEL I-C (Interlocking Corner) CRATE

..........................19....

The Wildberg Box Co.,
1041-1057 Evans St.,
Cincinnati, Ohio.

Dear Sirs:

With no obligation on our part, please send us FREE SAMPLE of the Model I-C Interlocking corner crate, carrying charges prepaid. We use {Standard / Compact} size and {2 wire / 3 wire} Quart cases.

Firm name ....

Address ....

Per ....
Purchasing Agent

Manufactured by

The Wildberg Box Company

CINCINNATI, OHIO

"World's Largest Manufacturers of Milk Bottle Crates"

Washed Curd Cottage Cheese

Selling Cottage Cheese a Good Way to Turn Skim Milk Into Money. Make a Better Product and Get More Money For It.

By H. W. VETTERLEIN*

THERE are many kinds of cottage cheese, but so-called "washed curd cottage cheese" is one of the best, in my estimation. This cheese, if properly made, will sell anywhere. It costs a little more to make it, but you can charge more for it, and make a nice profit.

We use a two-hundred-gallon cheese vat. Fill this with sweet skim milk, while separating, and set at a temperature of 82 degrees F., using no starter or rennet. You will have to vary this temperature according to the season, and temperature of the room, in which the vat stands. In very cold weather 88 degrees is not too high, while in hot weather, 78 degrees is high enough.

Let it stand over night and the next day, when it is coagulated all the way through, cut it with regular curd cutters, leaving it in small cubes. Then heat with steam, turning the steam on into the water, in the jacket of the vat. Don't heat too fast, stir constantly, so that the curd on the bottom of the vat doesn't get too hot. Heat to about 120 degrees F., but this temperature depends on the condition of the curd. If heated too high, it gets like rubber. With a little practice, you can tell when it is just right, and it will not be necessary to use a thermometer.

We use a regular cheese strainer, to drain off the whey. When whey is all off, cover the curd with cold water, to which add one pound of baking soda, and thoroughly wash the curd. This removes the acidity, and you have a sweet cheese. Drain off this water, and again cover with fresh, cold water, and again thoroughly wash the curd. Drain again, and sprinkle about two pounds of cheese salt over the curd. Mix well, and add about two quarts of cream, and thoroughly mix again. The quantity of salt and cream can be varied, to suit the trade, but the amounts I have mentioned are just right in this locality. We use forty per cent cream.

We then place it in ten-gallon milk cans and put them in the ice pool, in the cooler, to cool as quickly as possible. The next day, we remove it from the pool, but keep it in the cooler, not allowing it to freeze, which would spoil the flavor.

The soda bath, and cold temperature, insures a low acid cheese that will keep.

We sell some in bulk, and also pack it in one-pound cartons. They are made of paper, and paraffined, making an ideal cheese container. A good plan is to give the cheese a name, preferably a new name coined from the name of the company selling the cheese. For instance, Ohio Valley Dairy—"Ovada." Then have printed on the cheese box covers, "Ovada Creamed Cheese, fresh daily, sold by Ohio Valley Dairy." For this cheese, you can charge two cents a pound more than for common cottage cheese. If you put out a uniform article or product, day after day, you can hold the old trade, and constantly add new business.

The retail milk drivers can deliver it with the milk, and it can also be sold in stores.

Cottage cheese is a good way to sell skim milk, but it requires a careful, conscientious operator, to make it.

---

*Plant superintendent, Sauquoit Valley Dairy Co., Utica, N. Y.

⁂

IOWA TEAM AGAIN WINS.

The 1926 Dairy Products Judging Team, Iowa State College, again won the National Dairy Exposition Cup for team highest in all products.

They won the cup for the third consecutive time this year and Iowa State College, therefore, retains permanent ownership of the cup.

In the various products they were the highest team in milk judging, also the highest team in ice cream judging.

Individual honors were awarded to:

J. W. Tatum was awarded the gold medal for the highest individual in judging all products.

Geo. L. Myers was awarded the silver medal for the second highest individual in judging all products.

J. A. Earle was awarded the bronze medal for third highest individual in judging all products.

Geo. L. Myers was awarded the silver medal for second highest in ice cream judging.

J. W. Tatum was awarded the silver medal for second highest in milk.

WILLIAM H. TIMM
CONSULTING ENGINEER AND ARCHITECT
PERRY BUILDING
Chestnut & 16th Sts.
PHILADELPHIA
PENNSYLVANIA
DAIRY AND ICE CREAM PLANT SPECIALIST
Consulting Service for By-Product Processes

Transportation of Milk by Highway

Bureau of Public Roads, United States Department of Agriculture, Studies Milk Transportation Problem and Makes Interesting Comparisons

THE studies of milk transportation were made in the Baltimore, Cincinnati, Detroit, Indianapolis, Milwaukee, Philadelphia, and St. Paul and Minneapolis markets. In all these markets, with the exception of Philadelphia and Baltimore, the studies show that approximately 90 per cent or more of the milk now received is transported by motor truck via highway, instead of by railroad. Philadelphia, which is the largest city surveyed, receives only 20 per cent of its milk by highway; Baltimore 45 per cent, but the latter percentage represents merely the present stage in an increasing tendency which has been marked since 1912, when 20 per cent was delivered by highway. Whereas this 20 per cent was delivered by wagon, the 45 per cent is now delivered entirely by motor truck. The proportion of Philadelphia's total supply which is shipped in by motor truck has been increasing in recent years, but the percentage is low because the city, on account of its heavy demands, must draw its supply from an area so large that the shipping distances become too great for motor-truck hauling.

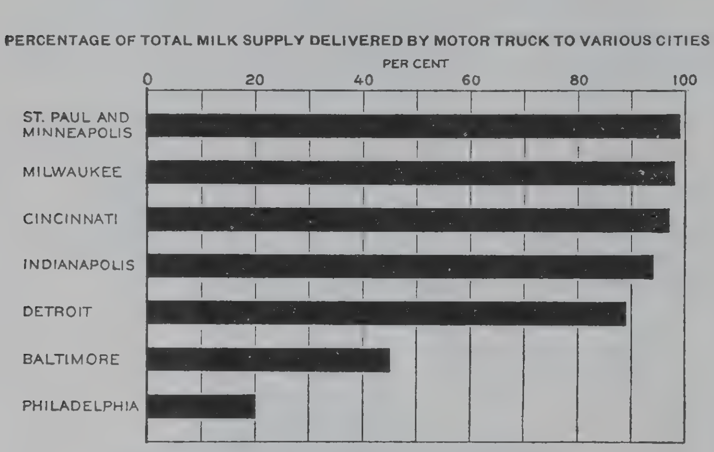


FIG. 46.—The daily transportation of milk into the largest cities is one of the outstanding services of the motor truck and the improved highway. In many cities practically the entire daily supply of milk is received by truck instead of by railroad, as formerly

This distances from which milk is transported to the eight cities by highway and the percentages of the total number of trucks in each market hauling from various distances are show in Figure 48. Only in the Philadelphia and Detroit markets is the longest haul greate than 60 miles. At Baltimore and Cincinnati it is betwee 50 and 60 miles; at Indianapolis it is between 40 and 5 miles; and at Milwaukee, and St. Paul, and Minneapoli it is between 30 and 39 miles.

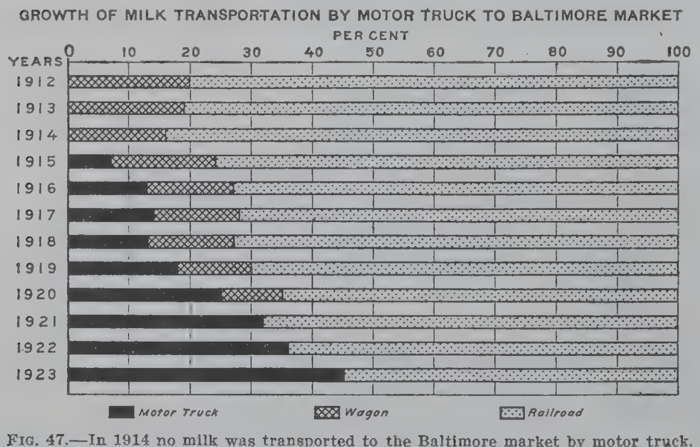


FIG. 47.—In 1914 no milk was transported to the Baltimore market by motor truck. About 17 per cent of the total receipts were delivered by horse and wagon and the balance was shipped by rail. In 1923, 45 per cent of the milk received came in by motor truck

The sizes of trucks used in the Baltimore market fo hauling in the various mileage zones is shown in Figur 49, which indicates clearly that the smaller trucks ar used for the shorter hauls, and the larger trucks for th longer hauls.

The rates charged for transporting milk by moto truck in the Baltimore market conform fairly closely t the rates charged by the railroads. As a matter of fac the rail rates were the basis upon which the truck rate were fixed when the motor trucks first entered the business. No case was found where the truck rate was les than the railroad rate, and in some instances it was foun that the truck rates exceeded the rail rates.

In comparing motor-truck rates with railroad rates however, one must not lose sight of the fact that th motor-truck rates include pick-up service in many case and in all cases delivery service at the city milk plant When shipping by railroad, farmers have to haul thei milk varying distances from the farm to the station and the dairy or city milk dealer is obliged to haul th milk shipped by the railroad from the city terminal t his manufacturing or distributing plant. The dealers i Baltimore estimate that it costs them from 0.5 to 1 cen per gallon for this terminal hauling, which is entirel eliminated where the milk is brought directly to th plant from the points of production in the countr

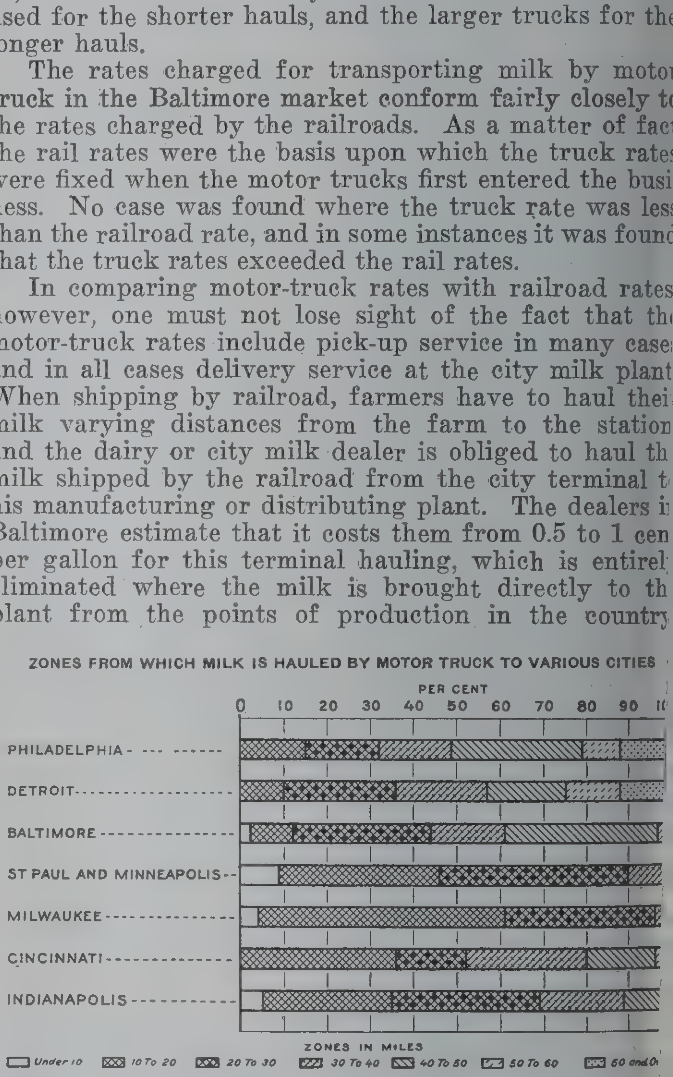


FIG. 48.—The distances from which the milk is hauled to the cities depends so what upon the size of the city and the character of the land immediately arou the city, with respect to its ability to support a dairy industry. Milk is seld hauled by highway further than 60 miles

These costs naturally vary for different dealers, d-pending largely upon the distances they are remov from the railroad terminals. In Baltimore not one the dairies is located directly on a railroad sidetrac, so that in each case trucking, either by horses or motor truck, is necessary to get the milk from the ra-road car or platform to the plant.

The saving in time and expense to producers w ship by motor truck is shown by the following samp data which were secured from questionnaires filled o by milk producers shipping by truck and milk produce shipping by railroad. Forty-eight replies from ea class of shippers were tabulated. Of the 48 shippers truck, 23, or approximately 50 per cent, were located

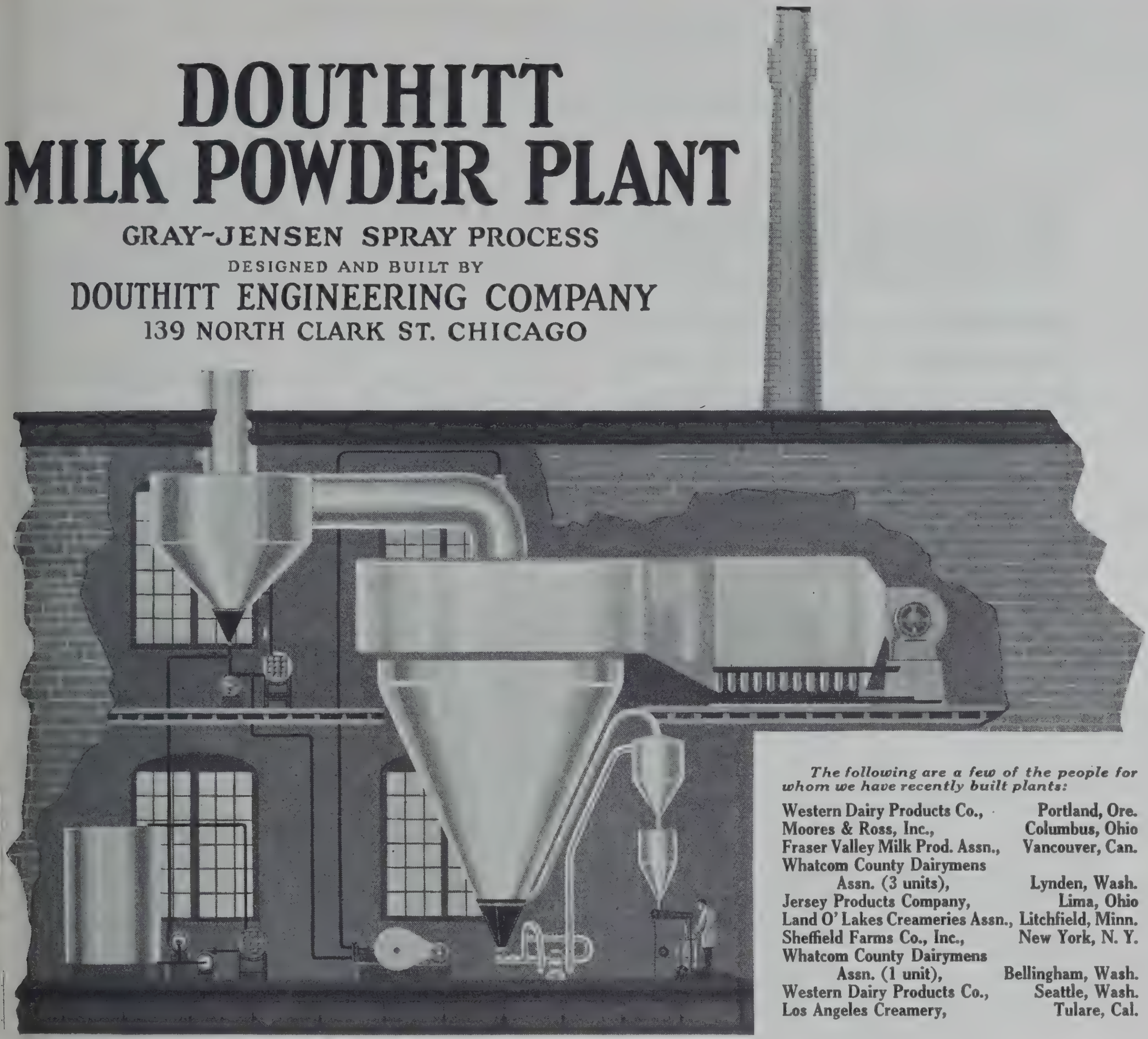
DOUTHITT MILK POWDER PLANT

GRAY-JENSEN SPRAY PROCESS

DESIGNED AND BUILT BY

DOUTHITT ENGINEERING COMPANY

139 NORTH CLARK ST. CHICAGO



The following are a few of the people for whom we have recently built plants:

Western Dairy Products Co.,	Portland, Ore.
Moores & Ross, Inc.,	Columbus, Ohio
Fraser Valley Milk Prod. Assn.,	Vancouver, Can.
Whatcom County Dairymens Assn. (3 units),	Lynden, Wash.
Jersey Products Company,	Lima, Ohio
Land O' Lakes Creameries Assn.,	Litchfield, Minn.
Sheffield Farms Co., Inc.,	New York, N. Y.
Whatcom County Dairymens Assn. (1 unit),	Bellingham, Wash.
Western Dairy Products Co.,	Seattle, Wash.
Los Angeles Creamery,	Tulare, Cal.

32 Plants Operating. 6 Plants Being Installed.

WE guarantee to recover on capacity operation milk powder equivalent to 100% of the solids in the milk. No other plant can make such recovery.

No precondensing necessary. No condensing water used. Only water required is for boilers and to wash up plant each day.

Only 1 man necessary to operate plant and pack milk powder in barrels.

The plant is easily kept in absolutely sanitary condition. It can be thoroughly washed and sterilized each day.

Easily and instantaneously regulated to leave any desired percentage of moisture in powder.

½ minute from milk to powder; the shortness of time during which the milk is exposed to heat insures superior quality of powder, entirely soluble in cold water, manufactured at lowest possible cost and sells for highest market price.

The powder is automatically and instantaneously removed from the drying chamber, also cooled as delivered into barrels. Other plants require from 1 to 20 hours to accomplish the same results. Milk powder allowed to remain in drying chamber until the day's run is completed becomes thoroughly mixed while being removed, therefore there is no advantage in grading such powder as the lowest quality made that day governs the grade for the day's run.

The saving in milk powder, fuel, labor and power, as compared to other milk powder plants, is sufficient to pay for one of our plants in from 1 to 3 years. Manufacturers are discarding other types of milk powder plants and installing the Douthitt plant, the life of which is from 15 to 20 years.

We will furnish a guaranteed market for all skim milk powder manufactured on our plants.

We pay traveling expenses of responsible parties sufficiently interested to visit one of our plants.

Write today for booklet describing the Douthitt milk powder plant.

truck routes and did not have to do any hauling. The remaining 25 hauled their milk to convenient points on truck routes, a total of 22.43 miles, or each one hauled his milk an average of 0.86 mile. If these same 48 shippers who shipped by motor truck had all taken their milk to the nearest railroad stations, they would have had to haul a total distance of 117.25 miles. The actual saving to all of these shippers was 94.82 miles, or an average of 1.98 miles for each shipper.

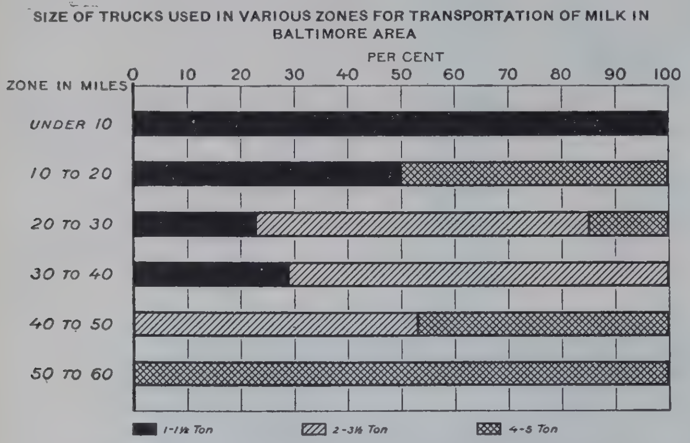


FIG. 49.—As indicated by the practice in the Baltimore market, the smaller trucks are used for the shorter hauls in transporting milk and the larger trucks are kept for the longer hauls

The 48 shippers who shipped their milk by railroad hauled it a total distance of 61.45 miles, or an average hauling on the part of the 48 shippers who shipped by truck was 0.47 mile each. The average saving in hauling distance which the truck shippers enjoyed over the same number of railroad shippers was 0.81 mile each.

It should be noted that this analysis shows also that the milk producers who are most likely to ship by truck are those who are more distantly removed from their respective railroad stations. Shippers who made use of the motor truck were removed on the average 2.44 miles from the railroad, whereas those who shipped by railroad were on the average 1.28 miles distant. To those shippers who are the greatest distance from the railroads and who live on or near roads which are adapted to truck traffic the motor trucks bring the greatest benefits. Through the use of motor trucks operating over improved highways the dairy industry is promoted and developed in regions which hitherto were too far removed from railroads to be developed practically as producing areas for fluid milk destine for the city market.

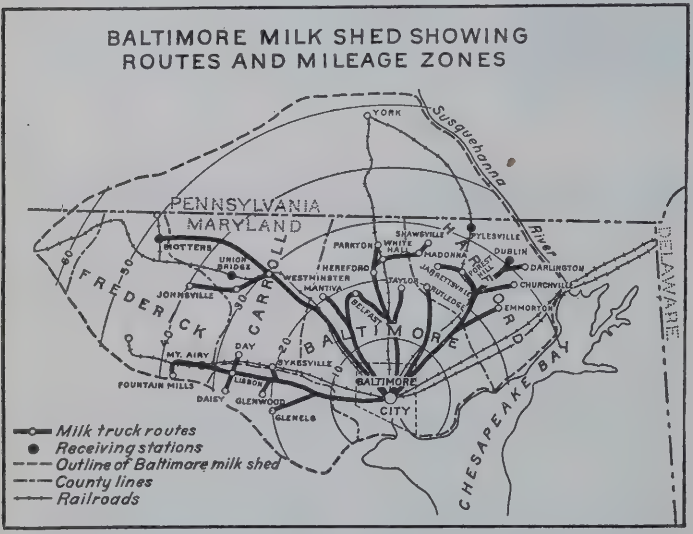


FIG. 51.—The heavy black lines represent regular motor-truck routes. Farmers living on these routes merely place their milk on platforms by the roadside, from which it is collected by the milk truck on its regular trip. Farmers living near the receiving stations deliver to them, and from them the milk is hauled in bulk to the city

The records of the dairy plants in Baltimore show that the motor trucks engaged in this business o transporting milk from the country to the city operate with a great degree of regularity. Snow removal on the Maryland highways is well taken care of, so that the main highways are seldom if ever closed on account o snow. Records are not available for all of the motor trucks as to regularity of operation. It was found however, that for 24 trucks not a single trip had been missed in the years 1922 and 1923. This does not mean that each one of these individual trucks was operated daily. Emergency trucks may have been used at times but no trip was missed on account of unfavorabl weather conditions, and continuous and regular servic was afforded to the shippers and to the public.

Flexibility of operating schedules is an advantag which motor-truck operators claim for their method o transportation. The time of departure in the morning i usually an hour later in the winter than in the summe months, which is a great convenience to the shippers The earlier operation in the summer months makes i possible for the milk to be brought to the city before th heat of the day sets in.

⚜

OUT OF THE SHADOW OF THE COURTS.

It has been a long, hard fight but a complete victor has been won.

The Indiana Manufacturers of Dairy Products w organized in 1917. It has functioned well and has ha not a little to do with the development of the dairy i dustry in the Hoosier state. Creamerymen, ice crea manufacturers and market milk men are organized one trade association and perhaps in no other state h more constructive work been done in the interest dairying. In spite of the splendid work that has bee done, the attorney general of that politically notorio state brought a case against the association and its members, seeking to dissolve the association and drive members out of business.

After a long, hard and expensive fight, the low court decided in favor of the association and gave it clean bill of health.

Under ordinary circumstances this would ha settled the controversy, but things are not done in ordinary way by some Indiana politicians. The attorn general seemed determined to prove the innocent gui and carried the case to the Indiana State Supreme Cou

On October 12th the supreme court affirmed the judgment of the lower court and again gave the India Manufacturers of Dairy Products a clean bill of heal The members of that organization have been put t big expense and a lot of worry just to satisfy political ambitions of a state employee who seemed termined to override the facts as they were unfol during the progress of the trial. He failed and it is w for the industry that he did. There are other associations functioning the same as the Indiana organizat and they are all doing a real service for dairying. Dairymen the country over are under obligations to the m who fought the Indiana case to a successful conclusn.

⚜

The wealth of a nation lies in the prosperity of its people. The power of a Want Ad is in the number of subscribers reading them. Do you read "The Mlk Dealer" Want Ads—regularly?

Over 500 Dairies are using

KOKO-MALT

It's Making a Big Hit !

for their

Chocolate Malted Milk Drinks

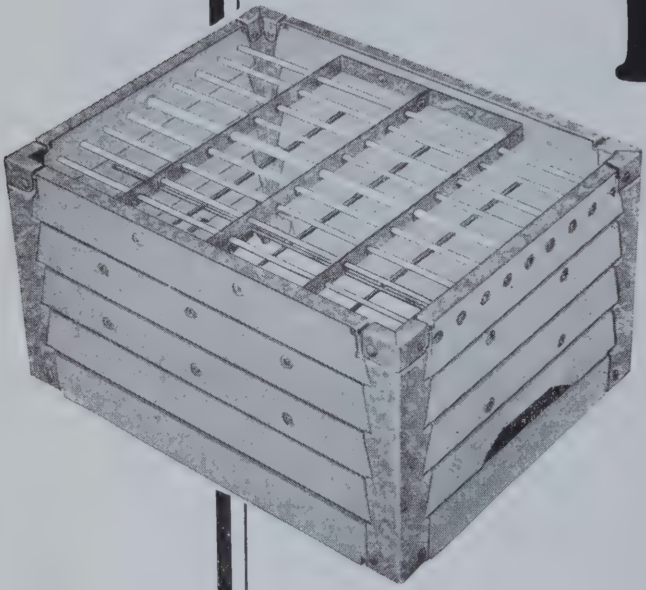
HERE is a new product which is blended from a special Dutch-processed, double milled cocoa and pure barley malt extract with special flavoring to intensify the full chocolate flavor and absorb the bitterness of cocoa.

DAIRIES bottling chocolate milk should be interested in this new preparation. It means a great saving in your syrup purchases. The cost of one gallon of delicious chocolate malted syrup made from KoKo-Malt, which is sufficient to flavor 10 gallons of milk, is 75 cents.

We will be glad to send a sample of KoKo-Malt sufficient to make one gallon of syrup to those interested in this new hit.

THE DAIGGER CORPORATION
Manufacturers
WASHBURN'S PRODUCTS
413-415 Beethoven Place CHICAGO

The REASON for Imitation lies in the Original Object—



The
"WOOLSEY"

is the only **Wire Laced** Bottle Crate on the Market

Beware of Imitators

The Northwestern Collapsible Carrier

Ask These Jobbers:

A. H. Barber-Goodhue Co.,
Chicago, Ill.—St. Paul, Minn.
Indianapolis, Ind.
N. A. Kennedy Supply Co.,
Kansas City, Mo.
Oklahoma City, Okla.

Meyer-Blanke Co.,
St. Louis, Mo.
Birmingham, Ala.
Dallas, Tex.
Oliver M. Dean & Sons,
Worcester, Mass.

Beatrice Supply C
Ohio Creamery Sup
Cle
Harry N. Glynne
New

There can be but one reason why so much effort is being made to encroach on the patented construction of Woolsey Bottle Crates.

The Answer must be...... **"No Crate Like a Woolsey"**

It can not be cheapness, because there is more to a Woolsey Bottle Crate than any other. The construction then is everything. The service Woolsey Bottle Crates give is definite proof. The long list of users is recognition of a better value.

Why then be satisfied with makeshifts when it's the original Woolsey Crate that gives the service? To accept imitations is like taking depreciated currency in even exchange for your dollar. Get 100% crate service for your dollar. Specify and be sure to get WOOLSEY BOTTLE CRATES.

---

30 Talmadge Ave., S. E.,
MINNEAPOLIS, MINN.

1821 Callowhill Street,
PHILADELPHIA, PA.

rummond, Ltd.,
Toronto, Canada
& Parsons Co.,
City, Ia.—Omaha, Neb.
ill Co.,
Great Falls, Mont.

N. W. Creamery & Dairy Supply Co.,
Seattle, Wash.
T. C. Power Co.,
Helena, Mont.

Oakes & Burger Co.,
Cattaraugus, N. Y.
Erie, Pa.
Phoenix Seed & Feed Co.,
Phoenix, Ariz.

Geo. W. Prising Co., Inc.,
San Francisco, Calif.
Warr Supply Co.,
Los Angeles, Calif.

No Secret

IF anyone has tried to point out to you that Export business is difficult, mysterious and all that, they have had an axe to grind.

¶ All that Export trade requires is:

Suitable Product, Intelligent Sales Plan and Permanence of Effort.

¶ For years American Manufacturers catering to Dairy Industries have had the Product and the willingness to "keep everlastingly at it."

¶ However, the highly specialized, intelligent, *inexpensive,* sales plan was lacking.

¶ After years of continuous research, The Olsen Publishing Company, through its Foreign Department, is prepared to present to you a sales plan ——

o it whatsoever!

—which will bring your product before selected importers who represent the largest buying interests in the world;

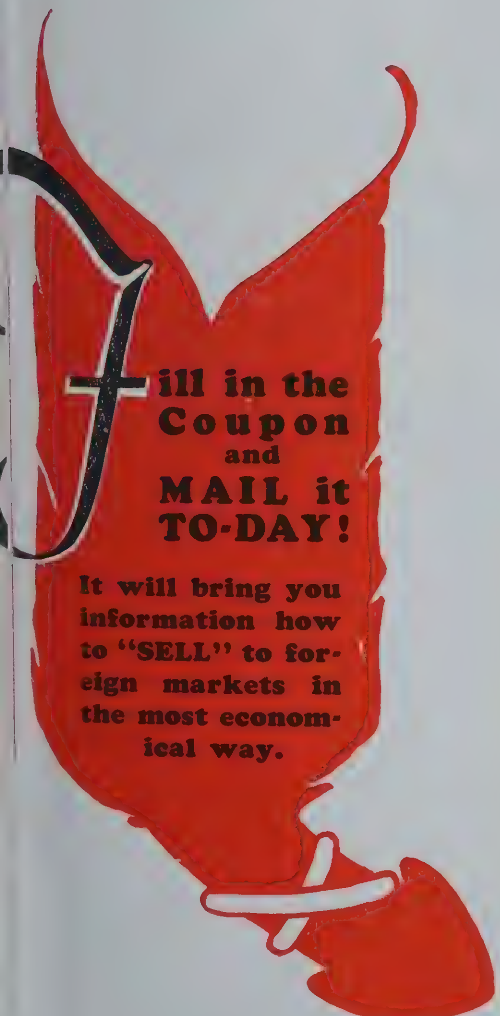
—which will describe your product in the importer's own language;

—will get the attention of these importers—and their orders—more economically than you can do it any other way—it will cost you less than direct mail work—or employing foreign salesmen;

—will bring you larger orders than are usual in this country—because the importer is a long distance away and must anticipate his requirements a long time in advance;

—will bring you business which does away with "open accounts"—business which is financed against bank credits or against trade acceptances;

—will bring you business which is independent of domestic "seasons"—an all year 'round, balanced production, which in itself is one of the best forms of business insurance you can carry.


Fill in the Coupon and MAIL it TO-DAY!
It will bring you information how to "SELL" to foreign markets in the most economical way.

The details of this plan are yours for the asking!

Foreign Department,
OLSEN PUBLISHING COMPANY,
5th and Cherry Streets,
Milwaukee, Wis.

Please tell us all about your plan how to break into the over-seas markets at the minimum possible cost.

Name ....

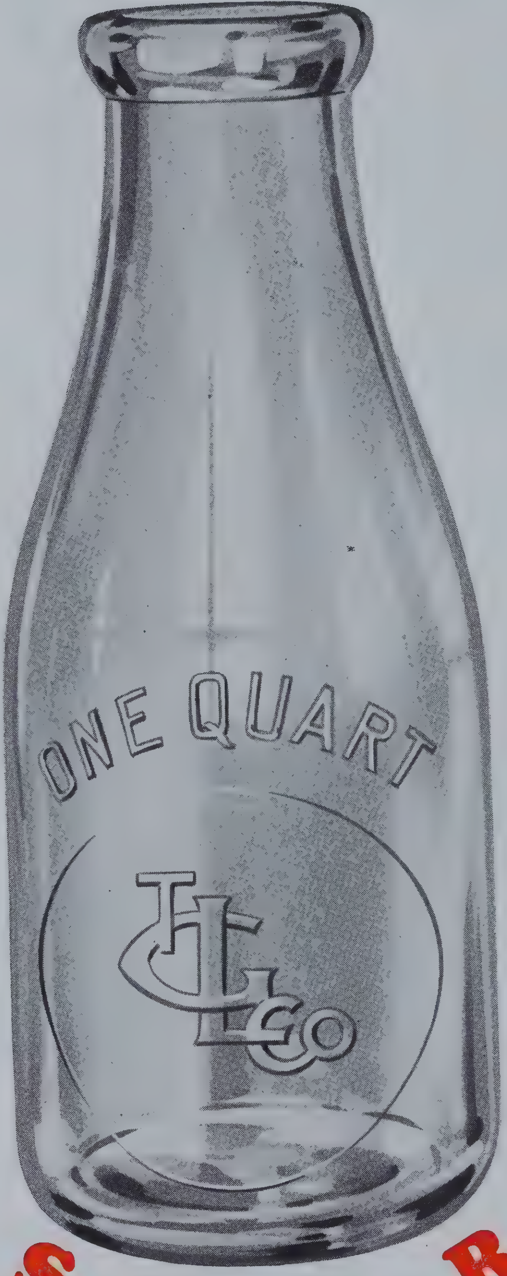
Address ....

By: ....

Date..

FULL-FILLS

Every Requirement of the Dairyman and Consumer



SUPER

Means: HIGHEST QUALITY - SERVICE - ECONOMY

Send for Samples and Information to Sole Manufacturers.

FACTORY AND OFFICES:

THE LAMB GLASS COMPANY

Chicago, Ill. : MT. VERNON, OHIO : New York, N. Y.

Give Red Bands

YOUR HARD JOBS

When users say this

C. R. GLASSER, General Supt.,
Chappell Ice Cream Co., Chicago, Ill.

"Our present large production—970,025 gals. in 1924—requires the most efficient and dependable equipment. The splendid record of our first Howell Red Band Motor, now 8 years old, caused us to put in 6 more Howells—all 7½ H. P.

"Our entire calcium brine and water circulation, and air supply to the ice cans, depend on the Howells.

"Even a short shut down would mean a heavy loss in material, time and possibly in trade.

"At the beginning of the heavy ice cream season, these motors are started and run 24 hours, 7 days a week, until production slackens. They have been run continuously for 5 months and 3 days.

"Our Howells have never given us the slightest trouble, and we will order more Howells as our production demands."

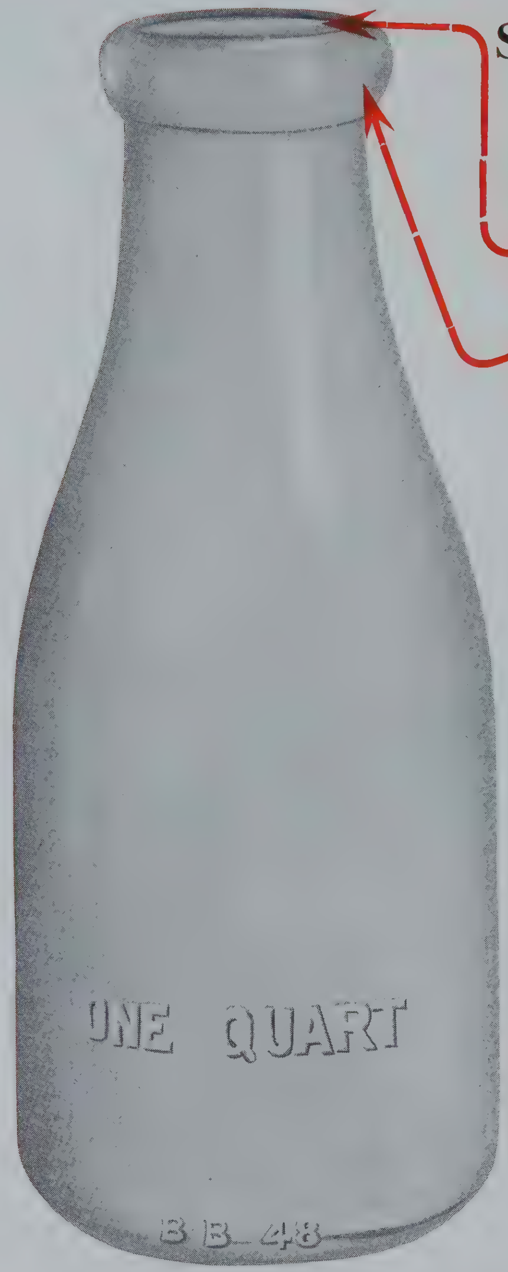
What more can we say!

HOWELL ELECTRIC MOTORS COMPANY, HOWELL, MICHIGAN

(77)

Howell RED BAND ELECTRIC Motors

Automatically Processed
Milk Bottles of Quality



Six Little Details All Big

1. Round cap seats that hold the cap
2. Well formed heads designed to obviate chipping
3. Accuracy in capacity uniformly maintained
4. Glass clear in color
5. Scientifically annealed (tempered) giving maximum strength
6. Grace in design, making a pleasing package

Our Motto:

Quality

Economy

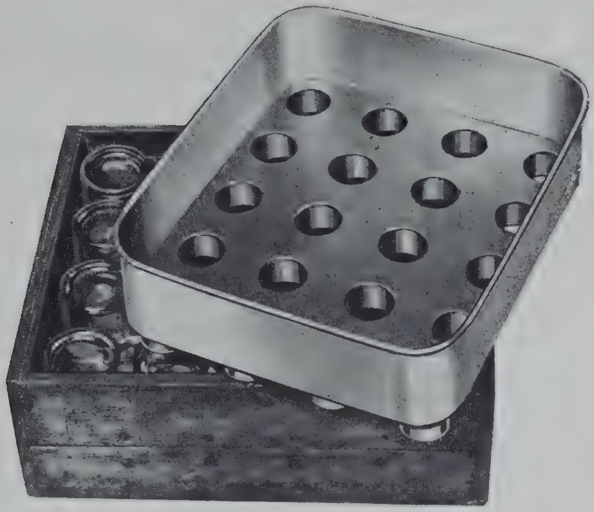
Dependability

You Want Quality Let Us Serve You

BERNEY-BOND GLASS COMPANY

Main Office-Factory: CLARION, PENNA.

CHICAGO Representative: A. F. MARTIN, 1654 Cleveland Avenue, Chicago, Ill.
MICHIGAN and OHIO Representative: Lock Box 56, Redford, Mich.
NEW YORK, N. Y., Hudson Terminal Bldg., 90 Church St.
BOSTON, MASS., 170 Summer St.
PHILADELPHIA, PA., Abbott Bldg., Broad and Race Sts.



A Tom-Pax Filler

for

Cottage Cheese Jars

NEAT, clean, rapid and accurate filling of the popular glass jars for cottage cheese is accomplished with this handy Tom-Pax Filler.

One man can do four times the work with one of these Tom-Pax Fillers.

A creamier, more liquid cheese can be packed without the usual soiling of the outside of the container.

If time means anything to you in filling cottage cheese jars, try out one of these Tom-Pax Fillers. Sanitarily made of durable German silver and Duraluminum that stays bright.

Joe Lowe Co., Inc. ◆ **Bush Terminal Building**
BROOKLYN, N. Y.

Exclusive Sale Agents for

The Thompson Package Filler Co.
Cincinnati, Ohio

The Determination of Caustic Concentrations of Detergent Solutions Used in Bottle Washing

By MILTON E. PARKER*

RECENT investigation (1) has revealed the necessity for an accurate control of the caustic concentrations of detergent solutions used in bottle washing by automatic bottle cleaners. The active germicidal and cleansing properties of these soaking solutions are determined in a considerabe measure by their caustic strengths—that is, the percentage concentration of caustic soda (sodium hydroxide).

The use of hydrometers or titration with phenolphthalein are not reliable inasmuch as neither method makes it possible to determine the actual percentage of caustic soda as has been shown in recent experiments (2). Therefore, many technicians resort to the method of R. B. Warder for the determination of alkali carbonate and hydrate in the presence of one another (3):

"To the cold solution containing phenolphthalein, hydrochloric acid is added and the liquid is gently stirred with a glass rod. Decolorization takes place when all of the hydroxide and half of the carbonate are neutralized:

(I) $NaOH + HCL$ gives $NaCl + H_2O$

(II) $Na_2CO_3 + HCl$ gives $NaCl + NaHCO_3$

To the colorless solution, methyl orange is added, and the solution is again titrated with acid until the other half of the carbonate is neutralized, when the solution turns brownish-red."

While this method provides an accurate qualitative and quantitative determination of caustic soda in the presence of soda ash (sodium carbonate), its past utility has been confined to the technician. Obviously, the operator of an automatic bottle cleaner does not ordinarily possess the technical training necessary to compute the percentage concentration of his detergent solutions. Inasmuch as investigation has revealed the present methods of hydrometry and titration with phenolphthalein to be inadequate qualitatively as well as quantitatively, it is little wonder that health officers sometimes report the soaking compartments of automatic bottle cleaners in operation to contain as low a percentage concentration of caustic soda as one-tenth of one per cent (0.1%).

With these facts in mind, an automatic caustic testing apparatus has been designed that permits the ready and accurate determination of caustic soda and soda ash by an inexperienced operator. This apparatus has as a special feature, a double scale burette calibrated to give directly the percentages of the two alkalies in detergent solutions.

In operation, the double scale burette is filled to zero with the standard hydrochloride acid solution. A few drops of phenolphthalein is added to the previously measured sample and titration with the acid proceeds until decolorization takes place when all of the caustic soda and half of the soda ash are neutralized as indicated in equations (I) and (II). The point on the right hand (T) scale of the burette registered as the result of this titration is noted. The burette is then refilled to the zero mark and methyl orange is added to the colorless solution. The sample is again titrated with the acid until the end-point is reached, when the other half of the soda ash is neutralized as indicated in equation (III) below.

(III) $NaHCO_3 + HCl$ gives $NaCL + H_2CO_3$

The recognition of the end-point is facilitated by colo standards contained in the stirring rod provided. Th point on the left hand (t) scale reached as the resul of this second titration registers the percentage of sodium carbonate (soda ash) contained in the sample. Th point on the right hand (T) scale registered as the resul of the second titration is subtracted from the readin obtained in the first titration to give the percentage o caustic soda (sodium hydroxide) in the sample.

This testing apparatus also makes it possible to determine the caustic concentrations of washing compounds and by resorting to a simple factor, the analysi of washing powders and detergent solutions containin the bicarbonate (baking soda) as well as the carbonat and hydrate of soda is made possible. This automati caustic testing apparatus has been constructed and assembled by Louis F. Nafis, Inc., of Chicago, Ill.

REFERENCES.

1. The Practical Sterilization of Milk Bottles by Chemic Disinfection, The Milk Dealer, Vol. 16, No. 1 (Oct., 1926).
2. The Maintenance of Detergent Solutions Used in Bott Washing, The Milk Dealer, Vol. 15, No. 11, p. 42 (Aug., 1925).
3. Analytical Chemistry — Treadwell-Hall, Vol. II, p. 56 (John Wiley & Sons, Inc.) 1919.

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* Walker-Gordon Laboratory Co., Plainsboro, N. J.

⁂

IOWA THREE MONTHS DAIRY COURSE.

A three months dairy course is offered at the Iow State College from January 3 to March 18. This known as the winter quarter of the regular six mont course in dairying, but it is taken as a special course a number of young men who do not feel that they a financially able to take a longer course.

Although it is advisable that the students have so practical experience before enrolling, this is not a r quirement. The men who enter for the winter cour are usually, upon the completion of the course, able secure positions in dairy plants. It should be unde stood, however, that inexperienced men taking the wo will not during this short period of time become quafied to take charge of dairy plants in the capacity f managers, head buttermakers or ice cream make They will first be employed as assistants and they w in that way acquire sufficient experience which w enable them to become familiar with the management f dairy plants.

Students entering for work in this course will be cupied in the creamery laboratories six forenoons p week, while the afternoons will be given over to lectu s and recitations. The following subjects will be studi.

Buttermaking
Cheesemaking
Milk Testing
Creamery Management
Judging Dairy Products
Market Milk
Dairy Bacteriology
Dairy Cattle and Management
Farm Crops Production

For further information, address Dairy Departmt, Iowa State College, Ames, Ia.

Only 100 dollars will put in your plant:

A two section soak and rinse tank for bottles,

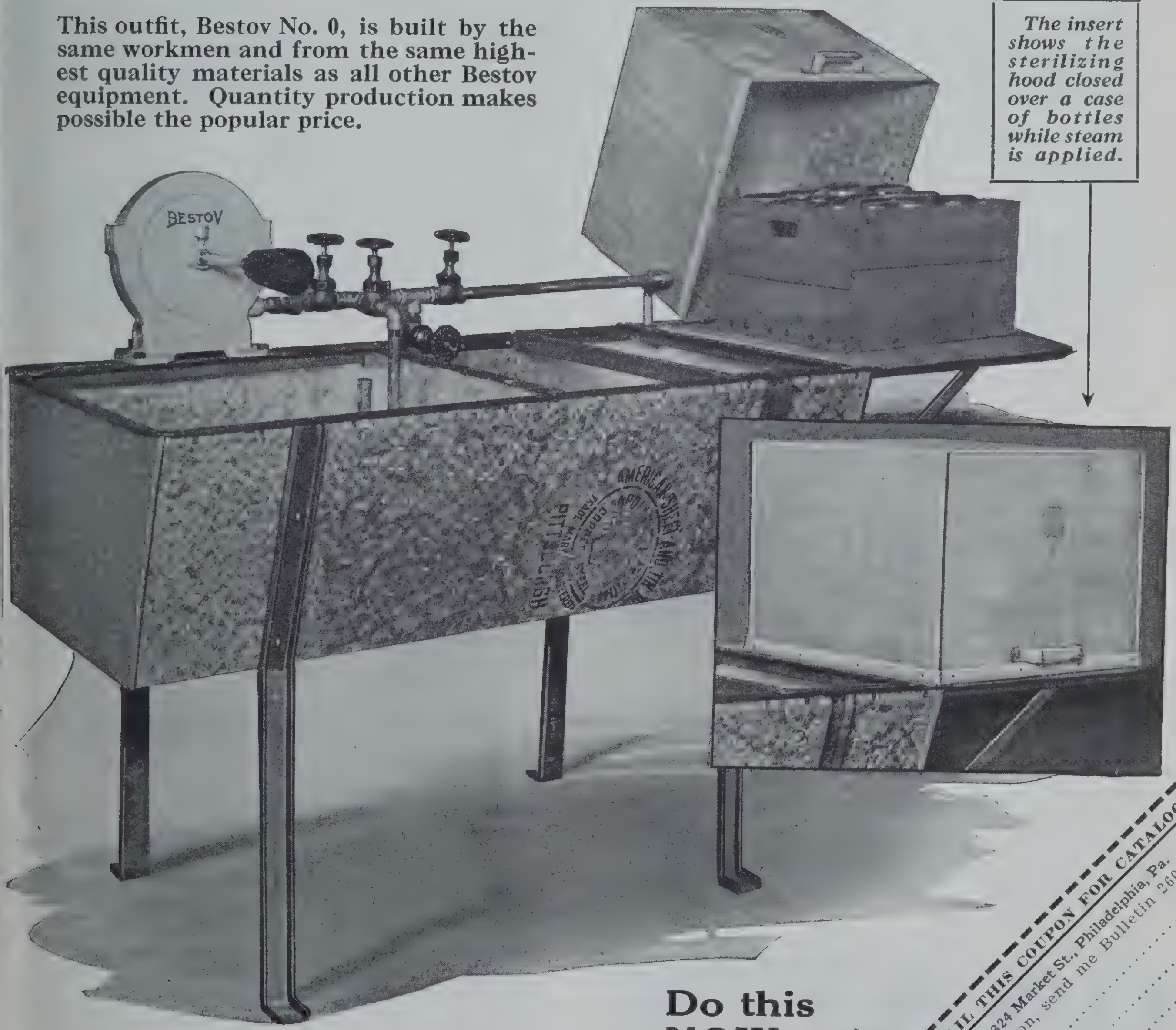
A steam operated bottle brushing unit,

A steam sterilizing unit which handles a full case of bottles at a time,

—all assembled ready to thoroughly soak, brush, rinse and sterilize your daily batch of bottles. An easy job for one man.

This outfit, Bestov No. 0, is built by the same workmen and from the same highest quality materials as all other Bestov equipment. Quantity production makes possible the popular price.

The insert shows the sterilizing hood closed over a case of bottles while steam is applied.

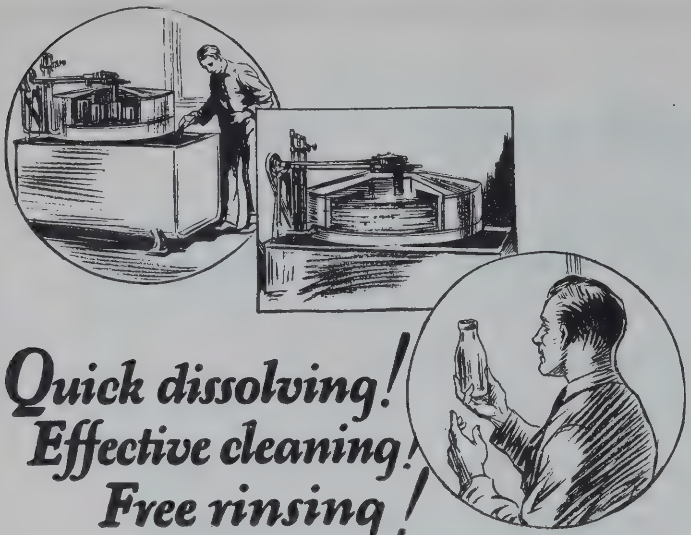


OPTIONAL BRUSHER UNITS
With 1-brush, belt driven $91.00 complete.
With 3-brush, belt driven $112.50 complete.

Do this NOW →

FILL IN AND MAIL THIS COUPON FOR CATALOG

Cherry-Bassett: 2324 Market St., Philadelphia, Pa.
Without obligation, send me Bulletin 2603.
Name..............................
Street..............................
P. O..............................
State..............................


Quick dissolving!
Effective cleaning!
Free rinsing!

THESE are the requirements you look for in the cleaners you use. And these are *exactly* what you get with OAKITE. Not forgetting the assurance that this modern detergent is SAFE to use.

Here is an easy way to prove this to your satisfaction—

Call in our nearest Service Man. Let him show you the OAKITE way of cleaning pasteurizers, coolers, bottles, cans, and other equipment. Judge the results critically!

First observe how quickly every particle of OAKITE dissolves. Then see how effectively casein is softened for easy removal by light brushing; how completely grease and dirt yield to its quick cleaning action. And note how evenly the rinse water—without a trace of break—flows from surfaces cleaned the OAKITE way.

Write us — we can help you as we have so many others.

Oakite Service Men, cleaning specialists, are located at

Albany, Allentown, Pa., *Atlanta, Ga., Baltimore, *Boston, Bridgeport, *Brooklyn, Buffalo, Camden, Charlotte, N. C., *Chicago, *Cincinnati, *Clevland, *Columbus, O., *Dallas, *Davenport, *Denver, *Des Moines, *Detroit, Erie, Flint, Mich., Fresno, Cal., *Grand Rapids, Harrisburg, Hartford, *Indianapolis, Jacksonville, Fla., *Kansas City, Los Angeles, Louisvlile, Ky., *Milwaukee, *Minneapolis, *Montreal, Newark, Newburgh, N. Y., New Haven, *New York, *Oakland, Cal., Omaha, Neb., Philadelphia, *Pittsburgh, Portland, Me., *Portland, Ore., Providence, Reading, *Rochester, Rockford, Rock Island, *San Francisco, *Seattle, *St. Louis, South Bend, Ind., Springfield, Ill., Syracuse, *Toledo, *Toronto, *Tulsa, Okla., Utica, *Vancouver, B. C., Williamsport, Pa., Worcester.

*Stocks of Oakite Materials are carried in these cities.

OAKITE

TRADE MARK REG U S PAT OFF

Industrial Cleaning Materials and Methods

OAKITE IS MANUFACTURED BY OAKLEY CHEMICAL CO.
30 B THAMES ST. NEW YORK, N.Y.

MILKMAN, CHAMP MARATHONER.

New York.—When he is not driving a truck for th Sheffield Farms Milk Company Harvey Frick of th Bronx is engaged in marathon races, of the big tim order. Frick, who is 32 years old, has recently won th Canadian championship marathon against some stars of the gruelling game. Frick gets his training while running beside his horse on his delivery route, morning, and in the afternoon his wife, who, he claims, started him on his marathon career, holds a stop-watch on him and she sees that he does from 15 to 22 miles each day.

SHEFFIELD FARMS COMPANY
Sealect
DAIRY PRODUCTS

⚜

MILK COMPANY FINDS NEWSPAPERS BEST ADVERTISING MEDIUM.

"Newspapers have been, and will always be, considered the best medium for reaching consumers of food products," it was declared by M. H. Stewart, advertising manager of the Golden State Milk Products Co. of San Francisco in an address given before the Sacramento Advertising Club.

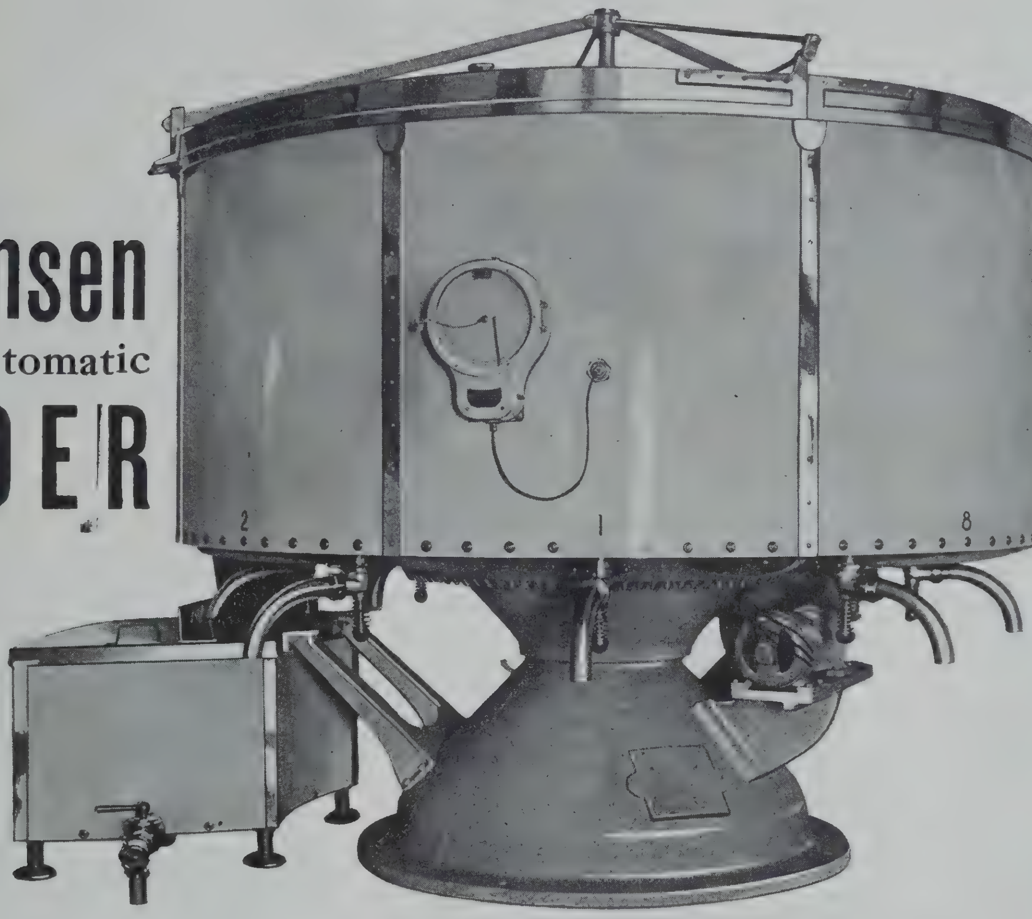
"Newspapers," declared Mr. Stewart, in explaining how the largest creamery company west of the Rocky Mountains does its advertising, "must always be counted of first importance by advertisers who wish to reach the homes."

"The newspaper," said Mr. Stewart, "is the most important medium of any for reaching the housewives. The daily paper goes into the home as an invited guest —it is bought and paid to come in. The advertiser who would reach the people in their homes has no better way of doing so than becoming a part of the daily paper."

It was also pointed out by the speaker that no advertising campaign, no matter how clever, could hope to succeed unless the goods being advertised are satisfactory and of high quality. He attributed a large share of the remarkable success of the Golden State Co. to the fact that its years of consistent advertising have been built upon goods which are rated as being the highest quality dairy products manufactured in California.

Pasteurizing more pounds of Milk per foot of floor space

Mortensen
Positive Automatic
HOLDER



Within a space of 10 feet square you can automatically pasteurize as high as 20,000 pounds per hour. You can handle this volume with greater facility, less labor and at lower cost.

The Mortensen Positive Automatic Holder is proving its economy and practicability to an ever increasing number of users.

Why don't you, in the interests of plant efficiency, make a thorough investigation of this equipment?

Standard Milk Machinery Co.
INCORPORATED
LOUISVILLE KENTUCKY

REVIEWING THE PAST AND PLANNING FOR THE FUTURE.

(Continued from page 26)

through other sections, such as the production, laboratory and plant. As time goes on we should not fear any step that would tend to increase the value of the association's service to the individual member, so long as we can assure ourselves that such service will be of real value to the members, and a credit to the association.

Accounting Bureau and Controllers' Council.

Our major activity, that of securing the installation of the international cost system as conducted through the cost accounting bureau, has made a splendid showing, considering the illness of so many of our executive staff. Shortly after the convention last year, the manager, Mr. Bolitho, was taken seriously ill and did not recover sufficiently to return to duty until the first part of May. This materially slowed down the accounting work, although he personally was able to complete or to assist in the installation of six additional systems and attend six district meetings.

Shortly after the convention, meetings were held in Los Angeles and Oakland, Calif.; Portland, Ore.; and Seattle, Wash., having solely to do with the accounting bureau. Each of these meetings was well attended and reports of the members on the coast convinced the executive committee that the time and effort was fully justified.

In the late spring of this year, meetings were held at Atlantic City, N. J., and Chicago. A distinct feature of these district meetings is that each one has a larger attendance than its predecessor.

Even with these handicaps, the record shows that to date out of 305 members, we have 146 subscriptions to the system, 19 installed, 24 are in the process of installing, and 21 have made partial changes based upon the manual. Your board is convinced that this work has been of the utmost benefit to the association and the industry at large, but urges as fast as conditions and revenues will permit, a greater amount of field or member plant work.

The board is thoroughly convinced that there is no other one activity that will go as far to create intelligent competition and eliminate vicious comptition as is accounting knowledge, made possible through the international system and the operation of the accounting bureau. We again ask you to pledge it your fullest and heartiest support.

Standardization of Equipment.

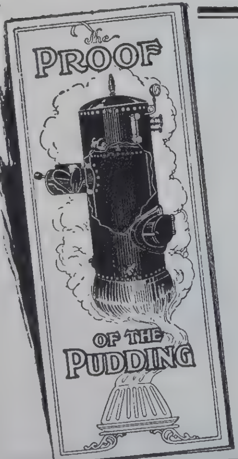
H. H. Forster of the Pure Milk Co., Ltd., Hamilton, Ontario, and the chairman of our committee on standardization of equipment for the past several years, rendered such a signal service to his association and to his industry that he has created such a place for himself that each succeeding president has found it impossible to locate a worthy successor. History repeated itself in this respect the past year.

At Mr. Forster's request, the committee that worked with him the previous year was retained and strengthened by adding several other strong plant managers and engineers thereto. This committee the past year included M. Van Antwerpen of the Gridley Dairy Co. Milwaukee, Wis.; F. E. Goldsmith of the Borden's Farm Products Co., New York; O. B. Schier of the Western Maryland Dairy, Baltimore, Md.; and T. N. Westlake of the Sheffield Farms Co., New York. The activities of this committee speaks so loudly for itself, through the chairman's report, that it needs scarcely any comment from the chair, other than to say that they have consisted of (a) very intensive work, in a plan of co-operation with the manufacturers of dairy plant machinery and equipment looking toward the determination of faulty equipment, and the steps to be taken to make such changes as would eliminate those objections—this from the sanitary aspect and design of such equipment. The committee has been most intensively engaged in this work and the chairman's report will be well worth listening to. (b) Continuation of the committee's efforts in agitating the use of the sanitary thermometer connection for vats—and the accompishment of a standard sanitary connection for glass-lined tanks. (c) The continuation of their well devised program looking toward the further elimination of heights of milk bottles and the determination of a plan of co-operation with the bottle manufacturers and the U. S. Department of Commerce for the elimination and prevention of the further adoption of freak bottles.

As the executive committee has observed the activities of the standardization group, they cannot bring t your attention too strongly the unselfishness of the services of these men, and the value of that service to you in your every day business. This is a committee whose activities should be perpetuated and kept in constant service. When a committee such as this one, made up o busy men who are willing to leave their plants for several days at a time to work for your interests, it is a service that should be given fullest recognition.

Agricultural Colleges.

To those who are not closely in touch with the activities of this committee, which was first appointed in 192 for the purpose of co-operating with the heads of th dairy departments of our agricultural colleges, it should be pointed out that a very material service is being performed for your interests by this group of men. Th



IMITATION IS FLATTERY

There is Nothing Just as Good---Be Sure It's An

"Original" Gem Flueless Boiler

Manufactured by the Gem City Boiler Co., Dayton, O.—Est. 1895

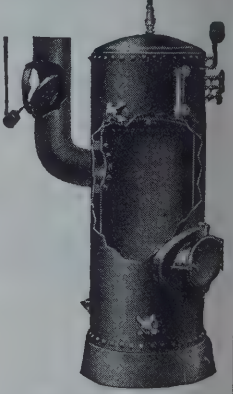
The Boiler that Eventually Pays for Itself

NO FLUES TO CLEAN --- NO FLUES TO LEAK --- NO WELDED PARTS

Read What Actual Users Say About Their Boiler in

"The Proof of the Pudding" Booklet

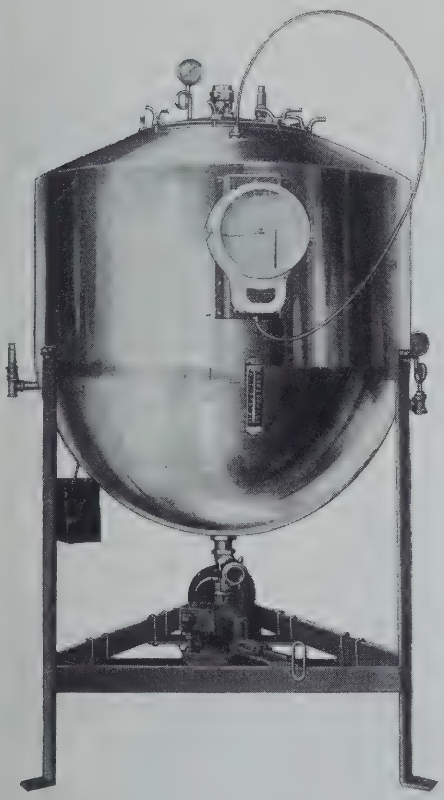
Monarch Sales & Engineering Co., 2010 Locust Boulevard St. Louis, Mo.



Patent Pending

NINETY NINE % NICKEL

The best all around Metal for Dairy Equipment!



Pasteurizers, cream ripeners, butter milk tanks and acidophilus cultured milk tanks are best constructed from Ninety-Nine Percent Pure Solid Nickel, the most satisfactory metal known for handling dairy products.

There are no soldered seams, no coated surface to wear or chip off, no crevices in which bacteria can lodge and the surface that comes in contact with the product is always smooth and bright.

Our Engineering Department will be glad to co-operate with you any time. Circular on request.

Nickel Fabricating Corporation
Philipsburg, Pa.

work is being done under our fellowships at Wisconsin and Cornell Universities, the splendid spirit of co-operation that has recently developed between the dairy colleges and our industry, and the plans for working programs as between our industry and our several dairy institutions, all are results of the activities of this particular committee.

Dr. F. D. Walmsley of the Borden's Farm Products Company, Chicago, who has headed it for the past two years, has brought a live and definite working program to this committee, that should deserve your very careful attention. His report will be of intensive interest this year.

Transportation.

Those of you who are familiar with the recent agitation of the New England States for an advance in milk and cream rates may not be aware of the splendid work that is being done by your transportation committee under the leadership of H. S. Van Bomel of the Sheffield Farms Co., New York. As the outcome of this case, which is now in progress, will have a vital effect upon the rates of the entire country, his report this year will be of unusual value. I am informed that he will have a very splendid message for you.

Bottle Loss and Breakage.

One of the most important committees that has been called upon to function since the formation of our organization is that of bottle loss and breakage, and your earnest attention will be called to the report of that committee through its chairman, W. J. Kennedy of the Detroit Creamery Company, Detroit.

This committee has just gotten under way in this important work and for the coming year will need your most earnest support and careful co-operation.

Bacteriological Methods.

At the sessions of the laboratory committee last year and following the recommendation of Dr. Breed, a special committee was appointed by Chairman Dotterrer of the laboratory section known as the bacteriological methods committee under the chairmanship of George B. Taylor of the Chestnut Farms Dairy, Washington, D. C., ably assisted by W. B. Marcussen of the Borden Farm Products Co., New York; Dr. William Price of the Detroit Creamery Co., Detroit, and R. C. Fisher of the French Bros.-Bauer Co., Cincinnati, O. This committee was appointed to co-operate with Dr. Breed and other national dairy organizations, looking to the study of bacteriological methods and laboratory control in the plant.

Five of our leading laboratory directors have given unstintingly of their time the past year in this study and bringing in a report of splendid accomplishment, which you will hear Thursday at 2:00 P. M. at the meeting of the laboratory section. From my personal knowledge of the work which they have done, the activities of this committee should be continued.

Better Milk Supply.

The production section at Milwaukee became so interested in the possibilities of this group that they called for the appointment of a special committee to make a study during the year of ways and means for a better milk supply. This committee reported at Indianapolis last year and their work received such approval of the convention that they were instructed to continue their activities.

During the year just closed, H. D. Davis of the Supplee-Wills-Jones Milk Company, Philadelphia, Pa., continued as chairman with his able colleagues: F. J. Capouch of the Bowman Dairy Co., Chicago; and C. R. Nickolls of the Freeman Dairy Company, Flint, Mich. They will submit a report for the adoption of the production section, which should eventually form a material guide for the use of milk dealers throughout the country.

Accounting for Products in the Milk Plant.

The work of the committee on accounting for products in the milk plant in co-operation with a similar committee from the controllers' council was so splendidly performed a year ago that when submitting their report to the membership at large very few criticisms were received. Slight changes have been made to the association's pamphlet on this subject as a result of these suggestions and a joint meeting of these committees was held yesterday.

The revised booklet on accounting for milk products through the plant will go to you shortly after the close of these sessions.

The thanks of the convention are due to Chairman D. S. Adams of the St. Lawrence Dairy Co., Reading, Pa., and his associates, F. H. Kullman, Jr., of the Bowman Dairy Co., Chicago, and Dr. R. J. Carver of Moores & Ross, Inc., Columbus, O., for their splendid work in co-operation with the controllers' council committee.

This pamphlet should be in the library of every milk dealer of this association as a working guide.

Membership.

While there has been no special membership campaign put on this year for securing members, there have been 38 new members admitted and 27 members lost by resignations and other causes, making a net gain of 11.

This is a splendid testimonial of the standing and the impetus this association has gained in its own industry.

At the same time I cannot help but feel there are a number of progressive dealers whose methods of doing business and their own reputations not only entitle them to membership in the association but whose duties to their industry should involve membership. I am going to ask each member of this association to search his mind during the coming year and ask himself the question if there is not some one dealer that he knows who does qualify and should be discharging his duty to himself and to his industry in forming this alliance, and ask the executive secretary for an application blank and see if you cannot bring in at least one additional good man into our group during the year.

Finances.

Our treasurer's report will show that we have no only kept within our budget but that we are in a healthy financial condition, even much better than we had planned to be. This was due, however, to causes which should not mislead us. Unfortunately, our accounting bureau work, as previously commented upon, has suffered a serious set-back during the year, owing to the long and continued illness of our manager of the bureau Mr. Bolitho. Had he been able to carry on as we had hoped, we should have spent considerably more in the promotion of the work of the accounting bureau throughout the country.

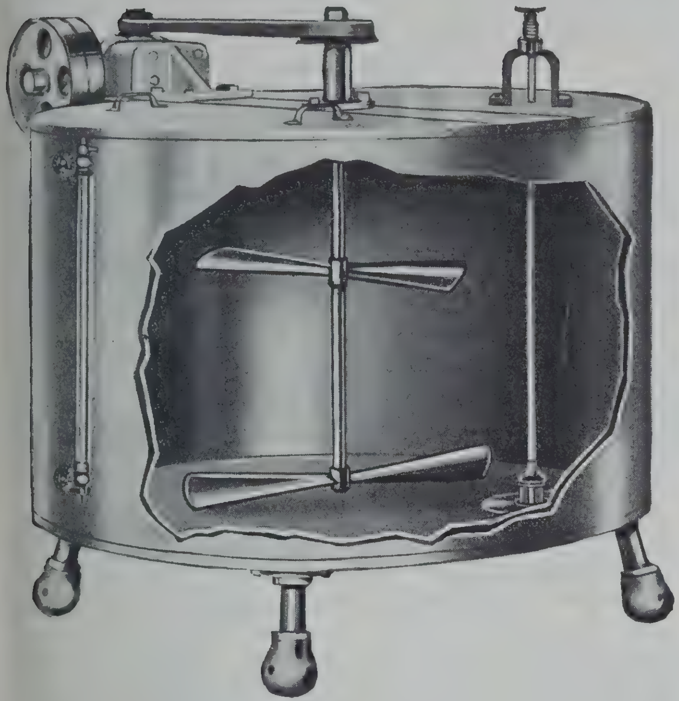
While on this subject the treasurer reports a mos wholesome situation with regard to delinquent dues. A the close of this fiscal year on September 30, there were only 11 delinquent members or a total of $873.83, which is only 1.9 per cent. Our executive secretary informs me that of this amount he feels sure that he can bring in better than 50 per cent, which will leave only abou $400 to write off.

This record of almost 100 per cent collection of dues

"More Than Pleased"

with

CRESCO Pasteurizer



"On April the 15th, 1926, I purchased a Cresco Pasteurizer.

"After giving it a thorough test for the past months, during the warm weather, I find that it does wonderful work. It gives the milk a fine flavor and shows a very good cream line. I am more than pleased with your pasteurizer.

"Since having this pasteurizer installed I find that my trade is more satisfied with this pasteurization than it was in the old way. I have gained considerable new trade during its use."

— Chas. F. Hawker, Elgin, Ill.

The CRESCO Filler and Capper

also does wonderful work in every milk plant using it. Equipped with automatic feed and discharge. Motor or belt drive. Fills and caps milk bottles with speed and economy.

Write us for information on either or both machines.

Cresco Creamery Supply Co.
1845 W. Van Buren St. CHICAGO, ILL.

"Wheying Off"

— in —

Buttermilk

Prevented

— by —

Swift's Gelatin

The addition of 2/10%* of Swift's Gelatin to Buttermilk:

1. Checks "wheying off."
2. Improves taste and general palatability.
3. Retards development of acidity.
4. Does not change the manufacturing process.
5. Costs less than 1c per gallon.
6. Is successful in both natural churn and commercial buttermilk.

For further information, ask any Swift salesman, phone our nearest branch, or write to

SWIFT & COMPANY
CHICAGO, ILLINOIS
Ft. Worth, Texas North Portland, Ore.
Harrison Station, Newark, N. J.

*Note: The exact amount to use depends on the strength of the Gelatin. If a lower grade is used, more is needed.

can mean but one thing and that is the member dealers must feel that they belong to a wonderful organization and are getting their money's worth many times over.

Of course, I should probably add that this figure does not include those members suspended for non-payment of dues, which amounts to $1,472.83, which would increase this percentage to 3.12 per cent. But even with this figure, we show an unusually low percentage of delinquency in dues.

Code of Ethics.

Our code of ethics in several respects has been put to a severe test during the year. It has in the main not been found wanting. The secretary's office has had not a few cases called directly to his attention of unethical practices that were being indulged in by certain dealers, not necessarily members of the association, but because of the moral influence of our code has caused our own members to refrain from meeting the competition and indulging in similar practices.

In the president's address last year, he pointed out the bribing of managers of apartment buildings and that this practice should receive the condemnation of this body, which it did. The effect of the code so far as this particular instance is concerned has been most wholesome.

Only recently another situation has been called to the attention of the central office where certain dealers are accomplishing an extended cream line, through the homogenization process. This practice is not a new one, and was considered by the code committee in the beginning and frowned upon as doing violence to the ethics of our industry. Let us urge you at this time to renewed pledge in the support of that provision of our code which declared this a reprehensible practice and one not to be engaged in by the progressive and honorable milk dealer. It is a fraud upon the consuming public and, as stated by Past President Ewing, can only lower the dealer's respect for himself.

There has recently grown up within the industry a practice on the part of certain designers and patentees of various devices of more or less questionable value whereby they seek to enter into an exclusive contrac with one dealer in each city, whereby the use of such device is granted to one member and denied to another It should be obvious that such practice can have but on result—the retaliation in one kind or another, and generally the one most vicious of all, and to be feared th most, that of cut-throat competition.

I contend, and I believe in this I have the suppor of the entire assembly, that anything that is good enoug for one member, that in any way spells progress fo that member, should be good enough for all of us an spell progress for all of us. And if it is not good enoug for all of us, it should be rejected by any one of us.

I sincerely trust that the committee on constitutio and by-laws, which has in charge the code of ethics, wi bring in, and I understand it will, recommendations fo the code which will place this assembly unequivocall on record as to these practices, which should merit th condemnation of a progressive and honorable industr

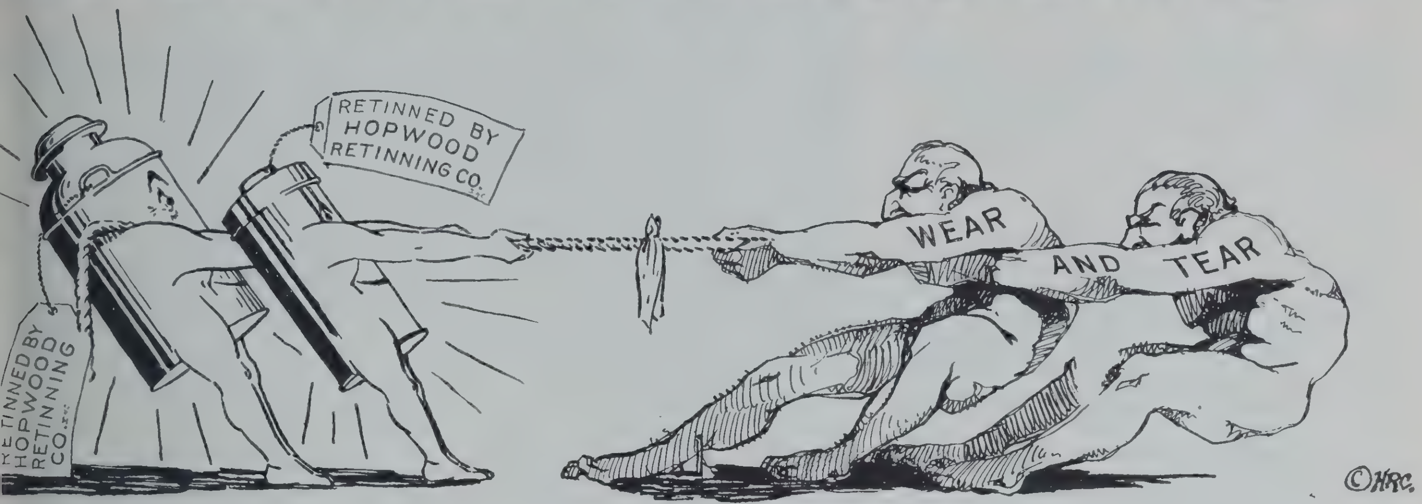
◆

ADDITION TO IOWA PLANT.

Work will be started immediately on the 38 by foot addition to the Charles City Creamery, Charles Cit Ia., which is owned and operated by Hanson & Sorens This improvement will be of hollow tile, with stucco fi ish, and will cost about $15,000.

The addition will house modern equipment for th clarification and pasteurization of milk and cream.

HOLDING THEIR OWN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RETINNED BY HOPWOOD RETINNING CO.
WEAR
AND
TEAR
©HRC.

hip your rusty or leaky cans to us for re-tinning. We are a Reliable, Experienced Concern. Iigh Quality, Quick Service at Right Prices.

We have been connected with the manufacture and re-manufacture of Milk Cans and Ice Cream Cans since 1898.

HOPWOOD RETINNING CO., Inc.

Iain Office **56 Commercial Street** **Brooklyn, N. Y.**

A MODERN NECESSITY

Whether your plant is supplied with the most modern equipment or whether you are obliged to operate with less modern conveniences, the problem of sanitary cleanliness is as urgent in one case as in another.

By standardizing on the use of

Wyandotte
Dairyman's
Cleaner and Cleanser

Indian in Circle

In Every Package

every milk dealer has at his command the most modern, efficient and dependable sanitation obtainable.

This experience has proved profitable to thousands of milk production plants the country over and will prove profitable to you.

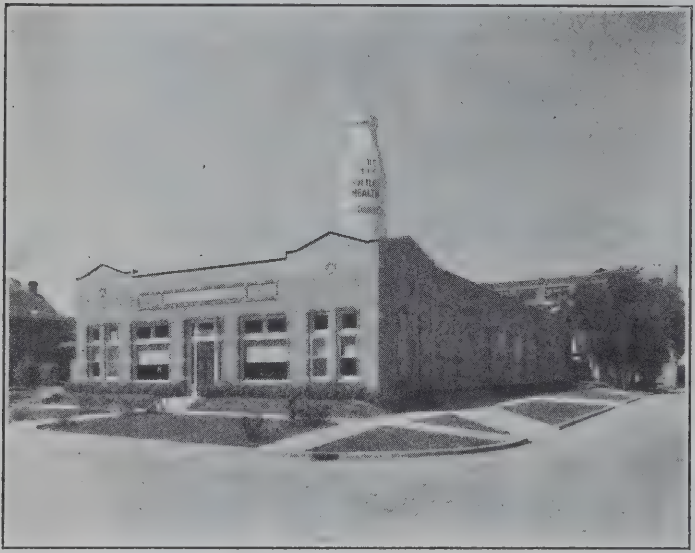
Ask your supply man for "Wyandotte"

The J. B. Ford Company *Sole Mnfrs.* **Wyandotte, Michigan**

Gaining Efficiency by Proper Arrangement

New Illinois Milk Plant Well Designed for the Economical Handling of Product

BUILT on a famous historical spot in Freeport, Illinois, is the new and modern plant of the Union Dairy Company, erected at a cost of $60,000, at the corner of East Douglas Street and North Adams Avenue, in the same block where the second Lincoln-Douglas debate was held way back in 1858.



The Union Dairy Company's New Building at Freeport, Ill.

The company was founded in 1916 by Messrs. C. F. Kaiser and A. J. Hill and under their careful management the business grew to the point where a new building was a necessity. The plant is certainly a fitting tribute to their efforts, as it is one of the finest dairies in the Middle West. Practically all new equipment was installed, only two machines being moved from the old plant.

The exterior of the plant is an investment in good appearance. The major part of the walls are of light tan colored face brick with warm red face brick and Bedford stone trim, effecting a pleasing contrast. The coping is also of Bedford stone harmonizing with the gleaming white bottle mounted on the roof as shown in the illustration.

The driveway at the rear is covered and is used by the route trucks and farmers bringing in the milk. This protects the platform for incoming milk from the sun and weather.

The small door in the wall on the right side of the building opens directly into the refrigerated milk storage compartment and allows for convenient loading of the milk into the retail route wagons and wholesale delivery trucks on the drive.

There is also a drive on the left of the building from which the empty bottles and returns are unloaded into the washer room. After unloading, the horse-drawn wagons or the trucks follow this same drive to the stables and garage.

This unique arrangement of the three drives for receiving the milk, loading the delivery wagons and return of the empties makes it impossible for one line of vehicles to block the movement of another, which is an important consideration in the erection of a modern plant.

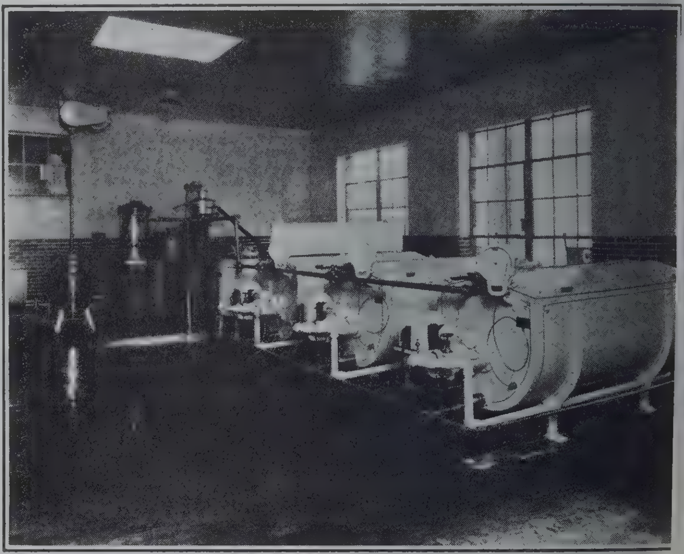
The garage and stable are on the left of the plant, also built of face brick with stone trim. The garage houses three cars. The stable will house 14 head of horses with a loft above large enough to hold the necessary feed.

Factory type windows are used in all parts of the building, except for the front windows in the retail salesroom and offices.

The huge bottle on the roof stands 14½ feet high, and is nearly six feet in diameter at the base. It is built of wood, covered with canvas and protected from the weather by gleaming white enamel. According to the owners, this is the best investment in publicity they have ever made because it does attract the attention of the passers-by.

Entering the front door we step into the attractive retail salesroom and offices.

A door at the extreme left of the salesroom leads to the milk pasteurizing room. The drivers' room is direc ly in the rear of the main office on the left side of th building. There is no door between the two rooms, how ever a counter and window connect the two. Milk dea ers who have wondered how to keep the drivers fro bothering the stenographers and bookkeepers will appr ciate the value of this little feature which makes it in possible for the boys to get into the office.



Where the Pasteurizing and Filtering of the Milk is Done.

The raw milk is received intermittently during th morning at the rear of the plant. Conveyors bring th cans from the trucks to the sampler, who grades an dumps the milk into the weigh can mounted on a su pended type scale.

The can washer is just at the left of the weigh tan It is equipped with a self-righting arrangement dischar ing the cans and covers onto the platform to be load again by the farmer. With this arrangement it is pos ble for one man to receive upwards of 10,000 pounds

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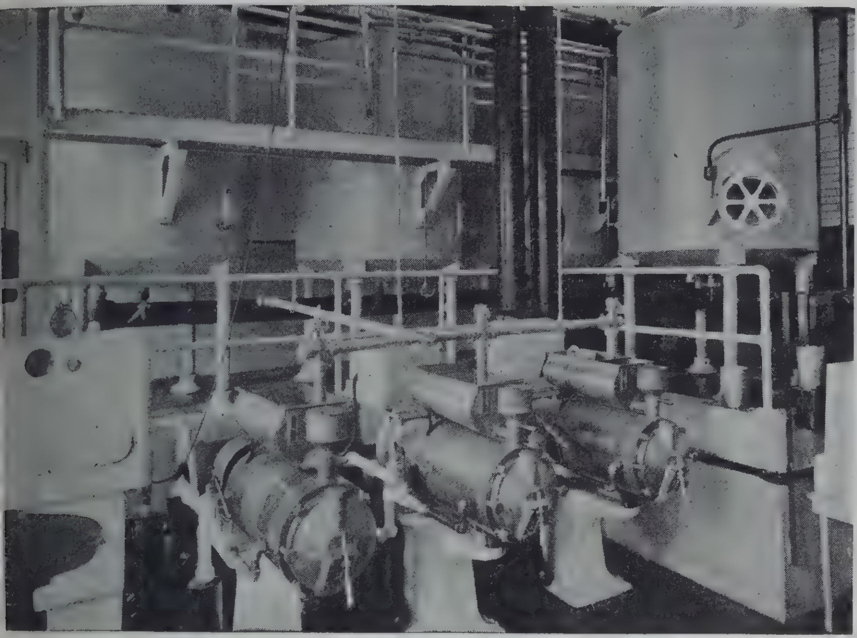
[**Editor's Note**—We are pleased to be able to present to readers of The Milk Dealer this complete description of the "layout" and arrangement of this modern dairy plant. We are indebted to the J. G. Cherry Company, Cedar Rapids, Ia., for illustrations and descriptive matter, that firm having furnished much of the equipment.]

GLASCOTE



More Than Thirty-six Thousand Gallons

of Glascote glass lined storage capacity now in use by Abbott's Alderney Dairies in various eastern plants. Ideal conditions illustrated by this view of part of the equipment at Bridgeton, N. J., can be duplicated anywhere.

Get details for your installation from new Bulletins now ready.

THE GLASCOTE COMPANY, EUCLID, OHIO (Cleveland District)

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15 Park Row
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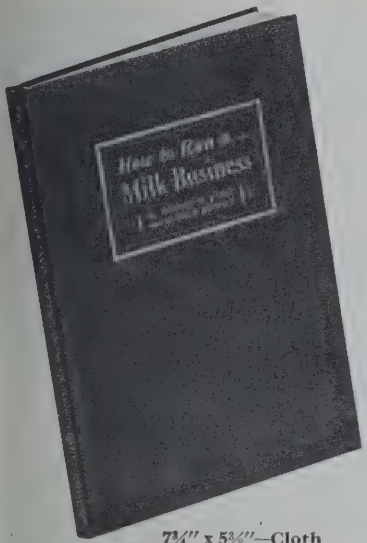
Do You Want?

Accurate Control of Your Business; More Sales; and Lower Expenses.



7¾" x 5⅜"—Cloth

Sent anywhere postpaid on receipt of $2.00

ASK FOR QUANTITY DISCOUNTS

The plans and methods used by other successful MILK DEALERS to build up prosperous businesses are for the first time told in this handy book. Much of the information given has never before appeared in print.

THESE PLANS WILL BE WORTH MANY TIMES THEIR COST TO YOU—NO MATTER HOW LARGE OR HOW SMALL YOUR BUSINESS IS.

SEND FOR IT TODAY!

THE OLSEN PUBLISHING COMPANY

FIFTH and CHERRY STREETS · · MILWAUKEE, WISCONSIN

milk, sample it, weigh it, and wash the cans as fast as the milk comes in.

The milk is conducted from the weigh tank to a 300-gallon receiving vat in the milk room shown at the extreme left of illustration No. 2.

The milk room is a thing of beauty with its shining red tiled floor and brown glazed brick side walls. The room is well lighted with factory type windows and skylights. Ventilators are in the roof. A gutter along the wall in the rear of the pasteurizers allows flushing and draining and does away with uneven floors found about the drains in most plants.

From the receiving vat the milk flows by gravity into a continuous milk pre-heater, driven from overhead. The milk is pre-heated to 110 degrees F. before discharge into the filter shown mounted on the platform. No pump is needed to force the milk through the filter as this is accomplished by the centrifugal pre-heater.

The pre-heated and filtered milk is discharged into three 300-gallon milk pasteurizers, driven by direct motor drive. These machines are equipped with the latest type flush valves conforming to the rulings of the Illinois department of health.

After pasteurization the milk is pumped by a centrifugal milk pump to the tubular cooler shown in illustration No. 3.

The tubular cooler is made up of 14 3-inch tubes, 10 feet long, connected to use both water and brine, equipped with top distributing pipe and a large 12x18 inch bottom trough. The cooler is enclosed in plate glass with a glazed brick wall as the lower portion of the enclosure.

The 100-gallon upright pasteurizer at the left of the milk pasteurizers is used for pasteurizing cream for table use. Sanitary connections bring the milk from the filter to the separator and then to the cream pasteurizer.

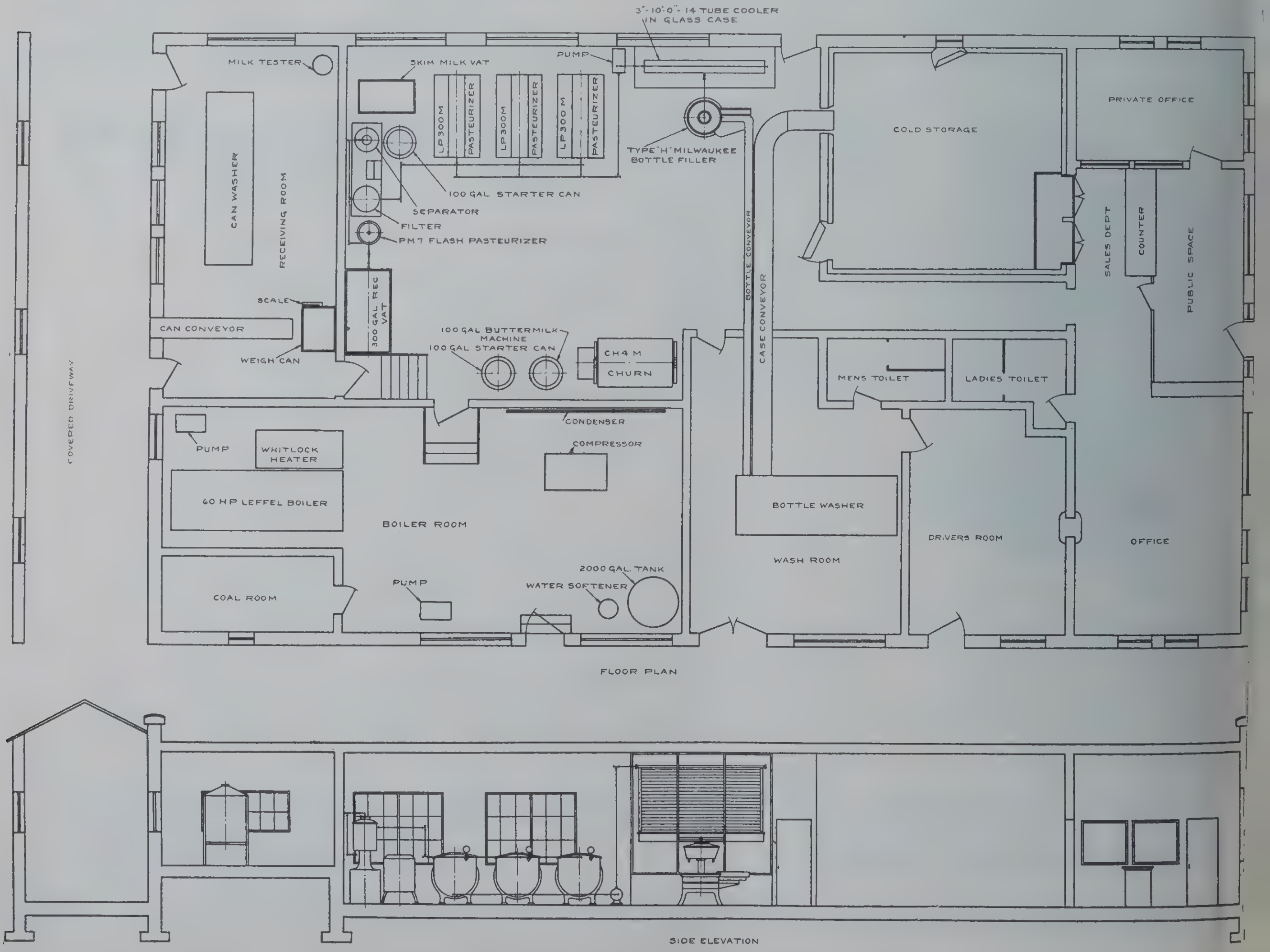
Bottles are conveyed automatically from the washer to the bottle filler. A conveyor conducts the filled cases into the cooler through the small door standing open in the right center of illustration No. 3.

On the opposite side of the milk room from the pasteurizers is a direct motor drive churn and butter worker, also a 100-gallon upright mixer and a 100-gallon starter can—both of the latter are motor drive. These two upright machines are used for pasteurizing cream for buttermaking, also making Bulgarian buttermilk and chocolated milk.

It is interesting to note that every machine in the milk room is direct-connected motor drive thus eliminating all unsightly line shafts, pulleys and flapping belts. Note, too, the absence of all sanitary pipe supports from the ceiling, thus giving a full, clear view of the beautiful glazed and tiled room.

The double doors at the foot of the steps in illustration No. 4 lead to the boiler room. In this room is the storage heater for heating the hot water used in the milk pasteurizers. This storage heater is fitted with a controller which automatically holds the temperature of the water at an established point thus giving this plant al the advantages of a low temperature heating medium The water is pumped from this heater to the milk pasteurizers.

The boiler room also contains a 60 h. p. boiler, a 25 ton ice machine, an artesian well and pump, a wate softener and storage tank. The water softener filter


3"-10'-0"-14 TUBE COOLER IN GLASS CASE
MILK TESTER
SKIM MILK VAT
PUMP
LP300M PASTEURIZER
LP300M PASTEURIZER
LP 300 M PASTEURIZER
TYPE "H" MILWAUKEE BOTTLE FILLER
100 GAL STARTER CAN
SEPARATOR
FILTER
PM7 FLASH PASTEURIZER
CAN WASHER
RECEIVING ROOM
SCALE
CAN CONVEYOR
WEIGH CAN
300 GAL REC VAT
100 GAL BUTTERMILK MACHINE
100 GAL STARTER CAN
CH4M CHURN
BOTTLE CONVEYOR
CASE CONVEYOR
COLD STORAGE
PRIVATE OFFICE
SALES DEPT
COUNTER
PUBLIC SPACE
MENS TOILET
LADIES TOILET
COVERED DRIVEWAY
PUMP
WHITLOCK HEATER
CONDENSER
COMPRESSOR
60 HP LEFFEL BOILER
BOILER ROOM
BOTTLE WASHER
WASH ROOM
DRIVERS ROOM
OFFICE
COAL ROOM
PUMP
WATER SOFTENER
2000 GAL. TANK
FLOOR PLAN
SIDE ELEVATION

Plant Layout of the Union Dairy Co., Freeport, Ill.

SANS, Meaning ***Without!***

Without

Extra Advertising
Extra Salesmen
Extra Manufacturing Expense
Extra Packaging Expense
Or Better Milk

You can secure a 50 per cent increase in your cottage cheese sales. Learn our method of making *flaky, creamy, low-in-acid* cottage cheese.

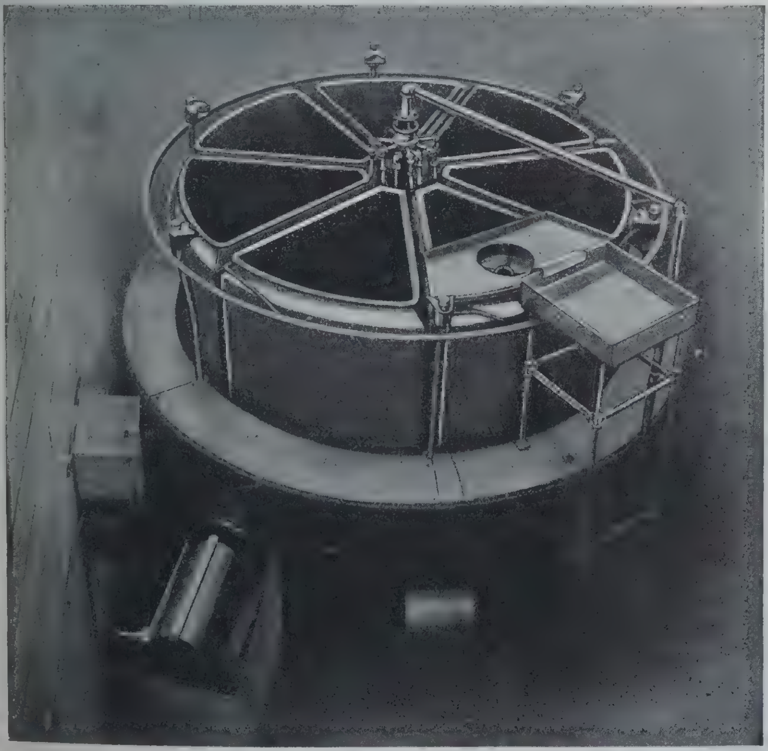
The largest and best dairy companies report a 50 per cent increase after learning our method.

Without obligation to you, we will be glad to send full details.

Write us about it TODAY!

Flake Cream Cottage Cheese Co.

601 MILWAUKEE AVE. CHICAGO, ILLS.



FOAMLESS
HORTON-DAVIS-JENSEN
Absolutely Positive
HOLDER

Each compartment may be washed with 200° water AFTER held milk is discharged and BEFORE new unheld milk enters, which absolutely prevents seeding of unheld milk by smears of old milk.

COMPARTMENTS
Individually water jacketed.

MILK
Absolutely held the regulation time.

NO FOAM
Compartments filled by Wier-tube method.

HOLDER VALVES
Steamed BEFORE and washed AFTER milk passes through.

AUTOMATIC STEAMING and WASHING of valves eliminates milk smears from holding compartments.

Steam STERILIZATION of compartments after washing.

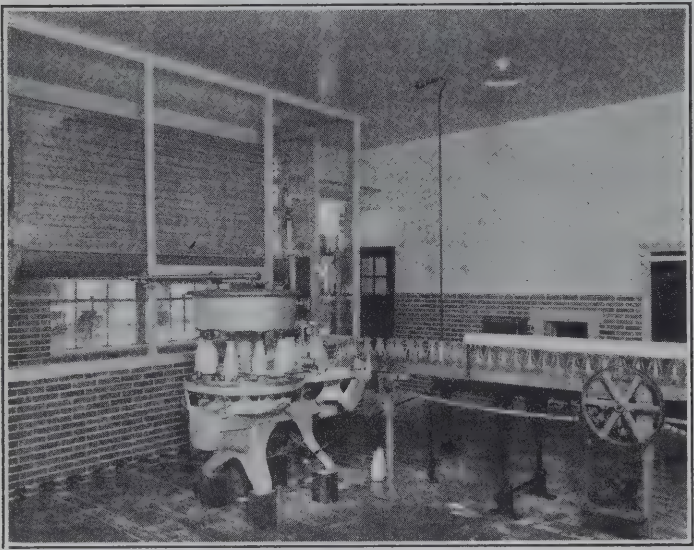
Compartments lined with nickel or glass.

Write for circular.

Jensen Creamery Machinery Company □ BLOOMFIELD, N. J.
OAKLAND, CALIF.

and softens all water used throughout the plant, eliminating scale in the boiler and piping.

The plant is now processing about 5,000 quarts of milk and cream each day. In addition, manufactured buttermilk and chocolated milk are also bottled and retailed. "Wonder" cottage cheese is a leader "to the tune" of about 150 pounds each day. Approximately 500 pounds of "Blue Ribbon" butter is marketed each day.



In the Milk Bottling Department. Everything Direct Motor Driven.

The new equipment easily accommodates the present demands, but as C. F. Kaiser, president and general manager, remarked when interviewed, "We have always wanted to reach out aggressively for new business and now know that we are equipped to handle a greater volume—and we're going after it." Space was planned for an additional 300-gallon milk pasteurizer, which will be installed when needed.

The following paragraphs, clipped from the Freeport Journal-Standard previous to the formal opening of the plant, gives a brief history of the growth of the concern:

"The formal opening of the new and modern dairy products manufacturing plant of the Union Dairy Company at the corner of E. Douglas St. and N. Adams Ave. on Friday, Aug. 27, is the realization of a dream which has ever been in the minds of the proprietors, C. F. Kaiser and A. J. Hill, and marks the result of ten years' effort in supplying 'Blue Ribbon' dairy products to citizens of Freeport and really is a monument to their efforts and industry.

"In 1916 when the partnership was formed both Mr. Kaiser and Mr. Hill were marketing milk from their own herds and conducted their own routes. In those early days only raw milk was handled. The adoption of the pasteurization process as soon as the Union Dairy Company was organized indicates the progressiveness of its organizers.

"Business gradually increased throughout the first thre years. As time advanced and business increased, adde routes were necessary until today the company operate eight horse-drawn retail routes and two wholesale deliver routes covered by motor trucks for the convenience of thei customers.

"Union Dairy products are delivered every day betwee midnight and daylight to hundreds of customers in Freeport In addition to the local business, the products of the company are to be obtained in Forreston, Polo, Aledo, Stockton, Cedarville, Dixon and Sterling. Only milk and crean were handled in the early days. 'Blue Ribbon Brand,' 'Wonder' cottage cheese, Bulgarian buttermilk or chocolated mil have since been added in response to the demands of th trade.

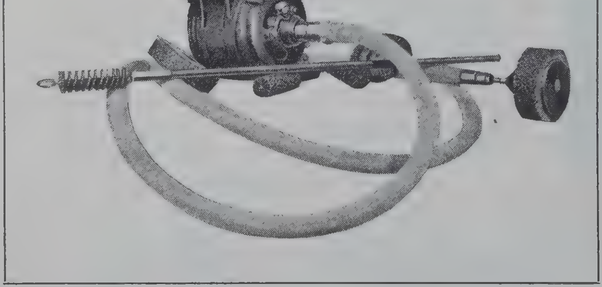
"Milk and milk products are chief among Nature's healthful foods, hence a new plant in this community dedicated t the manufacture of the highest quality products is a welcom asset."

The formal opening of the plant was held on Friday August 27, when several thousand customers and friend visited the plant. To the person attending the opening guessing the capacity in quarts of the huge bottle o the roof of the building was awarded $5 worth of mil tickets free.

Where "Blue Ribbon" Butter, Bulgarian Buttermilk and Chocolated Milk Are Made.

Every customer was invited to attend the opening receiving a personal letter through the mails the d before.

The management served a banquet in the milk roo to the 52 members of the Stephenson County Medic Society on the evening preceding the opening, thus g ing the doctors an opportunity to inspect the plant. A expert lecturer on the value of pasteurized milk in t diet gave the address of the evening.



The King Cleaner *vs.* Steel Wool and Harsh Brushes

RESULTS—Both will keep Sanitary Piping and tubular pasteurizing equipment perfectly clean,—but—the King Cleaner will not ruin the tubing, and requires far less time and effort for the work.

Send us diameters and lengths of tubing in your equipment and we will advise you size and price of Cleaner needed.

King Sanitary Pipe Cleaner Co., Inc.
SANDY HOOK, CONN.

Faultless

Positive — Automatic — Valveless

HOLDER

¶ Incorporates every requirement to accomplish perfect pasteurization.

¶ Each compartment is absolutely separated, forming a distinct holding unit in itself.

¶ Each compartment is automatically filled without the usual dependency of valves.

¶ Each compartment is automatically discharged by compressed air pressure, at the end of a correct holding period by a fool-proof timing device.

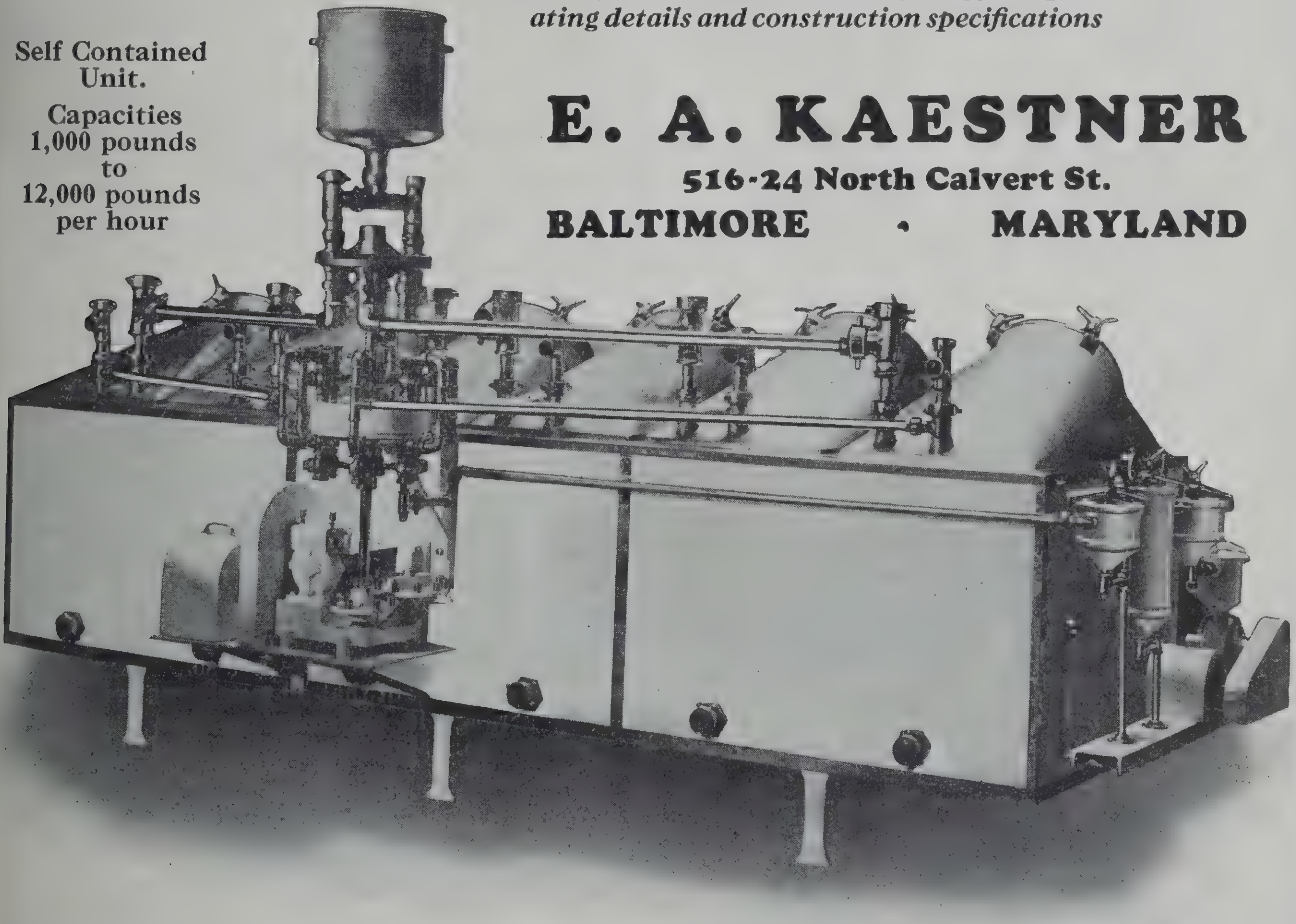
Send for illustrated circular giving full operating details and construction specifications

Self Contained Unit.

**Capacities
1,000 pounds
to
12,000 pounds
per hour**

E. A. KAESTNER

**516-24 North Calvert St.
BALTIMORE · MARYLAND**



Bacteria

are no obstacle for those who use

The
ILLINOIS
PASTEURIZER

The thoroughness with which the "Illinois" pasteurizes milk is best demonstrated by the low bacterial counts registered by the plants using this equipment.

With an "Illinois" Pasteurizer thorough pasteurization at low cost is just as available to the small milk plant operator as to the large one.

The "Illinois" Pasteurizer units can be added as your business grows.

Send for the facts of what the "Illinois" Pasteurizer is doing for others, and how reasonable it is to install and operate.

Illinois Creamery Supply Co.
715-19 SO. ROBEY STREET
CHICAGO, - - ILLINOIS

THE PERCENTAGE AND CASH SYSTEM.

(Continued from page 27)

own. Each man is paid according to his own ability and progress instead of by the hours he puts in. No salesmen's rate of commission is cut from what they start with and there is no limit to what they can make.

Personally I think it is the best and only way to pay milk salesmen, and I wouldn't care to work under any other system.

By Max J. Gray, Salesman.

My experience working on a percentage basis is more satisfactory because I know that the more I sell the more money I make. It also induces me to work much harder for new business. I have made a rule with myself to solicit at least six prospects every day, besides delivering my regular route.

Selling tickets and collecting in advance for them, or getting the cash each day, is the most satisfactory because it relieves the house and myself of losses in bad accounts, and it also allows me more time to solicit new business.

Under this cash and percentage system I have increased my earnings over 50 per cent in the last 18 months.

By W. W. Rhett, Salesman.

Milk selling on a commission basis is preferable bot to the dairy and to the salesman, especially the latter Each new customer means an increase in his salary Naturally, his efforts will go, first, to the securing o new business and, second, to the retaining of all ol business.

The dairy profits, in that their payroll contains onl what money has been earned, and the more they pa through this medium, the more they receive. Hence, yo have the employer and the employee working hand i hand to gain the goal of larger volume and greate profits.

⁂

TO MEMBERS OF THE NATIONAL DAIRY ASSOCIATION.

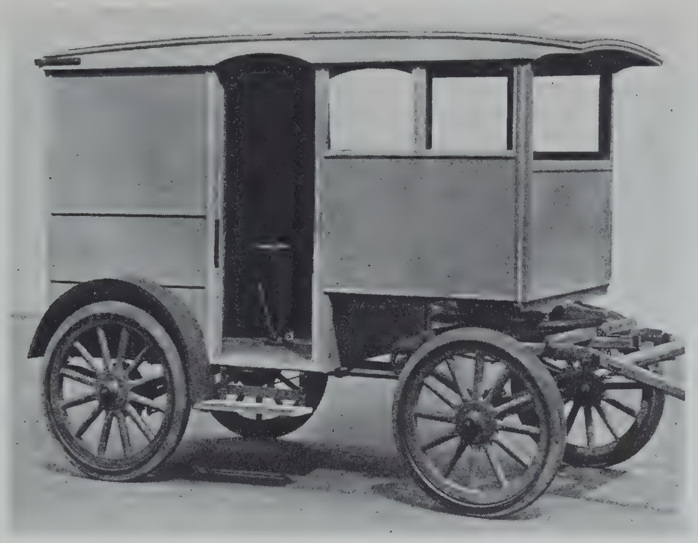
Chicago, Ill., Nov. 1, 1926.

In conformity with the by-laws, a call is hereby issue for the annual meeting of the association for Frida December 3, 1926, at 10 a. m., at the offices of the ass ciation as required by the by-laws, when adjournmen will be immediately taken and the meeting resumed a the parlors of the Auditorium Hotel, Michigan Avenu and Congress St., Chicago, where members are expecte to report directly.

As a leader in an industry that has such a vital bea ing upon successful agriculture, and as a member of a association that is earnestly striving to advance the i terests of the great dairy industry, it is sincerely hope that you will be willing to give of your time to atten the meeting for your own advantage as well as for th good of a splendid work that needs your counsel. Whi it is customary to ask for proxies for such meetings, would be better if it were not so. This year it is pa ticularly important that all members attend who can po sibly arrange it, and take up their responsibilities membership. Matters affecting the future life and us fulness of your associaton will be acted upon at th meeting.

Do not treat this meeting as a perfunctory matte Rather make it one of personal responsibility and give your earnest attention. Let your office know that y will be on hand.

Yours very truly,
CHARLES L. HILL, Pres.



A New Step Forward

in Milk Wagon Construction

This new construction eliminates renewal of axles and axle boxes.

One greasing lasts a whole year.

New style rubber tires that out-last three sets made of steel.

Banishes 9/10 of ordinary wheel repairs.

Bodies built of white oak and plymetl panels.

Timken Roller Bearing axles and roller bearing fifth wheel, and special automobile foot brake.

Selected hickory gear and extra heavy springs.

Draft is three times as easy on the horse.

Loads 36 to 42 cases.

Semi low-down construction.

HERE IS THE WAGON THAT WILL CUT REPAIR BILLS AND GIVE YOU LONGER SERVICE.

Get Our Prices Now!

JOHN GUEDELHOEFER WAGON CO., Inc.
ESTABLISHED 1880
202 KENTUCKY AVENUE INDIANAPOLIS, IND.

Stimulating Milk Sales In Stores

What Kind of Dealer Helps in the Milk Trade? Brand Advertising Should Have a Store Tieup Always

By E. J. CLARY*

AN INCREASING number of dairymen doing regional business through retail outlets are engaging in billboard and other forms of local advertising. They are telling the people to buy and ask for their brand of milk and cream but are doing very little to establish their agencies in the public mind.

This means that there is a decided gap in the merchandising scheme and one that costs the dealer money in the long run.

An increasing number of milk dealers, in seeking retail outlets and advertising their brands locally, are looking into the matter of dealer helps in order to get the full benefit of their advertising.

Where exclusive milk agencies exist, it is not difficult to get the co-operation of the retail dealer though in other cases, it takes some sales promotion work.

Very few delicatessen stores, groceries and confectioneries ever consider the advisability of playing up their milk service through window set, counter cards or streamers and perhaps there is some blame to be laid at the door of the dairyman.

The whole thing may be summed up thus:

Make every retail outlet you have familiar to the buying public so they will know where your brand can be purchased.''

That is why the dealer help idea, which has languished in the milk trade, generally speaking, is of interest to the trade just now.

Get Retailer's Co-operation.

Many of the larger dairies are well equipped to service the retailer of their milk in the way of store signs and window setups and there is no reason why the smaller regional dealer cannot do something along this line to his own advantage.

I find in the East the following forms of dealer helps in use at present:

a. Window displays.
b. Window cards.
c. Store streamers.
d. Counter cards.
e. Store signs.

For the most part, these helps are being given free to the retailer by the milk plant when, as a matter of fact, a better purpose would be served if a nominal charge were made.

Route men are seldom competent nor have they the time to service the retailers they serve. The dairyman would unquestionably find the employment of a sales promotion man to work up dealer interest in milk displays a good paying investment. While the larger dairies do this, very few of the smaller ones have seen fit to do so. Such a man could contact the most important retailers at regular intervals with helps and suggestions that would bring direct returns to the milk plant itself.

It has been found that helps sent to retailers unordered and free are seldom put to good use or any use. When the stuff is sold to the retailer he places more value on it and is more apt to use it promptly and effectively.

Don't Know What Brand.

In buying bottled milk at the corner, the housewife as a rule doesn't question the brand, if she even notices what brand she is getting. ''A good many of my customers seem to think,'' said a chain store delicatessen manager to me recently, ''that we bottle our own milk. It shows they don't even read the cap which bears the imprint of one of the best known milk plants in New York.

''I could change brands overnight and never hear of it from my trade.'' This makes the use of suitable dealer helps by the trade of great importance.

Dealer helps of one kind or another serve to establish the retail store using them for the advertised brand; it completes the chain of advertising from billboard and newspaper to consumer, pointing to the place where the advertised goods can be purchased.

In addition, dairymen are engaging in more direct mail work to back up the co-operation secured through their retailers. I recently saw a form letter sent out by a milk plant in New York which listed 27 retailers handling their brand in a single neighborhood and urging the householder to see them and trade with them.

A grocer's show window certainly is worth a lot to the milk plant whose brand he carries regularly but how often do you see a milk window? Very rarely.

When a brand is considerably above standard and is maintained at that point, the plant has a powerful advertising force to bear on the consumer and in no way can it be used to better advantage than through the retail channels.

''What can we do in the way of dealer helps?'' the plant manager asks.

Milk Selling Displays.

Milk loans itself to attractive though inexpensiv window setups of cardboard.

Novelty houses have many processes by which exaggerated bottles with advertising on them can be displayed in the store.

Streamers are readily used by retailers if they ar attractively gotten up.

Counter cards and wall signs, if hung by the plan agent, will usually be permitted to hang there indefin itely.

The large dairies, we know, furnish these helps i quantity but the smaller plants have not gone into the to the extent that they should do so.

It is very much, after all, like merchandising ic cream. The ice cream people are pointing the way f the milk plant in regard to dealer help service. Yo know, when you step into the average drug store, wh brand of ice cream you are going to get or are gettin in your sundae. The wall signs and counter sig tell you.

Special outdoor sign propositions are usually t costly for the milk plant to offer. The milk sales volu in the average retail store isn't heavy enough to wa rant them.

The fact that some of the larger milk dealers ha made special outdoor sign offers to their retailers doesn mean that it would be profitable to the little fellow.

To build up an over-the-counter trade, the plant h to engage in some sort of promotion along these line

Advertising in local press and on billboards alo won't do it. You have to ''label'' your stores.

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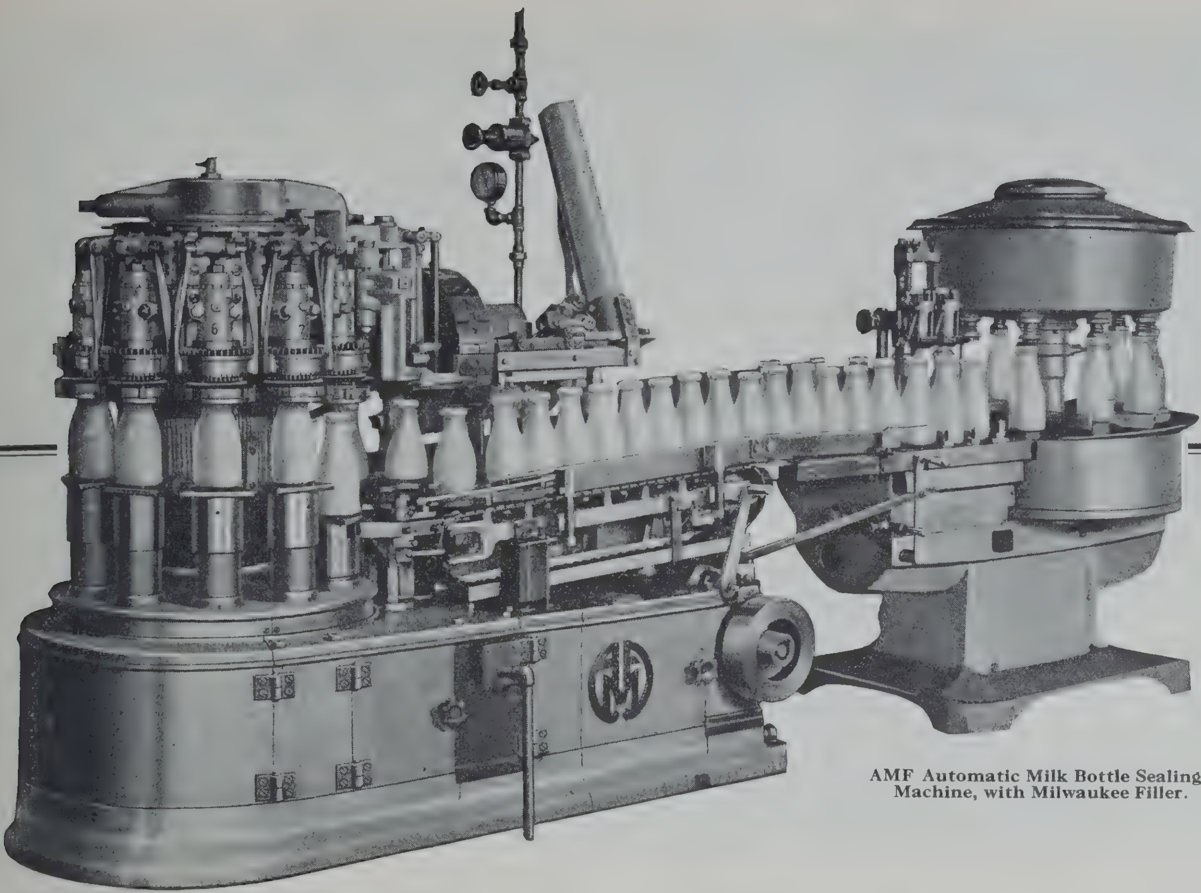
* Merchandising Consultant.

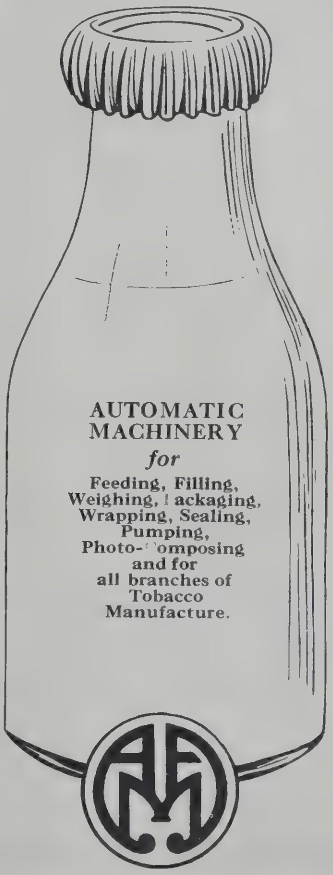


AMF Automatic Milk Bottle Sealing Machine, with Milwaukee Filler.

Seal for Safety

THE new and better way of capping milk bottles is by means of the Westlake one-piece, non-resealable Sanative Seal, as applied by the AMF Automatic Milk Bottle Sealing Machine. This is the most completely protective bottle seal ever devised. It cannot be knocked off or jarred loose in handling, and perfectly guards the customer against contamination from unclean hands, dirty ice, or animals. It requires no wires or other equipment of any kind to keep it in place.

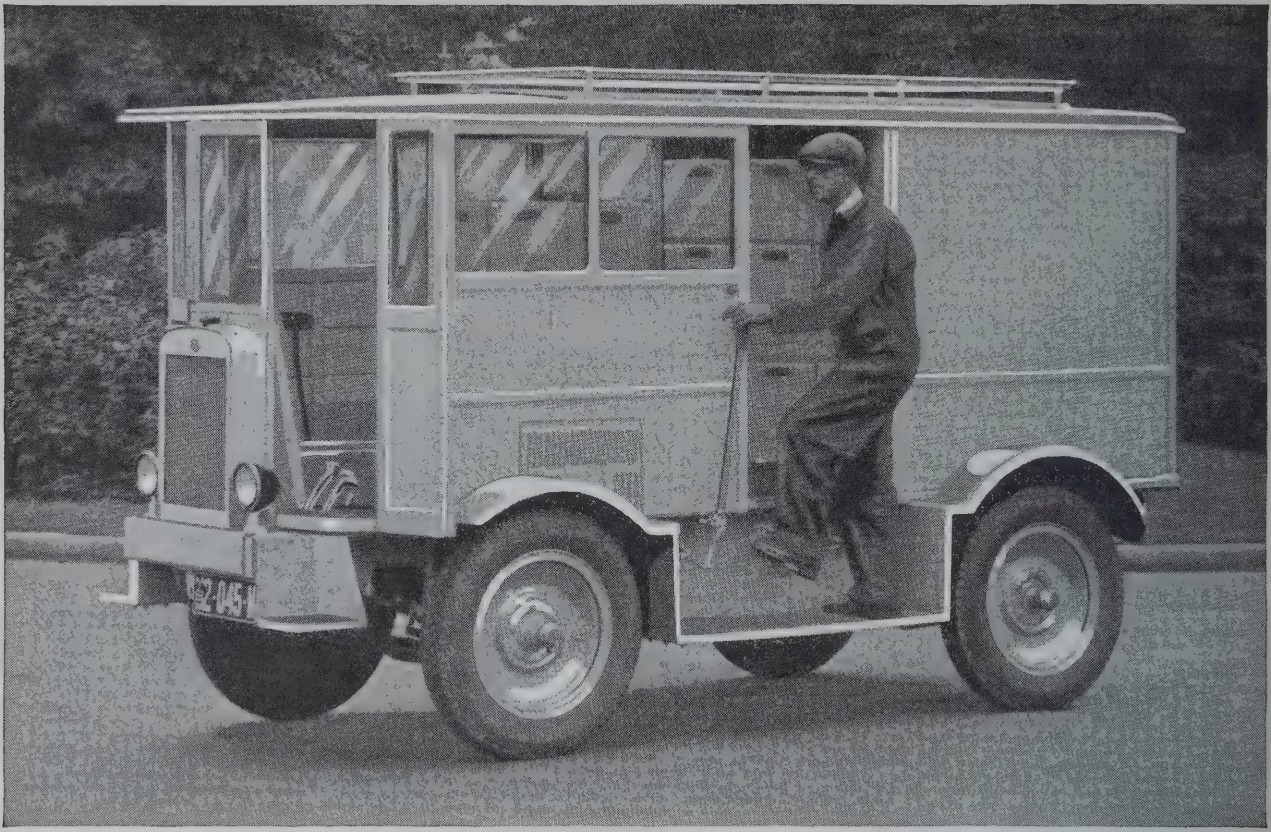
This seal is air-tight and waterproof. A simple turning and lifting movement is sufficient to remove it with ease. It can then be replaced as a dust cover, but cannot be used again as a seal. Write for descriptive bulletin and prices.



AUTOMATIC
MACHINERY
for
Feeding, Filling,
Weighing, Packaging,
Wrapping, Sealing,
Pumping,
Photo-Composing
and for
all branches of
Tobacco
Manufacture.

The Westlake Sanative Seal is shaped and fitted tightly over the lip of the bottle by the automatic machine illustrated. Flat discs of five-ply spruce paper are fed to the machine, which softens them, moulds them over the bottle top to the under side of the lip and holds them in place until they set to shape in cooling — all in six seconds.

The Lakewest Corporation
Division of
AMERICAN MACHINE
& FOUNDRY CO.
5502-5524 Second Ave., Brooklyn, N.Y.

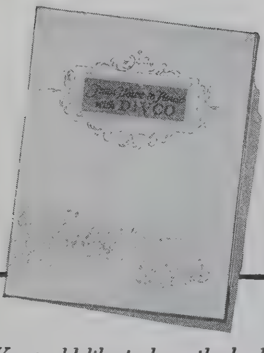


Gasoline Driven — Not Electric

From House to House with Divco

The milk man of the very near future will go from house to house with Divco. Exhaustive tests in actual service prove that. For Divco, the only gasoline vehicle designed purely for milk delivery service, cuts delivery costs, combines three average routes into two, expands the delivery possibilities of the driver and carries as much milk as any man can deliver.

Write for the booklet which tells all about Divco. It not only describes the vehicle fully, but is complete with operating tables which show the big savings effected in the services of large milk dealers.



We would like to have the book, "From House to House with Divco."

We operate ____ milk wagons at present.

Name ________________________

Street ________________________

City ________________________

Detroit Industrial Vehicle Corp.

1400 Fort Street West
Detroit

Milk Distribution Business Growing In Importance

New Orleans, the Financial and Manufacturing City of the South, Appreciates Its Milk Bottling Industry

By H. VAN R. CHASE*

CITIES like people are judged by the company they keep. Some always are on edge to learn how they can improve themselves. They are progressive and fighting for new methods of building up larger and greater communities. They are quick to take advantage of opportunity as it presents itself, to keep abreast of the age. Whereas, on the other hand, is quite a different class that is content to stand idly by and wait until fortune voluntarily smiles upon them.

New Orleans is firmly intrenched in the first category, It is a city that is growing rapidly but steadily, consolidating its advances as quickly as it makes them. Every part of its life is affected, civic, commercial, industrial and financial.

A glance at the docket of public and private undertakings that are projected for the city—$246,037,901 of them will serve to convince the reader that New Orleans is alive to what the future has in store for it and is not satisfied to rest quietly upon the advantages it presently enjoys.

But all this goes into the story of the city's expansion. New Orleans is the nation's second port. It is the financial center of the South also. Bank debits for the year 1925 amounted to $4,289,342,000, a gain of $333,000,000 over 1924. Its bank resources are in excess of $330,000,000. It has the only bank in the South with resources above $100,000,000.

As the nation's second port and as a distribution point second to none, the splendid facilities offered by 13,000 miles of navigable waterways via ten major trunk line railroads and ninety steamship lines give New Orleans direct connection with all the important markets of the world.

Industrially, New Orleans is making the country sit up and take notice. It now manufactures 900 different articles in over 1,200 large plants. The New Orleans Association of Commerce Industrial bureau has inaugurated a big program of industrial development that calls for an active compaign to attract great national industries to the city in increased volume, because it deems such to form a backbone for the prosperity and general gain of the community.

While New Orleans is forging rapidly ahead, the areas surrounding it are reflecting its growth. On the Gulf coast, the marks of progress are very evident. This stretch of beautiful coastline on the shores of Mississippi Sound, has come to be known as the "American Riviera." Three great hotel projects are included in the $50,000,000 that is being spent for improvements and development.

An important factor in the development of the city has been good roads. The old Spanish Trail passes through New Orleans on the route from St. Augustine, Fla., to San Diego, Calif. It is a fine, smooth surfaced highway with good connections at its eastern and western outlet from New Orleans. The Jefferson highway gives tourists who travel by automobile a splendid international road from New Orleans to Winnipeg, Canada.

"The future of the South is guided by two great industries," says Roger W. Babson, noted business forecaster and statistician. "The first is 'the Motor Industry,' and the last 'the going away winters industry'."

In other words, Mr. Babson foresees the exodus from the bitter climes of the North to the moderately temperatured southern playgrounds when "Old Man" Winter sends his icy blasts upon them.

Automobiles, to a large extent, will be the mode of transportation. New Orleans, which has established a name and reputation throughout the country as a year-round capital for the transaction of business or the full indulgence in pleasure will be the natural mecca for two reasons—one, because of the magnificents system of highways giving entrance to it, and two, because of multiple advantages it enjoys.

New Orleans consumes on an average of 26,000 gallons of milk a day, representing an annual outlay of approximately $5,276,400 for this nourishing food drink.

While the ordinary observer would consider the figures, on their face, of large proportions, it is the opinion of George A. Villere, president of the Cloverland Dairy Products Co., Inc., that there is still plenty of room for greater education of the population to the habit of drinking milk.

He supports this theory by pointing out that New Orleans is a city of some 425,000 souls—nearly a half a million—with a mere 26,000 gallons of milk, which should be the universal draught, sufficing for its needs. In other words, a gallon for every sixteen of the inhabitants, seemingly a poor proportion.

Mr. Villere is the active head of the largest milk distributing plant in New Orleans, or the surrounding country. His company handles daily 12,000 gallons of fresh milk—slightly less than half of the total consumption for the city per day. Retail prices here are 8c per pint and 14c a quart. The plant, itself, is the last word in modern milk depots, complete in every detail and equipped to the last notch for the sanitary pasteurization and distribution of milk.

Three large assembling stations, located in the best dairy farming districts near the city, form the points of contact between the producer and the distributor. Farmers bring the milk to these stations, in this case at Tangipahoa and Slaughter, La., and Wesson, Miss., where it is weighed and then promptly placed under refrigeration that keeps it at a temperature of from 34 to 36 degrees.

Glass-lined and refrigerated tank cars of capacity of 2,000 to 3,000 gallons then pick up this milk at the same temperature under which it has been kept and haul it into the main plant here. It is then pumped from the cars into a weighing bin—checking the weight against the sub-station report—to establish the price due the producer. The latter usually receives about 28 cents per gallon for product on the basis of "four per cent" milk. If it is classed higher, the price rises accordingly. The Cloverland Company handles about four of these cars per day.

After weighing, the product is pumped to the top floor of the plant into glass-lined tanks of 4,000 gallons

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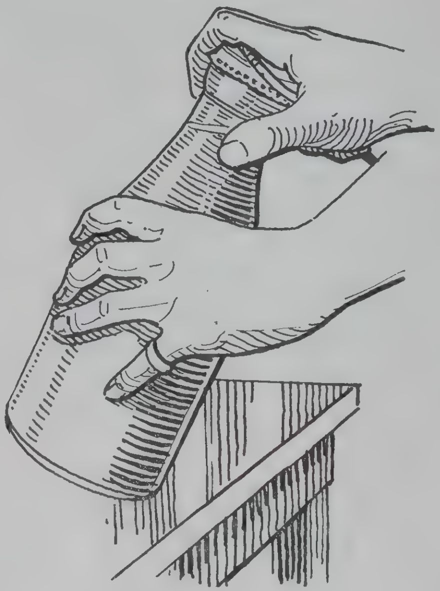
* General manager, New Orleans Association of Commerce.

THE
DACRO
METAL CAP

Here at last is the perfect package of Milk or Cream, pure and sweet pasteurized IN the bottle! Made possible by a mechanically perfect closure.



Pure, sweet MILK—delivered under hermetic seal to the home. Handy openers supplied at small cost.

The Dacro Metal Crown—This remarkable cap is made on exactly the same principle as the famous Crown Cork which revolutionized the bottled beverage industry. The Dacro Crown is a hermetic seal. It automatically locks under the glass rim of the bottle. It is scientifically a perfect closure. Sealed with the Dacro Crown, Milk or Cream can be pasteurized in the bottle, an exclusive advantage of this seal. The Dacro Crown covers and protects the pouring lip. It KEEPS clean milk clean! No danger of contamination or tampering with pure contents. And the Dacro Crown can be replaced for temporary covering and seal after opening bottle.

PASTEURIZE YOUR MILK
IN-THE-BOTTLE

THE
Crown Cork & Seal Co.
BALTIMORE, U. S. A.

Inventors and originators of the famous "Crown Cork"

capacity. It is then subjected to 145 degrees F. of hea a part of the pasteurization process. After boiling fo the right length of time, it is then sent through a serie of coils and pipes, at varying degrees of temperature un til it is restored to the original 34 to 36 degrees. It in the meantime standardized into four per cent mill which is a slightly greater percentage than local healt board regulations require.

The pasteurized milk then flows into cooled rese voirs from which it is automatically bottled and cappe Between thirty and thirty-five thousand bottles are use daily. The bottles and the wooden containers used b the distributing forces are thoroughly sterilized ever time they return to the plant and before they are refille

The company maintains a fleet of 86 wagons, eac wagon responsible for an allotted portion of the cit and is not permitted to accept orders outside of its r spective district. Besides it holds some fifteen wagon aside to supply groceries and drug stores and six add tional vehicles to look after the school trade, all in th day time.

From surplus supplies of milk, the Cloverland Con pany manufactures cream cheese, condensed milk an ice cream concentrate, it having a large separate trac in these commodities.

The employed help in the plant proper, including th delivery men, are outfitted in white dungaree uniform that they may change as often as they like.

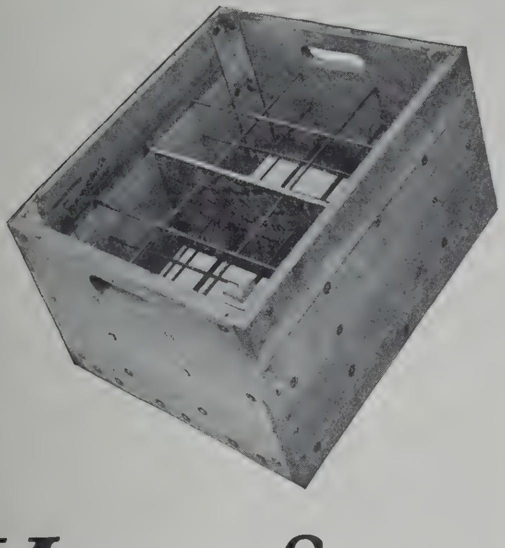
A demonstration lunch room is located in the buil ing where clubs and organizations may hold forth an listen to lectures on milk while watching the operation the plant through large glass windows. The building the picture of sanitation. All its walls are finished white, glazed tile, making them easily cleanable.

The arrangement and organization of the Cloverlan plant is one to marvel at. It is built so as to permit do ble or triple expansion of capacity without interruptio of business or the usual delays invoked by the proce of acquiring additional property. It has a circulatin air-cooled system throughout; manufactures its own ic has its own emergency power plant, in addition to thr separate power lines of the local public utilities con pany serving it; builds its own wagons, has its ow paint and blacksmith shops; has a large, well clean and kept stable, housing 192 head of mules; mixes its own feed for them, provides them a playground and ve erinary hospital; has spur track facilities and a 20,0 gallon water tank, shaped like a milk bottle, that ca be seen for miles around, the storage water coming fro its own well driven 850 feet into the ground.

Mr. Villere thinks, with all this, that the milk indu try could stand much greater development. He believes the field is still a virgin one and the opportunities ma fold. The "man on the land," or the dairy farm, while being amply repaid for the state of efficiency e has now reached, could be educated and encouraged o broaden his activities, at the same time reducing is expenses, and pocketing the difference. All of this would lead to a more flourishing and affluent condition among the farmers.

* * *

Rainy Sundays are fine for giving the will power a little exercise. Use it to force the reluctant brain ino devising means of getting something out of idle time that is far too valuable to be yawned away.



Money Savers

You can keep down your bottle crate investment with—

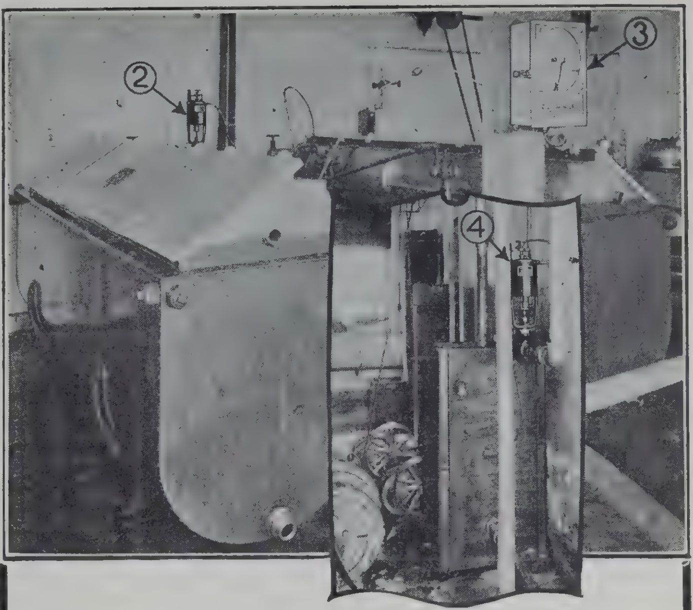
Republic Bottle Crates

and their life of useful service will be found to compare exceptionally favorable to any you have used.

The high one-piece galvanized iron center spacer keeps the rods permanently in line and prevents their sagging. Corners are reinforced with heavy galvanized metal—made in one piece to form stacking iron and bottom corner protection.

GET OUR PRICES
BEFORE YOU BUY

THE
Republic Box Company
1693-1711 Merwin St.
CLEVELAND, OHIO



Milk Temperature Held Within 1° F. Here

Illustration shows two Burrell Simplex Spray Pasteurizing Vats, in creamery of United Co-operative Society, Maynard, Mass., equipped with:

—American (formerly Honeco) Steam Operated Controllers (marked 2), which automatically hold milk at a temperature of 142° F.

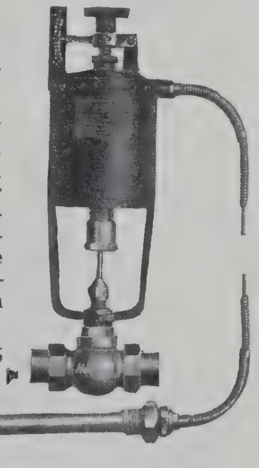
—An American (formerly Columbia) Recording Thermometer (3), which gives a written record of temperature maintained, together with the time inspections were made.

—An American (formerly Honeco) Self-operated Controller (4), to control temperature of the water used for heating milk in the vats.

With this equipment the temperature of the milk is held within 1° F., plus or minus, without the use of air operated controllers. Thus, there is no danger of the milk taking on a cooked flavor or of losing the cream line.

These instruments not only insure perfect sterilization, but speed up production and lower operating cost. Our engineers have made a careful study of the milk industry and may be able to give you some valuable suggestions without any obligation on your part.

Write for Catalogs R-25 and H-25.



AMERICAN SCHAEFFER & BUDENBERG CORP.
338 Berry St., Brooklyn, N. Y.

Atlanta
*Boston
Buffalo
*Chicago
Cleveland
Detroit
St. Louis
*Los Angeles
Salt Lake City
*Seattle
Tulsa
Philadelphia
*Pittsburgh

*Stock carried at these branches.

AMERICAN
Temperature Controller

Fluid Milk Market Report for United States for Oct., 192

By Bureau of Agricultural Economics, Market News Service, United States Department of Agriculture.

Table I—Producers' Prices for Standard Grade Milk Testing 3.5% Butterfat, Delivered F. O. B. Local Shippin Point or Country Plant.

Prices which appear in this report are secured through the co-operaton of milk distributors, producers' association and municipal officers. Dealers' buying prices unless otherwise indicated, represent prices applying to all milk delivere by producers. For cities where a "surplus plan" is in effect, the prices reported in table III are for "basic" quantitie All per cwt. buying prices have been converted to a 3.5% butterfat basis for comparative purposes.

Sections	Range of October Prices		Prices Compared for Same Markets			
	Number Local Markets	Prices per Hundredweight	Number Local Markets	1926 Average for October	1926 Average for September	1925 Average for Octobe
New England	9	$2.95–$3.82	9	$3.44	$3.44	$3.48
Middle Atlantic	13	2.30– 3.17	13	2.83	2.72	2.67
E. North Central	24	1.89– 3.13	24	2.50	2.48	2.52
W. North Central	18	1.66– 2.75	16	2.22	2.22	2.24
South Atlantic	14	2.80– 5.81	13	3.87	3.75	3.71
E. South Central	4	1.83– 2.75	4	2.39	2.26	2.64
W. South Central	7	1.58– 3.30	7	2.56	2.53	2.86
Mountain	6	1.75– 3.20	6	2.31	2.30	2.57
Pacific	8	1.95– 3.06	8	2.63	2.63	2.79
United States	103	1.58– 5.81	100	2.76	2.72	2.81

Above prices include "basic" prices where a surplus plan or pooling plan is in effect. Cities where prices are base upon current butter quotations not included.

Table II—Prices for Special Grades of Milk and Certain Milk Products.

The following table shows the wholesale and retail prices reported for "special" and "certified" milk and certain oth products delivered at wholesale buyers' places of business and at the home of retail customers.

Cities	Special Milk	Certified Milk	Cultured Buttermilk		Cottage Cheese		Light Cream 18-25% B. F.	
	Retail Price per Quart	Retail Price per Quart	Wholesale Price per Gal.	Retail Price per Quart	Wholesale Price per Lb.	Retail Price per Lb.	Wholesale Price per Gal.	Retai Price p ½ Pt
	Cts	Cts.	Cts.	Cts.	Cts.	Cts.	$	Cts.
Akron	16–20	20	20	8	8	10	1.30	16
Albany	18	..	32	10	..	..	1.60	17–2
Albuquerque	..	..	..	..	18	25	1.75	15
Asheville	19	25	25–30	11	15	..	2.00	20
Baltimore	..	30	44	14	7–10	15*	1.70	16
Birmingham	20–25	25	25	10	..	..	1.50–1.70	15–2
Boston	18	26	..	10	..	..	1.17–1.80	..
Buffalo	14	26	24	10	12	15	1.50–1.60	22
Chicago	17	25	..	10	..	15*	1.30–1.80	16
Cleveland	19–20	25	20	10–12	10–15	15–20	1.26–1.75	17–2
Colorado Springs	17	..	15	6	..	..	1.20	11
Dallas	24	..	20	8	..	..	1.40	12–1
Denver	14	..	20	8	14	20	1.40	14
Des Moines	14–25	..	15–20	5–10	8	12	1.35–1.40	13–1
Duluth	14	25	13	8	..	..	1.40	17
El Paso	18	..	25	11	15*	20*	1.50	15–1
Evansville	15	..	25	9½	12*	15*	1.60	14
Harrisburg	..	28	28	9	..	..	1.50	13
Hartford	20–25	25–35	..	..	..	..	1.40	18
Indianapolis	16	..	25–30	9–12	10–16	15–20	1.10–1.75	12–1
Jacksonville	25	..	30–35	10–12	20	30	1.60–2.25	20–3
Kansas City	15	25	25	10	15	15*	1.80–1.90	10–1
Lincoln	14	18	20	10	12	15	1.25	10
Long Beach	20	..	45	15	8	10	1.60	17
Los Angeles	..	28	25	10	..	..	1.60	17
Louisville	16	24	..	12	..	..	1.00–1.63	16
Memphis	..	30	12½–20	7–8	15	20	1.00–1.40	15
Miami	30	..	50	15	..	..	2.00	25
Milwaukee	14–18	25	12–18	6	5–7	9–10	1.30–1.65	14
Minneapolis	..	22	..	13	10*–13*	12*–15*	1.40–1.44	15
Nashville	18	..	20	10	17	20	1.50	16
New Orleans	18	31	40	14	..	..	1.20	17
New York	30	28	28	11	..	..	..	..
Philadelphia	15–16	30	32	9–13	6	8	1.48–1.56	17
Pittsburgh	..	25	25	10	..	..	1.20–1.50	16
Portland	15–19	..	35	12	10	15	1.50	15
Richmond	18	..	25	8	10*	15*	1.20–1.30	14
Rockford	18	18	..	..	..	..	1.40	15
Salt Lake City	15	..	..	..	10	15	1.35–1.45	14–
San Francisco	..	25	..	14	..	20	1.80–2.50	20
Scranton	18–20	25	20	8–10	..	..	1.40–2.40	20–
Sioux City	..	25	15	6	8*	10*	1.20	10
Spokane	15–18½	18½	20	8–10	10	15	1.55	15
St. Louis	18	25	..	10–18	13	15	1.26–2.00	17
Trenton	17	30	40	13	..	..	1.76	15–
Trinidad	20	25	30	10	..	..	..	..
Washington	18–22	30	..	15	15–20	15–20	1.80–2.00	2
Wilmington	20	..	..	10	..	13*	..	1
Omaha	15	20	20	10	10	..	1.20	11

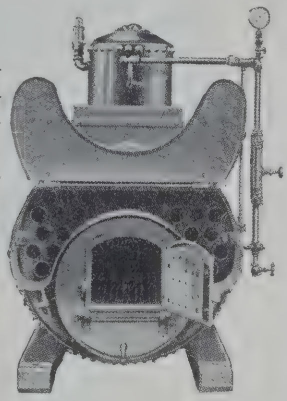
* 12 oz. package

Leffel CREAMERY BOILERS

Save Time Labor Fuel

Surprising economy can be effected by operating Leffel Creamery Boilers in your Plant. They give more power, use less fuel, are easy to clean—and require little attention.

The illustration shows how easy it is to reach tubes, fire box and water chambers.



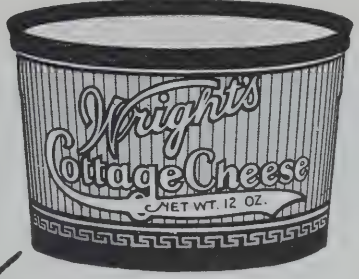
They come complete with all fittings and mounted on heavy wooden skids. Whether your plant is large or small there is a Leffel Boiler that will save money for you.

Sizes from 6 to 150 H.P. Every size fully guaranteed.

Meet all state boiler requirements.

Write for detailed information and prices.

The James Leffel & Co. BOX 330 SPRINGFIELD, OHIO, U. S. A.

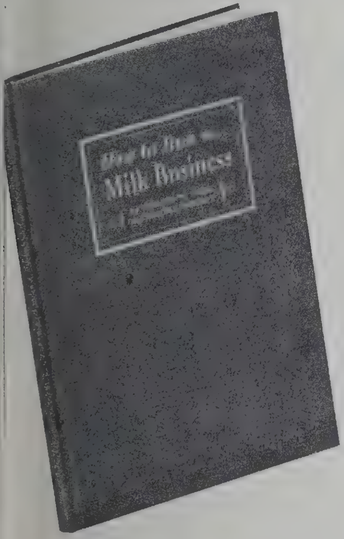


The package that increases sales volume with less selling effort. Used by leading milk dealers for longer than 15 years.

Made of snow white paper. Waxed. Keeps the cheese fresh and clean. Your name and brand attractively printed on the package and lid in one or more colors. Send for samples.

Mono Service Co.
NEWARK NEW JERSEY

KLEEN KUP



Get these Business Facts about the Milk Business

There is no book today that gives the business information about the milk industry as told in this handy volume.

For the milk dealer who wants to put his business on a more substantial basis this book will be worth many times its price.

Sent postpaid anywhere on receipt of $2.00

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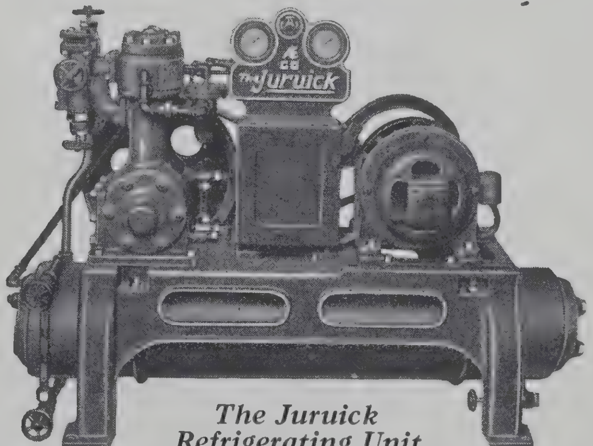
***Juruick* REFRIGERATION**



The Juruick Refrigerating Unit

Cool your milk with a JURUICK. Economy of power and water, automatic operation and absolute reliability make the JURUICK Automatic Unit the ideal method of refrigeration for both large and small dairies. When you install a JURUICK you can forget your refrigeration troubles because a JURUICK automatically keeps the temperature just right and runs only when necessary, so that it uses the absolute minimum quantity of power and water.

Send for Juruick folder today.

American Engineering Company
2417 Aramingo Ave., Philadelphia, Pa.

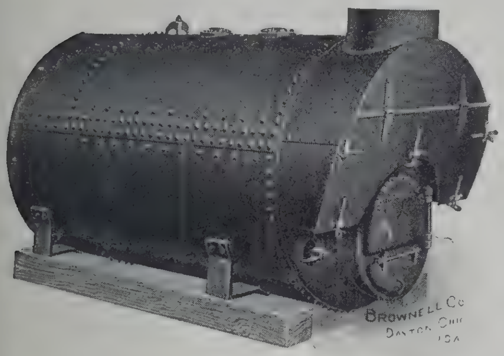
Table III—October Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat Test of Milk Sold
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5-20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
ALABAMA—							
Birmingham	Varies	..	45–50	14	18	14–18	4.0
Mobile	....	..	50	15	18	18	3.25
ARIZONA—							
Phoenix	....	..	32	8	10–12½	10–12	..
CALIFORNIA—							
Long Beach	3.26	9.3	43.33	13	15	15	4.1
Los Angeles	3.15*	9	43.33	13	15	..	3.6–4.
Oakland	2.81	2.9+	35	9	12	10	..
San Francisco	3.11–3.21	2.9+	41.3–41.6	12–14	14	13–14	3.6–4.
Santa Barbara	Butter Market Basis		40–45	..	15–16	15–16	3.8–4.
COLORADO—							
Boulder	1.75	5	32	9	11	10	3.6
Colorado Springs	2.45	6	30	9	11	11	3.4–3.
Denver	2.10	6	35	10	12	12	3.0–3
CONNECTICUT—							
Bridgeport	4.22*	4	48	14	16	..	3.6
Hartford	4.22*	4	46	13–14	16	14–16	3.8–3
New Haven	4.22*	4	50	14	16	16	3.7
DELAWARE—							
Wilmington	3.23*	4	44	13	13	..	..
DIST. OF COLUMBIA—							
Washington	3.60*	7	46–48	12–15	15	13–15	4.0
FLORIDA—							
Jacksonville	4.53	10 to 4.2%	55–60	18	20–21	18–21	4.0–5
Miami	6.28	Flat	70	20	25	23	3.5
Tampa	5.81	Flat	60	22	25	25	3.5
ILLINOIS—							
Chicago	See Table II		32–38	13	14	14	3.5
Peoria	2.35*	5	33	10	12	12	3.3
Quincy	....	..	30	8	10	10	..
Rockford	2.55	6	28	9	11	11	3.6
Springfield	2.25	4	34	10	12½	12–13	3.5–4
INDIANA—							
Elkhart	2.10	5	30	7½	10–12	10–12	3.8–40
Evansville	2.24	6.4	34	11	12½	12½	3.7
Fort Wayne	2.10	5	40	11	13	12–13	3.7
Indianapolis	1.92–2.01	5.5–5.75	28–32	10–10½	12	11–12	3.6–38
South Bend	2.55	4	32–35	10	12	12	3.8
IOWA—							
Burlington	2.55	4	30	8	10	10	3.7
Davenport	2.20	5	30	8	10	8–10	3.
Des Moines	2.40*	5	28	8–9	10–11	8–11	3.5–37
Iowa City	2.27	6.5	30	9	12	11	3.2–36
Ottumwa	2.25	5	35	10	12	12	3.
Sioux City	2.30	5	30	8	10	10	3.
Fort Dodge	2.70*	5	38	10½	12	12	3.8–40
KANSAS—							
Kansas City	....	..	35	10	12	12	3.
Topeka	2.10	4	..	..	10	10	..
KENTUCKY—							
Lexington	2.75	Flat	40	12	14	12–14	4.
Louisville	2.00–2.12	4	28–29	10–12	12	12	3.8–0
LOUISIANA—							
Alexandria	2.91	Flat	40	12	15	13	4.
New Orleans	3.04	4	35	12	14	14	4.
MARYLAND—							
Baltimore	3.55*	5.8	44	14	14	15–16	3.
Cumberland	4.50*	5	40	13	15	15	4.0–2
MASSACHUSETTS—							
Boston	3.86*	B. M. Basis	41	..	14½	12	3.
Easthampton	....	..	46	12	14	14	3.
Fall River	....	..	..	12	14	13–14	3.
Lawrence	3.95	Flat	44	11½–12	14½	12–15	..
Lynn	3.95	Flat	..	12	14	..	..
Springfield	3.49	Flat	40	12	15	12	3.
MICHIGAN—							
Battle Creek	2.80*	4	36–40	10	12	12	3.8–0
Detroit	3.00*	4	..	..	14	..	..
Grand Rapids	2.48*	4	30	8–9	9–12	9–12	3.
Kalamazoo	3.00*–3.20*	4 to 4%	38	11	13	13	3.5–1
Lansing	2.25	Flat	30	8	10	10	3.3–4

BROWNELL

Dependable Boilers
for
Creameries, Dairies, Ice Cream Plants, etc.
Quick Steamers
Efficient, Safe

Built by an organization with 70 years experience
Sizes ranging from 8 to 150 H. P.
Ask for Bulletin B-3



The
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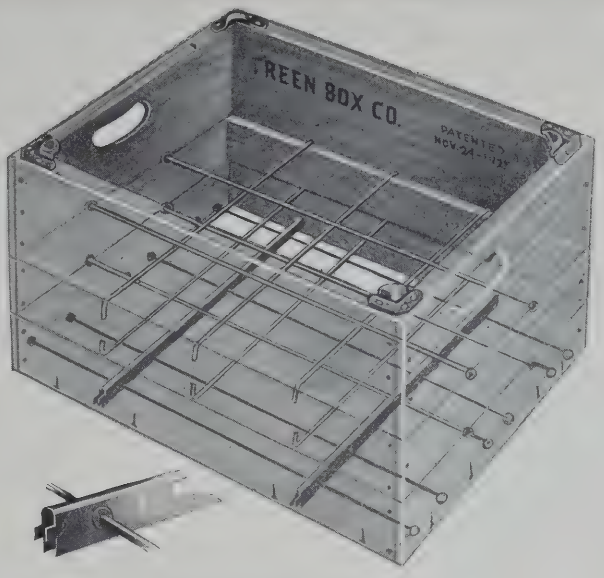
DAYTON, OHIO·U·S·A·



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12 Quarts—20 Pints

Moderately Priced Milk Box

Cross wires inserted in sides with angle ends support sides both ways.
Galvanized Channel cross braces.
Non-Breakable Steel stacking corner irons.
Strongly constructed in every detail.
Made of Selected Maple.

A TRIAL ORDER IS THE BEST
SAMPLE. WRITE FOR PRICES.

TREEN BOX COMPANY
Tioga and Memphis Streets : PHILADELPHIA, PA.

START NOW!

Using the New

SERVIT
MILK
BOTTLE
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SERVIT
PRESS GENTLY
MILK BOTTLE CAP

SERVIT
PRESS GENTLY
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They permit your customers to pour through the sterilized cap opening or to insert straws.

Servit caps work perfect in any capper.

Let Us Send You Samples and Prices.

OHIO BOTTLE CAP CO.
PIQUA, OHIO

Increase Your Sales
BY USING A
"Cream Line" Pasteurizer

Every user of a "Cream Line" Pasteurizer has increased his sales at least fifty per cent in less than a year after installation of our equipment. Many have changed from raw to pasteurized milk without their customers knowing of the change.

There must be Good Reason for this. It will pay you to investigate.

BUILT IN SIZES
From 50 Gallon Up

Fort Wayne Dairy Equipment Co.
1600 Winter Street
FORT WAYNE INDIANA

Table III—October Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat Test of Milk Sold
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5-20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
MINNESOTA—							
Duluth	....	..	30	10	12	12	3.8
Minneapolis	2.60*	5	34	9½	11	10–11	3.5–3.6
St. Paul	2.60*	5	..	..	11	..	..
MISSOURI—							
Kansas City	2.50	3.5	40	10–11	13	10–13	3.8
St. Louis	2.60	3	35–38	11	13	13	3.5–3.8
MONTANA—							
Butte	2.60	10	30–35	11	13–14	13	3.5–3.7
Lewistown	....	..	30	8	10	10	3.8
NEBRASKA—							
Lincoln	2.01	5.75	28	8½	10	10	3.6
Omaha	2.25	5	28	9	11	11	3.4–3.
NEW HAMPSHIRE—							
Concord	....	..	37½	10–12	12–14	12–14	3.5–4.
NEW JERSEY—							
Atlantic City	....	..	48	..	15	..	..
Camden	....	..	38	..	13	..	..
Hoboken	....	..	34	10½	15	15	3.6
Trenton	3.41*	4	40	11	13	14	3.7–3.
NEW MEXICO—							
Albuquerque	3.20	5.8	40	12–12½	15	15	4.0
NEW YORK—							
Albany	3.17*	4	38	15	15–17	16–19	3.8
Buffalo	2.90*	4	36–40	11–11½	13	13	3.5–3.
New York	See Table II		40	14	15	15	3.6
Rochester	2.85*	4	40	11	12½	13	3.7
Syracuse	Not Determined		..	11	13	13	..
Troy	....	..	..	..	13	13	..
Utica	3.17*	4	36	10	12	12	3.6
NO. CAROLINA—							
Asheville	3.80	4	48	14	17	17	4.2
Biltmore	3.80	4	..	..	..	..	..
Greensboro	3.70*	6	50	14	17	17–20	4.0
Winston-Salem	3.30*	4	45–50	13	16	17–18	4.3–4.
NO. DAKOTA—							
Jamestown	2.30	4	30	9	11	11	3.5
Mandan	2.75	..	35	8	13	10	3.7–3.
OHIO—							
Akron	3.40*	5	40	10–11	13	13	3.5–3.
Cleveland	3.40*–3.60*	5	42–44	11–12	14–15	12–15	3.5–3.
Columbus	....	..	35–40	10–11	12	11	3.8–4.
Toledo	2.55	5	36–38	10½	12	10½	3.5
OKLAHOMA—							
Oklahoma City	1.75	5	..	..	12½	10	..
Tulsa	2.45	7	40	11–12	12½–20	14–15	4.0
OREGON—							
Eugene	....	..	33	9	12	10–12	4.0–4.
Portland	2.25	5	25–35	9	11–12	9–11	4.0
PENNSYLVANIA—							
Harrisburg	2.55	4	32	9	11	11	3.5
Philadelphia	3.49*–3.52*	4	38–40	12	13	13	3.25–3
Pittsburgh	3.50*	5	34–40	13½	14	..	3.6–3.
Scranton	3.02	4	38–40	12–13	12–13	14	3.5–3.
RHODE ISLAND—							
Newport	....	..	..	13	15	15	3.86
Providence	3.86*	B. M. Basis	55	12	15	..	3.7
SOUTH DAKOTA—							
Sioux Falls	2.75*	5	30	9	11	11	3.5
TENNESSEE—							
Chattanooga	2.80	8	45	12	18	16	4.0
Memphis	2.58*–2.73*	4.5	30–40	10–11	15	12–13	4.2–4
Nashville	Butter Market Basis		35	11	13	13	4.2
TEXAS—							
Dallas	2.60	4	30	10	12	11–12	4.0
El Paso	3.50*–3.60*	5	35	12	15	13–15	3.6–4
Houston	2.80	8	..	..	15	..	..
UTAH—							
Salt Lake City	2.45	7	28–30	9½	11–12	12	3.5
VIRGINIA—							
Newport News	4.20	6	..	..	17	17–20	..
Richmond	3.93*	5	44	13	14	..	3.8

* Basic prices for fluid milk.

(A) Effective September 16 price will advance 35 cents cwt.

(B) Effective September 16 price to producers will increase 35 cents and to consumer 1 cent per quart.

Novoid Corkboard Insulation

"The Choice of Careful Buyers"

Buy Novoid Corkboard for Your Next Job—

We state it as our honest opinion that NOVOID CORKBOARD is of finer quality, and hence of greater value, than any other corkboard obtainable. And this belief is shared by a great many users of insulation the country over, evidenced by testimonial after testimonial that have come to us extolling the merits of NOVOID CORKBOARD in actual service.

Because of the six basic principles of manufacture employed, NOVOID CORKBOARD gained its following rapidly. Its superiority was instantly recognized, and the standard originally set for it has never varied except in improvement.

Buy NOVOID CORKBOARD for your next insulation job with absolute confidence that its high quality and reasonable price make it, in fact, the choice of wise and careful buyers.

Write Dept. 23 for new literature.

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Continuous
Sediment Eliminating

Milk and Cream Filter

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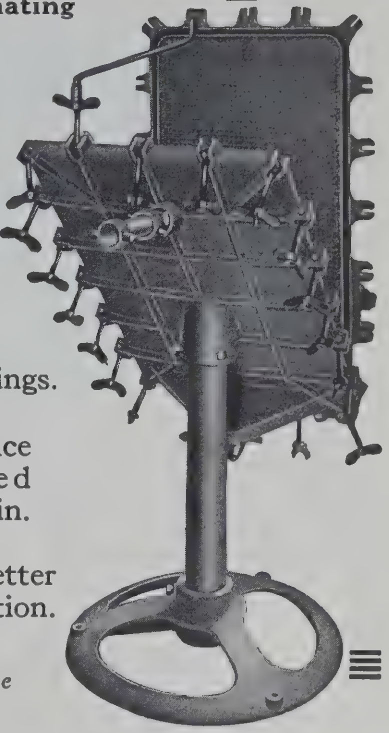

Solid bronze Castings.

The Milk Surface heavily coated with pure block tin.

A Different and Better Method of Filtration.

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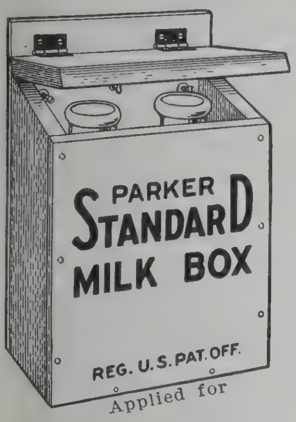

Help Your Customers to Help You

The money you spend for calendars and novelties has but a momentary good-will effect, while a Parker Standard Milk Box not only serves the customer but serves you as well. Its definite location for delivering your product and its incentive to replace bottles for prompt return expedites deliveries and keeps your equipment in service.

Parker Standard Milk Box Co.
228 North Warren Ave. SAGINAW, MICH.

What troubles have you that

B-K Bacili-Kil

can help solve?

☐ High Bacteria Count
☐ Sour Milk
☐ Stinky Cheese
☐ Plant Odors
☐ Ropy Milk
☐ Low Score Butter
☐ Mold

Check your own particular troubles, tear this out, pin to letterhead, and send to

General Laboratories
Dept. 13L Madison, Wis.

CONSULTATION FREE

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			Per Gal. in Lots of 5-20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
WASHINGTON—							
Everett	....	..	28	7	9	9	3.8
Spokane	2.35*–2.55*	5	34	10	12	12	4.0
Tacoma	2.65	5	35	10	12½	11–12	3.6
WEST VIRGINIA—							
Clarksburg	3.25	5	40	13	15	16	3.8–4.
WISCONSIN—							
Beloit	2.50*	5	30	8	10	10	3.8–4.
Kenosha	3.00	4	40	11	12	12–13	3.6
Madison	Butter Market Basis		36	9	10	10	3.55
Milwaukee	2.90*	4	30	9½	11	10–11	3.5–3.
Oshkosh	Butter & Cheese Market Basis		..	9	10	10	..
Racine	2.75	4	38	10	11	11	3.5
Sheboygan Falls	Cheese Market Basis		..	..	11	11	3.3
Superior	2.66	5	32	10	12	12	3.8–4.
Wausau	2.15	3	..	8½	10	10	3.8

* Basic prices for fluid milk.

Table IV—October Cost Prices of "Standard Grade Milk" 3.5% B. F. for Cities Where Part of the Supply Purchased Through Country Stations.

Cities	Prices Paid Producers per cwt. raw Milk (Flat prices of 3.5% B.F. basis)		Freight Zones to Which Country Station Prices Apply
	F. O. B. City	At Country Stations	
New Haven, Conn.	$4.22*	$3.70*	28c rate.
Washington, D. C.	3.60*	2.97*	35c 10-gal. can.
Chicago, Ill.	Unavailable	2.55	All.
Baltimore, Md.	3.55*	2.97*	35c rate.
Boston, Mass.	3.86*	3.13*	181-200 mile zone.
St. Louis, Mo.	2.60	2.00–2.10	34c rate.
Trenton, N. J.	3.41*	2.85*	41-50 mile zone.
Buffalo, N. Y.	2.90*	2.62*	28c rate.
New York, N. Y.	Unavailable	3.10*–3.15*	201-210 mile zone (53c rate).
Cleveland, O.	3.40*–3.60*	3.02*–3.09*	All.
Philadelphia, Pa.	3.49*–3.52*	2.91*–2.95*	51-60 mile zone.
Pittsburgh, Pa.	3.50*	2.75*	All.
Scranton, Pa.	3.02	2.72	30c rate.
Dallas, Texas	2.60	2.20	All.
Providence, R. I.	3.86*	3.01*	34.55c rate.

* Basic prices for fluid milk.

NOTE: At all places in the above tables where prices are not shown, the information was either not reported o not available.

MEET MR. PUBLIC AND FAMILY.

Mr. Public and his family are folks you should know.

He is your neighbor and your neighbor's neighbor. He sits at the dinner table and sees his youngsters grow into manhood and womanhood with mingled pride and anxiety as to their future.

Mrs. Public watches over the household day by day. Hers is the endless duty of keeping Mr. Public in good health and a cheerful frame of mind for his daily tasks. And she must see that Johnny and Mary are given the basic training in health-building habits to make their lives both pleasant and useful.

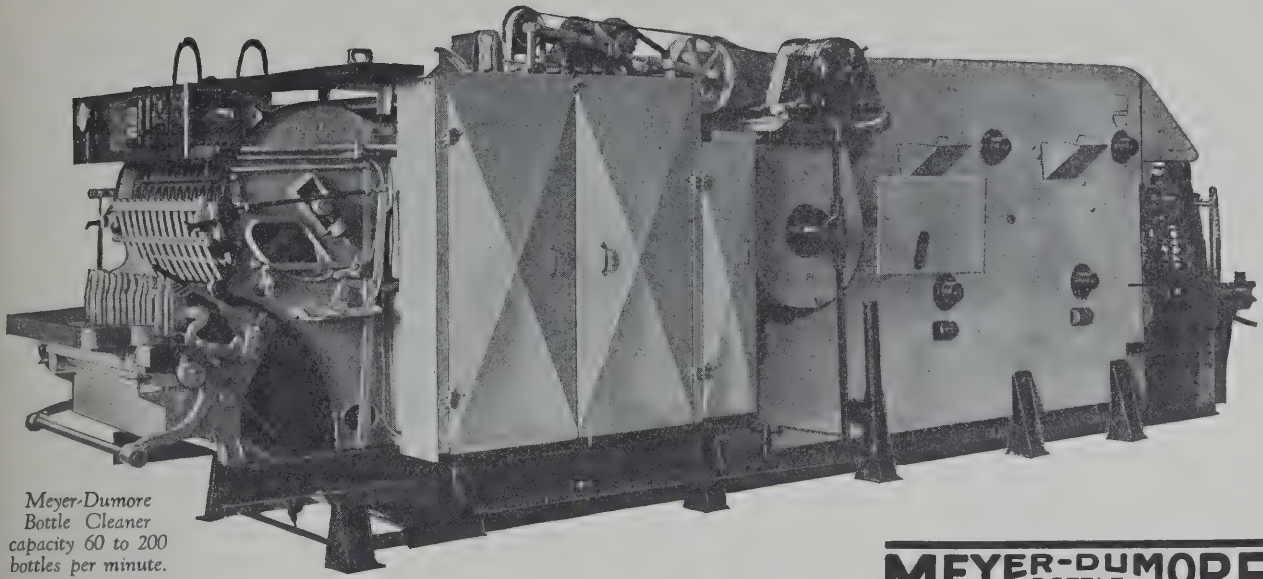
Mrs. Public knows today that she is giving more consideration than ever before to the health of her family. She is being educated by constant reiteration in newspapers, magazines and her social group to the idea that health is, after all, priceless and a jewel to be carefully guarded. She is on the alert for ideas and suggestions.

This little household, in ever increasing amount, is being bombarded on every side by those who seek to direct appetites and habits of living in a commercially profi direction.

Mrs. Public sees so many self-labeled "health cures' "panaceas" that she becomes confused and takes the conservative course of discrediting all of them. She k that she can rely upon impartial authority. So she ru home economics and nutrition schools, reads their wr and watches their demonstrations with eager eyes. S knows that these people are dependable. She knows science and the educational world will tell her, as nea they know, the real truths.

The dairy industry has studiously avoided this ba at Mrs. Public's backdoor. It has placed dairy produ their proper relationship to the right foods for her The result is an increasing welcome in her home an favorable introduction of these products in a balanced program by the very authorities on whom she depends.

So long as each branch of the dairy industry con this course, it will find a ready acceptance of its pr from Mr. and Mrs. Public and their entire family.— Council News.



Meyer-Dumore Bottle Cleaner capacity 60 to 200 bottles per minute.

MEYER-DUMORE BOTTLE CLEANER

What the Dumore means to you!

YOU, as a progressive dairyman, demand dependable bottle-cleaning service day after day, regardless of operating conditions. You cannot afford to employ faulty, inefficient, incapable machinery anywhere in your plant.

Are you sure that the bottle-cleaning equipment you now employ, or are intending to install, will meet every demand you place upon it.

The Meyer-Dumore Bottle Cleaner is worthy of your most careful consideration. As a highly developed piece of machinery for the purpose of producing *absolutely bacteriologically clean* bottles, it is without equal on the market today.

The dependability of its performance is your guarantee of success. Over a thousand Dumores throughout the world are delivering millions of clean bottles every day. The plants operating these Dumores have come to regard this wonderful machine as a tremendously important factor in the successful operation of their business.

Rely upon the Dumore system of soaking, washing, brushing and rebrushing, rinsing and rerinsing, to give you a steady supply of clean, pure bottles at the lowest possible operating cost. Correspondence with us will give our highly developed engineering department an opportunity to explain to you the many advantages of the Dumore. The details mean money to you. Write today.

RECENT SALES
to Dairy Plants that Demand Dependable Service Every Day in the Year.

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Rochester, N. Y.
1 312 M Dumore

Shaw Bros. Creamery Co.
Fort Worth, Tex.
1 312 M Dumore

Barberton Pure Milk Co.
Barberton, Ohio
1 4 QM Dumore Junior

Matthews Selected Dairies Co.
Cincinnati, Ohio
1 8 QM Dumore Junior
(Repeat Order)

Benson Dairy Co.
Chicago, Ill.
1 8 QM Dumore Junior

Arlington Dairy Co.
Chicago, Ill.
1 4 QM Dumore Junior

York Sanitary Milk Co.
York, Pa.
1 8 QM Dumore Junior

Terry Dairy Co.
Little Rock, Ark.
1 4 QM Dumore Junior

A RECORD
Aug. '25 to Aug. '26
245 Dumore
Bottle Cleaners
sold in
279 Business Days

Geo. J. Meyer Manufacturing Co.

Largest Builders of Bottle Cleaning Machinery in the World

569 Barclay Street **Milwaukee, Wisconsin**

Offices: New York and Chicago

MAKING THE GAME OF DAIRY HEALTH INTERESTING TO THE "POOR LITTLE RICH KIDDIES" IN SCHOOL.

(Continued from page 28)

picture was furnished by the different business firms of the city.

Various methods were used to keep up the interest of the Health Game Contest. Some rooms would elect two captains and choose sides, and there would be a rivalry to see which side would get the most points in the game.

You will note that we called this a health game contest. Make a game out of it, let the children play. Big folks like some kind of play as a change from the grind of business, just as you can interest the children by a change from their regular studies.

One of the best games played to keep interest in the Health Game Contest was "The Bank of Health," a story of which appeared in the December issue of The Milk Dealer. Miss Reed of the Horace Mann school was the originator of this game, and it worked so well that I shall outline it here again.

The manual training department built a box in the shape of the front of a building. This they painted, and on the front was the letters, "The Bank of Health." Rules were adopted and credits were given for following the various health rules, and drinking milk.

The teacher was chosen president of the bank, and the cashier and other officers were chosen from among the students.

Deposit slips were printed, with a row of figures on each edge. About once a week these slips would be passed out to the children, who would fill in their names and dates, and their deposit slips as to debits and credits were checked and then deposited in the bank.

If they had drunk milk, for instance, the credit side of the slip was punched so many points, if they had failed to drink their milk, the debit side was punched; all of the rules for health were treated the same way.

At the end of a period the bank would be opened and balanced, and, needless to say, but few were in the red, the figures thus obtained, were used in the final score of the health game contest.

Another game played with success, explained by Mr. Corson, was to choose up sides, in each room, with a captain for each side, and every few days the captains would check the points for their side, and the winning side would get to color a block in the milk castle, which was being built.

He told of another feature to stimulate interest:

This was a series plays called, "The Milk Fairies." Each of the intermediate schools drilled a bunch of children for this play and each school put it on three times; twice for the children of the grade schools, and one night performance for the parents of that neighborhood. By the time this series was finished it had been put on fifteen times and every school child had seen it, as well as a great many parents.

The interest created by this contest and series of plays was such that the retail division of the chamber of commerce helped put on a health week and May day parade.

During the health week stores decorated windows on health, and May day there was a large parade of decorated floats, on which were the different characters, in costume, that were in the Milk Fairy play, with bands, children marching, and floats by the baby camp and many others.

Now the question is, Does it pay? Mr. Corson outlined some of the results:

In 1924 the city health department showed a consumption of milk, in the city, of a little over a half pint per person per day, and in July of this year Dr. D. H. Cooper, city physician, found from a survey that the consumption of milk in the city was a small fraction under a pint per person per day.

The report of Miss Genevieve Lill, supervisor of health of the schools, shows that in January, 1924, there were twenty-three per cent of the pupils in the elementary schools who were more than ten per cent underweight, and in May, 1925, this had been reduced to twelve per cent.

This year the health work will have a regular place in the school curriculum.

Mr. Corson received a great many letters from h
little friends, the children, and he quotes a part of or
which was received at the close of the contest:

Wichita, Kansas, June 3, 1926.

Dear Mr. Corson:

The health game contest helped very, very much. M
mother said she was glad that the health cards were give
to every child, because I did not like milk at first but whe
I found out the room who had the most points gets a pictur
my mother said I had better drink milk, if I wanted my roo
at school to get the picture. So I began to drink milk
every meal, etc.

(Signed) LEONA ASHWORTH.

"Put the message to the children and it will get t
the parents," is the advice of this wise merchandiser
milk, the friend of the "poor little rich kiddies."

⚜

BEGIN SOUND BODIES IN BABYHOOD, WOMEN ADVISED BY EXPERT.

"Are you in the pink of perfection?" asks Els
Stark, nutrition specialist for the National Dairy Cou
cil, who believes that the time to begin to build a soun
healthy body is in babyhood.

Many women put food which is intended for grow
ups into a baby's stomach and expect the baby to gro
into a strong and healthy boy or girl, she adds. Heal
starts right in the mother's arms. Exercise, the prop
diet and keeping the baby clean and of proper weig
will reward every mother with a handsome boy
grown-up girl who will be surprised to find she does n
need cosmetics and other artificial means of being beau-
ful and healthy.

"Doctors can tell your age by looking at you," sa
Miss Stark, "because your body and its care are reflect
at once and they know that proper foods, plenty of exe-
cise, sleep and a clean body will add many years to yo
life, as well as make you truly beautiful from the insi
out and enable you to enjoy perfect health."

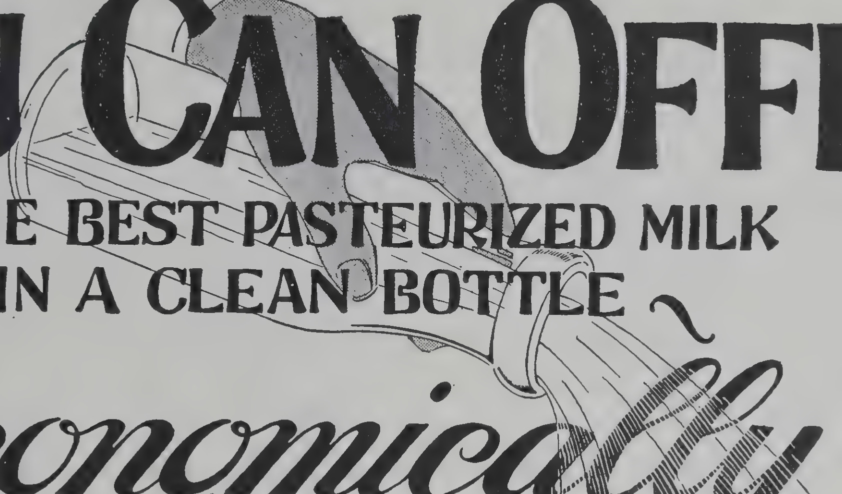
However, if you find you have neglected some
these things it is not too late to begin. Miss Sta
suggests a few simple steps which may help you rega
true beauty and health in your own home and witho
cost to you. Here is a message of real cosmetics with
artificiality thrown out.

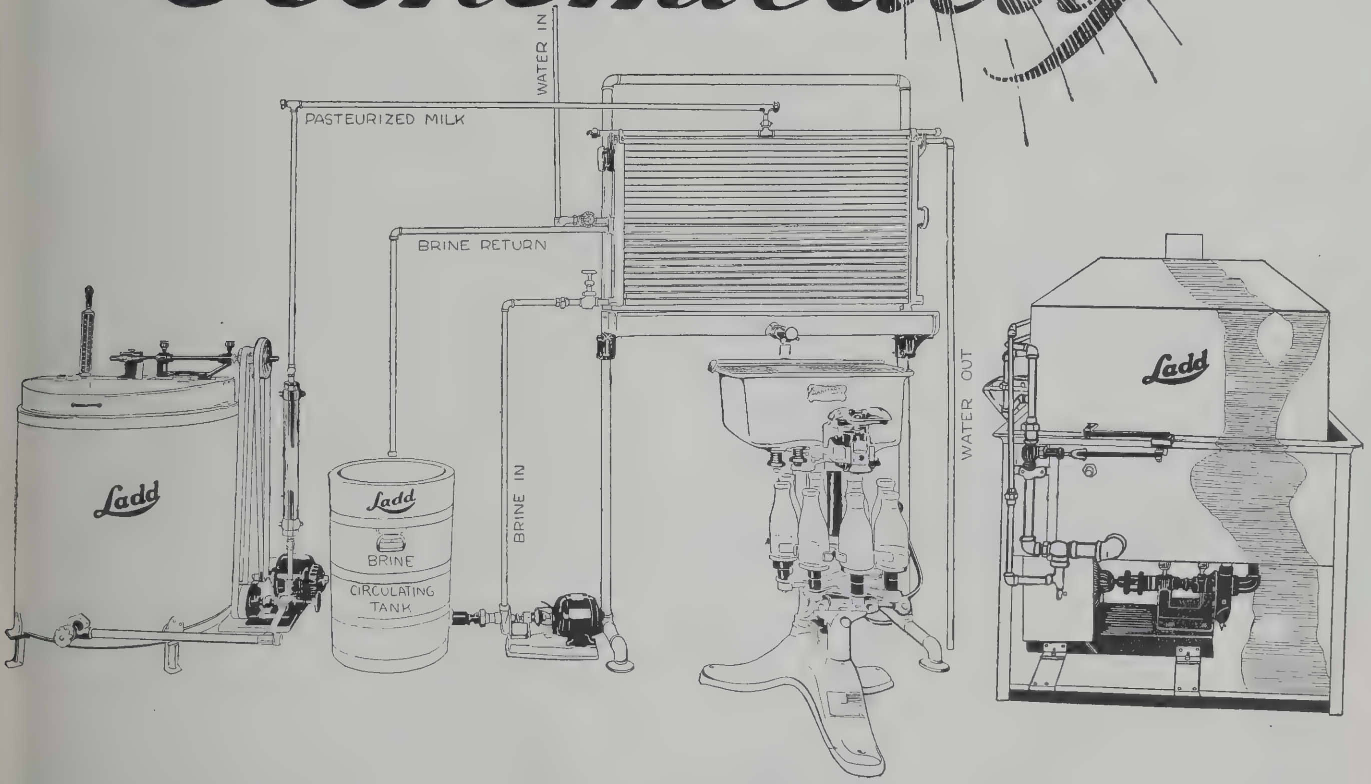
"If you want my beauty secrets let me suggest the
beauty products," she says. "Open up Nature's va-
ity case—here are creamy carrots—your lipstick!—o
make your lips red—the kind that won't come off. He
behold the apple's blush: rouge for your cheeks, befe
you go to bed. Complexion cream of spinach or of
cereals smooths the skin and keeps away blemishs.
Look, here are hills to climb and make your flesh fm
and fresh air rays to invigorate the skin. Milk mas
sparkling eyes! Open all Nature's vanity case—he
recipes all arranged waiting to serve you.

"Nature always intended her girls to be beautil.
She even prepared these unsurpassable formulas for yu.
She sits back shyly smiling to see you girls rushig
round agitatedly, looking for hidden beauty reciþs,
while she throws the fruit at your feet, lays green g-
etables upon your table, pours fresh air about you.

"Run, scamper, pick them up! Fill your dressig
table with Nature's products—for health and beay.
Matchless beauty shines with radiating, ruddy heah.
Eat green vegetables and fruit, drink milk and plentof
water, exercise in the fresh air, sleep eight hour a
night—and Nature defies anyone to match the beaty
of your health!"

MR. SMALL DEALER
YOU CAN OFFER
THE BEST PASTEURIZED MILK IN A CLEAN BOTTLE
Economically




WATER IN
PASTEURIZED MILK
BRINE RETURN
BRINE IN
WATER OUT
Ladd
Ladd
BRINE
CIRCULATING
TANK
Ladd

This machinery has been proven to be the most efficient and the most economical for the small milk plant. It can be had in direct motor drive or belt driven units. It consists (from left to right) of Ladd's Blue Line Pasteurizer, Ladd's Brine Circulating Tank, Ladd's Tubular Cooler, Milwaukee Hand Operated Filler and Capper, and Ladd's Dairyman Pressure Washer.

Let us submit plans for your plant without obligation.

John W. Ladd Co.

COMPLETE OUTFITTERS TO THE DAIRY INDUSTRIES

Detroit Columbus Cleveland Cincinnati

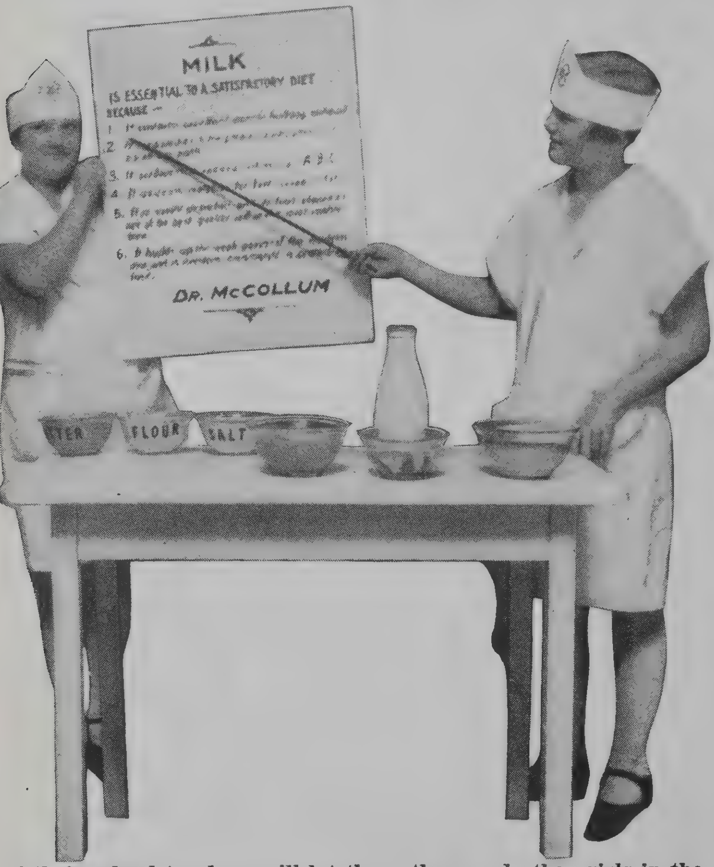
Dairy Leaders to Gather in Chicago

Annual Meetings of Several of the Nation's Dairy Organizations to be Held in the Windy City Nov. 30 and Dec. 1, 2 and 3

FOUR big days chock full of dairy meetings will draw leaders of the industry toward Chicago November 30, December 1, 2 and 3.

Beginning with the annual meeting of the American Association of Creamery Butter Manufacturers November 30, a day will be devoted to each of the four national dairy organizations, including the American Dairy Federation on December 1, the National Dairy Council on the 2nd and the National Dairy Association December 3. Letters from all parts of the country indicate that there will be a record attendance for these annual meetings and those in charge of arrangements assure us that the biggest array of speakers they have ever had for an annual meeting will be in Chicago during this big week.

In addition to business reports of all four organizations and election of officers, the plans for the uniting of branches of the dairy industry into a concerted campaign to increase the consumption of dairy products will be the principal aim of each of these four meetings.



If their school teachers will let them, these and other girls in the Iowa Girls' Club demonstrating team will be at the dairy council annual meeting. This and other treats are promised those who attend the December 2nd meeting in Chicago.

"I am not prepared to announce our full program as yet," stated E. M. Bailey, president of the American Dairy Federation, who called a preliminary conference in Chicago November 4. "Suffice it to say that if our present plans carry we will have speakers on our program that will draw the industry from coast to coast and it will be a program such as the American Dairy Federation has never had before at its annual meeting. Watch the daily papers for announcements later."

In connection with the annual meeting of the National Dairy Council some live features are being planned instead of the ordinary dry business sessions which so many associations are apt to have for an annual meeting. Demonstrations, plays, stories and short talks by those directing the dairy council work will make the program interesting throughout the third day of the meetings.

It is planned to have special demonstrations by state winners in the boys' and girls' "Achievement Day" from Iowa show the people in the annual meeting just how they are using dairy council material in their organization, which is part of the 600,000 boys and girls 4-H clubs throughout the country.

Reports of officers of the dairy council will indicate a steady growth in the council organization, with the addition of one new council unit since its last meeting this being in the Cincinnati territory, and plans for tw new councils being rapidly completed. A steady growth in the personnel of the organization and its influence wil be shown in a summary report at 10 o'clock Thursday Dec. 2, in the Auditorium Hotel, Chicago.

Following the business session and demonstrations a special luncheon will be served, which is always enjoyed by those who attend the annual meeting. Peopl who expect to attend the dairy council meeting are urge to get in touch with the council and let them know ahea of time how many to plan for.

A comprehensive report will be made as to futur possibilities of the dairy industry at the afternoon session of the dairy council meeting. The industry has no reached a point, this report will show, where it has th good will of leading doctors, scientists and health officers and an opportunity will be presented for the industry to check up on the attitude of these people in th report.

On the fourth day a full report of the National Dair Exposition at Detroit, October 6 to 13, will be given an plans made for the future of the organization, which ha just passed its twentieth milestone.

All in all, it will be a big dairy week in Chicago an all leaders in the dairy industry, whether producers dealers, are urged to attend. A detailed report will a pear in the December issue of The Milk Dealer.

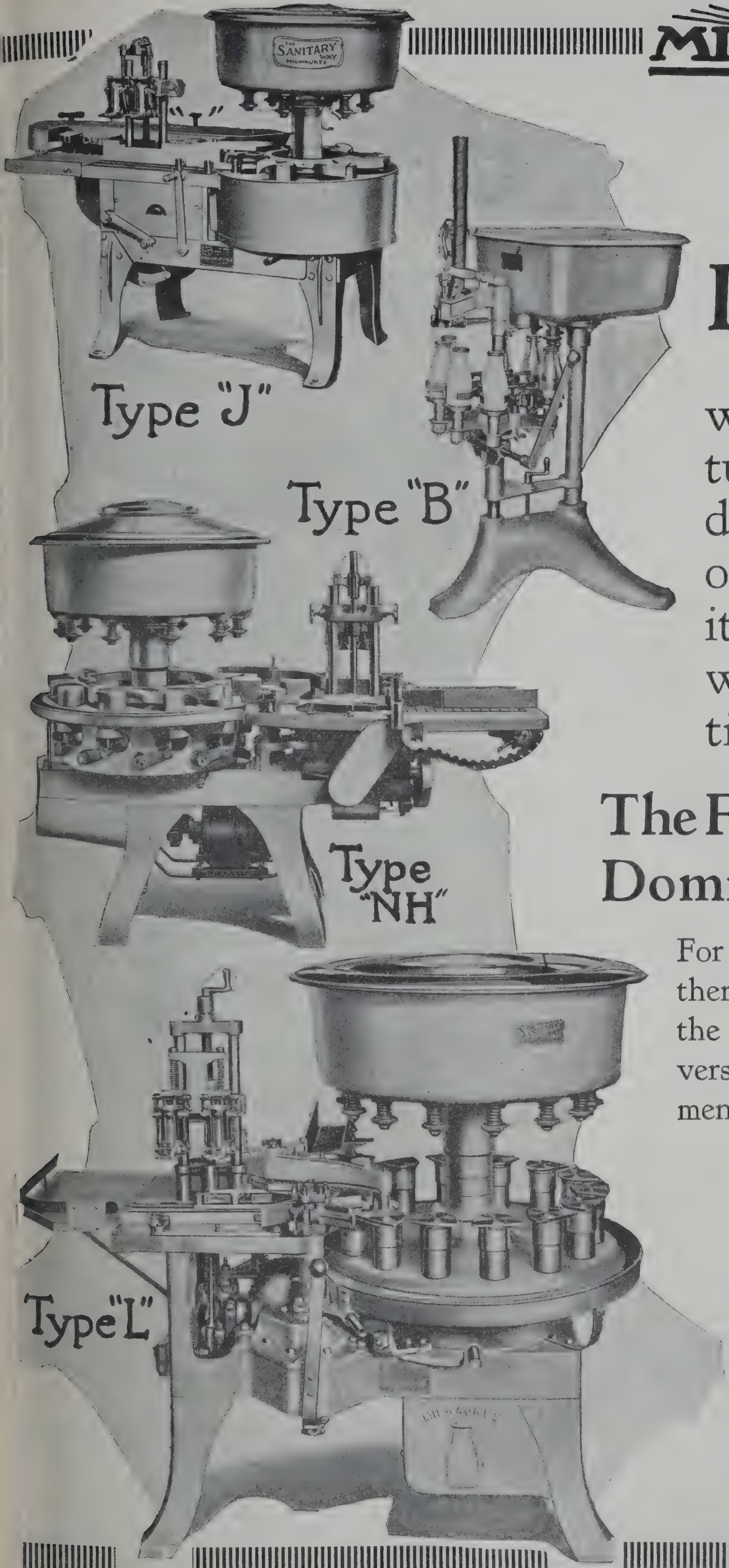
⚜

PURDUE CREAMERY SHORT COURSE.

An eight weeks short course in dairy manufacturin will be offered at Purdue University, beginning Januar 17 and closing March 13. It is advisable that young me who wish to take this course should be at least eightee years of age and should have completed a common scho education or have had practical experience in a dai manufacturing plant.

Instructions will be given in creamery buttermakin factory management, ice cream making, dairy m chanics, testing of milk and cream, pasteurizing, mark milk and soft cheese making. Approximately one-ha of the student's time is spent in the Purdue Universi Creamery where butter and ice cream is made dail All students who complete this course satisfactorily a given a certificate.

For further information regarding this course wri the Dairy Department, Purdue University, W. Lafayet Ind.



MILWAUKEE

At the Dairy Show,

whichever way one turned—there were a dozen places entirely outside our own exhibit where Milwaukees were on demonstration—

The Fact of Milwaukee's Dominance Was Plain

For the man who uses them, there is a distinct satisfaction in the continued proof of the universal acceptance of the equipment he employs.

Our 6 Pamphlets: "Stages in the Construction of a Milwaukee," *explain the reasons.*

Have You Been Receiving Yours? If not, drop us a line.

Milwaukee Dairy Supply
Mfg. Co.
Milwaukee, Wis.

Milk in Poetry—Song of Life

British Writer, Much Uninformed, Waxes Jocular Over Milk in Manner That Reminds Us the Dairy Industry Needs a Poet Laureate—and He a Dairy Education

FROM our friends in Great Britain, the source of much good writing and considerable more wit than our Yankee friends think exists there, comes a certain jewel on milk that is worth passing along to our readers while it is warm. It was contributed through our friend, P. B. Tustin of United Dairies, Ltd., London, England, likewise a source of much sparkling dairy thought from the other side of the briny deep.

In this article, which appeared in the London Daily Mail, under the rich and racy headline, "At the Sign of the Blue Moon," appeared a discussion of milk that will make all of us smile and wonder with the writer why there isn't more poetry on milk instead of so much on wine. Of course, we must readily recognize, with the writer of this article, D. B. Wyndham Lewis, that milk is not so good a rhyming word as others, yet there are words that rhyme with the lactic fluid, and there are associated words that can be put in the proper position for rhyme and meter. In other words, this article provokes the thought in our mind that the dairy industry needs a poet, a poet-laureate, so to speak, a sweet singer who will lift his voice and lilt the praises of good old foster mother cow and her gracious offering to mankind.

Milk in poetry? Why not? Milk is one of the most poetical words possible; it is of poetic significance, of poetic psychology, so to speak.

But we are running ahead; let's let Wyndham Lewis tell his own story, as he did in the London Daily Mail, under that romantic title, "At the Sign of the Blue Moon." Here goes, and, as Mr. Tustin would say with Shakespeare, "Lay on, Macduff, and be damned be he who first cries, 'Hold, enough!' "

(However, we'd advise Mr. Lewis to learn more of the beverage of which he attempts to write. There is no better way to learn than to drink it, and, no doubt, he needs it.)

Anyhow, here is what he has to say:

"Ah! . . . . . ."
—Ruskin (Collected Works, Vol. V., chap. 25, p. 19).

For the contemplative there are few walks more rich i
matter for meditation than the walk from St. Clement Dane
to Ludgate at about half an hour after noon. To and fr
bustles the many-coloured crowd. From the Law Court
stream the lawyers, dropping off gorged from their prey fo
a moment and avid of a glass of Chablis. Here, in a compac
bunch in charge of their warder, pass the horn-rimmed inhab
itants of Pompton, N. J., and Calaboosa, Mo., gaping at th
tavern of which Tennyson never wrote and making nasa
noises at the tavern where Dr. Johnson never went. An
here, if one is lucky, one may catch a glimpse of Fabian
slinking from their lair down to the drinking-pool.

It was my fortune recently to perceive through the ope
door of an A.B.C. shop in the quarter one of the wildest
hairiest, and most pimply of these Intellectuals in the act o
drinking. Now there are two beverages with which one com
monly supposes a Fabian must refresh himself; one is th
lukewarm water used for washing up dishes, the other is th
sterilised blood of aged hens. This Fabian was drinkin
neither.

He was lapping Milk.

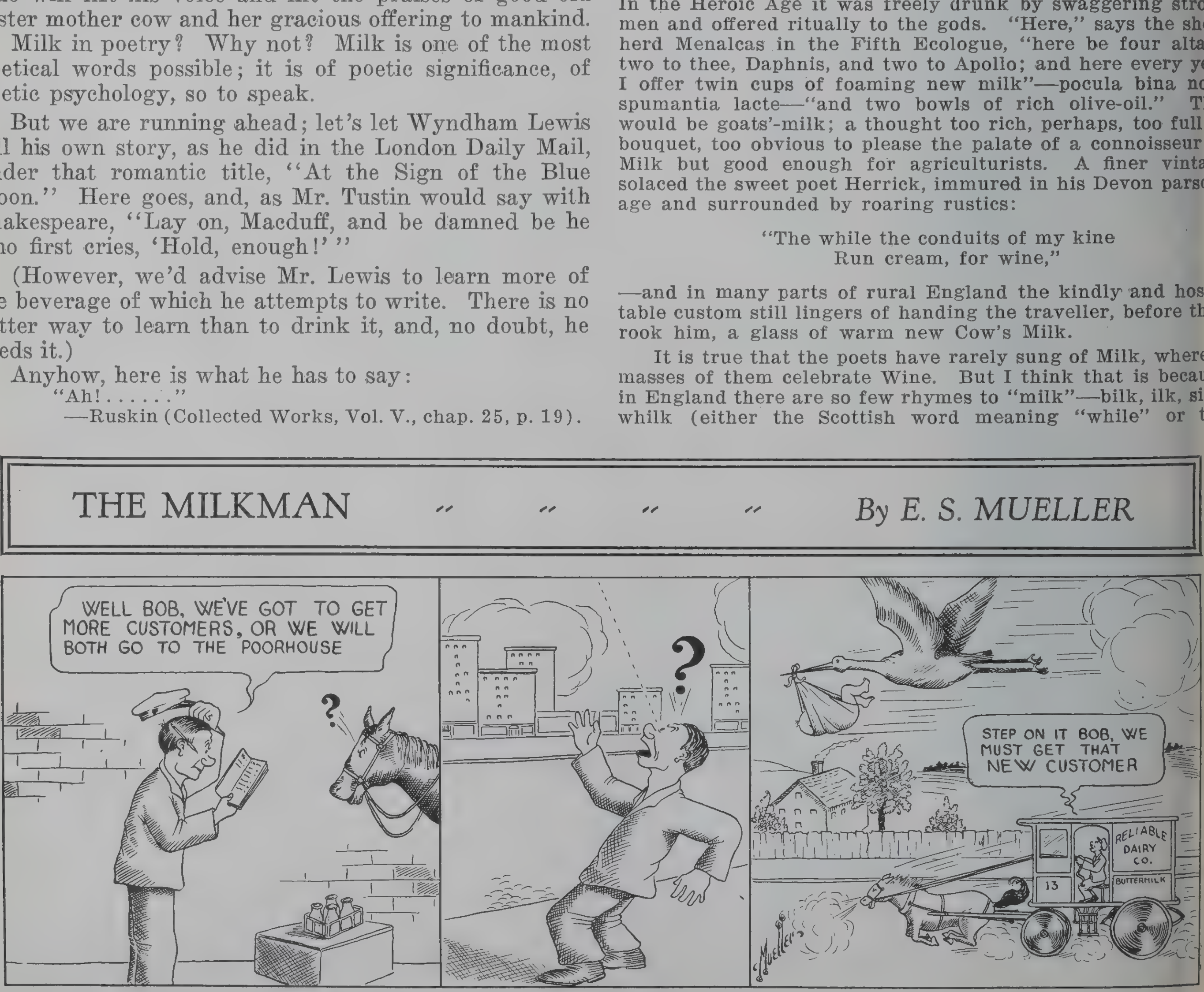
It was then that I determined indignantly within mysel
to write in reparation a panegyric on Milk, which is a drin
noble, immemorial, and of great honour. Why, even befor
old Noah invented the Sacred Vine men were tippling Milk
It is the first drink of babies and the last drink of agen mer
In the Heroic Age it was freely drunk by swaggering stron
men and offered ritually to the gods. "Here," says the shep
herd Menalcas in the Fifth Ecologue, "here be four altar
two to thee, Daphnis, and two to Apollo; and here every yea
I offer twin cups of foaming new milk"—pocula bina nov
spumantia lacte—"and two bowls of rich olive-oil." Th
would be goats'-milk; a thought too rich, perhaps, too full
bouquet, too obvious to please the palate of a connoisseur i
Milk but good enough for agriculturists. A finer vintag
solaced the sweet poet Herrick, immured in his Devon parso
age and surrounded by roaring rustics:

"The while the conduits of my kine
Run cream, for wine,"

—and in many parts of rural England the kindly and hosp
table custom still lingers of handing the traveller, before th
rook him, a glass of warm new Cow's Milk.

It is true that the poets have rarely sung of Milk, where
masses of them celebrate Wine. But I think that is becau
in England there are so few rhymes to "milk"—bilk, ilk, sil
whilk (either the Scottish word meaning "while" or t

THE MILKMAN ″ ″ ″ ″ By E. S. MUELLER


WELL BOB, WE'VE GOT TO GET MORE CUSTOMERS, OR WE WILL BOTH GO TO THE POORHOUSE
?
?
STEP ON IT BOB, WE MUST GET THAT NEW CUSTOMER
RELIABLE DAIRY CO.
13
BUTTERMILK
Mueller

Fiddles or Fortunes

ANTONIO STRADIVARI built the finest violins the world has ever known. These almost priceless instruments, known as "Strads," are now the prized possessions of but few of our greatest musicians. While Stradivari worked for months with painstaking care on one masterpiece, other workmen were turning out cheaper instruments in a day's time. He was ridiculed for his slow, careful work, but answered: "Anyone can make a fiddle, but only Stradivari can build a violin."

Ages have passed since the famous statement of the master violin builder was made, but these ages have made the violins of Stradivari famous, while the fiddles of most of his contemporaries have long since gone into kindling wood.

* * *

The milk industry has for ten years been offered a Sales Plan that has stood and will as long as the industry lasts stand the test of time. Like the Stradivarius violins, the Case Plan has been built with painstaking care to meet the needs of those milk dealers who possess the vision to appreciate it. Not all milk companies are efficient enough to get maximum results, but those who are, get from fifty points to one hundred fifty points increase in their daily load average, and their monthly profits are often equal to or greater than their yearly profits before the Case Plan was adopted.

Many milk companies are still using sales plans that are like cheap fiddles—-either of homemade construction, or bought at a price that admits only mediocre value, and the results secured are generally in direct ratio to the amount of care used in their making.

Mr. Milkdealer—Are you satisfied to "FIDDLE" with your sales problems or do you want the FORTUNES born of a masterpiece?

MAXWELL CASE
" " *MILK SALES PROMOTION* " "
NEW ROCHELLE, N. Y.

Making Your Can Investment Go Farther

RETINNING your cans is true economy when done right, because the extra service re-tinned cans will give, pays for the cost of the work many times.

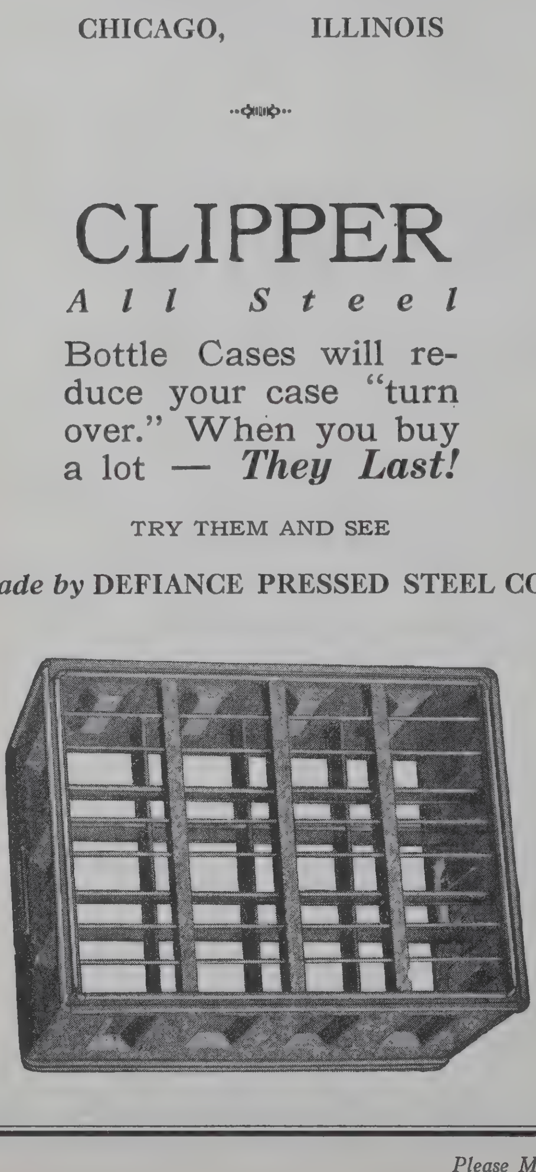
ONE LOT WILL
CONVINCE YOU

Thompson-Bremer & Co.
1750 Carroll Avenue
CHICAGO, ILLINOIS

CLIPPER
All Steel
Bottle Cases will reduce your case "turn over." When you buy a lot — *They Last!*

TRY THEM AND SEE

Made by DEFIANCE PRESSED STEEL CO.



Southend word meaning "whelk") are nearly all, and the fir ("bilk") involves introducing a cab into one's poem, whic the Editor of Georgian Poetry cannot abide. Again, few poe have deemed themselves worthy to drink Milk. Byron dran gin, Swinburne bottled ale and burgundy, Burns whisky, Mr Hemans and Cowper weak tea, Addison claret, Milton sma beer, Ben Jonson burnt sack and Canary; and Mr. Boom, notable poet of our own time, will drink anything anybo will pay for, except Milk. I pause here to praise and glori the poet Coleridge, and believe that if the accursed "pers from Porlock" who interrupted him as he was dashing dow "Kubla Khan" had not called we should have had a Rhapso on Milk. Consider the close of that mighty fragment:

"For he on honey-dew hath fed,
And drunk the Milk of Paradise."

This probability seems the more evident if we medita on the three lines:

"A savage place! as holy and enchanted
As e'er beneath a waning moon was haunted
By woman wailing for her demon lover."

It is not too fanciful, I hope, to assume that this was Milkman, for they rise early and are death to women. "G up, Marie, lazy one," sings the divine Ronsard:

"Marie, levez-vous, vous estes paresseuse,
Ja la gaye alouette au ciel a fredonne."

—"already the gay Milkman is tuning his song." That w in springtime in Touraine, where the Milkman leaves his ne before dawn, twittering.

Everything connected with Milk is innocent and good. Christian man cannot consider grass and clover an ideal di, except for Vegetarians; but the Cow does, and devours lar quantities in the scented fields, under the blue sky, with lark singing Tirra-lirra. The lovely Milkmaid,* too, see h she trips afield! "It seems," says Sir Thomas Overbury, "th so sweet a Milk-Press maketh the Milk sweeter or white for never came almond Glove or aromatic Ointment off h Palm to taint it." See, too, the Dairymaid,‡ how sweet s is, among her shining pans! Those happy Milkmen who a already in gaol for relieving their Milk of necessary fats a vested, like her, in white, and sing at the pump.

Out of Milk, I am informed, are made the pretty pap knives which look like ivory, with which I cut with su careful pleasure the pages of Mr. Throstle's last book f Sonnets, but stab and tear with horrible curses at the v and noisome pages of Mr. Howl, that dribbling and glanderl cretin. From Milk, too, is derived Cheese, so multiform a multicoloured, from the suave Norman cheese to P L'Eveque, which Guillaume de Lorris was already singing his Roman de la Rose in the 13th century, to the very gr and terrible cheese of Rocamadour and the Andorran highlands, which is of the Leaping Goat, and the yellow cheese of Cheddar, which is often imported from Osskawoo, Wusk. From Milk, also, comes the Balkan mess cald Yoghourt, which, eaten with powdered sugar, is so delectable and comfortable to men's bodies. Refreshed by his morning bowl of yoghourt the hardy Bulgar goes stamping through the passes, carving old ladies and little dogs into small unequal pieces; on account of which the poet has censoriously observed:

"How beastly vulgar
To be a Bulgar!"

The crux of the eternal Balkan problem, of course, is that obvious ethnologica—

We were, I think, discussing Milk; temperately, reasonably, and (I hope) agreeably to the five principles of the Angelic Doctor when he lectured at the University of Paris—that is to say, with Claritas, or clarity, Brevitas, or brevity, Utilitas, or utility, Suavitas, or sweetness, and Maturitas, or ripening. The vast halls of the University and the Convent of Saint-Jacques were too small to hold the throngs of students flocking to imbibe the Thomist Philosophy from all over Christendom; among them large numbers of our own dear countrymen, lodging in what is still the Rue des Anglais near the Sorbonne: for in the 13th century foreigners were, at intervals, tolerated by the citizens of Paris with something almost approaching fortitude.

The present renaissance in Europe of the Thomist Philosophy to the confusion of the horrible brachycephalous German troglodyte Kant and his hangers-on, is remarkable—

As to Milk, however. It is in its essence and quiddity, its pure natural state, One and Invisible (like the Republic of 1792) and everywhere the same (like the Eternal Verities). Ubi vacca ibi lac—where the Cow is, there is the Milk. By

MUCKLE BOTTLE CRATE

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LIGHTEST AND MOST DURABLE

Designed by Mechanical Engineer

M—ade in 24 models and sizes.
U—nsurpassed in construction.
C—linched and riveted corners.
K—eeps production up.
L—et Muckle reduce your overhead.
E—very crate a masterpiece.

C—rate superiority.
R—emember the name.
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T—he crate for your requirements.
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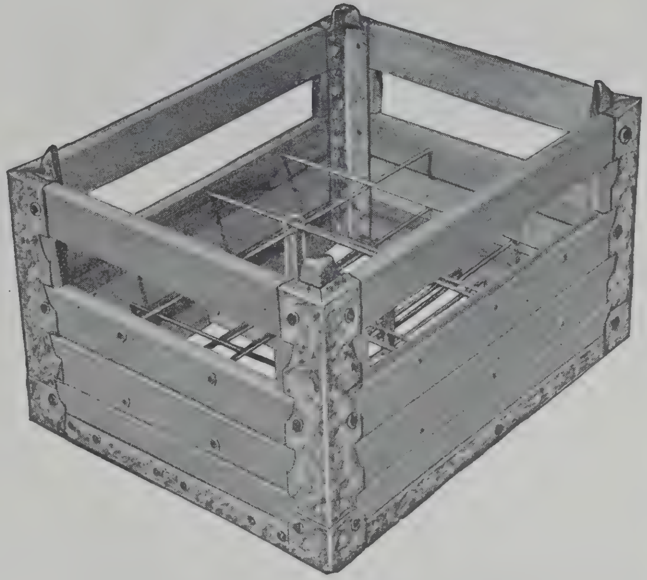
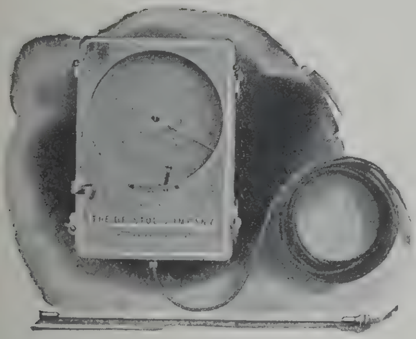


Get the Facts with Bristol's



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Know what is going on inside your tanks. Know what changes are taking place in your milk as it passes vital points on your milk line.

Know whether these changes are conducive to a good product or a poor one.

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and you will not have to wait until your product has gone through its final stages to know whether you have been right or wrong.

Besides—there is a satisfaction in KNOWING that your product is progressing correctly and having an indelible record to check the results and profit by past experience.

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FOR 36 YEARS Ask Any Technical Engineer MAKERS OF
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For Every Process there is
ONE BEST Temperature

For Every Temperature Application there is ONE BEST Instrument

What is your process? On receipt of your brief mention we shall gladly send you an illustrated bulletin with special reference to your industry.

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Insist on Mercury Thermometers with the TAG-Hespe RED Reading Column

SINCE 1768

RETINNING
Ice Cream and Milk Cans

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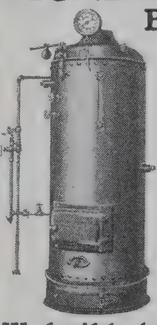
Ice Cream Lids Galvanized Outlast Lids Retinned

Sanitary Tinning Co.
3753-63 E. 93rd St. Cleveland, Ohio

MURRAY IRON WORKS COMPANY
BURLINGTON, IOWA
INCORPORATED FEBY 1, 1870



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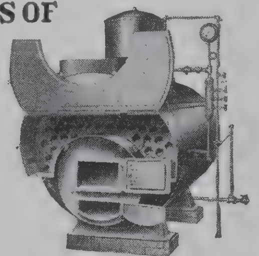
The cuts show vertical and horizontal boilers requiring no brick work



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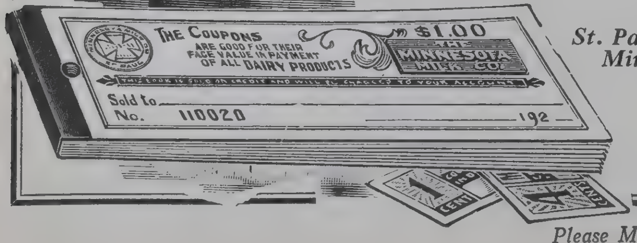
Will Put Your Deliveries on a Cash Basis.
SEND FOR SAMPLES AND LIST OF USERS.
National Checking Co.
St. Paul, Minn.



THE COUPONS ARE GOOD FOR THEIR FACE VALUE IN PAYMENT OF ALL DAIRY PRODUCTS
$1.00
THE MINNESOTA MILK CO.
Sold to
No. 110020
192

the Great Tin Churn of Champrosay! the more one meditates on the nature of Milk the more grandiose, transcendental vast, and illimitable appear the avenues of speculation opening on every hand! Milk—

Those who drink the stuff tell me that it is most pleasingly drunk warm and creaming in the pearly hush of a summer dawn near Hartland Point in North Devon. There is no doubt that it is fatal to put it into China tea. Absolutely fatal.

⁂

WASHINGTON DAIRY PLANT OPERATORS' SHORT COURSE.

January 3 to 14, Inclusive.

The short course at the Washington State College of Pullman, Wash., is intended primarily for those who have had experience in plant work and operation and now hold positions of responsibility in dairy plants. The course will consist of both lecture and laboratory work but the emphasis will be placed on subjects of a technica nature and which can best be presented and learned in laboratories, especially planned to give such instruction.

A study of the various dairy products and the factors that determine their quality will constitute the contents of the course. The subject matter will be presented in such a way as to show the application of technica information to practical plant operation, in the handlin and processing of dairy products.

The department of dairy husbandry is especially wel equipped to give such instruction. Twelve separate laboratories in the new dairy manufactures building—Davi S. Troy Hall, are devoted to the giving of instruction i subjects relating to dairy plant operation. Machiner of the latest type and design and of full plant size, fo pasteurization, ice cream making, buttermaking, automatic washing and refrigeration are available for stud and practice. A commercial dairy plant is operated i the laboratories where milk, butter and ice cream for th State College and the city of Pullman are prepared an manufactured.

In addition there are available three separate testin laboratories where the various tests and analyses wi be demonstrated and practiced. A Mojonnier testin machine will also be available for those who desire experience in its operation.

A registration fee of five dollars will be required fo this course, and in addition it is urgently recommende that certain books which will be specified, be purchase by those taking the course.

For additional information write to the Departme of Dairy Husbandry, State College of Washington, Pullman, Washington.

⁂

NEW CUBAN MILK REGULATIONS HELP EQUIPMENT BUSINESS.

At a great many points in Cuba drastic regulations are being formulated for the sale of milk. The old methods that prevailed in the United States years ago must give way in Cuba as they did here. A sanitary handling of milk from the farm to the consumer is the object. Naturally these regulations are developing more than usual interest in modern milk handling equipment, milk bottles and milk dealers' supplies. This is just another indication of the trend in the milk industry in the Latin-American countries.

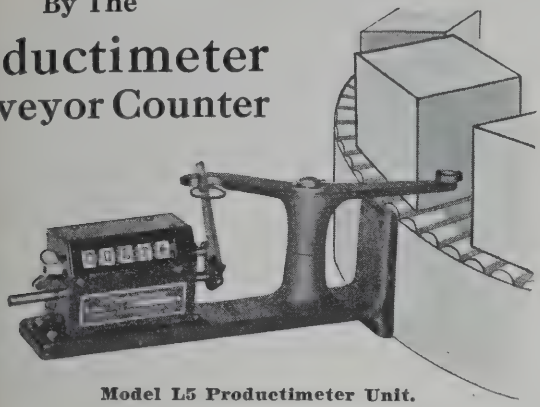
⁂

"Milk Dealer" Want Ads buy, sell or exchange anything, anywhere. What have you that you would be better off without?

Counted As They Pass

By The

Productimeter Conveyor Counter



Model L5 Productimeter Unit.

he Productimeter Model L5 Conveyor Counter provides a ick, easy, and accurate means of getting the count of boxes, eces, or packages as they pass along the conveyor. Assures mechanically accurate count and saves a man's time and ages. Unit consists of a standard 5B1 Productimeter uipped with a special mounting bracket and counting arm, ady and complete for attachment to any conveyor. Counts 99999 and is easily reset to zero by a turn of the wing nut.

Send for special bulletin, giving details on this unit, and catalog describing 57 standard models of Productimeters for various applications.

DURANT MFG. CO.
3 Buffum St. Milwaukee, Wis.

Ask about Figure 95

Grab and Go!

This *different* truck has no nose to pry under or pull out from the bottom of a stack of cases! It simply hooks on to the lowest hand hole. Saves time; prevents wear on case bottoms.

Nutting Milk Case Truck

Now used in hundreds of creameries. Write for Bulletin C-6, or ask your jobber.

NUTTING TRUCK CO., 1283 Division St., Faribault, Minn.

Floor Truck Specialists Since 1891

WOULD YOU LIKE TO KNOW MORE ABOUT–

"Testing Dairy Products"

A NEW LABORATORY MANUAL

By J. A. Newlander

If so, send for this book today!

It is especially prepared for those who want to get a better knowledge of dairy tests.

Price $2.00

SENT POSTPAID ON RECEIPT OF REMITTANCE.

The Olsen Publishing Co.
501 CHERRY ST. MILWAUKEE, WIS.

Try it

KIMBERLY-CLARK CO.,
Dairy Division, Neenah, Wis.

If you will send us a Cellufilter Funnel and a supply of Cellufilter Discs, we will arrange a 10 days' trial with a patron. After 10 days, said patron will send $1.75 for funnel and order package of 300 discs at $1.35, or return funnel in good condition.

M. D. Nov

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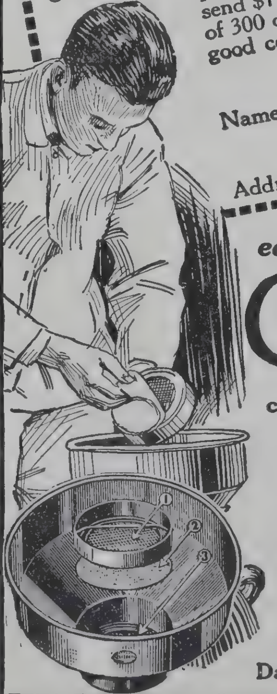
Address ------------------------------



Get our plan for equipping your patrons with

Cellufilter

REG. U.S. PAT. OFF.

The strainer that means cleaner milk as well as a saving in time and money

You want cleaner milk—CELLUFILTER makes it easier for the farmer to produce it. Won't you co-operate with us?

Use coupon above—today.

KIMBERLY-CLARK CO.
Dairy Division Neenah, Wis.

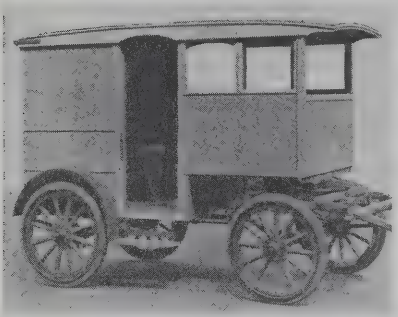
NOTES OF THE TRADE

News of Interest Concerning What Our Readers and Advertisers are Doing
to Develop the Industry. We Invite Correspondence Relative
to New Products and New Equipment.

A NEW SEMI-LOW DOWN MILK WAGON.

A new semi-low down milk wagon is being offered by the John Guedelhoefer Wagon Company, Inc., of Indianapolis, Ind., which will create its share of attention in the milk industry.

The frame of the body is of white oak, with plymetl panels. The new wagon is constructed so as to eliminate the commoner necessary wagon repairs, it is claimed by the manufacturer.



Several new features will make this an outstanding wagon in the milk industry. Steps are being featured; fenders made of extra heavy steel, edged with heavy angle iron are a new addition to this wagon, as well as a special automobile foot brake, and a roller bearing fifth wheel. Timken roller bearing axles are being used, which it is claimed require greasing but once a year, and it is further claimed that it is not necessary to renew axles or boxes as is often ordinarily the case, as they will last the life of the wagon. The draft of this wagon is easier on the horse due to the Timken roller bearing axles. The solid pressed-on type of rubber tires it is claimed will outwear three sets of steel tires and a special style wheel is used on the new wagon to eliminate all wagon wheel repairs such as spokes, hubs, rims, setting of wagon tires, etc. The gear is made of hickory with extra heavy springs equipped. Capacity of the job is from 36 to 42 cases.

Literature will be sent to any firm interested in further investigating these new style semi-low down milk wagons.

* * *

OPLER'S AGAIN EXPAND.

E. & A. Opler, Inc., cocoa manufacturers, with headquarters in Chicago, have just completed a transaction whereby it secures large dockage and warehouse facilities in Brooklyn, New York. They have rented a building occupying about 21,000 square feet from the New York Dock Company. This building will be occupied exclusively by them, and will be the firm's headquarters for making Eastern shipments and also for taking care of coastal and export trades. It has complete water as well as rail facilities giving it transportation facilities second to none. This will mean almost immediate delivery to any point in the Eastern section of the country and should be of vast interest to all Eastern buyers.

The building which has heretofore been used for warehousing is being entirely remodeled and made into a wonderful daylight factory. All new machinery is being installed so that the equipment will be the most modern. This plant will be in charge of Miss May Opler who has been associated with her brothers since the early days of the organization and is widely recognized as an expert in the cocoa business.

This makes the second time within two years that E. & A. Opler, Inc., have found it necessary to enlarge their manufacturing and shipping facilities in order to take care of their various branches of business. In a comparatively short time they have become recognized as one of the leading cocoa firms in the United States, mainly because of their close attention to the smallest details of their business.

* * *

PREVENTION OF CORROSION.

Although not in itself a new material, "Krodeproof," manufactured by the Lewis Asphalt Engineering Corp., 30 Church St., New York City, is a new and economical method of applying a well-known material whose value and protective qualities are recognized. Krodeproof is a preventive of corrosion and a new method of applying asphalt as a waterproofing agent. In the manufacture of the product, a carefully selected asphalt is broken into minute particles and dispersed in water, the water acting to suspend the particles to keep them from flowing together and at the same time as a vehicle for spreading the particles. When spread cold on a surface of masonry or steel, the water evaporates and the asphalt particles which were held in suspension flow together and unite. Krodeproof, therefore, does not form a thin fragile skin like paint, but a thick, dense, plastic film of asphalt, exactly as if the asphalt had been applied hot with a mop.

Among its many uses is offered perfect protection against brine drip, acid fumes and corrosive gases generally.

* * *

A NEW MILK DRINK.

Although in use for some time in several Eastern states, Arabian Brand Coffee Syrup, manufactured by D. Abelsen & Son, Providence, R. I., is now being put on the national market. The syrup is made from freshly roasted coffee which is specially selected for flavor, and is highly concentrated.

When mixed with milk, it produces a novel drink with the flavor of coffee which the manufacturers claim will find a wide and popular market. The syrup when once mixed with milk will not go out of suspension and cause sediment on the bottom of the bottle. It needs no shaking before drinking and is said also to keep well after being mixed.

Arabian Brand Coffee Syrup is put up in 12 oz. and 16 oz. bottles for home use which the dealer can also sell to his customers, and in five and ten gallon jugs for milk plant use. The manufacturer offers to send a trial sample to interested milk dealers.

* * *

THE BASE OF GOOD CHOCOLATE FLAVOR.

Contrary to general belief, it is cocoa—not chocolate—that provides the basis for the one flavor in greatest demand.

Cocoa was the invention of C. J. Van Houten of Weesp, Holland, in 1828. Technically, it consists simply of chocolate with the butterfat content reduced from approximately fifty per cent to between eighteen and thirty per cent.

The operations performed by Mr. Van Houten by hand, back in 1828, are nowadays done by machine, of course. Yet, fundamentally, the process is identical to the inventor's.

Theobroma Cocoa, the tree bearing cocoa beans, is very like any other delicate fruit tree. It flourishes in the tropics—grows wild in Africa, Brazil and other parts, but in Java, Venezuela and Ecuador the trees are cultivated and growth is carefully tended. In these latter places, sheltered valleys well watered by tropical rains and brown rivers, are productive of the very finest fruit—cocoa beans that attain the rich, fine flavor so well known to the customer.

In selecting a cocoa for use as a basis for syrup, the fountain manager will secure his desire when he orders a cocoa made from beans unadulterated so far as soda, etc., are concerned and of maximum solubility. If these several features are obtained in the cocoa purchased, it goes without saying that the flavor will be exquisite, the strength unimpaired, and that the working qualities of such cocoa will permit a smoothness and syrup flavor and consistency of the type that will hold old customers and make many new ones.

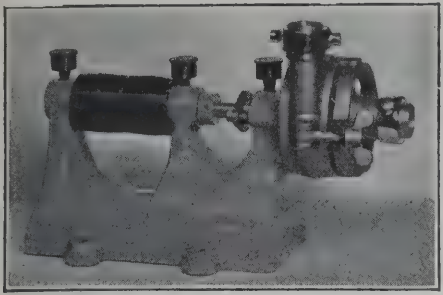
* * *

VIKING PUMP MEETS WITH APPROVAL.

According to the new sanitary code of the Illinois Department of Public Health, all milk pumps are to be of such construction that no iron parts come in contact with the milk or cream.

Although the Viking Pump Co. of Cedar Falls, Ia., had been making sanitary pumps that would meet with these specifications for years, they sent a pump to the health department for inspection. The pump immediately met with the approval of the health authorities.

Officials of the Viking Pump Co. point out that although



How it Works What it Does

W-Z
Super-Sanitary Milk Pump

All the details of how this one piece sanitary milk pump works and the efficient work it does is told in our illustrated circular.

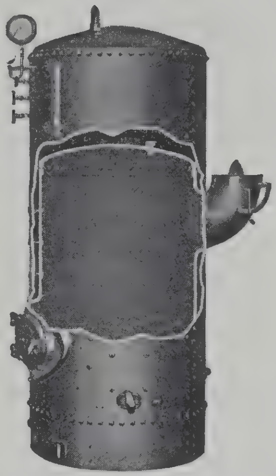
If you are thinking about new milk pumps for your plant, be sure you send for one of these circulars and learn how you can benefit from the W-Z milk pump. If your supply house can not supply, write

WRIGHT - ZIEGLER CO.
BOSTON, MASS.

The Famous Flueless — Boiler —

Famous as a Quick Steam Producer.
Famous as a Fuel and Repair Economizer.

BOILER is regularly constructed with extension to form ash pit, but can be furnished with cast iron base, in all sizes up to and including 48 in. diameter, **without extra charge.** Boiler comes complete with fire door and frame, ash door, grates, elbow and damper, hand hole plates complete. Steam trimmings include safety valve, steam gauge and syphon, water gauge, gauge cocks, blow-off valve, injector complete with check and feed valve. All constructed to comply with the A. S. M. E. code for 100 lbs. working pressure and tested to 150 lbs. hydrostatic pressure.



Boilers carried in stock at all times.

See your nearest jobber for further particulars.

Schwab Boiler & Machine Company
16th & Canal Streets
MILWAUKEE, WIS.

PHILADELPHIA
Chestnut and 39th Street

Hotel Pennsylvania
Fireproof—Unrestricted Parking—Garage

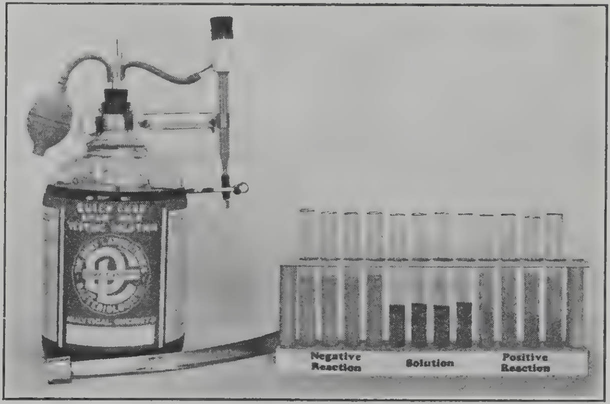
OSCAR W. RICHARDS, Manager

600 ROOMS—500 BATHS

Rooms with running water from $2.50 per day
Rooms with private bath and shower from $3.50 per day

Food and Service the Best

Near West Philadelphia Station Pennsylvania Railroad
University of Pennsylvania — Franklin Field



QUICK - KURD
Sour Milk Testing Solution

RAPID *ECONOMICAL* *CONVINCING*

A simple and reliable test for high-acid and Garget milk that can be **performed by anyone in a few seconds.**

Placing a dipper of milk in the test tube containing solution and shaking undesirable milk will produce an unmistakable **curd** at once.

No. 18.	Supplied for eliminating milk over 0.18% acidity and Garget milk. One Gallon (sufficient for 375 tests), $2.50.
No. 22.	Supplied for eliminating milk over 0.22% acidity (milk that will curdle on heating), and Garget milk. One Gallon (sufficient for 375 tests), $2.50.

Outfit Complete, tubes, dippers, etc., without solution $5.00

THE DAIRY LABORATORIES
2300 LOCUST STREET PHILADELPHIA, PA.
New York Baltimore Washington
"The Home of Flav-O-Lac Liquid Cultures"

they have been making sanitary pumps of all bronze and all nickel for several years, it has been but within the past three years that some states have required an approval of sanitary pumps.

* * *

WINDEMERE PRIZE WATCH AWARDED TO GEORGE SAMPSON.

To George Sampson of the O. J. Weber Co., Los Angeles, Calif., goes the honor, glory and satisfaction of winning the beautiful watch which was offered by the Windemere Products Co. of East Cleveland, Ohio, to the salesman who sold the greatest quantity of their rubber aprons.

This contest closed during the Dairy Products Exposition at Detroit, and attracted a great deal of interest during the progress of the show. The watch was on exhibit at Detroit and Mr. Sampson is certainly a lucky man to be rewarded so handsomely for his efforts and sales ability. His total was 432, and his nearest competitor had but 180 to his credit, showing the large lead which Sampson garnered.

* * *

JESSE NEWMAN ADVANCES.

Announcement has been made that Jesse Newman has been promoted to the positions of general manager of the Tulip Cup Corp. and vice-president of the Tulip Container Corp. Mr. Newman joined the Tulip Cup Corp. when it was in its infancy, and when their manufacturing quarters were confined to one small room. Since that time Mr. Newman has seen the popularization of the sanitary cup and container, and the growth of the firm which he represents from the one room to a factory which covers four city blocks.

* * *

GLASCOTE COMPANY OPENS CHICAGO OFFICE.

Announcement was recently made of the opening of a branch office by the Glascote Co., at 127 North Dearborn St., Chicago. The home office is located at Euclid, Ohio, and the firm operates branches at New York City, Detroit, and St. Louis, in addition to the one recently opened at Chicago.

* * *

NEW BOOKLET ON SOFT CHEESE.

Soft Cheese Manufacture is the title of a 32-page booklet recently issued by the Chr. Hansen's Laboratory, Inc., Little Falls, N. Y. It should be in the laboratory of every man interested in the manufacture and sale of soft cheese in any of its forms. A copy may be had for the asking.

* * *

THE NEW TAG CODEX.

The Tag Codex—latest edition—is off the press. A copy comes from the C. J. Tagliabue Mfg. Co., 18 to 88 Thirty-third St., Brooklyn, N. Y. The House of Tagliabue has been making thermometers for more than a century and a half. The Tag Codex is to be had for the asking.

⁂

A MONEY SAVER.

Do not consider the cost of keeping books as an expense. It is the biggest money saver you can possibly have in your business. Remember every penny you pay out is part of the operating expense of your trucks. We give this advice to a one-truck owner as well as to the 100-truck owner.—Motor Transport.

Powerful — Economical

Dairies, milk plants, creameries, ice cream factories, etc., find "Hoover's 45" an ideal cleansing agent, disinfectant and deodorant. One 10-oz. bottle makes 475 gallons of powerful solution for flushing out milking machines, cleansing milk cans, vats, ice cream cans, etc.

A non-poisonous white powder. Readily soluble in water. **Quantity production places us in a position to offer very attractive prices.**

Write for literature and quotations.

UNIVERSAL MILKING MACHINE CO.
Dept. M **Waukesha, Wis.**

WHEN IS AN "AUTHORITY?"

By W. F. Schaphorst, M. E.

You yourself are probably an "authority" on som phase of some subject.

If you have a hobby—and we should all have som sort of hobby—you may be an authority on that subjec

However, there are various degrees of authority. hundred years ago James Watt was an authority o steam engineering matters, but if he should come bac to earth today he would have much to learn. Autho ities who died 100 years ago and whose names are r vered now would not be authorities today if they coul learn no more than they knew then.

In the same way authorities of today are mere infan in knowledge or will be so regarded 100 years henc We really know so little that we have no cause f boasting.

There are some people in this world, however, wh are "know-it-alls" and who look into a technical trade publication apparently for the purpose of findi fault rather than to learn something. They find an a ticle that is elementary and is intended mostly for b ginners, and with a gloating "ha ha" the publication thrown aside with the remark, "That paper is no good"

The writer admits that he is writing this largely self-defense because he has frequently been criticis for writing elementary articles and for making mistak There is no question but that I have made mistak some of them seeming very foolish to readers and ve embarrassing to me after they were pointed out to m But then, who HASN'T fallen down? I have fallen mo than once.

The principal function of any serious publication to teach. Every word in the publication from the fi advertisement on the front cover to the last adverti ment on the back cover should be instructive, and it h been my experience that most publications are instr tive. The editorial pages should contain editorial op ions, should contain the results of experiences of reade should contain news items, notices of meetings, notic of new catalogs published by manufacturers, etc. T publishers are doing their very best toward advanci knowledge. Could the scoffer do better, I wonder?

Bearing in mind the fact that future generations wil be amused to some extent at least by our present e-mentary knowledges, how foolish it is for us to pre about our knowledge and how foolish to scoff at te other fellow. Nobody is a real "expert" or "authity," unless, possibly, in an exact science like mathemics. We may think we are authorities but we are nt. Authority is only relative.

The above was inspired by the following whicl I found in the publication Philosophy of Health in wh h the famous Doctor J. H. Tilden of Denver, Colo., wr e as follows:

"If no one is to open his mouth on any subject uil he becomes an expert or recognized as an authorit I fear progress in this world will be at a snail's pace.

"There is not any question but what bigotry—he disposition to assume authority, and to suppress he opinions of others who are novices, so to speak—prevets progress in all branches of learning. Wide-open discsion and free speech is the only door to progress in y educational line."

The right thing for anybody to do when he discors something that he thinks is new and that he feels ill be of value to the world is to write about it and sd the story to the publication covering the subject. Pblications today cover nearly every field.

The ContamoTester
(Patented July, 1925)

SAFEGUARDS
AND
Rapidly Improves
THE
Raw Milk Supply

by applying a combination of three simple tests to the raw milk supply. These tests show quickly—accurately and cheaply

Which Milk is
- Unfit for Use.
- High in Bacteria.
- High in Acidity.
- Off Flavored.

A child can operate the ContamoTester.

Sold on 15 Day Approval Basis.
Price $85 F. O. B. Buffalo
Write now to insure prompt delivery.

LACTEAL ANALYTICAL LABORATORIES INC.
176 FRANKLIN ST.
BUFFALO, N.Y.

ARCUS
COUPON
BOOKS

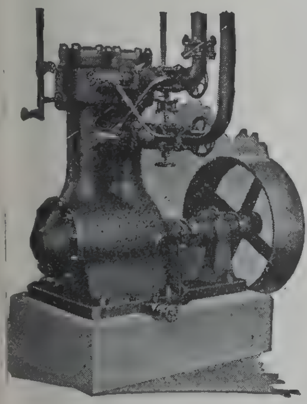
Made by special High-speed Ticket machines—not printed on a printing press.

Cost less than the cheapest print-shop product — and are better, more perfect than the best commercial printer would furnish at any price you'd be willing to pay.

Send for samples and prices.

The Arcus Ticket Company
348 N. Ashland Avenue CHICAGO, ILL.

Vilter
Enclosed Type
Ammonia Compressor



An ideal ice machine for the moderate size plant. Modern in design, made of high grade materials and thoroughly inspected and tested. Let us send a copy of our Bulletin No. 29R to you. It tells of the force feed lubrication to the piston pins, the easily operated Vilter plate valves, the oil sealed stuffing box and gives other information of value.

Let us Submit quotations on your requirements —no obligations to you.

The
Vilter Manufacturing Company
ESTABLISHED 1867
875 Clinton Street Milwaukee, Wis.

A MILK FILTER
Every Plant Can Afford

The Chicago Filter

HERE is an inexpensive milk filter that has proved its efficiency in a great many milk plants. It has a very large filtering area and its direct hook-up with the milk line saves floor space. Easy to clean. Nothing to get out of order.

Send for Illustrated Circular.

ARTHUR T. BARLASS CO.
32 W. AUSTIN AVENUE
CHICAGO, ILL.

How to Get Quality Milk

Bacterial and Chemical Tests Valuable in Securing and Maintaining Quality

By N. E. LAZARUS, B. S.*

TO THE purchaser or user, milk is either good or bad. Customers (and especially housewives) base their opinions upon the flavor and odor, depth of the cream line and the visible sediment.

This idea of milk quality may also be expressed in terms of food value, healthfulness, cleanliness, keeping quality.

Milk is so important as a food and affects public health to such a great extent, that it has necessarily been a fertile field of technical research. Consequently, many chemical and bacterial tests have been devised for determining its quality. The four factors of quality can now be easily checked by various simple, well known tests.

The information that is necessary to secure quality milk is:

1. Bacterial condition of the milk as determined by
    (a) Temperature
    (b) The acidity
    (c) The sediment
    (d) Number of bacteria
    (e) Types of bacteria
2. Chemical condition of the milk as determined by
    (a) Butterfat content
    (b) Total solids content
    (c) Freedom from watering or skimming

The control of milk quality logically begins with the raw product. A good raw milk supply will invariably give a good finished product, unless carelessness is shown in plant operation.

In the past, the practice has been to depend solely upon score cards and inspection of dairy farms to determine the sanitary conditions affecting the raw milk supply. While such scoring may give good results from an educational standpoint alone, it will not insure milk of high quality. It often happens that high scoring farms produce poor quality milk.

To obtain good raw milk, it requires a simple system, that can be used as a daily check, if necessary. It is useless to expect the average farmer to produce sweet milk with a low bacteria count regularly, if his place and cattle are inspected and scored only once or twice a year.

Since raw milk varies daily in quality, depending upon climatic conditions and methods of operation, it follows that the milk supply should be frequently checked.

The necessary facts can be obtained easily by any normal person, with average schooling. It merely requires the use of simple standard methods, that are explained in detail in state experiment station bulletins.

Tests for Bacterial Control.

The bacterial condition of the raw milk supply has a direct relation to three factors of quality: Healthfulness, cleanliness and keeping quality. The following tests determined these three factors.

Temperature: Sour milk can be avoided, if the milk is kept at a temperature below 50 degrees F. Since all types of bacteria rapidly increase at higher temperatures, the raw milk supply should be 50 degrees F. or lower when received at the plant. This necessitates the use of a thermometer, and the ideal instrument for this test is a handle top, platform inspection thermometer 18 inches long, with a one degree scale division from 3 to 90 degrees F.

Acidity: The percentage acidity of the milk is an indirect index of quality. Milk with an acidity of .2 per cent is said to be "on the turning point." Acidity is usually produced by lactic acid bacteria and indicates, as a rule, that the milk has been improperly or insufficiently cooled (higher than 50 degrees F.) There are a number of acidity outfits on the market but the type best suited for quick work is the kind that merely requires mixing a certain amount of test solution and milk. If the color remains pink, the acidity of the milk is normal. If the sample turns white, it is too acid.

Sediment: The presence of dirt, manure, cow hair, etc., in raw milk, is evidence of lack of cleanliness, carelessness in handling or both. Examination of such milk usually shows colon and putrefactive types of bacteria. It is just as easy for the farmer to produce clean milk as dirty milk. The sediment test furnishes visual evidence of the lack of care in handling milk. The sediment outfits on the market are designed to make from one to seven tests simultaneously. The degree of cleanliness is determined by comparing the cotton discs with a photographed standard gauge.

Number of bacteria: Bacteria are found everywhere; in the air, soil, etc. They are colorless plant organisms that are invisible to the naked eye. Bacteria require warmth, moisture and a suitable food supply for rapid development; milk furnishing all three, is ideal for their growth. Fortunately, most types of bacteria in milk are not harmful, but as a precautionary measure, health authorities usually set a limit for the number of colonies of bacteria allowable in milk offered for sale. In many cities milk is classified into various grades, upon the assumption that high bacteria counts indicate poor quality milk, while low counts indicate good milk.

For determining the number of bacteria in the raw milk supply, three tests have been devised that give fairly accurate results within a few hours—a necessity for controlling raw milk quality. These tests are the Breed microscopic method, the Frost method and the methylene blue reductase test. The first two tests require the use of a microscope and a trained operator; the last is a method depending upon a change of color, for indication of the number of bacteria. It is easy to use and requires no technical training or skill. For pasteurized milk, the official Petri plate method is recommended. It will necessitate purchasing special apparatus and glassware, and possibly a short training period for the operator, but the results obtained will make it well worth the time and money involved.

Types of bacteria predominating: This is determined by the fermentation or curd test. This test is simple and easy to operate. The outfit required consists of ordinary test tubes, and water at a temperature of 100 degrees F. The test must stand about six hours. The same sample may be used to make a combined fermentation and reductase test.

The condition of curd indicates the type of bacteria predominating.

A jelly like curd, free from whey and watery substances, indicates lactic acid bacteria. This condition is usually due to insufficient cooling.

A curd full of gas and pinholes indicates gas forming

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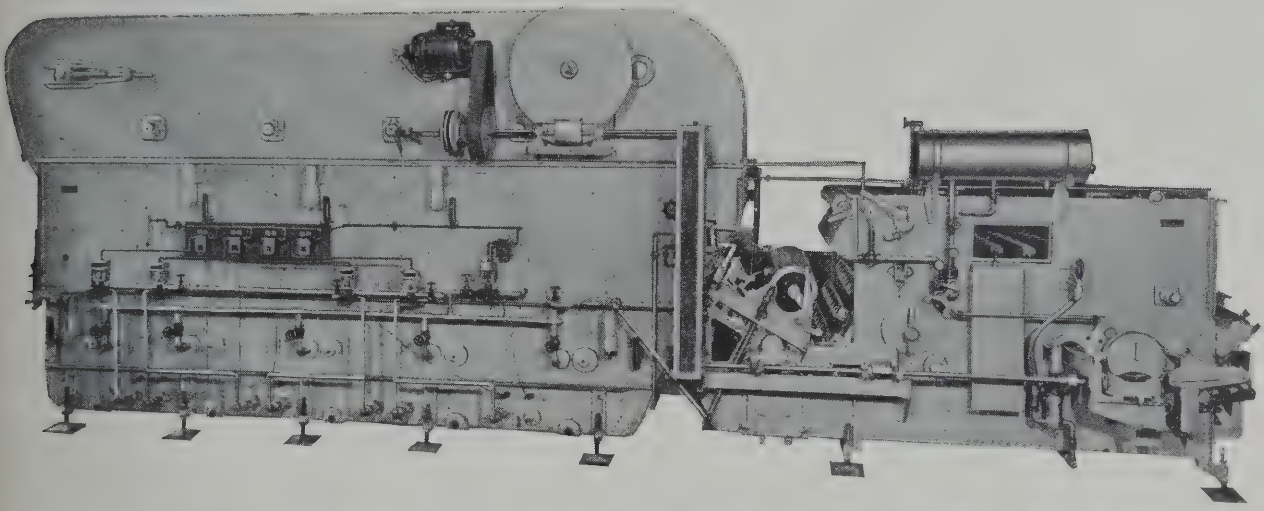
* Lacteal Analytical Laboratories.

Built for a Lifetime



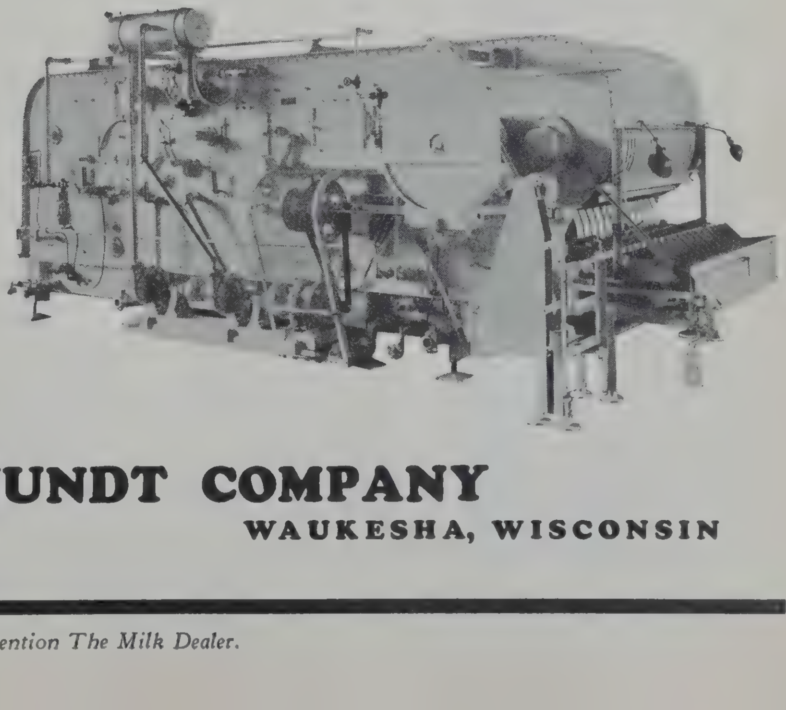
YUNDT MILWAUKEE
Air-Brush
Milk Bottle Washer

ECONOMY in operation and dependable performance day in and day out—these are Yundt Milwaukee Air Brush Milk Bottle Washer features. Compared point y point, it offers greater value in sturdy materials, and nger life in perfected design. Capacity is 30 to 160 bottles er minute. Can be synchronized ith any automatic filler. Bottles ome out sparkling clean, cold d bacteria free.

rite for descriptive bulletin No. 109 ling how the Yundt Air Brush Milk ttle Washer will conserve your dollars d lower your washing costs.

It's the AIR BRUSH—If you don't know about it, ASK US.

The machine below is a smaller type—capacity 30 and 60 bottles per minute. This Yundt comeback Type Junior Air Brush Milk Bottle Washer is a one man machine. Feed and discharge at same end. Write for Bulletin No. 110.



MICHAEL YUNDT COMPANY

MILWAUKEE, WISCONSIN **WAUKESHA, WISCONSIN**

bacteria, a condition due to manure or dirt pollution.

A curd partly digested or dissolved is characteristic of putrefactive bacteria, usually indicative of improperly cleansed utensils, etc.

Tests for Chemical Control.

The chemical condition of milk is directly related to the food value element of quality and this is determined by the following tests:—

Butterfat test: All raw milk should be bought on a butterfat basis, as it is the important commercial constituent of milk. In recognition of that fact, legal standards have been established for butterfat content by practically all American municipalities and states.

The best known as well as the official butterfat test in the United States is the Babcock test. This requires the use of a centrifugal machine, accurately standardized glassware, heat and sulphuric acid. This test is based on the action of sulphuric acid upon milk solids, whereby the fat particles are liberated. Centrifugal force together with heat completes the separation. The fat is measured directly in standardized glassware.

Total solids by lactometer test: The solids in milk, exclusive of fat, are chiefly casein, albumen, other milk proteins, lactic acid, sugar and mineral salts.

These constituents together with the fat, make milk a most valuable food. Skimming, watering or other tampering, change the proportions of these constituents and thereby affect the food value of milk.

This test is used to determine the weight of a given volume of milk as compared to the same volume of water (specific gravity of milk) and indicates whether the milk has been adulterated by watering or skimming. Milk will vary normally in specific gravity from 1.029 to 1.034. Anything above or below these figures may be assumed to indicate adulteration. Glass instruments known as lactometers have been devised to measure specific gravity. The relative weight of the milk is read from the graduated scale on the stem of the lactometer and this is the specific gravity of the milk.

Tables of figures showing the relations of the lactometer readings, fat content and total solids have been worked out from thousands of chemical analyses. These tables are very reliable and are easily obtained. If, therefore, the lactometer reading and butterfat content are known, these tables will indicate the percentage of solids in the milk.

Even if the raw milk supply is of the highest quality, improper plant operation will quickly decrease its value.

It is necessary that all machinery, apparatus and utensils be thoroughly washed and then sterilized with live steam under low pressure, to keep down bacterial growth. Cans must be washed, sterilized and dried with hot air, otherwise they are a fruitful source of bacterial contamination.

Where the pasteurization process is used, these important facts must be constantly in mind:

1. Pasteurization, to be effective, must destroy all disease germs and reduce to a minimum the number of milk organisms.

2. An expensive pasteurizing outfit becomes nearly useless if

- (a) Employees cut down the holding time.
- (b) The milk is not heated to the proper temperature.
- (c) The outfit is not thoroughly cleaned and sterilized before and after using.

Bacterial control of the operating process by means of the Petri plate method gives a very reliable check for prevention of milk contamination during handling.

The next chapter will point out the proper procedure for securing quality milk from raw supply to finished product.

Important Factors.

Farmers must deliver morning's and night's milk in separate cans.

Morning's milk must not be higher than 60 to 65 degrees F.

Night's milk must not be higher than 50 to 55 degrees F.

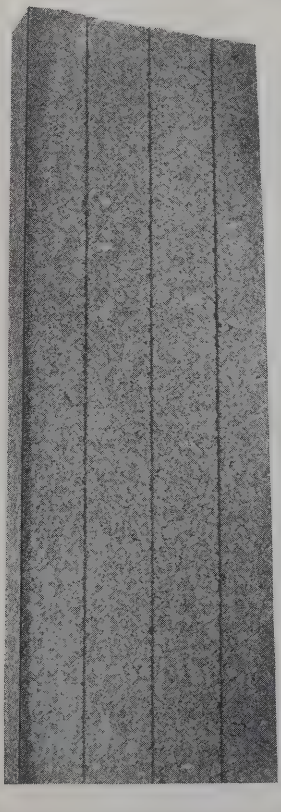
As soon as the milk is received, the employee who pours the milk into the receiving vat should run the palm of his hand down the side of each can. If it is warm to the touch, the thermometer should be used to determine its actual temperature.

Once a week, one can each of morning and night milk from every patron's supply should be tested for temperature and a comparative record kept. Each can of milk should be examined daily for off odors before being dumped.

All milk that is too high in temperature or that has an off odor should be rejected. Patrons that are constant offenders should be dropped until they comply with requirements.

Once a week in winter and twice a week in summer, every can of milk received from farmers should be tested for acidity before being poured into the weigh can. Use the instant acidity test method, preparing the test tubes on the previous afternoon. One test tube is required for testing each can of milk. Any can of milk that has too high an acidity should be rejected and the farmer notified immediately.

Once a week, a sediment test should be taken of the total supply of milk delivered by each farmer. This



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a sample barrel
and our prices.

K. W. Jacobs Cooperage Co.

1907 ST. PAUL AVENUE MILWAUKEE, WIS.

sample can be taken from the receiving vat or weigh can. If a farmer continues to deliver dirty milk, it should be rejected until clean milk is produced. One seeming objection to this test is the fact that farmers will soon begin to strain their milk at home. The bacteria and fermentation tests will, however, give additional information that will supplement this test.

Twice a week, the test for number of bacteria of all incoming milk should be made. A sample is taken from the weigh can of each patron's milk. Either the Breed microscopic test, or the methylene blue test should be used for this purpose. If a sample of milk is found to be high in bacteria, another test should be made the following day. Farmers should be notified of results and advised to "clean up," with the warning that milk with high counts will be rejected.

Every week a test for types of bacteria should be made. If colon or putrefactive types of bacteria are found, an inspection of the farm from which such milk is received should be made. Milk with these forms of contamination affects the flavor of the finished product and should not be tolerated. They indicate dirty production at the farm, which should be remedied at once.

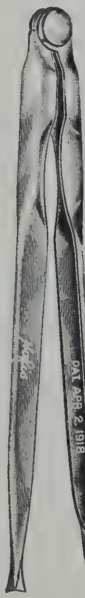
The entire raw milk supply should be tested for butterfat regularly. Preferably, a sample should be taken daily and this composite sample should be tested at least twice monthly. This is the most satisfactory method of determining the actual butterfat content of the milk that is delivered. Any milk that is below 3.0 per cent butterfat may indicate tampering, and such supply should be carefully watched. Payment for milk on weight and butterfat has proven most satisfactory for both farmer and distributor.

About once every two weeks a lactometer test of

Read Your Milk and Cream Tests with the

Nafis Improved Dividers

ACCURATE—
RAPID—
DURABLE



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Buy through your jobbers. If they cannot supply you do not accept substitutes but write for our catalog and the names of our distributors in your territory.

LOUIS F. NAFIS, Inc.

Manufacturers of Scientific Glass Apparatus
for Testing Milk and Its Products

17-23 N. Desplaines St. Chicago, Ill.

ASK THE MEN WHO USE IT

each patron's milk should be made. It will prevent any tendency on the part of the farmer to water or skim the milk.

Dairy Plant Operation.

1. All milk pipes, pumps, valves, vats, pasteurizing outfits, etc., should be thoroughly cleansed with a mild, alkali solution and hot water.
2. The importance of thorough sterilization of all apparatus, machinery and utensils with live steam under moderate pressure for at least five minutes cannot be overestimated.
3. All milk cans should be thoroughly washed, steamed and dried before returning to the farmer.
4. Bottle washing machines should be run at sufficiently high pressure and temperatures to insure proper sterilization of the bottles.
5. Temperature recorders for pasteurizers should be checked daily with an accurate hand thermometer to avoid overheating (cooking) or underheating (insufficient pasteurization). This precaution will help to eliminate poor cream lines.
6. The time of holding milk should be checked once a week if the continuous type of pasteurizer is used. The holding period is an important factor in lowering the number of bacteria.
7. Milk should be cooled at once after pasteurization, to 45 degrees F. or lower, and stored at that temperature or lower. This will prevent high acidity and rapid bacterial increase.

Bacterial Control Check.

In order that no uncertainty should exist as to whether the above instructions are carried out, a test is made of plant operation at least twice a week or oftener as follows:

Sterile bottles are filled with milk at the following points in the plant equipment: (2 samples at each point, marked a and b):

Milk from weigh can or receiving vat.
Milk going into clarifier or filter.
Milk coming out of clarifier or filter.
Milk coming out of heater.
Milk coming out of each holder (if continuous type). (If batch type of pasteurizer, take samples going into pasteurizer and samples after being held for required period).
Milk going into cooler.
Milk from cooler.
Milk into bottling machine.
Milk from bottling machine.
Milk from bottle.

Two samples are taken at each place so that accuracy of results is increased. In addition to this, an empty quart bottle, pint bottle and milk can should each be rinsed with a small quantity of sterile water and a portion of the rinsings should be tested. In this manner an accurate check is kept on every part of the plant equipment. A rise in number of bacteria at any one point, would immediately indicate contamination.

In addition to the above samples, a daily bacterial test should be made of the bottled and can milk when ready for delivery.

The Petri plate method is necessary for making these determinations. Although it will require special apparatus and some training for the operator, the results obtained will amply recompense the milk distributor, because it will enable him to know absolutely the efficiency of his plant operation and to guarantee the quality of his product.

It is also advisable to make a daily butterfat and solids test of the bottle and can milk delivered to the trade.

MILK PLANT LABOR STUDIES.*

Labor Required for Pasteurizing, Cleaning Equipmen and Stacking Bottled Milk and Cream in Storage Room.

Labor for pasteurizing and cooling milk can be use more economically in large plants than in small ones. I the accompanying table are shown the results obtaine from labor studies at 112 plants, arranged according t quantity of milk and cream handled daily. It wi be noted that as the size of the plant increases th amount of milk and cream handled per man in the pa teurizing department also increases. At least one ma must be detailed to this department for plants of a sizes. In small plants this man can do little more tha attend to the pasteurizing machinery during the oper tion. At large plants usually not more than two me are required, so that the quantity of milk handled p man is much greater than in the smaller plants.

In proportion to size, the large plants have mo special men to clean the equipment than do the sma plants. In these the man who operates the pasteuriz often does some cleaning during the last part of th run, which partly accounts for the small amount of mi pasteurized per man and also for the comparative small number of man-hours for cleaning charged to the plants. Large plants generally have a special set of m who spend their entire time cleaning the pasteurizi and cooling equipment. While a special cleaning cre would not be practical for small plants, many lar plants have found this system very desirable a economical.

When the total amount of labor for pasteurizing t milk and cleaning the equipment is considered, it w be noted that there is not so great a difference betwe the amount of milk pasteurized per man hour at t small plants and at the large ones.

In regard to stacking the milk and cream in the st age room, the size of the plant is not an important fact It will be noted that the number of bottles stacked the storage room per man hour is quite uniform fr plants of all sizes. Practically the same system is us at all plants, and one man can handle about the sa amount, regardless of the size of the plant.

Man Hours used at Plants of Various Sizes for Pasteuriz and for Cleaning; also for Stacking the Bottled Milk in Storage Room.

Group	Gallons	No. of plants in group.	Gallons pasteurized and cooled per man hour.	Man hours cleaning pasteurizing equipment.	Gallons pasteurized and cooled per man hour, including cleaning.	Bottles stacked man hour.
(1)	Less than 3,000	24	439	3.7	246	1,7
(2)	3,000 - 5,000..	22	690	5.0	341	2,2
(3)	5,000 - 10,000.	38	982	9.3	434	2,6
(4)	10,000 - 15,000	17	1,290	17.3	476	2,8
(5)	Over 15,000...	11	1,588	24.4	450	2,2

---

* Milk Plant Letter No. 146, issued by U. S. Departmen of Agriculture.

⁂

Why keep your money tied up in second-hand equipment which you have no further use for in your present plant? Turn it into cash through a "Milk Deal" Want Ad. They cost but 5c a word.

PREPARATIONS BEING MADE FOR MICHIGAN CONVENTION, FEBRUARY 7-11, 1927.

Plans are taking shape for a most successful conven- ion, to be held at Jackson, Mich., on February 7 to 11, iclusive, by the Michigan Allied Dairy Association, hich organization embraces the various units in the airy industry of that state.

According to D. W. Shiel, Hillsdale, secretary of the Iichigan Allied Dairy Association, much interest is man- ested in the dairy exhibit to be held in connection with he convention. Mr. Shiel advises that 45 firms have lready made plans to exhibit at Jackson, and he urges ll those interested to write him immediately. Floor lans have been mailed, but if you have failed to receive our copy write for it to Mr. Shiel at Hillsdale, Mich.

Officials of the association predict this will be the best nd biggest exhibit ever staged by the Michigan dairy ndustry.

Hotel accommodations at Jackson are ample, we are dvised, but all are urged to make their reservations ithout further delay. The Hayes Hotel will serve as onvention headquarters, but the Otsego, Delvan and ackson Hotels will house many dairy visitors during he week of February 7.

The tentative programs of the various units indicate hat current subjects of interesting topics will receive tention, and a goodly portion of entertainment is prom- ed by the Michigan Dairy Boosters, the supplymen's ganization, who have the reputation of being among he best hosts in the country.

Martin Seidel is president of the Michigan Allied Dairy Association, with Bert Reed, vice-president, and C. H. Parker, treasurer. The officers of the Michigan Market Milk Dealers' Association, which organization will play an important part in the success of the Jackson convention, are Chas. Babcock, president, and C. R. Nicholls, secretary.

⁂

MERGER ANNOUNCED.

The Springfield Dairy System, Inc., Springfield, Mass., has been merged with the Dairy Systems of Manchester, N. H. This decision was arrived at by the stockholders of the organizations involved and the combine will now be known as the United States System, to be capitalized at $1,500,000. Stockholders in the Springfield system will receive 12½ shares of the United Stock for every 10 shares now held in the Springfield Dairy System.

O. A. Tuttle of Hardwick, Mass., will be president of the new organization.

⁂

FROM ONE THOUSAND TO FIFTY THOUSAND.

In the advertisement of E. A. Kaestner the Baltimore firm that makes the Faultless line of automatic holders, it will be noted that in stating the capacities the advertisement reads from 1,000 to 10,000 pounds per hour. This should read from 1,000 to 50,000 pounds.

Some of the Exhibits at the Dairy Industries Exposition at Detroit in October

BARRY-WEHMILLER MACHINERY CO.
Van Dairy Products

John W. Ladd Co.
Barry-Wehmiller Machinery Co.
The Pfaudler Co.

One of the fleet of trucks used by the Van Dairy Products Co. of Detroit.

Michael Yundt Co.
International Nickel Co.
Buffalo Foundry & Machine Co.

WANT DEPARTMENT

HELP WANTED

(Rate: 2c per word)

WANTED—Salesmen to sell as side line to the milk and dairy trade a marvelous new cleaning compound. Better than alkali or soda for cleaning bottles and equipment. Quick sales. Big repeat orders. Liberal commission. Seacoast Laboratories, Sea Bright, N. J. 11-26

WANTED — Middle aged man, married, to go into partnership in dairy business. Must be experienced. Address: D-640, The Milk Dealer. 11-26

WANTED—Strong and healthy man to work in milk distributing plant in Charleston, S. C. Must have experience in making tests, must know butter, cheese and cultured buttermilk making and operation and handling refrigeration. Please make full statement of your experience, furnish reference and state salary wanted. Address Rephan's Sanitary Dairy, Charleston, S. C. 11-26

POSITION WANTED

(Rate: 2c per word)

POSITION WANTED — Am experienced and trained in advertising and selling. Specialized in production and manufacture of dairy products, by-products and product analysis. Age 32 years, married. Graduate of mid-western university and now employed in eastern university as professor in market milk. Desire business connection. Address: D-648, The Milk Dealer. 11-26

POSITION WANTED — As manager or foreman by man with years of experience in evaporated and condensed milk. Will accept other position where chance for advancement offered. Also experienced in plant sanitation and laboratory. Salary and full particulars requested in first letter. Address: D-647, The Milk Dealer. 11-26

POSITION WANTED — As manager or superintendent of market milk plant. Have had years of practical experience. Have executive abiiity and sales experience. Can build up a new or a run down business. Understand the business from the cow to the consumer. Can give references as to past success. Address: D-634, The Milk Dealer. 11-26

"Answers on Refrigeration"

(A practical treatise for the engineer.)
By Gideon Harris and Associates.

This book will assist him in the most economical and efficient operation of your plant.

Read this table of contents:

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Underlying Principles of Refrigeration.
Materials Used in Refrigeration.
Heat and Cold.
Mechanical Refrigeration and Ice Making
Ammonia Compression System.
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Chemistry and Distillation.
"Points" Relating to Water Distilling.
Cooling Towers.
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"Points" Relating to the Care and Management of the Absorption Plant.
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Goods Storage.
Storage House Operation.
Measurements.
Cold Storage Houses.
Refrigerating Pipe Lines.
Emergencies and Accidents.
Ice From Raw Water.
Tables and Data.

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NOTICE

The publisher disclaims any responsibility for the reliability of parties advertising in the Want Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting suspicious dealings.

We reserve the right to refuse to accept advertisements which we believe are detrimental to the dairy industries.

Want Ads are accepted up to 7th of month preceding date of issue. Forms close on that date.

POSITION WANTED—By married man highly trained in modern milk business and Cornell dairy school. 18 years practical and technical training in all branches, city and country plant management, technical control on all by-products, bacteriologist. Seven years in present position. Excellent references. Any desirable location. $300 to start. Address: D-639, The Milk Dealer. 11-26

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(Rate: 5c per word)

BUSINESSES

FOR SALE — Milk plant completely equipped. Operating eight wagons in city of fifty thousand in central Michigan. Good supply of milk. Address: D-615, The Milk Dealer. 12-26

FOR SALE—Milk plant in college town of 3,000 in Ohio. Pasteurizing 250 gallons milk daily. Also jobbing butter and ice cream. Address: D-642, The Milk Dealer. 11-26

FOR SALE — Wholesale milk business, fully equipped. Located in Florida. Doing good business. Good reason for selling. Address: D-649, The Milk Dealer.11-26

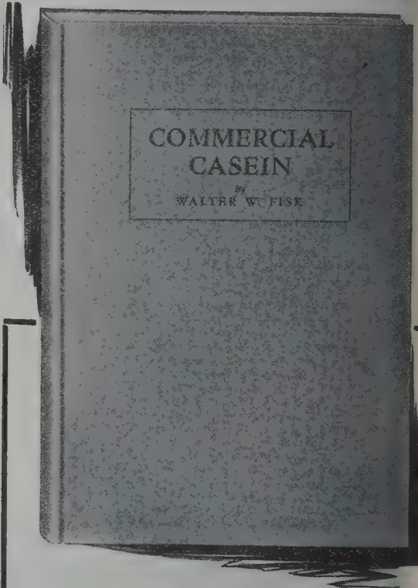
FOR SALE—Half interest in wholesale milk business. This is a wonderful opportunity as the business is steadily increasing. Address: D-650, The Milk Dealer. 11-26

MACHINERY AND SUPPLIES

FOR SALE — Type J Milwaukee fille like new, used only eight months. Ha two motors. First check for $350 take it. Address: D-637, The Milk Dealer. 11-2

FOR SALE — Refrigeration Machines — Used—We have several used and new machines of nationally known make, whic we can sell at a big saving to you. Wi erect and guarantee the plants fully. Address: Erecting Engineers Company, 472 West Lake St., Chicago, Ill. 10-26

FOR SALE—Ice making and refrigerating machinery. New and rebuilt. Ou prices on new Waynesboro refrigeratin equipment, delivered and installed ver low. Buy direct from the manufacture All sizes. Get our prices on your requirements. Geiser Manufacturing Compan "Department B," Waynesboro, Pa. 1-2



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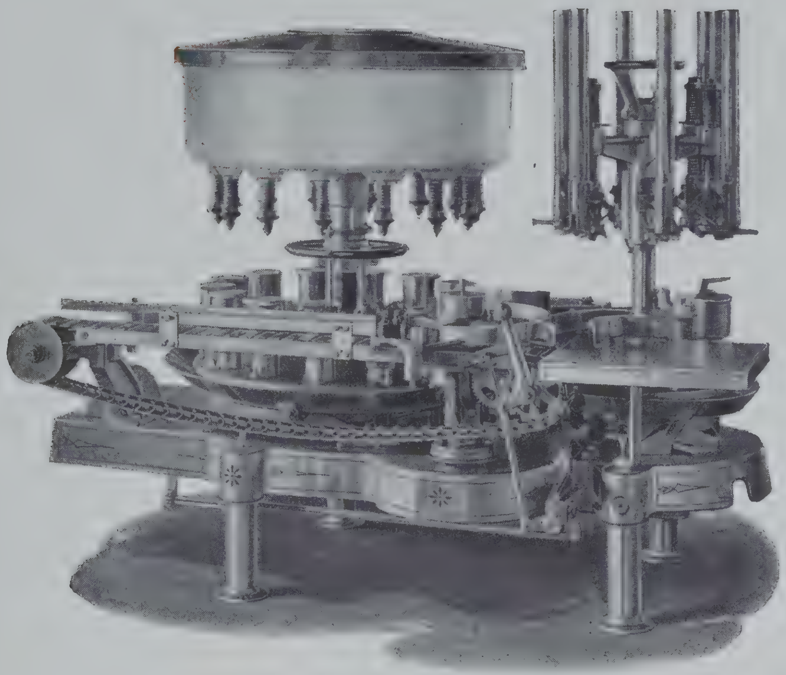
Wright-Ziegler Co.	137
York Milk Machinery Company	IV
Yundt, Company, Michael	14-141

"Straight-Eight" Performance

is characteristic of the Davis



Smooth —Quiet	So smooth does the Davis operate that even at high speed scarcely a sound can be heard. Friction is avoided as all moving parts revolve in a continuous bath of oil.
All Rotary Principle	An exclusive Davis feature. Bottles never stop or make right angle turns when on machine. They are automatically transferred from fillers to cappers without stopping or changing speed. Cappers are never overworked . . . milk is not spilled . . . bottles are never bunched or broken.
Mechanical Simplicity	Entire mechanism consists of one drive shaft which operates the filler, transfer wheel and capper. Conveyor and feeder wheel are operated from auxiliary gear on transfer gear.
Perfect Filling —Capping	Davis Filler Valves are extremely simple, easy to clean and always fill to proper level, not above or below. Six capping heads (No. 5 size) eliminate necessity of frequent reloading.
Dependable —Reliable	Expensive and annoying breakdowns and tieups are permanently avoided as the Davis is built of the finest materials. Heavy duty construction throughout enables users to maintain a definite operating schedule.

Davis Sales are Growing

THE CREAMERY PACKAGE MFG. COMPANY

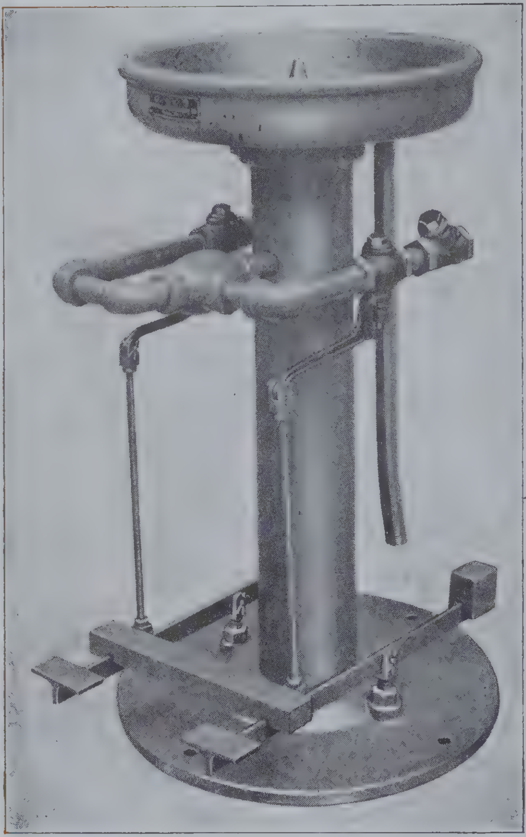
61-67 W. KINZIE STREET CHICAGO, ILLINOIS

Sales Branches Everywhere

"FOR BETTER MILK HANDLING"

Clean Cans mean more Business for YOU . . .

The YORK Can Washer and Sterilizer will give you clean cans at a minimum cost



The YORK Can Washer and Sterilizer

Press the pedal on the right and you get cold water. Press the pedal on the left and you get steam. Press the cross bar in the center and you get hot water.

The can is inverted over the nozle which sprays in all directions. The hot water washes. The steam sterilizes and the cold water rinses.

Nothing could be simpler or more efficient than the YORK Can Washer and Sterilizer. It does the job quickly and thoroughly.

This piece of machinery is made by us "for better milk handling."

It is fitted with standard plumbing valves and guaranteed to stand up under constant use.

Write for information and prices

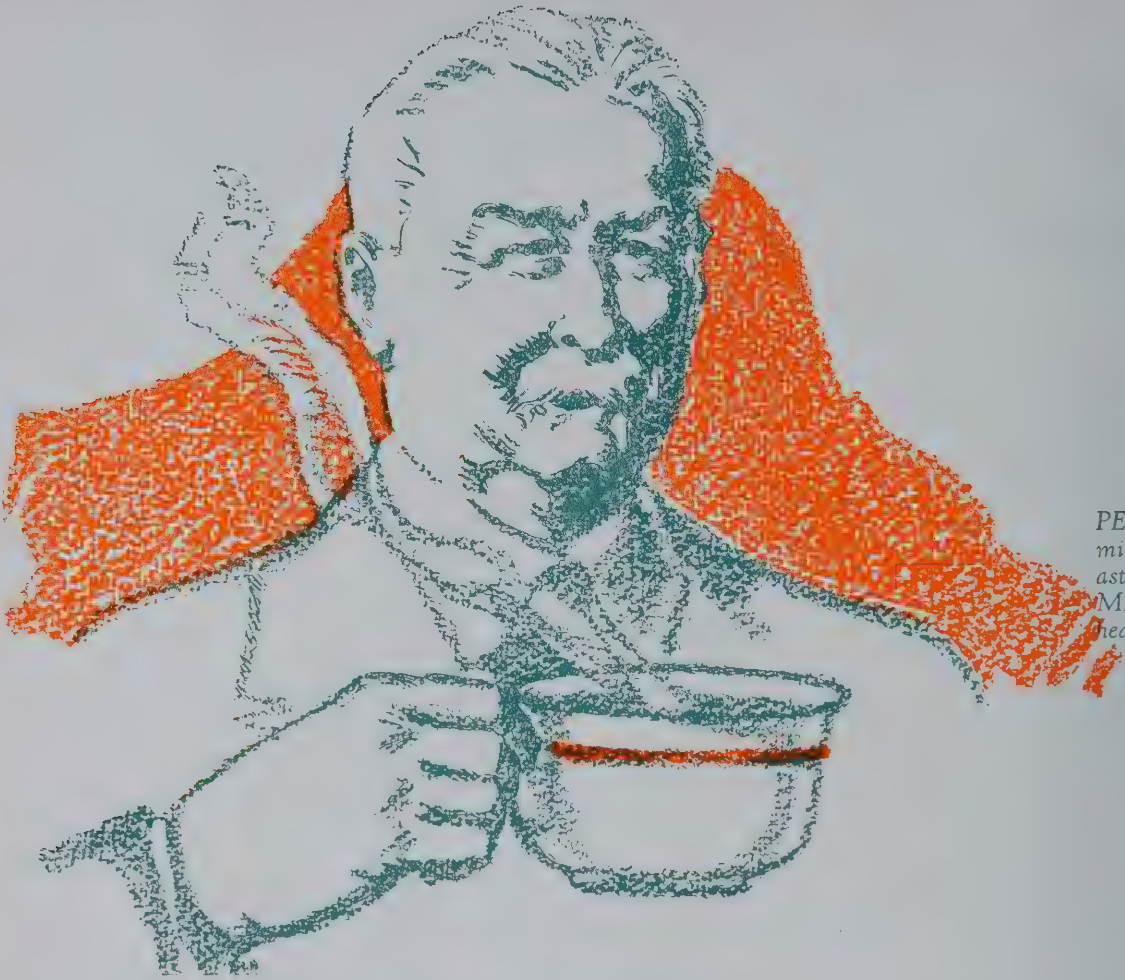
YORK MILK MACHINERY CO.

Manufacturers of Milk Handling Equipment

York, Penna.

THE MILK DEALER

Volume 16 DECEMBER 1926 *Number 3*



PEOPLE who never drank milk before are enthusiastic about COFFEE-MILK—the invigorating health builder.

A New Way to Increase Your Mil Business

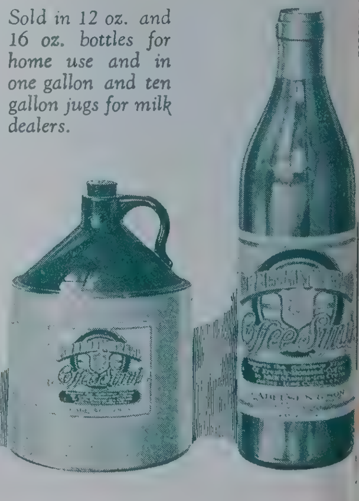
Every day will bring you dozens of new customers for COFFEE-MILK in offices, shops, stores and homes.

To sell Coffee-Milk is to immediately jump up your daily sales. Coffee-Milk combines the refreshing effects of the finest coffee with health-building milk—hot or cold. Some people do not like milk; or chocolate, or both. But everyone likes Coffee-Milk. In many homes it is replacing coffee. This means that you are actually getting new business that didn't exist before.

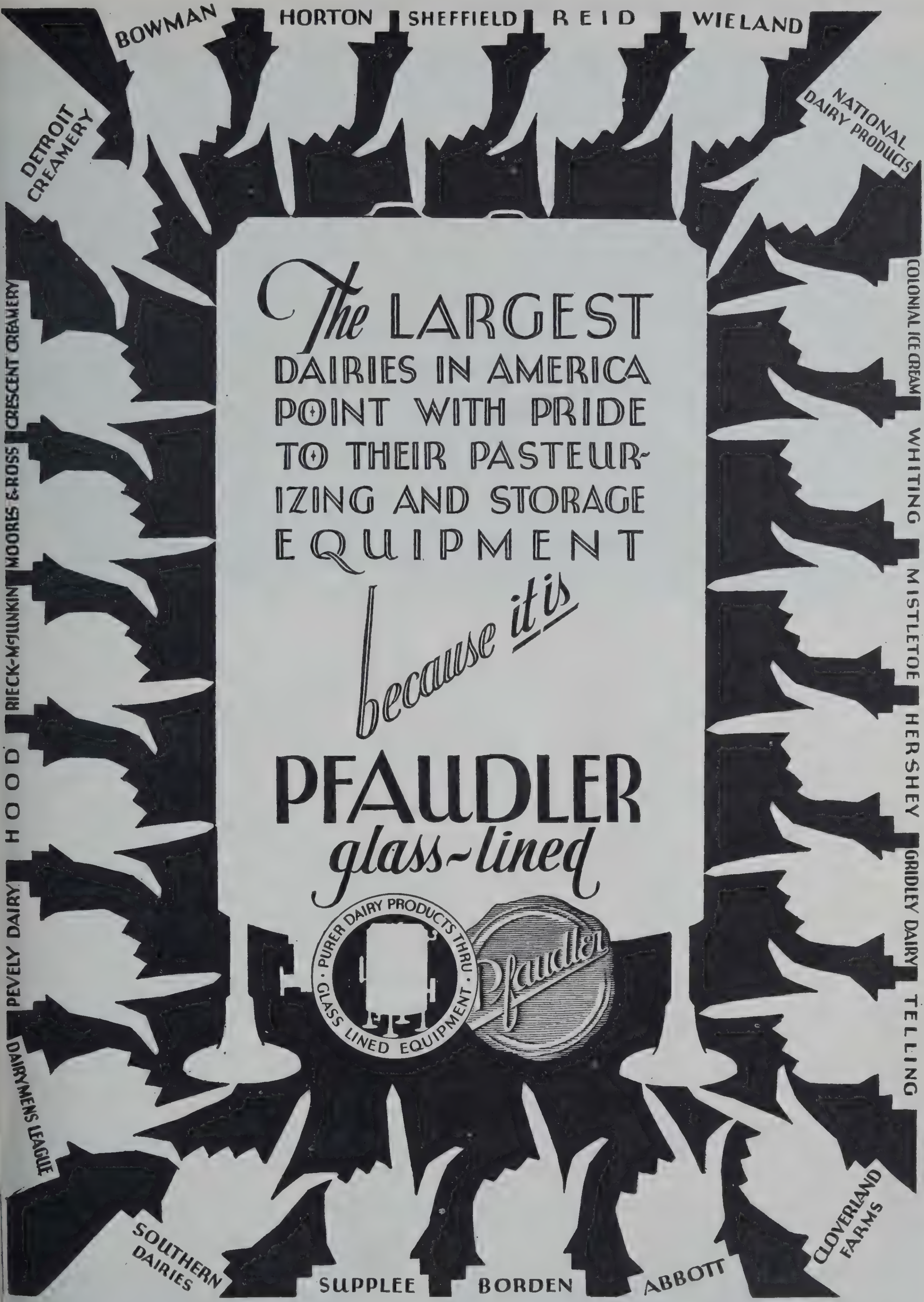
Made from full flavored, fresh roasted coffee, highly concentrated in syrup form. Easy to mix with milk; no equipment necessary. Never settles at bottom of bottle; no sediment. Write for prices and sample.

D. ABELSEN & SON, - - Providence, R. I.
Central States Representative: M. C. DRESHFIELD, 405 East Main St., Kalamazoo, Mich.

Sold in 12 oz. and 16 oz. bottles for home use and in one gallon and ten gallon jugs for milk dealers.



ARABIAN BRAND COFFEE SYRUP


BOWMAN
HORTON
SHEFFIELD
REID
WIELAND
NATIONAL DAIRY PRODUCTS
COLONIAL ICE CREAM
WHITING
MISTLETOE
HERSHEY
GRIDLEY DAIRY
TELLING
CLOVERLAND FARMS
ABBOTT
BORDEN
SUPPLEE
SOUTHERN DAIRIES
DAIRYMENS LEAGUE
PEVELY DAIRY
HOOD
RIECK-McJUNKIN
MOORES & ROSS
CRESCENT CREAMERY
DETROIT CREAMERY
PURER DAIRY PRODUCTS THRU GLASS LINED EQUIPMENT
Pfaudler

The LARGEST DAIRIES IN AMERICA POINT WITH PRIDE TO THEIR PASTEURIZING AND STORAGE EQUIPMENT

because it is

PFAUDLER

glass-lined

Note:—We extend our apologies to those thousands of American dairies whose names we have been obliged to omit for lack of space.

THE PFAUDLER COMPANY, *Dairy Division,* ROCHESTER, N. Y.

Pop Decides Not to Fire the Truck Pusher

TRADITION
PROGRESS

"Here, Lad—

fire that husky in the lower plant—he's too careless! Last night he ran his truck against a motor and broke a foot off it—so we lose that machine's production until they get a new motor on the job."

"No, Pop—

you can't buy common sense in a truck pusher, but you'd at least *expect* it in a motor maker.

There's always something sideswiping motors—and yet your gang of stiff-back motor assemblers stick to cast-iron feet. If they themselves didn't have clay feet they would weld drop-forged feet to a steel frame—just as in the Linc-Weld Motor.

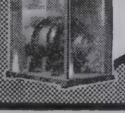
Then your sweeper could do calisthenics with a sixteen-pound sledge and he couldn't 'drop' a motor."

See Page 7 of the Motor Book. Better get yourself a copy from department 25-12.

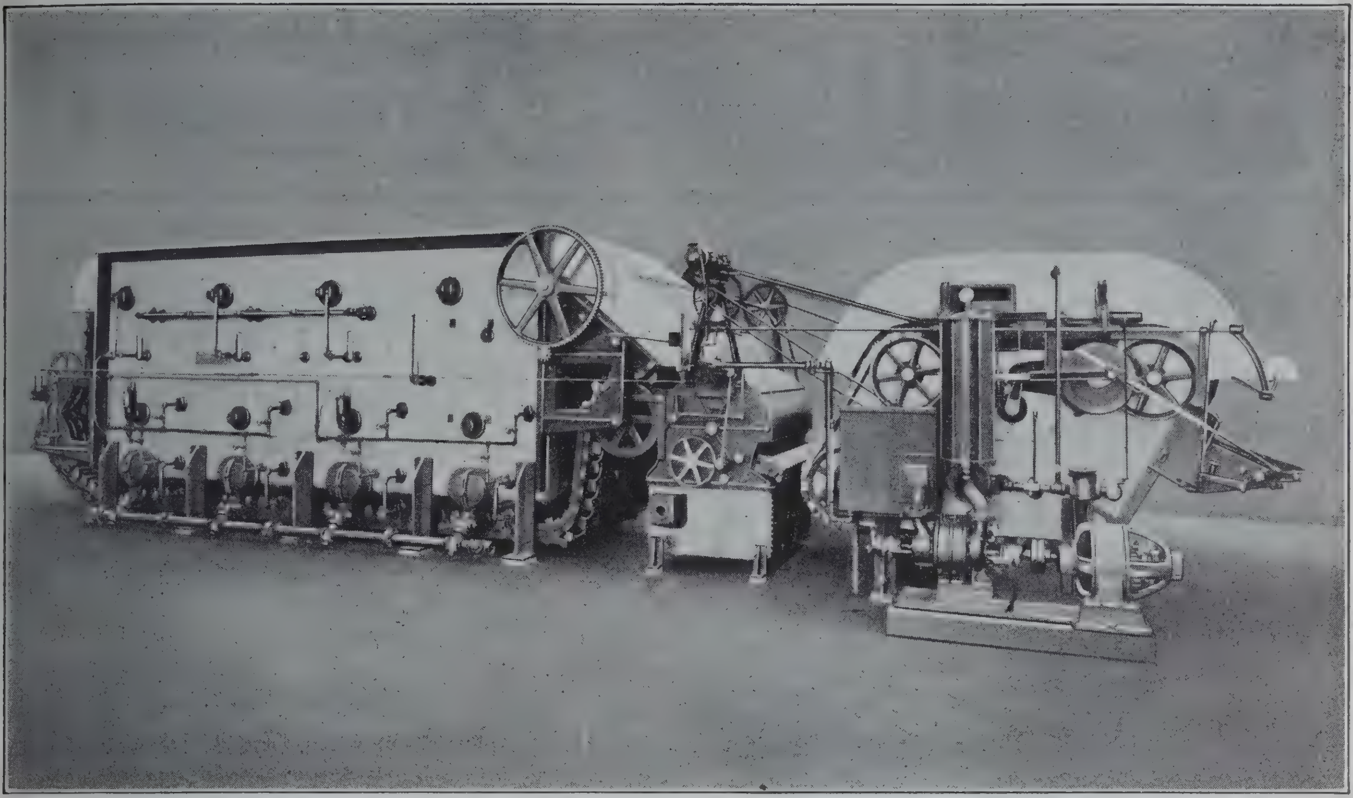
The Lincoln Electric Company, Cleveland, Ohio

MA-2

"Linc-Weld"



LINCOLN MOTOR



The "ARISTOCRAT" of BOTTLE CLEANERS

Look into our complete Pasteurizing Machine combining in one unit preheating, holding, cooling and refrigerating.

Points of Advantage

Complete separation of caustic soda in Soaker from fresh water in Washer.

No contamination of Washer and Sterilizer by caustic from Soaker.

Thorough cleaning of bottles by caustic solution.

Positive sterilization in Washer.

Maximum soaking volume in proportion to soaking tank space.

Tanks set clear above all floors, keeping plant sanitary.

All tanks closed on top, prevent loss of steam.

No destruction of building by steam and no cloudy bottling rooms.

Handling quarts, pints and half-pints with only one simple adjustment.

Capacity may be subsequently increased by additional compartments added to Soaker.

Mechanical motion of Soaker is continuous.

Patent Soaker buckets operating without friction or breakage.

Soaker compartments completely divided—making each compartment an independent soaker.

Mechanical Washer movement is intermittent.

Double main drives and no high speed operating parts.

Nine automatic safety devices insure continuous operation 365 days per year.

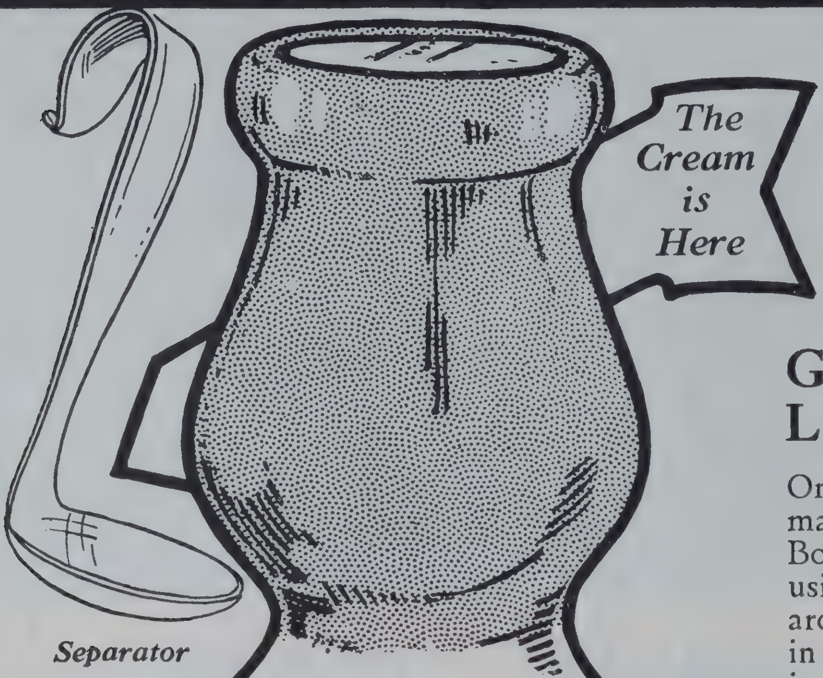
EIGHT complete units adopted and in operation at the Sheffield Farms in New York City.
TWO complete units in operation by United Dairies, London.
TWO complete units adopted by Sidney Wanzer & Sons, Chicago.

Backed up by 25 years continuous experience in building bottle soaking machines.

Barry-Wehmiller Machinery Company

ST. LOUIS **New York Office, 18 W. 25th St.** **MISSOURI**

Bottles that Build & hold Business



8 Basic Reasons Why You Should Use Cream Top Bottles

1. Absolutely prohibits use of your bottles by other dealers.
2. Have never failed to produce a substantial increase in business.
3. Develops the cream habit—noticeably increases sales of cream.
4. Shape of bottle prevents use by housewife for preserving.
5. Cream Top Bottles give whipping cream, instead of thin cream, from same grade milk.
6. Instantly recognizable and self-advertising.
7. No extra or new machinery or equipment needed to handle Cream Top Bottles.
8. Cream Top Bottles cost the same as ordinary bottles.

Write for list of dealers using Cream Top Bottles

A Daily Guarantee of Good Faith

Given by 200 Leading Dealers

One of the most significant of the many arguments for Cream Top Bottles is the list of dealers already using them. They set high standards both in quality of milk and in daily service. In over 200 cities in the United States and Canada housewives have enthusiastically rallied to the support of the dairy which put them on, and in each case it has been the leading dairy in the city.

Cream Top Bottles have so many arguments in their favor, we haven't space enough here to explain them all. Write for our present list of dealers and get in touch direct with the one nearest to you. He will tell you what Cream Top Bottles mean to his business.

THE CREAM TOP BOTTLE CORPORATION
ALBANY, - - NEW YORK

Cream-Top Bottles

Fewer Parts *mean* Less Breakage and Greater Ease of Repair

The

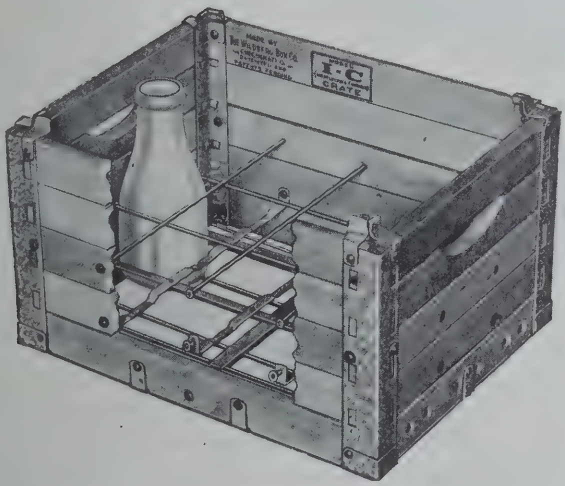
MODEL
I-C
(Interlocking Corner)
CRATE

is the only Reinforced Corner Crate on the market in which the inside and outside reinforcement actually *interlock* without any outside means of joining them together.

ℭ This means fewer parts to disassemble and reassemble when repairing.

ℭ And don't forget that our SAFETY GRID gives BOTTLE PROTECTION to be found in no other crate on the market.

ℭ The following Dairy Machinery and Supply Houses, each the recognized leader in its territory, handle and carry stock of WILDBERG MILK BOTTLE CRATES to the exclusion of all others:—



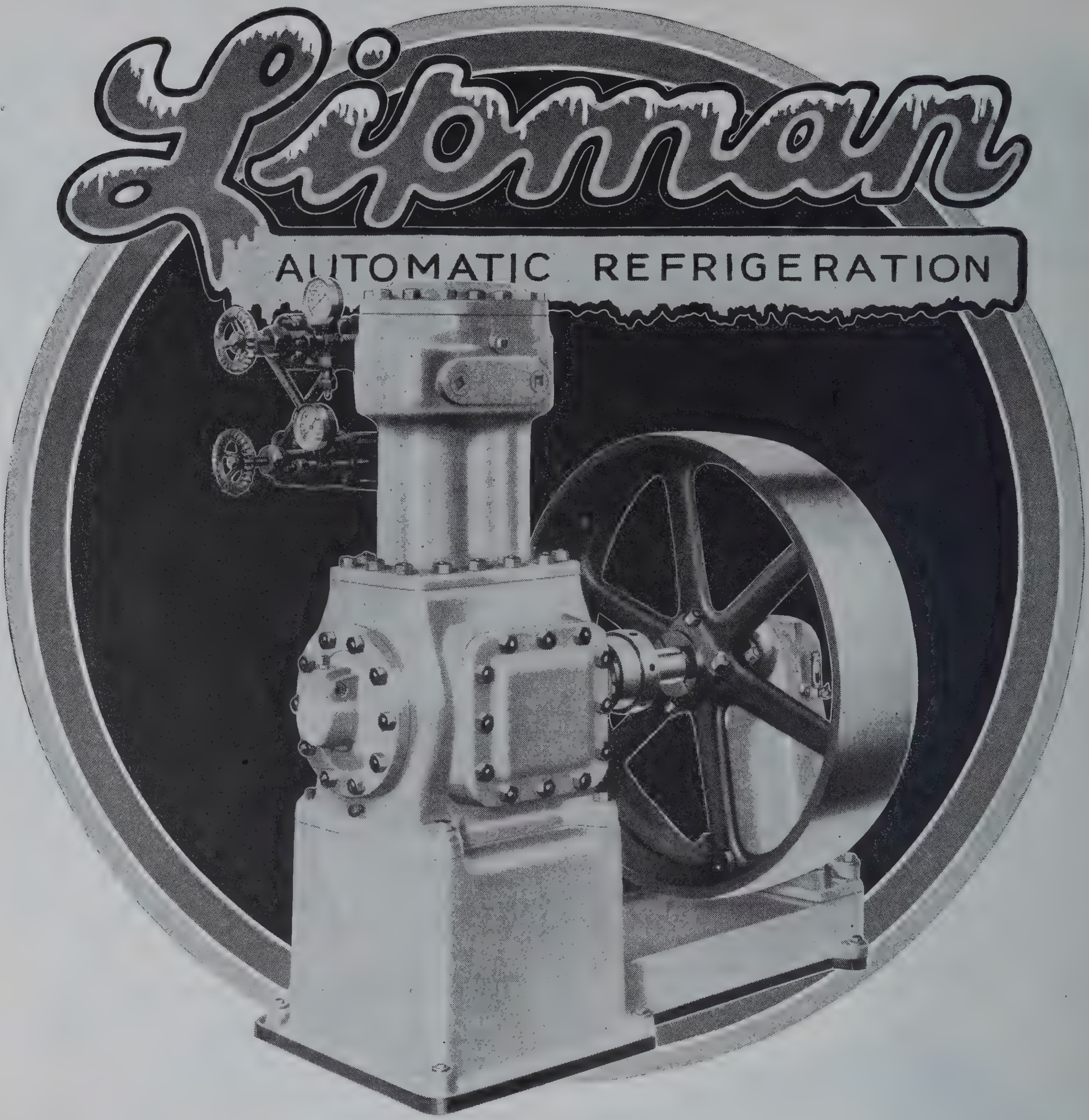
CHERRY-BASSETT COMPANY,	New York, Philadelphia, Baltimore, Pittsburgh, Syracuse
EL PASO BUTCHERS & DAIRY SUPPLY CO.,	El Paso, Texas
THE HURLEY COMPANY,	Denver and Pueblo, Colo.
JOHN W. LADD CO.,	Detroit, Cleveland, Columbus, Cincinnati
MILLER-LENFESTEY SUPPLY CO.,	Tampa, Jacksonville, Miami
JOHN PICO,	New Orleans
WISNER MANUFACTURING CO.,	New York City
WRIGHT-ZIEGLER CO.	Boston, Mass.

Manufactured by

THE WILDBERG BOX CO.

CINCINNATI, OHIO

"WORLD'S LARGEST MANUFACTURERS OF MILK BOTTLE CRATES"



For Steady Dependable Service

For steady dependable service there's nothing like a Lipman. They're made to keep right on running. Lipman Full-Automatic Refrigerating Machines are built with brains, and backed by a manufacturing experience as long as the industry is old. Lipmans are tested and proven. They give *excess* service, the kind that asks no quarter, takes a minimum of attention and costs less to run than seems right.

For the details, write us to send you our Free Illustrated Folders.. Do it now and you'll get them sooner—and the serviceable facts they contain.

General Refrigeration Company

116-194 **Shirland Ave.** **Beloit, Wisconsin**

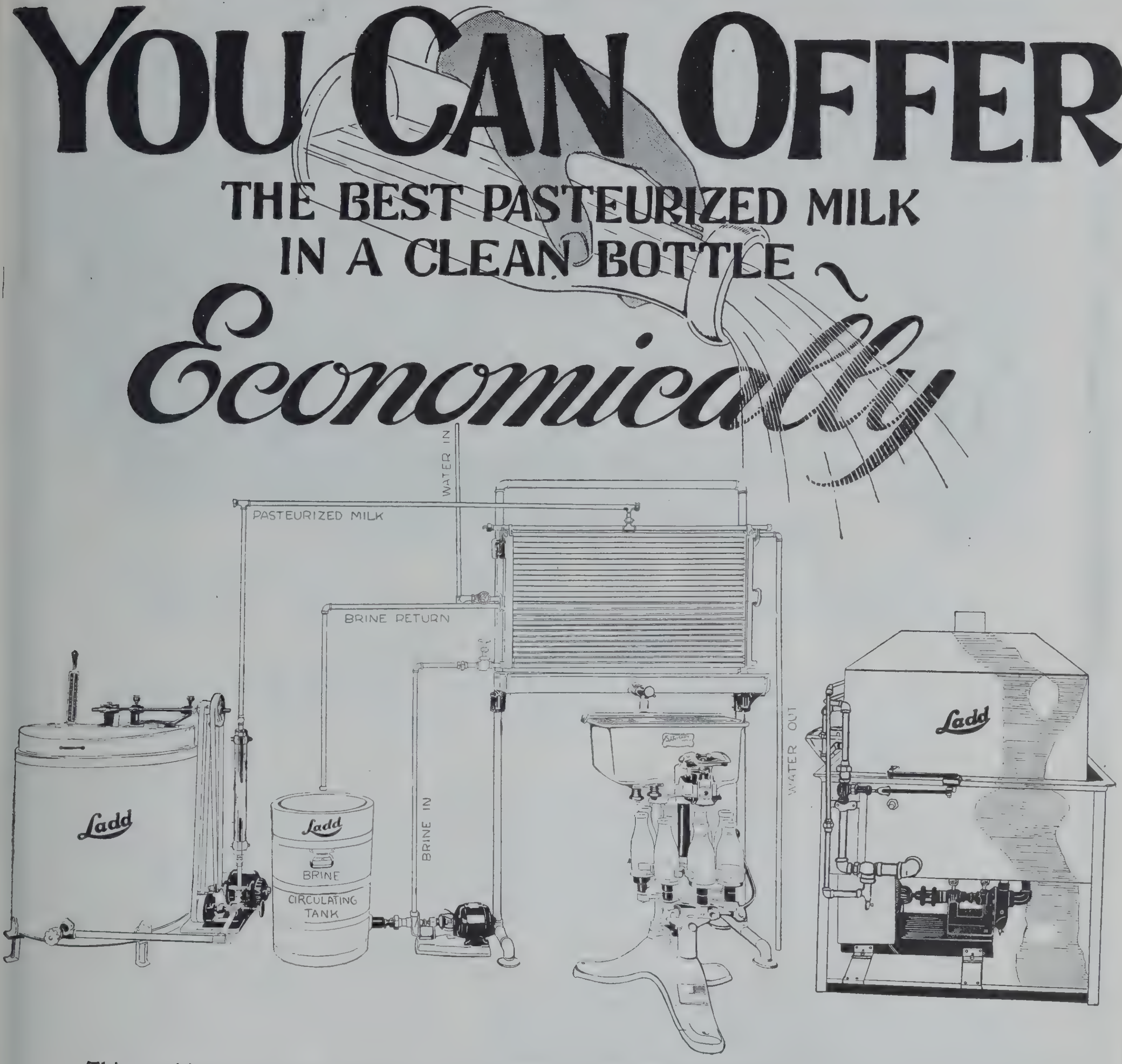
THE DRY, CONSTANT COLD OF THE MOUNTAIN TOP

MR. SMALL DEALER

YOU CAN OFFER

THE BEST PASTEURIZED MILK IN A CLEAN BOTTLE

Economically


WATER IN
PASTEURIZED MILK
BRINE RETURN
Ladd
Ladd
BRINE
CIRCULATING TANK
BRINE IN
WATER OUT
Ladd

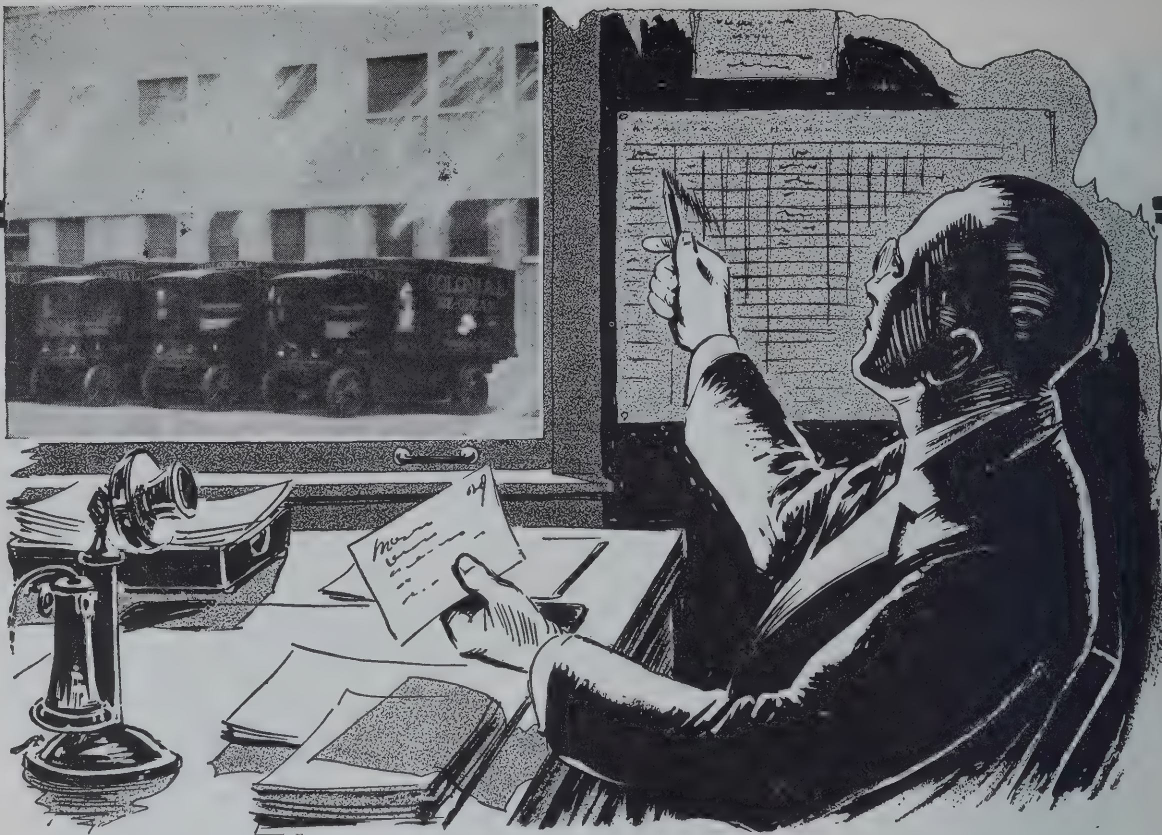
This machinery has been proven to be the most efficient and the most economical for the small milk plant. It can be had in direct motor drive or belt driven units. It consists (from left to right) of Ladd's Blue Line Pasteurizer, Ladd's Brine Circulating Tank, Ladd's Tubular Cooler, Milwaukee Hand Operated Filler and Capper, and Ladd's Dairyman Pressure Washer.

Let us submit plans for your plant without obligation.

John W. Ladd Co.

COMPLETE OUTFITTERS TO THE DAIRY INDUSTRIES

Detroit Columbus Cleveland Cincinnati



Delivery Superintendents Like Walker Electric Trucks

Because

They maintain the schedule.
They are on the job every working day.
They almost never send in trouble calls or require emergency repairs.
They assure deliveries as promised.
They deliver at lowest cost—on city routes.
They are easy on drivers.
They hold the pace for 10 to 20 years.
They save the superintendent gray hairs and cuss words.

Those who use trucks on city routes make no mistake in selecting the trucks that keep the driver and delivery superintendent happy.

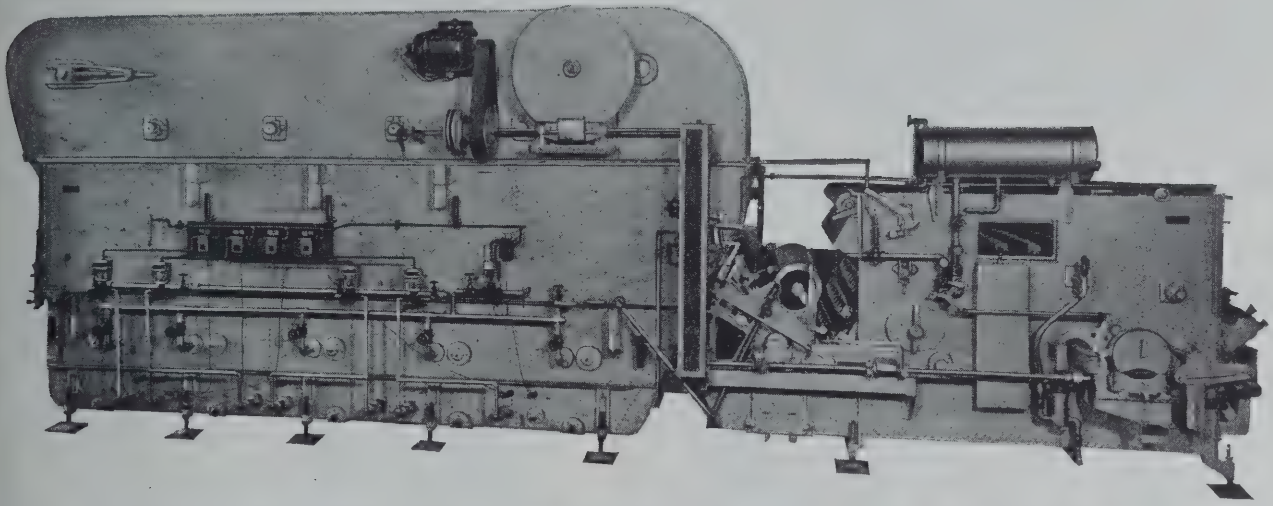
Order Walkers now!

WALKER VEHICLE COMPANY
CHICAGO

WALKER ELECTRIC TRUCKS

LOWEST TRUCKING COST ON CITY ROUTES

Built for a Lifetime



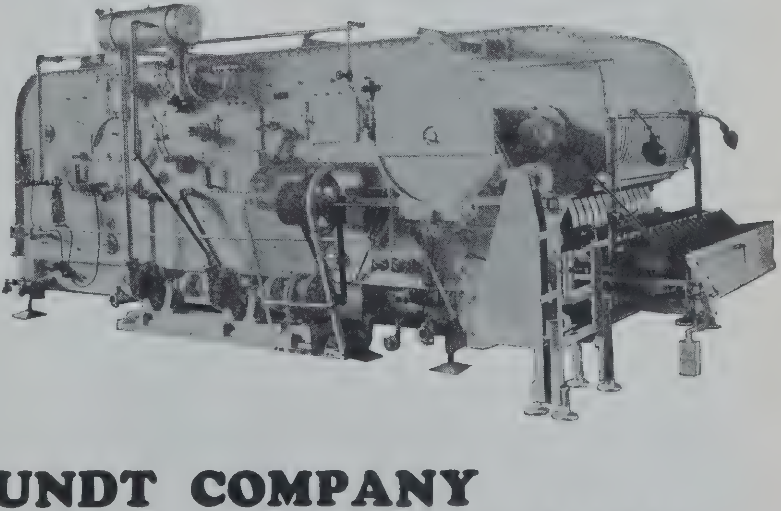
YUNDT MILWAUKEE
Air-Brush
Milk Bottle Washer

ECONOMY in operation and dependable performance day in and day out—these are Yundt Milwaukee Air Brush Milk Bottle Washer features. Compared point b point, it offers greater value in sturdy materials, and lɑger life in perfected design. Capacity is 30 to 160 bottles pr minute. Can be synchronized wth any automatic filler. Bottles cme out sparkling clean, cold ad bacteria free.

Wite for descriptive bulletin No. 109 teing how the Yundt Air Brush Milk Bttle Washer will conserve your dollars ad lower your washing costs.

t's the AIR BRUSH—If you lon't know about it, ASK US.

The machine below is a smaller type—capacity 30 and 60 bottles per minute. This Yundt comeback Type Junior Air Brush Milk Bottle Washer is a one man machine. Feed and discharge at same end. Write for Bulletin No. 110.



MICHAEL YUNDT COMPANY

MILWAUKEE, WISCONSIN **WAUKESHA, WISCONSIN**

J.G.CHERRY
A very Merry Christmas to you all
COMPANY

CLIPPER CASES

Overcome Bottle Case Mortality

Now that the year is about over you will know how many bottle cases "passed out" in the struggle for existence during the previous twelve months.

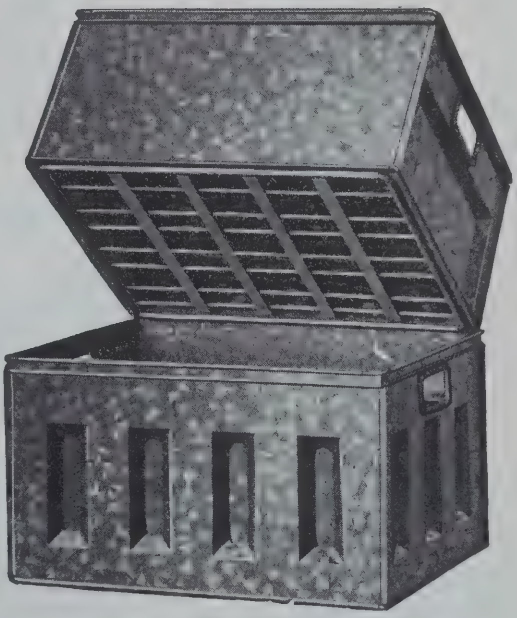
Ninety percent of this bottle case mortality can be eliminated through the use of Clipper Cases. They do not burn. Your name stamped into them can not be removed without positive detection. They do not split, warp, absorb water or show the effects of time or weather.

Being heavily galvanized, Clipper Cases do not rust and, because of their rugged construction, are practically indestructible.

These Jobbers Sell CLIPPER CASES

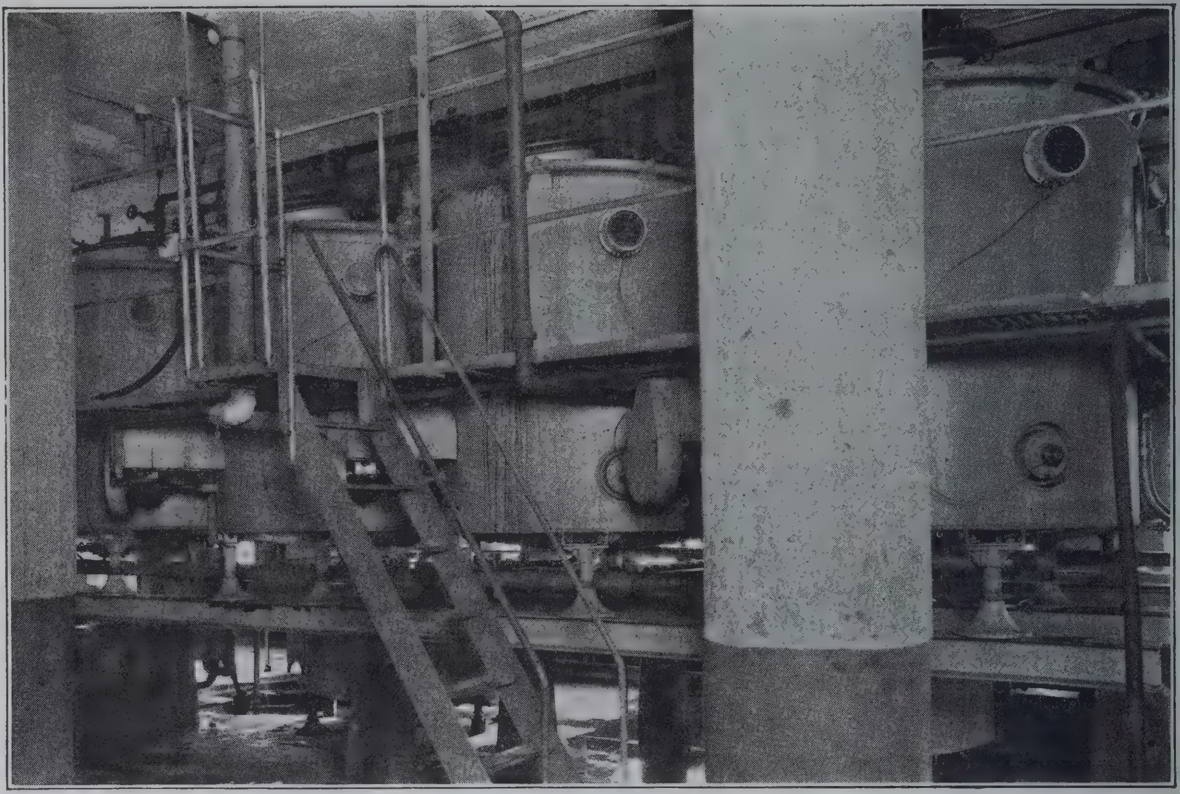
J. G. Cherry Co	Cedar Rapids, Ia. St. Paul, Minn.
Meyer-Blanke Co	Birmingham, Ala. Dallas, Tex. St. Louis, Mo.
Haines-Carpenter Dairymen's Co.,	St. Louis, Mo.
Miller-Lenfesty Supply Co	Jacksonville, Fla. Miami, Fla. Tampa, Fla.
N. A. Kennedy Supply Co	Kansas City, Mo.
Apothecaries Hall Co	Waterbury, Conn.
Teague Hardware Co	Montgomery, Ala.
Gowing-Dietrich Co., Inc	Syracuse, N. Y.
John W. Ladd Co	Detroit, Mich. Cleveland, Ohio Columbus, Ohio Cincinnati, Ohio
A. L. Davis' Son	Binghamton, N. Y.
Cherry-Bassett Co.	New York, N. Y. Syracuse, N. Y. Baltimore, Md. Philadelphia, Pa. Pittsburgh, Pa.
E. K. Owens Hardware Co	Susquehanna, Pa.
National Dairy Equipment Co	Utica, N. Y.
Hagan's Dairy Supply House	Greensboro, N. C.
Chester Dairy Supply Co	Chester, Pa.
M. G. Newell Co	Greensboro, N. C.
Oakes & Burger Co	Cattaraugus, N. Y.
Ft. Wayne Dairy Equipment Co.	Ft. Wayne, Ind.
Thompson-Bremer & Co.	1750 Carroll Ave., Chicago, Ill.
John Pico	New Orleans, La.

Order a lot now and save money next year.



The Defiance Pressed Steel Co.

DEFIANCE, OHIO



Tycos Guards $30,000 - $40,000 in Perishable Food Products

Send for Catalog Part 500A for the Milk Industry

D. C. Kerckhoff, President, Pevely Dairy Company, St. Louis, says:

"This plant is practically completely Taylor equipped — having over 40 **Tycos** and **Taylor** instruments installed and six more on order.

"The one most important factor in handling milk and dairy products is temperature. Proper pasteurization is a temperature problem pure and simple.

"All milk, cream and buttermilk pasteurizers are equipped with 12 **Tycos** Recording Thermometers, and the two main pasteurizers have Taylor Temperature Control units operated by compressed air.

"Our 8 holder tanks where the milk is held during the pasteurizing process are equipped with **Tycos** Dial Thermometers.

"**Tycos** Recorders guard from $15,000 to $20,000 worth of dairy products in each of our two cold storage rooms, where an undetected rise in temperature of 5 degrees would cost us thousands of dollars in spoiled butter, cheese, etc.

"Wherever used, **Tycos** and **Taylor** instruments guarantee that the man on the job is on the job."

Taylor Instrument Companies
ROCHESTER, N. Y., U. S. A.

Canadian Plant
***Tycos* Building**
Toronto

Manufacturing Distributors
in Great Britain
Short & Mason, Ltd., London

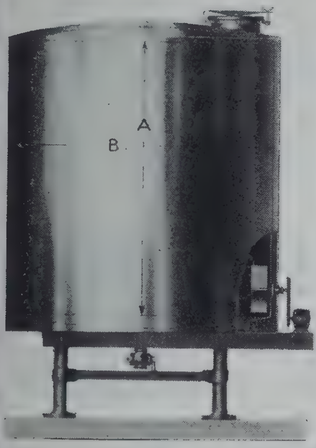
Tycos Temperature Instruments

INDICATING - RECORDING - CONTROLLING

Ninety Nine percent Pure Nickel Dairy Equipment!

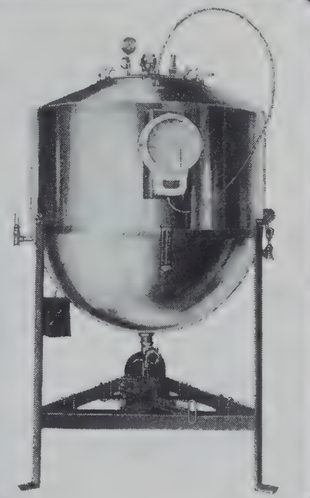
More sanitary ~ Lasts longer ~ Does better work ~ Produces more uniform Products

Ninety-Nine Percent Nickel has proven itself the best all-round metal for handling food and dairy products of all kinds.



As it is produced in sheets, rods, bars, tubing, wire and castings in quantities — numerous items of dairy equipment—such as pasteurizers, cream ripeners, mixing tanks, butter milk tanks, acidophilus cultured milk tanks, truck tanks, storage tanks, etc. are being constructed with this remarkable metal.

Write for our descriptive circular.



VELVET
BRAND
ICE CREAM
DETROIT

Nickel Fabricating Corporation
Philipsburg, Penna.

Pasteurize the Faultless WAY

A valveless holder, positive and absolutely automatic in operation.

Built on the unit principle in capacities from 1000 to 50,000 pounds per hour.

Each unit is a distinct holding compartment, automatically filled and discharged without valves.

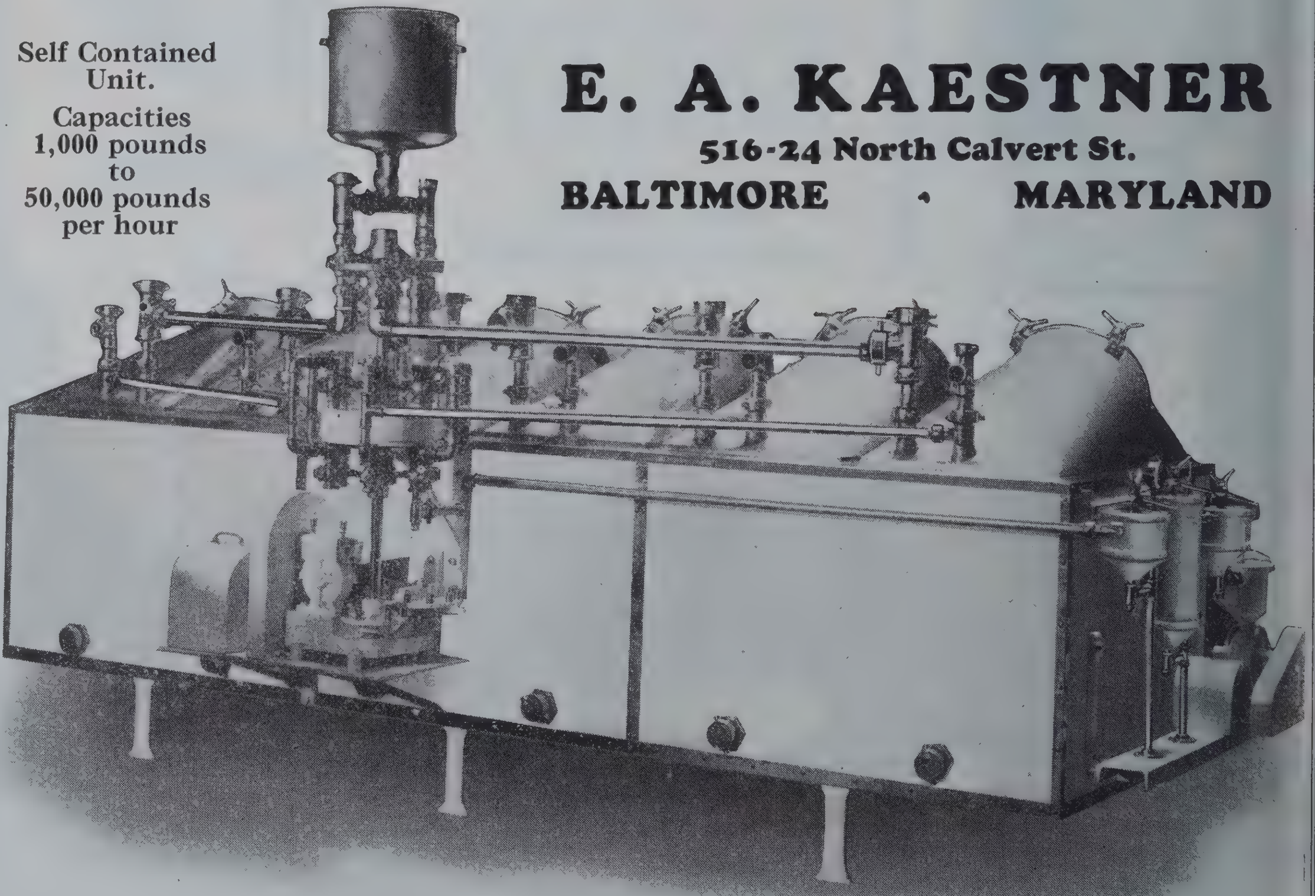
Holds the milk at proper temperatures for a correct period.

Foolproof in operation. Adaptable to large and small plants.

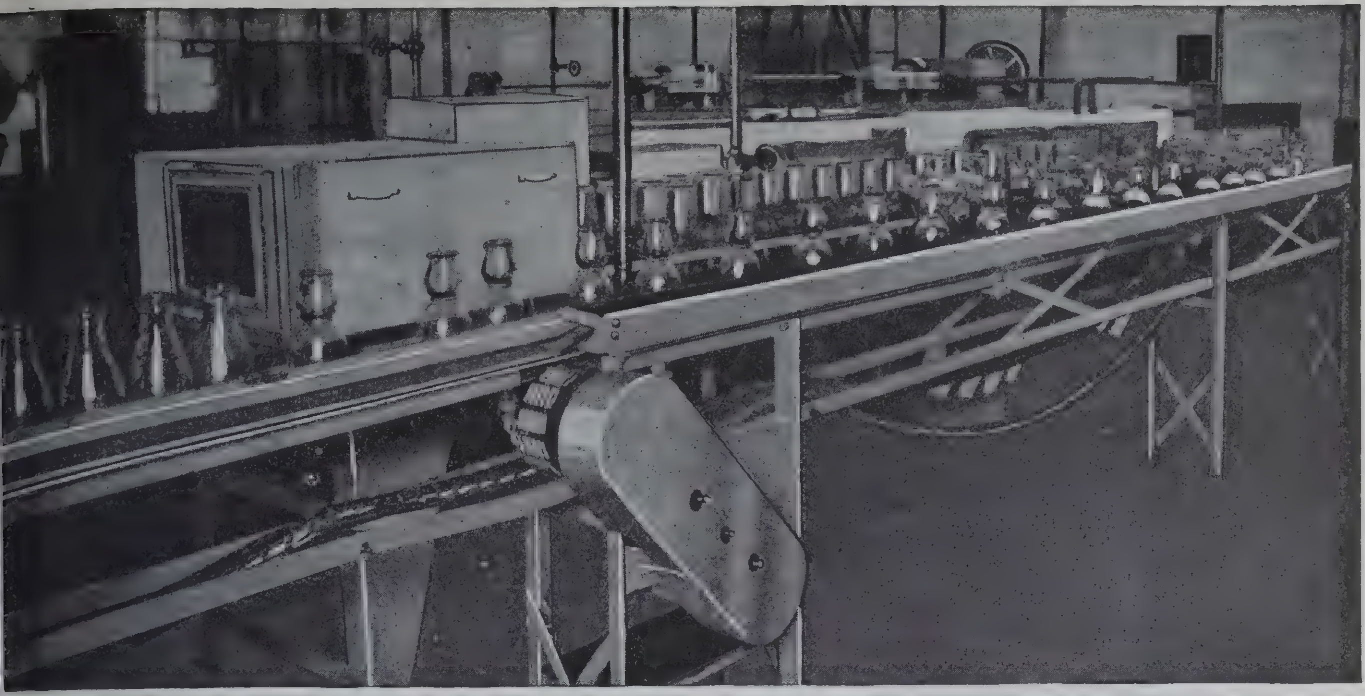
Send for illustrated folder giving complete specifications and operating details.

Self Contained Unit.
Capacities 1,000 pounds to 50,000 pounds per hour

E. A. KAESTNER
516-24 North Calvert St.
BALTIMORE • MARYLAND



FAULTLESS — POSITIVE — AUTOMATIC — VALVELESS HOLDER



View of a Miller installation at the Esmond Dairy, Sandusky, Ohio

Chemically Clean Bottles —At the Lowest Cost

IN the Miller Hydro there are no germ-laden brushes to contend with . . . no delicate mechanism . . . no parts that easily wear out with the brushes. Instead, this mechanically perfect soaker year in and year out goes regularly about its business of producing a continuous stream of chemically clean bottles at almost fifty per cent less washing cost.

The Miller Hydro can never wear out. No one has ever discovered a worn-out Miller Hydro even though 3500 machines are in daily use. It is built to give a lifetime of bottle-washing service free from any sort of expensive brush mechanism.

If you consider that the work of a soaker is to polish and scour every dirty bottle to a thorough degree of sterility at the lowest possible cost . . . then you owe it to yourself to install a Miller Hydro. It will soon pay for itself out of wasted profits and the satisfaction it gives will be worth ten times the reasonable purchase price.

Write us today for catalog and names of large dairies who have tested the Miller Hydro under every condition.

THE MILLER MANUFACTURING CO., Bainbridge, Ga.

Chicago Office: 1305 Monadnock Block New York Office: 105 West 40th Street

The MILLER-HYDRO

Bottle Washer and Sterilizer

rom irty ONE CONTINUOUS OPERATION **to Clean**

Quality Equipment *Reflects* Quality Materials—

Pure Nickel-lined milk storage tank manufactured by The Creamery Package Mfg. Company, Chicago.

The Creamery Package Mfg. Company Adopts Nickel

The Creamery Package Mfg. Company, in using Nickel for pasteurizers, holders and other apparatus, is building the highest quality into its product.

For Pure Nickel reflects quality—it IS quality. It is easily cleaned, and having no coating to wear off, chemical and abrasive cleaners can be used without harm. It is long-lived and permanent because of its toughness and remarkable strength.

But most important of all, it is the safe metal for dairy use. It does not contaminate dairy products and aids in maintaining low bacterial counts.

Being interested in the sanitary and economical production of dairy products, you are interested in Pure Nickel. Therefore, we suggest that you ask your manufacturer or write direct to us for complete information.

SEND FOR "LIST B" OF NICKEL & MONEL METAL LITERATURE

INCo

Nickel

THE INTERNATIONAL NICKEL COMPANY, 67 WALL STREET, NEW YORK CITY.

TO make bricks without straw was no more possible to the ancients than to produce manufactured dairy foods without improved and proper machinery, equipment, materials and supplies is possible today. Consciously or unconsciously the modern dairy products manufacturer takes as his partner in efficiency the reputable, the progressive machinery and supplies house

All the physical requisites of dairy products plant operation—from collection and handling of materials, through each fabricating and processing step, on to merchandising and delivery—are made and distributed by the membership of this national trade association

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION, INC.

1328 BROADWAY NEW YORK CITY

THE
MILK DEALER

PUBLISHED THE FIFTEENTH OF EACH MONTH BY
THE OLSEN PUBLISHING COMPANY
H. P. OLSEN
President and Manager
LESTER S. OLSEN
Vice-President
E. K. SLATER, Secretary and Editor

Also Publishers of
"BUTTER, CHEESE & EGG JOURNAL" and "THE ICE CREAM REVIEW"

FIFTH AND CHERRY STS. MILWAUKEE, WISCONSIN

We will not accept responsibility for the views or opinions expressed by contributors nor for news sent us for publication, nor for statements made by advertisers in their advertisements.

Entered as second-class matter December 1st, 1911, at the Post Office at Milwaukee, Wis., under the act of March 3rd, 1879

Requests for CHANGE OF ADDRESS must be received not later than the 10th of the month to insure delivery of that particular month's issue at New Address. **Old Address** as well as **New Address** must be given us as all records carried by us are "Geographically arranged" and not "Alphabetically arranged."

Subscription in United States, U. S. Possessions, and Foreign Countries taking U. S. Postage................$2.00 per annum
Canadian and Foreign Subscriptions............$3.50 per annum
Payable in Advance.

OFFICIAL ORGAN OF
The International Association of Milk Dealers
Dairy Products Association of Kentucky, Inc.

DECEMBER, 1926

BULLETIN *of* EVENTS

Michigan Allied Dairy Association—Annual convention and exposition to be held at Jackson on February 7 to 11, 1927. Exhibit will be staged at Fair Grounds, five blocks from Hotel Hayes, which will be convention headquarters. Secretary, D. W. Shiel, Hillsdale, Mich.

Dairy Products Association of Kentucky—Final meeting of the spring and summer season will be held in Cincinnati, O., on Wednesday, April 21, at the Gibson Hotel. Carlton Ball, 206 Republic Bldg., Louisville, is general secretary.
Oakland.

IF ANY man in business is justified in feeling that he is contributing to the welfare of humanity it is the man who is supplying city folks with pure milk and pure milk products. The wonderful advancement that has been made in this industry has been an important contributing factor in reducing the mortality rate among children and lengthening the life of man. What a glorious result! Why shouldn't we be proud of our industry?

⁂

PERHAPS the greatest advancement that has been made in the layout of newly erected milk plants lies in more efficient production. Of course, beauty has also been emphasized, but there were beautiful milk bottling plants years ago. Some of them were very poorly laid out. It cost too much money to produce a quart of milk.

Now, in addition to beauty and display, the present designers of milk plants seem to be particularly emphasizing efficiency. Great strides have been made and will continue. It is well. Pronounced increased efficiency will justify the expenditure of big sums of money. It will soon save the cost of a milk plant.

WE SINCERELY hope that the year just drawi to a close has been a very satisfactory one in yo business. If so, and if you are like most folks, you w enjoy the Holiday time more than you would otherwi Of course, there are some folks who can make mer whether business is good or bad, but the most of are not built that way.

Business with most of us is a fight for existence a unless we experience at least a reasonable measure success there is little to laugh at. It's too serious a m ter. We don't mean that we are justified in having t blues every time business slips, but we know that t average mortal is influenced by his ability to meet h obligations and to enjoy at least a few of the luxuri that his heart craves.

So when we express the hope that business is go with you we have in mind the Holiday season just ahea We hope that business will permit you to enjoy it the utmost. We extend our best wishes for a Mer Christmas and a Happy New Year.

⁂

THE big fight for business on the part of many our readers still centers around the pasteurizati problem. In most of the big cities the question has be settled by city ordinances and by popular demand. On pasteurized, certified or inspected milk is sold in mo of the big consuming centers.

In the smaller towns and cities the situation is d ferent. Many consumers still prefer milk brought by nearby farmers. The man in such a city with a mo ern milk pasteurizing and bottling plant often has st competition. He has to fight ignorance and prejudi Every move he makes to educate the consumer relati to pasteurized milk is accepted as a selfish effort to p the farmer-peddlers out of business. Often, too, t farmer offers pasteurized milk, but generally his fac ities are so inadequate that his product is not improv by what he does to it.

Our readers who are confronted with this pasteuri tion problem should never allow themselves to beco discouraged. They should remember that it is not new question. It is as old as the milk bottling busine and that the forces of prejudice and ignorance ha gradually been losing ground year after year. Wh has happened in the big cities will take place ever where. The number of consumers prejudiced agai pasteurized milk is gradually decreasing. Therein li hope for the dealer who would become discouraged. should never deviate from his course. He should pr duce as high quality milk as possible and keep poun ing away.

⁂

WE HEAR a lot about unfair competition in th milk business. This time we mean the editor "we." Lots of folks come to us with their troubl Some of them even want us to "go after" the other f low editorially.

We are dyed-in-the-wool pacifists in this shop—un it is time to fight. We don't like to go after the oth ow until we know that he deserves it. Any investiga- ns we have made only confirm our belief that "the er fellow" is generally just as good a man as his com- itor.

No one familiar with the facts will deny that unfair ctices prevail in the milk business. Salesmen spread ries about competitors that are mean and often rue. They try to poison the minds of housewives inst the products of their competitors.

Do your salesmen do that? Would you admit that y do it? If not, what sort of control do you exercise r your salesmen? Are you prompt to condemn in a petitor what is practiced in your organization?

"Well, we have to meet competition," one dealer l us. Sure you do, and so do your competitors. That where the whole trouble lies.

What's the remedy? Get to know your competitors ter. Go out of your way to treat them well. Meet m around the dining table, in conventions, on the f links, at the summer resort—anywhere, just so you et them often. Learn their problems, agree on a code ethics for your particular territory and then have h that everybody interested is going to live up to provisions.

Give your competitor a chance to prove his worth a man. Then expect the same consideration from n. The chances are you will get it. Boost for the k business, not against it. Help your competitor sell re milk and sell more yourself.

* * *

WHILE you are emphasizing to your truck and wagon drivers the importance of presenting a neat pearance to the trade don't forget to caution them ut being courteous to other drivers. When they nd some other driver they may be offending one of ir best customers.

Drivers of passenger cars are unanimous in their be- that drivers of commercial vehicles think they own streets. They are looking for offense and when it nes even though it may come unintentionally, they sure to note the name of the owner of the offending icle. Why not a course of instruction for your drivers h the thought in mind of gaining a reputation for rtesy on the street?

* * *

WHEN things go wrong in the plant it is pretty hard for a man to keep his mind on the business of the job, the selling end for instance. How to sell e milk is a problem that can wait, but plant prob- s must be solved right away. Some milk plant ners are so fortunately situated that they don't have vorry about their service problems. They have such od organization that somewhere down the line there man, or several men, who can handle these everyday blems better than the boss, or just as well at least. boss, therefore, keeps out of the way and devotes time and energy to the development of his business. This is the ideal arrangement and many, even com- atively small, dealers enjoy such an organization. The owner who feels he must carry the whole load on his shoulders is in a bad fix. No matter how small his organization, he should at least have a man or two in training to assume responsibility. He may think he can stand anything in the way of hard work, worry and long hours, but he is only fooling himself.

* * *

SOME men in the milk business have injured the market milk industry by assuming that pasteurization is a "cure-all" for milk. They hide behind pasteurization, feeling that if the job is properly done in the plant they need not worry about the kind of milk they receive.

The man who adopts such an attitude commits a grievous error. Pasteurization does not make poor milk good. Neither does it make good milk better. It makes good milk safe and keeps it good and safe, that's all. The man who expects more of pasteurization, even when most efficiently done, expects too much.

* * *

YOU men out on the other end of this trade paper business should drop a tear occasionally for the poor editor who is trying to serve you faithfully and well. We can get along without sympathy—we know we can because we have tried it—but just a little tear once in a while would help over the rough spots.

You may think we have no troubles, but if you do, that is because you don't know this job.

We could publish the paper without trouble if we wanted to. We know how it can be done, all right, but we wouldn't get a bit of fun doing it. If we would just fill the pages with wishy-washy stuff that wouldn't stir up any interest, then we wouldn't get a kick from anybody. We could sail along month after month and not know whether anybody reads the paper or not.

Do folks read The Milk Dealer? Well, you would think they do if you could read some of the letters we get. We don't publish all of them, no sir, not on your life. There are a lot of them we could publish, in fact most of them are of that kind, but some we couldn't. The postoffice department would take away our mailing permit if we attempted it.

We can't please everybody, in fact we don't try. If the time ever comes when it is necessary for us to try that we will do the other thing and quit. We are, however, trying to put before our readers information of value to them and to the milk bottling industry. We have made that policy win for us so far and we propose to keep it up.

We like friends. We would like to see everybody happy with each issue of the paper, but we found out long ago that a trade paper, like an individual, can't amount to very much unless it treads on the toes of some people.

Now, what's this all about? Nothing in particular, just generalizing, that's all, but we feel better now. It will help us to forget the loss of a good advertiser who doesn't like some of the good information we passed along to our readers in last month's issue. Folks are that way.

Annual Meeting of the National Dairy Council

"Dairy Industry Must Be United for Future Success," Says Dairy Council Head. Old Officers Re-elected and Plans for the Future Outlined

"ONLY a few years ago the production and marketing of milk was purely a local matter. That time has passed and the dairy industry from farm to family doorstep is now a national problem," said M. D. Munn, president of the National Dairy Council, at the opening address of the annual meeting of the council in Chicago, Dec. 2. "Milk that is produced in Wisconsin, in Iowa, in Minnesota, however it may be marketed, has a direct bearing upon the conditions surrounding the production and marketing of milk in New York City, Philadelphia, Pittsburgh, Boston, Baltimore, Cleveland, or any other city I might name, and likewise the production and marketing of milk in those territories last named have a direct connection with and influence on the same process in Wisconsin and Iowa."

"Every bit of production from the dairy cow, with the exception of what is consumed on the farm, must pass through one of several channels from producer to consumer, either as fluid milk, cream, butter, ice cream, cheese, or other dairy products. Production is absolutely dependent upon the proper relationship of each branch of this industry and it is entirely dependent upon the consumption of dairy products throughout the nation. Producers and consumers and all of the industry which has to do with the preparation of products for market and delivering them in a satisfactory and efficient manner are dependent upon understanding each other and coordinating themselves with each other and realizing that the determination of any one principle that is national in scope by one group without consultation with the others will inevitably have an effect upon the others. Unless we can work out problems of the industry in harmony, with an understanding of the relationship that each bears to the other, we can't hope to have a stabilization of the dairy industry and a proper relationship that will justify continued production and continued consumption. I say what I have about this national aspect because the National Dairy Council has come to realize how important it is, not alone to the industry but to the consuming public and, above all, to the production end of this industry in our endeavor for educational work in the past few years."

"The dairy industry stands more or less alone at the present time, so far as can be determined, in pursuing a broad health program in promoting the interest of the public in its products," reported M. O. Maughan, secretary. "Because the dairy industry has such a vital product in promoting health in both young and old, it has become quite impossible to talk health without talking dairy products. One hundred and seventy-two workers are now spending their entire time in the dairy council in developing and distributing literature, in securing wider publicity in school work, in work with health and welfare organizations, with women's clubs, doctors, dentists and nurses and many other such branches, all of which have a direct bearing on the production and consumption of dairy products."

Dr. E. V. McCollum of Johns Hopkins University, world authority on nutrition, outlined some important recent developments in the scientific world, and especially stressed the present day attitude of health a welfare officials in their efforts to bring about a tr knowledge of the fundamental importance of the diet the health and development of a nation.

"The dairy industry has done very little in an orga ized way to tell the public the necessity of dairy pro ucts in the diet and to support generally this basic scie tific knowledge which it has been handed," said D McCollum. "You have an organization in your dai council that is now recognized nationally. For an indu try the size of yours, receiving about four billion dolla annually to spend so little in such educational work ac ually makes us who have been conducting research wo blush. The American family should be spending per cent of its food budget for its dairy products, whi they now spend but about 20 per cent. We consun more sugar per person today than in the nation's hi tory."

Dr. Carey McCord of Cincinnati told of research wo among factory employees in plants where lead is us in making of batteries, paints and varnishes, where m were subject to lead poisoning, which caused a large pe centage of disability. In many instances, he stated, m were permanently disabled. At the outset of his invest gations two years ago, Dr. McCord advocated the m drinking at least a quart of milk, and in one factory 365 employees the factory has been using 365 quarts milk each day. From his investigations Dr. McCord convinced that the regular use of milk for the men w reduce disability at least 75 per cent, and although is still making detailed studies he believes that the use milk will absolutely prevent lead poisoning among t workmen, when given in connection with other sanita measures, which help to keep down the dust and oth means of inhaling the lead. Dr. McCord recommende that the dairy industry could well afford to investiga and conduct research studies into the decided value milk for factory employees throughout the nation.

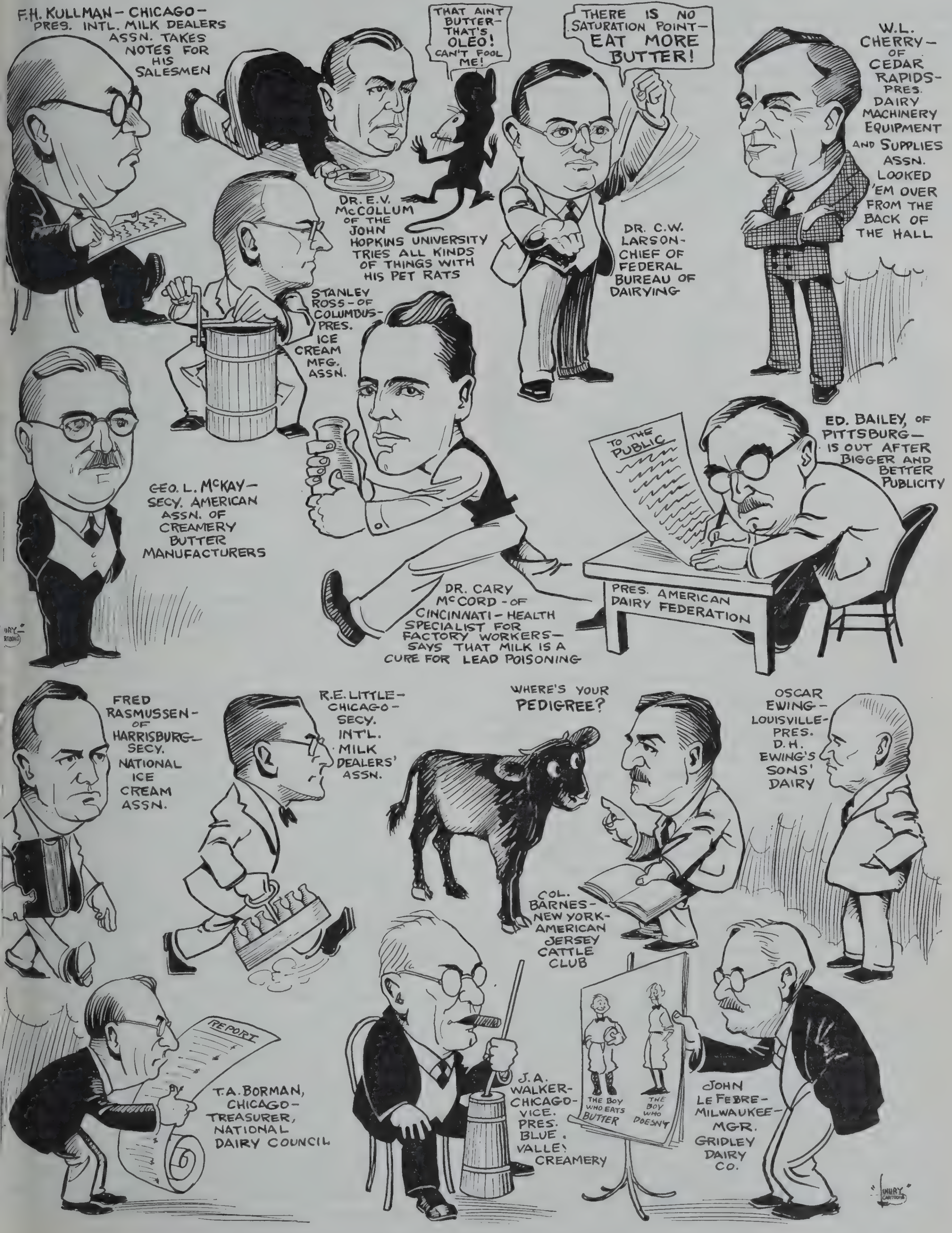
During the afternoon, typical dairy council activiti were featured by demonstrations, such as are given the schools and before women's clubs and by the show ing of special Boys' and Girls' 4-H Club demonstratio on the uses of milk, given by a group of girls from Ham ilton county, Iowa, who are members of the Boys' an Girls' 4-H Club.

Officers re-elected were: M. D. Munn, president; A. Walker, 1st vice-president; E. M. Bailey (Pittsburgh 2nd vice-president; M. O. Maughan, secretary; T. A. Bo man, treasurer; C. T. Hays, assistant treasurer.

President Munn's Address in Full.

"I can recall the fact that only a few years ago th production and marketing of milk was purely a loc matter. You men who are engaged in the productio and distribution of milk, if you will recall the position you were in 20 years ago in the purchasing and marke ing of milk, will realize, I think, that at that time you business was entirely a local matter. It was acquirin milk from the farmers surrounding your cities and sellin it to the people in the city, and you were not called upo

At the Annual Meeting of the National Dairy Council

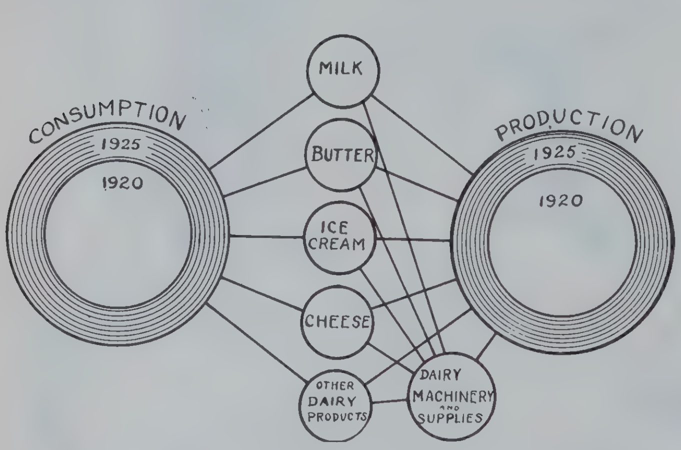

F.H. KULLMAN - CHICAGO - PRES. INTL. MILK DEALERS ASSN. TAKES NOTES FOR HIS SALESMEN
THAT AINT BUTTER - THAT'S OLEO! CAN'T FOOL ME!
DR. E.V. McCOLLUM OF THE JOHN HOPKINS UNIVERSITY TRIES ALL KINDS OF THINGS WITH HIS PET RATS
THERE IS NO SATURATION POINT - EAT MORE BUTTER!
DR. C.W. LARSON - CHIEF OF FEDERAL BUREAU OF DAIRYING
W.L. CHERRY - OF CEDAR RAPIDS - PRES. DAIRY MACHINERY EQUIPMENT AND SUPPLIES ASSN. LOOKED 'EM OVER FROM THE BACK OF THE HALL
STANLEY ROSS - OF COLUMBUS - PRES. ICE CREAM MFG. ASSN.
GEO. L. McKAY - SECY. AMERICAN ASSN. OF CREAMERY BUTTER MANUFACTURERS
TO THE PUBLIC
ED. BAILEY, OF PITTSBURG - IS OUT AFTER BIGGER AND BETTER PUBLICITY
PRES. AMERICAN DAIRY FEDERATION
DR. CARY McCORD - OF CINCINNATI - HEALTH SPECIALIST FOR FACTORY WORKERS - SAYS THAT MILK IS A CURE FOR LEAD POISONING
FRED RASMUSSEN - OF HARRISBURG - SECY. NATIONAL ICE CREAM ASSN.
R.E. LITTLE - CHICAGO - SECY. INT'L. MILK DEALERS' ASSN.
WHERE'S YOUR PEDIGREE?
COL. BARNES - NEW YORK - AMERICAN JERSEY CATTLE CLUB
OSCAR EWING - LOUISVILLE - PRES. D.H. EWING'S SONS' DAIRY
REPORT
T.A. BORMAN, CHICAGO - TREASURER, NATIONAL DAIRY COUNCIL
J.A. WALKER - CHICAGO - VICE. PRES. BLUE VALLEY CREAMERY
THE BOY WHO EATS BUTTER
THE BOY WHO DOESN'T
JOHN LE FEBRE - MILWAUKEE - MGR. GRIDLEY DAIRY CO.
"LINURY" CARTOONS

to give much thought to what was transpiring in other places, excepting as you were checking up the conduct of your own business in a purely local way.

"That time has all passed and the production and marketing of milk today is a national problem. Milk that is produced in Wisconsin, in Iowa, in Minnesota, however it may be marketed, has a direct bearing upon the conditions surrounding the production and marketing of milk in New York City, Philadelphia, Pittsburgh, Cleveland, Boston, Baltimore, or any other Eastern city I might name, and likewise the production and marketing of milk in that territory last named has a direct connection with and influence on the same process in Wisconsin and Iowa.

Developing National Organizations.

"The various organizations making up this industry, like the producers' organizations, the milk dealers' organizations, the butter organizations, the ice cream organization, and the cheese organization, of themselves developed into national organizations. Why? Because they had to keep growth with this nationalization of this great dairy industry; so that the problems of the butter man, the cheese man, the ice cream man and the milk dealer are inevitably tied up with each.



"That being the case, this educational work must and has taken on a national aspect, and before I take up that particular subject, I want to picture to you a little more vividly by chart how completely the production, the manufacture, the marketing of milk and its products are interwoven, inseparably interwoven. I have tried to make a very simple chart to picture this.

"Here are two circles that represent the production and consumption of milk and dairy products. That is all there is to it. In 1920 this white area represents the production; the consumption is represented by the white circle of 1920 as well. You see those are substantially of equal size. The red circle represents the increase of 27 per cent that has taken place in both production and consumption of milk between 1920 and 1925. See the magnitude based upon the government figures.

Production Depends on Consumption.

"You will notice those figures are substantially the same size, but we shouldn't forget this thought: the success, the stability, the continuation of activities in circle described as Production depends absolutely upon what takes place over in the circle entitled Consumption, and unless the circle entitled Consumption keeps even with or a little ahead of the circle we call Production, there is stagnation in this industry.

"I shall refer a little later on to how the dairy council educational work helps to keep these two circles in proper relationship.

"What takes place with this great United States a
of production? Everything that comes out of it, w
the exception of what is consumed on the farm, mu
pass through one of these lines indicated on the cha
It either starts for the Consumption circle through flu
milk, through butter, through ice cream, through che
or other dairy products, such as evaporated milk, m
powder and condensed milk, etc.

"These are all absolutely dependent upon the prop
relationship of those two circles, Production and C
sumption.

"The milk man may say, 'What have I to do w
cheese, with ice cream? What have I to do with butte
Do you suppose it is possible to restrict our increas
flow that reaches circle Milk without having some eff
upon the circle Butter? Or vice versc? Those are
pendent upon understanding each other, co-ordinati
themselves with each other and realizing that the det
mination of any one principle that is national in sc
by one group without consultation with the others w
inevitably have an effect upon the others. Unless we c
work this out in harmony with an understanding of t
relationship that each bears to the other, we can't ho
to have a stabilization of this industry and a prop
relationship that will justify continued production a
continued consumption.

"The great machinery and supply group,—see wh
they tie in. They go to production, everyone of the
they go to every one of the activities we call the co
modity or marketing activities, and they in turn are
fected by whatever transpires in the relationship of th
groups. They are interested in both the production a
the consumption, and because their activities are me
ured by what takes place between the relationship
these as it passes through this line of marketing avenu

"I want to get that fact in your mind, because mu
has been said here in the past two or three days of da
meetings, and much discussion has been had that does
perhaps—and you will pardon me for saying it—fu
synchronize with the relationships I have tried to
scribe here.

Industry Will Grow.

"But, this industry in its great national relationsh
is too important for anyone to say, 'we mustn't go
in this endeavor to build,' because as sure as you
something is going to happen to the mechanism of th
relationship. On the contrary, we must and we will
ourselves co-ordinated. We are going to understa
each other better as time goes on, and it's going to co
more or less through this endeavor to stabilize the re
tionship between the Production and the Consumpt
circle.

"That brings me down to this educational endeav
I have said what I have about this national aspect,
cause I feel keenly that we must realize in our work h
important it is, not alone to the industry but to the co
suming public and, above all, to the production end
the industry.

"In our endeavor for educational work, a little o
six years has now passed since we took this work
when we began this work we found somewhat the sa
condition that is confronting the industry today in e
relationship of the various organization activities.
didn't know just which way to go. It took us a ti
to find the avenue of least resistance and best resu
We finally found it but we never lost sight of this id
that this industry by reason of its tremendously impo
ant relationship to child life and adult physical and m

l efficiency, should be placed in a little different posi- on than a mere commercial endeavor.

Building on Fundamentals.

"We felt it was necessary to get this story to the ild in its proper relationship to a health program be- use otherwise we couldn't get the avenues that were ecessary to reach the child nor to reach the mother nor reach the welfare worker. We also realized that the sults which would follow an increased consumption of ilk and its products would be more successful, more ermanent, if it was in a balanced health program be- use milk and its products doesn't have the same re- lt with the child or with the adult who is disregard- g other health requirements. Therefore our preach- ent would be more sound, the future would be more cure, if we could fit into a broad health program where l these agencies and activities could pick up and co- erate with us in helping to put the message over, and has been a great gratification to see how splendidly at program has worked out.

"In the course of six years all suspicion of commer- al endeavor being coupled with educational endeavor health endeavor has disappeared. We have the con- lence of the scientific world and the medical world, the elfare world and the educational world to such an ex- nt that they do not now question our motives but glad- accept our offers of co-operation.

Working With Many Organizations.

"I want to picture to you again here by chart form little of that national aspect. I don't know whether u can all read this chart in the back of the room, but e have grouped together the four great divisions of ucational and welfare activities and we find under e educational institutions we have the schools, the nor- al schools, the universities, departments of agriculture d state colleges, extension departments through Boys' d Girls' 4-H Clubs, women's clubs and camps, home onomic departments,—all falling into the educational oup.

"Then we have the national organizations, like Boy outs and Girl Scouts, Campfire Girls, Federated omen's Clubs, Parent-Teachers organizations, anti- berculosis associations, Y. M. C. A. and Y. W C. A.

"The professional group in public health consists of ctors, dentists, public health officers and public health rses. And then, we have industrial groups—health asses in industrial plants and business organizations d factories, a very important educational activity in is industry, as the industry will learn in the very near ture.

"It is a pleasure to be able to say that there isn't a gle agency named there with which we are not today -operating to a greater or less extent, and largely a eater extent, and solely because of the breadth we gave this broad work we are carrying on as the agency of e dairy industry.

Council Organization Nationwide.

"In the beginning of our unit council work—and ght here let me stop to say that in speaking of the uncil organization, national in its scope, I want it dis- ctly understood that I am not speaking of the Na- nal Dairy Council office alone; I am speaking of all e various unit organizations which, with the so-called tional, makes up this national effort and the council ganization is national in scope because of the fact that various sections of the country these units are organ- d and functioning in a co-ordinated manner, and that ves the national scope and aspect to this work when that is coupled with what we are doing from the central office in the unorganized territory as well as co-operating with the organized territory,—in the beginning we found that our endeavors were confined, to a much larger per cent, to the schools than now. I am speaking now of the council units themselves.

"Why? Because it was new, the teachers hadn't been yet trained nor had they received the vision of what we had in mind. Health work in public schools as a part of the regular curriculum is a matter of recent origin and a large percentage of teachers, when this was put into the school curriculum, didn't know what to do or how to do what they were asked to do.

"We came along with this program which we have never endeavored to superimpose upon the schools but have offered as a suggestive method of carrying on a part of that work. The result was that the schools began to take it up and we had in the beginning to devote a large portion of our activities to schools themselves, and we found as we went along that here and there a teacher became trained, she could then take it up and carry it on herself, using our material herself without any effort on our part to help her other than to furnish the material.

Schools Only Part of Work.

"So today in the organized unit territory we find that the activities in the schools takes one-half of the time of the council unit. This is the average of all the organized units as disclosed by very definite reports from secretaries and nutritional directors of each one of the units, so that today in the organized territory we are devoting one-half of the time of the workers to the schools and then it divides up into the other groups—a part put into administration, a part goes into adult groups, into nutrition classes, supper clubs, women's clubs and organizations of that kind. Then it goes into the industrial group, into the factories, into the stores. Then it goes into new material. We have to spend a lot of time in preparing new material and then other activities of greater or less extent in accordance with the unit such as the playground work, camp work, and so on.

"But we are covering a much larger number of schools periodically that we could before because of this knowledge that has gone to the teachers who themselves can take up the work when we merely present it and explain it to them. We don't have to stay and build it there—the story or the slide talk, or whatever it may be —so that with the same number of workers in any one unit we are able to cover a much larger amount of schools in a given length of time than we could before. I expect that to go on still further so that as these council units in the next five years develop we will find a still greater reduction in the time necessary for the workers to put in the schools and a greater time available for activities in these other groups.

"Whatever is done in the national office is a part of the same program as carried on in each one of the 15 organized units; in other words, this program is national in character because of its uniformity and because of the breadth of its reach. We find ourselves in the national office in an embarrassing position because of the cumulative effect of this effort from the national office, and I want to call your attention to that here.

Started With Few Exhibits.

"In 1925, last year, we started out setting up some exhibits for conventions, welfare gatherings and other places where educators, people get together, as an experiment, really, and we put on what we call 15 planned exhibits, and as a result of the use of these 15 exhibits

(Continued on page 132)

The Best and Newest Equipment Is Advertised Consistently in The Milk Dealer.

Secretary's Report Shows Splendid Progres

Annual Report by Secretary Maughan of the National Dairy Council Covers Record Year in National and Regional Council Activities. "The Future Depends on the Dairy Industries"

THE past year has been the best year in the history of the dairy councils. With more workers, a total of 171, also with added support from the welfare organizations, the schools and other groups interested in health, the dairy council movement has moved forward splendidly.

The Dairy Council Program.

As is well known the dairy council program is a broad one in which is taught the eight fundamental rules of health shown in chart No. 1.

The dairy council workers have felt that it was decidedly advantageous to make the program broad and comprehensive rather than to have it restricted to commercial propaganda featuring only dairy products. We felt that the general public would re-act more favorably if a broad program of health was featured rather than a narrow, selfish one.

Avenues of Publicity.

The dairy industry stands more or less alone at the present time so far as can be determined in pursuing such a course. We are thoroughly convinced that this was and is the right thing to do, because by us featuring this broad program which includes all the fundamental rules of health the dairy industry has been able to carry its message into the schools, into the mothers' clubs, into the factories and into numerous other avenues and important places as no other industry has yet been able to do.

Dairy council work is now recognized by practically all of the school teachers in the United States, as well as by many doctors and dentists and other important groups and individuals as being unselfish in its interests and strictly reliable in its teachings.

Chart No. 3 shows the avenues through which dairy council work is conducted.

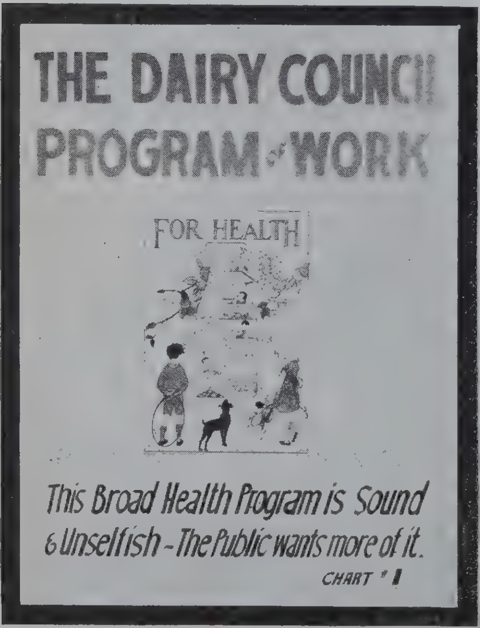
Because the dairy industry has such a vital product in promoting health in both young and old it is becoming easier each day to conduct dairy council work in the channels just referred to. With all the information a
hand regarding the virtues of dairy products and thei
important place in the diet it has become quite impo
sible to talk health without talking dairy products.

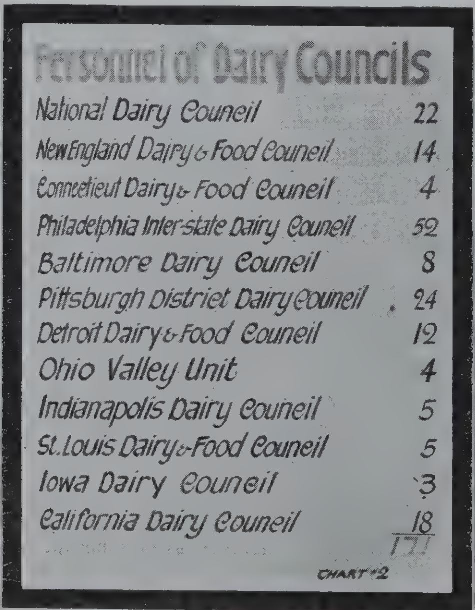
The Dairy Industry Decidedly Fortunate.

On practically every hand information has accumu
lated to prove the added and superior food value of dair
products in the human dietary. Just recently a very ex
tensive experiment was conducted by the Medical Re
search Council of England in which a colony of boy
(220) was carefully studied. They found, for exampl
that with the addition of one pint of milk a day to
diet, which by itself satisfied the appetite of growin
boys fed upon it, that the boys converted an average an
nual gain in weight of 3.85 pounds per boy into a gai
of 6.98 pounds, and an annual average increase in heigh
from 1.84 to a height of 2.63 inches. In other words
as a result of adding the extra pint of milk to the dail
diet, they increased in weight 81 per cent and in heigh
42 per cent over the average gain. Quoting from thei
report they say: "After eighteen months' observation
casual visitor entering the dining hall, where the boy
of nineteen houses sit at tables, would never fail to recog
nize the table of that house which was alone receivin
the extra ration of milk, the boys of that house bein
obviously more fit than those of any other house."

The report further states that, "During one year o
the experiment there was a complete absence of illnes
among the boys with the milk ration whereas among th
other boys the sickness rate that year was higher than
usual because of outbreaks of influenza, measles an
scarlatina."

This same extensive experiment proved in no unmis
takable terms the superior value of butter over marga
rine. Twenty-six boys received 1.75 ounces of butte
daily in addition to the basic diet, they gained an averag
of 6.30 pounds per boy and increased in height 2.2
inches per boy during the 12 months, which is an in
creased gain in weight of 63 per cent and in height o

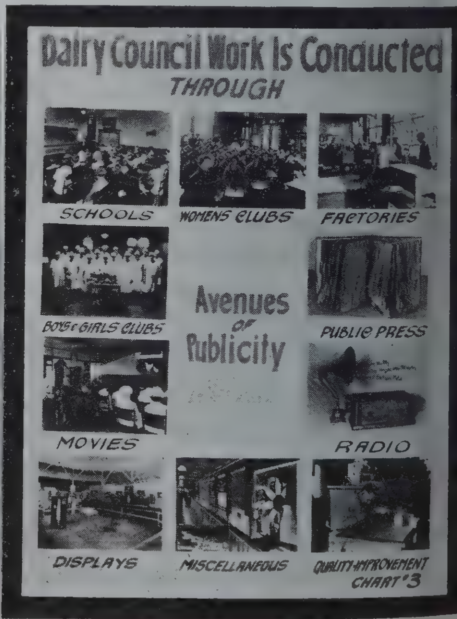

THE DAIRY COUNCIL
PROGRAM of WORK
FOR HEALTH
This Broad Health Program is Sound & Unselfish - The Public wants more of it.
CHART #1



Personnel of Dairy Councils

National Dairy Council	22
New England Dairy & Food Council	14
Connecticut Dairy & Food Council	4
Philadelphia Inter-state Dairy Council	52
Baltimore Dairy Council	8
Pittsburgh District Dairy Council	24
Detroit Dairy & Food Council	12
Ohio Valley Unit	4
Indianapolis Dairy Council	5
St. Louis Dairy & Food Council	5
Iowa Dairy Council	3
California Dairy Council	18
	171

CHART #2



per cent over the basic gain because of the addition butter. Sixteen boys were fed the same basic diet d in place of butter they received vegetable margarine, y gained an average of only 5.20 pounds per boy and reased in height only 1.84 inches per boy during 12 nths. This is an increase in weight of 35 per cent, but olutely no gain in height whatsoever. Chart No. 4 strates this graphically.

The basic diet consisted of: Potatoes, bread, beef, k, herring, sausage, dumplings, cabbage, beets, beans, s, porridge, lettuce, cheese, cocoa (10 ounces fluid ice daily containing a total of two to four ounces of k), margarine, jam, raisin suet pudding and rice pudg.

This is only one of numerous experiments which have n conducted during the past few years to prove the nderful value of dairy products.

Organized and Un-organized Territory.

Dairy council work naturally divides itself into two dings—first activities in organized territory and secl activities in un-organized territory. Dairy council ts are now established in Boston, Hartford, Connecit, Philadelphia, Baltimore, Pittsburgh, Detroit, Ciniati, Indianapolis, Waterloo, Ia., and San Francisco. m each of these pivoted points work is carried into adjacent territory. For example, the Pittsburgh ncil works in 51 cities and towns, the Connecticut ncil in 28, while the council located at San Francisco ers the entire state of California, having done work 91 cities and towns in the past year.

The main difference between dairy council work in anized territories and in un-organized territories is degree of intensity of the work. In the places where y councils are located intense work is conducted, e contact is established with the schools and mothers' bs and all other groups interested in health, a perent corps of active works is established in organized s, whereas on the other hand in un-organized terri work is done only occasionally, the staff is not a manent one, in fact the workers are sent out from National Dairy Council headquarters at Chicago. It aturally the desire to get the entire United States nized into dairy council units as rapidly as is pracble.

Finances.

hart No. 5 shows the finances of the various councils ung the past year. Dairy council work is financed he dairy industry, this being the only source of revenue. The milk producers and the milk dealers in the organized territories each pay ordinarily one cent on each 100 pounds of milk handled. All of this money except approximately five per cent is retained locally in the territory in which it is raised and it is expended in that same territory. The five per cent is sent to the National Dairy Council to help cover the expense of national publicity, such as the expense connected with exhibits at the national conventions of school teachers, of doctors, of dentists, at the convention of American Public Health Association and before other important groups and in other national activities.

Money from the machinery branch of the dairy industry is sent to the National Dairy Council office at Chicago, likewise the funds forthcoming from the butter men, the ice cream men and other branches of the industry.

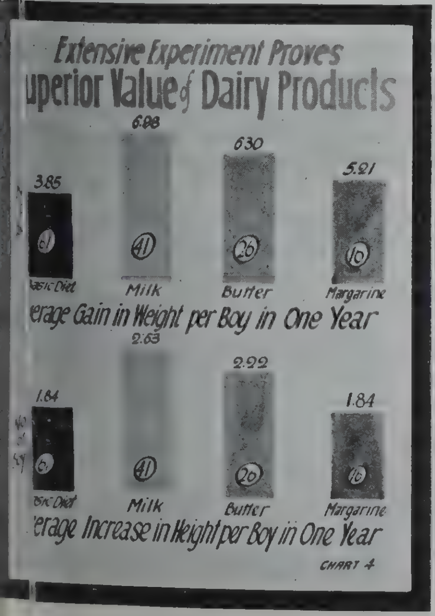
Dairy Council Work Rapidly Expanding.

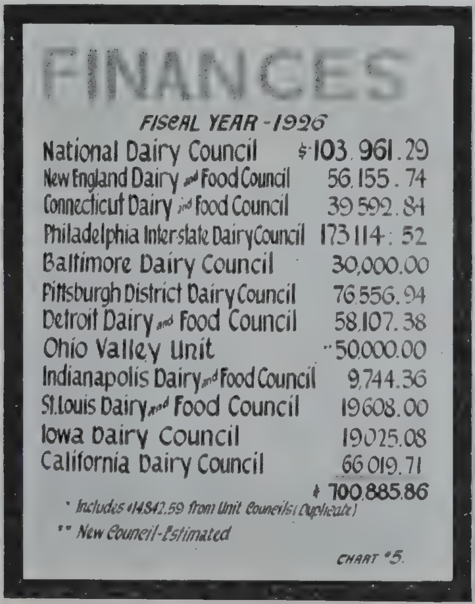
It is not our intention in this report to go into details and should details be desired they can be secured through the secretaries of the various dairy councils or from the central office at Chicago. Suffice it is to say our workers have been intensely busy during the past year, more than ever before, in carrying the health message to the boys and girls and grown-ups in this great country. We believe strongly in personal contact and as a result a few more than 12,000 demonstrations, stories and talks have been given before audiences totally over 3,000,000. Nearly five million (4,960,003) pieces of literature have been distributed. Nearly 6,000 (5,851) film showings have been recorded and 1,703 plays have been staged. It has been conservatively estimated that 20 million people have heard the dairy council's message of health in one form or other during the past year. However, it must be recognized that the average person must be told a good many times before being convinced, and **he must be appealed to in various ways.** Hence the need of continued work on these 20,000,000 people, also the need of starting work on the remaining 95,000,000, the majority of whom can be reached by enlarging upon dairy council activities.

School Teachers Desire Material.

The school teahers especially have keenly recognized the great value of dairy council work and have made heavy demands upon us. An illustration of the increased interest toward dairy council work on the part of the school teachers is shown in the increased number of

(Continued on page 126)




FINANCES

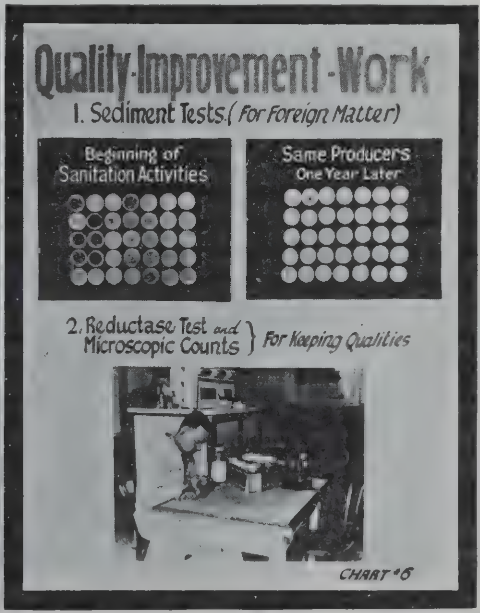
FISCAL YEAR -1926

National Dairy Council	$*103. 961.29
New England Dairy and Food Council	56.155 . 74
Connecticut Dairy and Food Council	39 592. 84
Philadelphia Interstate Dairy Council	173 114 : 52
Baltimore Dairy Council	30,000.00
Pittsburgh District Dairy Council	76.556. 94
Detroit Dairy and Food Council	58.107. 38
Ohio Valley Unit	**50.000.00
Indianapolis Dairy and Food Council	9,744.36
St.Louis Dairy and Food Council	19608.00
Iowa Dairy Council	19025.08
California Dairy Council	66 019.71
	$ 700.885.86

* Includes $14,842.59 from Unit Councils (Duplicate)

** New Council-Estimated

CHART #5.


Quality Improvement - Work
1. Sediment Tests (For Foreign Matter)
Beginning of Sanitation Activities
Same Producers One Year Later
2. Reductase Test and Microscopic Counts } For Keeping Qualities
CHART #6

Making the School Kiddies Strong and at the Same Time Saving Money for the Taxpayers

"The Pied Piper of Health" in Wichita, Kansas, is Teaching the Parents of School Children That the Health Problem is a Community Problem. He Makes His Program Pay Out, Too, in Dollars and Cents

IN THE November issue of The Milk Dealer we published a most interesting story about health work in the public schools of Wichita, Kansas, in which the DeCoursey Cream Company financed the first year's work and were joined by all the other pasteurizing plants in the following years.

Back of all such movements can be found a "moving spirit" and in this case that "spirit" is "The Pied Piper of Health," H. T. Corson.

There are some additional conclusions to be drawn from this excellent health movement and in a recent letter Mr. Corson sums them up as follows:

"HEALTH. This should be the first subject taught in our schools, for, without health, education would avail us but little.

"Our educational system has been conducted backwards, and, until recent times, have we given much thought to the question of health in our schools.

"This was supposed to be a question for the homes to care for and, in a great many instances, this is still the opinion, health questions are a subject for home training and not for the schools; however, we are changing our ideas more and more along this line and are realizing that health is a question that must be handled from a community standpoint.

"This fact was very forcibly shown, in the Milk for Health campaign, which has been conducted in Wichita, Kansas, the last few years.

"The school nurses, under the able leadership of Miss Genevieve Lill, supervisor of health of the public schools, weighed and measured each pupil of the elementary schools at the beginning and close of each school year, and the figures for the last three years are very interesting.

"At the beginning of the school year for 1923, there were thirty per cent of the boys and girls who were more than ten per cent underweight.

"Health programs were put on, milk served in some of the schools, with the result that at the end of the school year, June, 1924, the number of underweight children had been reduced to eighteen per cent.

"During the period of vacation, when the children are under the care of the parents, the health work is neglected more or less, and on the opening of school in September, 1924, the children were again weighed and measured, and the per cent of underweight children had mounted to twenty-four and one-half per cent.

"The health program is again taken up in the schools, more schools co-operating, more milk is served and at the end of the school year, May, 1925, shows the number of under-weight children reduced to 12 per cent.

"The vacation period again shows the lack of organized work, with the children returning to school in September, 1925, when the number of under-weight children was found to be twenty-two per cent; again the heal work was resumed and June, 1926, end of school yea there was seventeen per cent under-weight children.

"At the beginning of this school year, the surv showed that there were nineteen per cent who were mo than ten per cent under-weigt.

These figures show very conclusively that the wo of building up the bodies of our boys and girls can done through organized effort, much better than wh left to the individual parents.

"One might say, 'What is the use of building up o boys and girls during the school year, to lose it duri the vacation?' However, if we will ignore the figur showing the loss of ground during the vacation peri and look only at the figures at the beginning of the sch year, I think it will be very encouraging.

"At the beginning of the school year, Septemb 1923, there were thirty per cent of the boys and gi who were more than ten per cent under weight; Septe ber, 1924, twenty-four and one-half per cent; Septemb 1925, twenty-two per cent, and September, 1926, ni teen per cent.

"One of the main contributing factors to these sults is shown in the report of the health commission which shows that since 1923 the consumption of mi per person, per day, has been doubled in the city Wichita.

"To meet the argument of some, who look only at t monetary side of the question, we decided last year try and make a showing, as to what could be saved taxes by health work in schools.

"Every time a child fails in its studies, and must the year's work over, it costs the taxpayer eighty d lars, as that is about the amount it takes to put a b or girl through one year of the elementary school.

"We chose one room in one of the schools where could have full co-operation of the teacher, this room the end of the school year in 1925 had had six pupils fail, and this would cost the taxpayers four hundred a eighty dollars.

"The next school year there were thirty-eight pup in this room and nineteen of them were more than per cent under-weight.

"Miss Mable Forney, the teacher in this room, tered into the spirit of this work wonderfully, Health Game Contest was put on, games were played stimulate the interest in the contest, under-weight c dren served milk and at the close of the school y there was not a single pupil ten per cent under-weig and only one failure, thus saving the tax payers f hundred dollars in this one room, over the amount wh it had cost the previous year.

(Continued on page 112)

Collection Methods Which Collect

Suggestions for a Series of Collection Letters that Have "Brought Home the Bacon." How to Get the Money and at the Same Time Make Them Like It

By FRED E. KUNKEL

NOT everybody can sit down and write collection letters which collect, but anybody can use tried and proven plans which have brought home the acon for others, and here is a method which has proven uite successful for one dairyman in wiping out some of e old overdue accounts. He got tired of carrying a t of accounts well in arrears, so he decided to clean em up with a sweeping collection system, placing them suit, or charging them off to profit and loss.

"In the modern age of the budget plan, the installent sale and the deferred payment idea, or whatever uise extended credit may parade," says this dairyman, it is becoming increasingly more difficult to collect overue coin, probably because the over-extension of credit as lent itself to an over-inflation of buying impulse, reilting in a condition where the borrower outjibs the nder.

"More people are buying houses today than ever bere, and automobiles. And so long as we are living in age of 'credit,' it becomes necessary to adjust the ardstick of collections accordingly. While I would like do an all-cash business, yet I find credit a necessity achieve a larger volume of sales. A great many peoe are used to buying everything on credit, and they do t like to pay cash, nor do they like the 30-day plan—ey want 60, 90, or more days—yea, a lifetime, so it ems to me.

"And since every extension of credit involves its ecessary percentage of risk, I found it necessary to ingurate and keep in good running order a good plan r collecting overdue coin. In fact, a successful collecon policy is a paramount necessity if you want to keep d accounts cleaned up.

"I used to rack my brains and scratch my head for st the right kind of an entering wedge into the cusmer's pocketbook, and so one day when I was hard essed for ideas I got together everything I had ever ed in the way of catching old accounts on the wing d bringing them down to earth. I sifted this material til I had what I conceived to be the best plans for winng results.

"Each step in my collection chain is aimed at drawing e from the debtor, either in the form of a promise to y soon or a partial payment, or some tangible evidence which to predicate future action. The first step in e chain is to make the statement-of-account in triplite, just as soon as it runs behind. Then, instead of iting 15 days or a month, I get busy on my delinents just as regularly as clockwork.

"The original of those triplicates is first sent out, th a statement typed on it: 'Haven't you forgotten smething? We have certainly missed it at this end—tat check to cover this account! How about you?'

"If no response comes in ten days out goes carbon cpy No. 1, with another typewritten statement: 'This your second reminder. The original reached you ten ys ago. What do you say to sending us a check in fl, or at least some on account right away?'

"If no response comes to this in another ten days, ot goes carbon copy No. 2, with this typewritten statement: 'This account is becoming mouldy in my ledgers. How about a check and starting a clean sheet?'

"Any one of this chain of go-getters can generally be counted on for some results, but supposing all three statements are disregarded, which happens in about forty per cent of these cases. It is apparent that more drastic action is required when the customer ignores these direct overtures at settlement.

"Now I begin my 'reasonable excuse' letter, which gives the customer an opportunity to pay by hiding behind a logical excuse, and without other embarrassment. I try to warm the patient up and to keep the account from getting chilled, so ten days later out goes this letter:

"Perhaps you have been sick! Or you may have been in Florida or California for pleasure! Or any of a number of things might have happened!

"If so, won't you please tell us about it, so we may know why our statements of account mailed you in the last thirty days have been so neglected.

"A check—in whole or in part, will answer my purpose, but I must get this account cleaned up soon, or at least headed in the direction of an early settlement.

"May we count on that check, be it large or small—by return mail?"

"Generally, this brings a response from the remaining forty per cent. Seldom does this letter go unanswered from that sheaf of stale accounts, for the debtor is given a cloak under which to hide his delinquency. Any reasonable excuse will suffice. What we want is the cash along with it. And if that does not come we keep the debtor warmed up again when the next ten day period rolls around, those who still fail to respond getting this letter:

"Sending you statements of account—

"Writing you letters asking for money—

"It's out of my line—I'm a business man, not a lawyer or a collection agency. I don't like it at all, any more than you like to receive them, but something has got to be done about this account. Either you have to pay it up or I have to pocket the loss—and I'm certainly not going to do that without taking the matter to court.

"Why not save me this disagreeable task of writing you letters or driving me to making actual threats. I don't want to do it. It's not good business. But you are driving me to it!

"Now, naturally, I'm going to do one of two things—but you can save all that by sending me a check now in whole, or in part. What do you say?"

"If no response is received—yet here again we always get our percentage of replies—the time is now shortened to five-day periods, in order to cut down on the psychological paying resistance of that particular debtor. It is only another aggravated case of constant dripping wears away a stone. And it's all done in this same pressing vein—no hard-boiled collection method—no severe business-like tone to it—only friendly conversation, aimed to getting under the skin of that debtor and making him come across.

"The trouble with most business men is that they lose patience, grow exasperated and wax eloquently pro-

(Continued on page 116)

The Story of Acidophilus Milk

As Told in a Monthly Bulletin Issued by the Chicago Department
of Health, Herman N. Bundesen, M. D.,
Commissioner and Editor

CIVILIZED man is always on the lookout for something that will keep him young. Once a deluded Spaniard named Ponce de Leon came to this side of the world to look for the fountain of youth, the waters of which would make one forever young. But he failed to find it. There is no such thing. We can no more prevent old age than we can stop the march of Time. But we can defer old age. According to nature's law, man lives an average number of years. The Bible says that three score and ten, or seventy years, is the usual life time of man.

As scentists began to study the human body, however, with a better understanding of the life activities and functions of the vital organs, effort was directed to preventing premature decay and avoiding pain and discomfort rather than to making futile attempts to attain perpetual youth. Medical knowledge today has shown that many ills are due to abuse of our digestive organs, and that if there is any mope for an easy, painless, long life, it lies in preventing the formation of poisons in the bowels.

HERES TO YOUR GOOD HEALTH
ACIDOPHILUS MILK

The Digestve Tract.

Man lives by eating and his condition in life is dependent on food. But he may also die by eating. The process of digestion is one of the most interesting studies to be found in human physiology. A proper understanding of digestion is necessary for a profitable and intelligent consideration of food as a source of health or disease. Let us first then consider the structure of the digestive organs.

The fountain of youth resides within yourself.

Keeping young is a matter of thinking, feeling, and acting.

If you eat rightly and throw off wastes properly you need not go to Florida looking for fountains.

Bad health habits reduce vital resistance.

To those who need it, there is a way of changing the germs of decay to those of youth and health.

Acidophilus milk implants health germs that are normally in the intestines of every person who lives rightly.

Acidophilus milk is also an excellent beverage and a nutritious food.

Extending from the mouth to the rectum, man's digestive or food canal is about thirty feet long. It consists of many special organs. The structure of the various portions is very similar throughout, consisting o supporting tissue, several layers of mucles, nerves an blood vessels. The digestive tract is lined with a specialized membrane in which are thousands of small gland that secrete digestive fluids. The organs of digestion ar five in number, the mouth, the stomach, the liver, th pancreas and the intestines. These organs secrete different digestive fluids that act upon the food and modif it so that it may be readily absorbed into the body.

The intestines in man consist of the small and larg bowel. It is with the large bowel, or colon, that this article is principally concerned. The large intestine is th human sewer; in it is found the waste food material tha is ready to be discharged from the body. The process o digestion still goes on, to a certain extent, in the colo and this organ also has absorptive powers.

The Germs in the Intestinal Tract.

The digestive tract contains enormous numbers o germs. We swallow them with our food, and, whil many germs are killed by the digestive juices, man others pass through to the colon, where, under favorabl circumstances, they increase enormously in number. Mos of the germs found in the intestinal tract of the norma person are not disease producing, or if they are of tha variety, are effectively resisted. The most common (the germs in the large intestines are those that putref the contents of the bowel. Various digestive disturbances may increase the number of bacteria. Excessiv eating brings increased food and a tendency to constipation, both of which favor the multiplication of germs an the formation of poisonous putrefactive substance Since the colon has absorptive powers, it is easy to se that these poisons may be passed into the blood strea to poison the whole body.

Studies of these germs have shown that the harmf germs found in the intestinal tract can be successfull replaced by drinking milk cultures containing a favo able germ called bacillus acidophilus. This germ, (bacillus, is a normal habitant of the lower intestinal tra of man, but under ordinary conditions of modern diet is present only in small numbers. It is present in lar numbers in healthy infants while on a milk diet.

Acidophilus Milk as an Aid to Bowel Trouble.

The bacillus acidophilus, cultured in milk, makes type of milk that is particularly palatable, thus inviti the use of milk by those who might otherwise decline use this wholesome food. The use of milk artificial soured by acid-producing germs is not new. It has be recommended by physicians and practiced among t people for a long time. The question as to whether brings about a beneficial effect is answered by investig tions of Rettger and Cheplin, who state that milk c tures of the bacillus acidophilus have been proved eff tive in changing the types of intestinal germs in ma he bacillus acidophilus has been used with good results the treatment of intestinal troubles and in chronic nstipation.

Aside from its value as a remedial measure, acidophus milk is an excellent beverage, and a food which has l the nutritional properties of milk. It is a complete od and may be used in large amounts, constituting in me cases the entire diet for a few days until the intesnal germs have been changed. Thereafter, its continued se in small amounts will maintain the acid-producing rms of the intestines. The product has a pleasing odor d agreeable taste.

How to Drink Acidophilus Milk.

For adults the amount of acidophilus milk recomended at first is one quart daily. After the first few ys, this amount may usually be decreased, but some ses may require this quantity to be continued, or even creased. The following scheme of dosage has proved eful: Take one quart of acidophilus milk daily for the st three days, and one pint daily thereafter. The milk may be taken at or between meals, according to individual preference. While taking the larger quantities, it may be desirable to reduce the amount of other foods. According to some authorities, the best results are obtained by taking acidophilus milk with the meals, preferably some with each meal. The idea is to mix the living acidophilus germs thoroughly with the food. A glass of acidophilus milk with each meal usually gives good results.

ACIDOPHILUS MILK
DRINK IT DOWN DRINK IT DOWN
KEENAN

Defying Age.

It seems certain that the use of acidophilus milk does no harm and, if the results are favorable, then here is an easy way of prolonging life, preventing disease, and warding off old age. Dr. Arthur I. Kendall, formerly dean of Northwestern University Medical School, is of the opinion that the successful changing of germs of the colon from a poisonous to a non-poisonous type, and thereby preventing putrefaction, would probably add ten years to the average span of life. While the bacillus acidophilus is not held out as the "fountain of youth," or as a cure for all ills of man, nevertheless, if ten years can be added to life, free from pain and discomfort, then by all means let us give it a fair trial.

BREAKAGE OF BOTTLES IN MILK PLANTS.

Milk Plant Letter No. 147, U. S. Bureau of Dairy Industry.

One of the big items of expense in the milk business is the cost of replacing bottles which have been lost or broken. It is well known that the cost of replacing lost bottles is great, but the enormous loss from broken bottles is not so generally realized. Preliminary studies which have been made indicate that the total breakage in the plants in the United States results in a loss of several millions of dollars annually. From five to ten days were spent at each plant, and the glass was collected from various points—as far as possible from such points as would tend to show the effect of various pieces of equipment on the amount of breakage.

The figures in the table are the averages for each plant for the whole period, and are arranged in the order of the average total breakage per 1,000 bottles filled. It will be noted that there is a great variation in the total breakage per 1,000 bottles filled, as well as in the breakage at various points. At each plant a detailed study was made of the arrangement of the equipment, methods of transferring the bottles from place to place, temperatures used in washing solutions, etc. This study was supplemented by a drawing showing in detail the plant layout and the route of the bottles from the receiving platform through the plant and out to the delivery wagons again. From this information we are able to determine what effect, if any, on the bottle breakage is indicated by the plant arrangement.

In plants at the top of the list the bottles passed in a continuous movement from the checking-in platform through the washers and fillers to the milk storage room. Conveyors were used almost exclusively in transferring the bottles from place to place, with only a very small amount of handling in a few plants.

In the plants near the foot of the list considerable trucking and handling were generally done. At plant No. 13, for example, much handling was done between the checking-in platform and the bottle washer, while a good deal of trucking was done between the bottle washer and the fillers. In the cases of plants Nos. 2, 8, 10, and 11, the bottles traveled up and down on more than one floor, while at all the other plants on the list only one floor was used in the passage of the bottles from the checking-in platform to the milk storage room.

Breakage of Bottles in Thirteen Milk Plants.

		No. lbs. broken glass per 1,000 bottles filled(1)					
Plant No.	No. of bottles filled daily	At receiving platform (includes route breakage)	At feed end of washer	At discharge end of washer	At fillers	In milk storage room (includes checking out routes)	Total
1	4.802	1.9	...	2.8	5.5	...	10.2
2	42,369	...	1.2	.3	4.7	4.4	10.6
3	60,968	1.8	3.3	...	3.9	2.3	11.3
4	13,536	...	...	...	... (2)	...	12.0
5	62,096	2.2	2.8	1.7	3.6	1.9	12.2
6	27,719	2.5	.9	...	7.9	1.1	12.4
7	44,463	1.5	4.0	1.7	4.7	3.0	14.9
8	89,805	3.5	3.2	4.7	3.1	3.2	17.7
9	51,197	2.7	3.7	6.0	4.2	1.2	17.8
10	160,540	2.0	9.7	2.4	1.9	3.2	19.2
11	97,983	4.6	3.0	...	11.3(2)	.5	19.4
12	21,246	9.6	3.6	...	4.8	1.7	19.7
13	42,227	8.9	1.3	6.1	5.4	5.3	27.0

(1) The number of bottles broken is slightly less than the number of pounds. On the average, the weights of the bottles were 1.6 pounds, 1.0 pounds, and 0.6 pounds for quarts, pints, and half-pints, respectively.

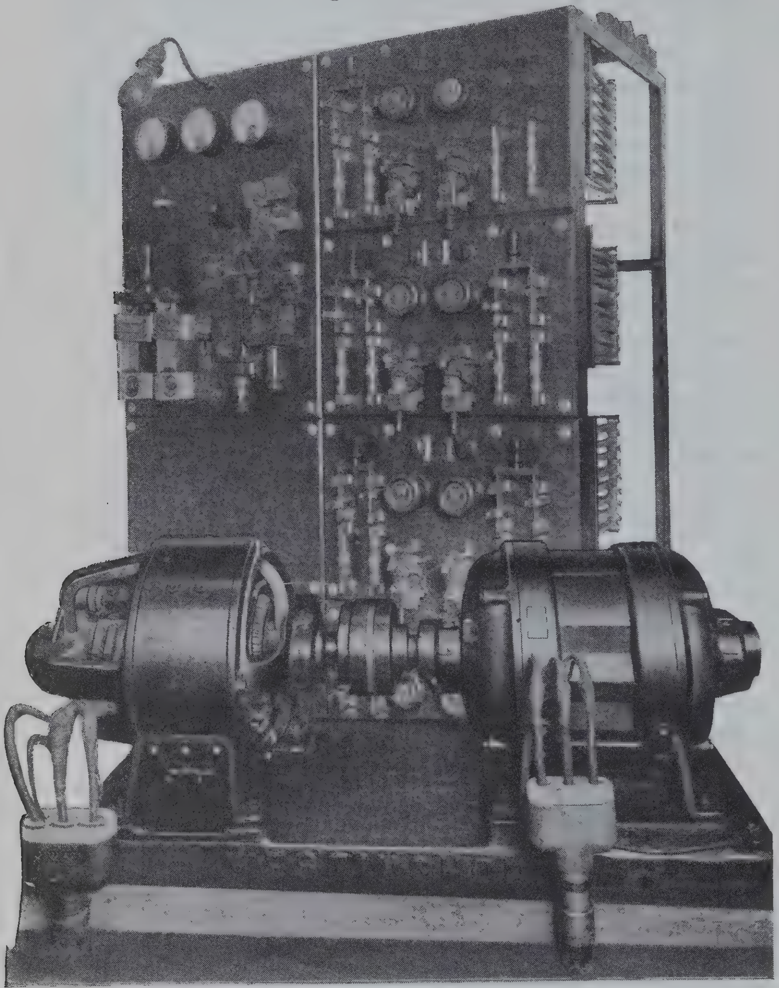
(2) The glass collected at the discharge end of the washer is included in this figure.

Selection and Operation of Battery Charging Equipment

Increasing Use of Electric Trucks in Dairy Plants Makes This An Important Subject. Be Sure Your Plant Superintendent Reads This Interesting Article

By H. E. SHINKLE*

THE steadily increasing use of the electric truck is an indication that the business man is gradually recognizing its economic value. It is a proven fact that in its sphere of operation it is the most economical kind of delivery equipment. The way to handle a study of the electric truck is to consider it as transportation, and analyze every item of expense. It has been the custom heretofore to regard this part of he business as a necessary evil, although it enters as a big factor in the gross cost of doing business.



The self-evident advantage which the electric truck enjoys is frequently overlooked. The life of any machine is measured by its running time and not by its idle time. Depreciation during idle time is small. An electric truck stops in every part whenever the wheels stop—at crossings, in traffic jams, and for each house-to-house delivery. It requires no cranking, starts instantly, picks up very rapidly, and is depreciating only when doing work. The electric truck, with its normal depreciation rate of 5 to 10 per cent, is merely reflecting the advantages of its instantaneous application of power.

Simplicity is one of the outstanding features of electric trucks. This should also be characteristic of charging equipment. Just as the manufacturers of batterie are striving to simplify the operation involved in carin for the batteries, so the designers of charging equipmen are striving to simplify its construction and operation.

There are, in general, three methods of charging storage batteries, i. e., constant current, constant potentia and modified constant potential—constant current an modified constant potential methods finding by far th greatest field of application. While it is generally admitted that either type of battery can be charged by an of the above mentioned methods, when properly applie it is a well-recognized fact that best results are obtained with Edison batteries when charged by the constant current method and with lead batteries whe charged by the modified constant potential metho These particular methods, when applied to their respective batteries, seem to co-ordinate the important facto of time, temperature and charging rate to produce t most economical charging equipment, as well as be service from the battery, both from an operating a maintenance standpoint.

The constant current method of charge is particularly applicable to Edison batteries. When a number batteries are to be charged simultaneously, a variable resistance is placed in the circuit, so that an attenda may adjust the current at least once every hour to value corresponding to the normal charging rate of t battery. This normal charging rate is the same as t 5-hour discharge rating of the battery.

Time Required for Charging.

The length of time required to complete the char to the charging period. A batery which has been o to the charging period. A batteryy which has been o partially discharged prior to the charging period sho be charged at the normal rate until the voltage rema approximately constant for a period of about 30 minu This is particularly true of an Edison battery in wh it is not possible to determine the state of charge other methods, since the specific gravity of the electrolyte does not change from a fully charged to a fully charged condition. Edison batteries may be boosted at rates higher than normal for short periods of time provided the temperature of the battery does not exceed 115 degrees F.

Where only one or two Edison batteries are to be charged at a time, the most satisfactory method or charging is to use a generator with constant current characteristics (differentially wound), which insures practically a constant current from start to finish of charge. These generators are designed so that either one or two batteries can be charged in series.

Lead batteries, when charged by the constant current method, are charged at a fixed rate (known as the start-

(Continued on page 108)

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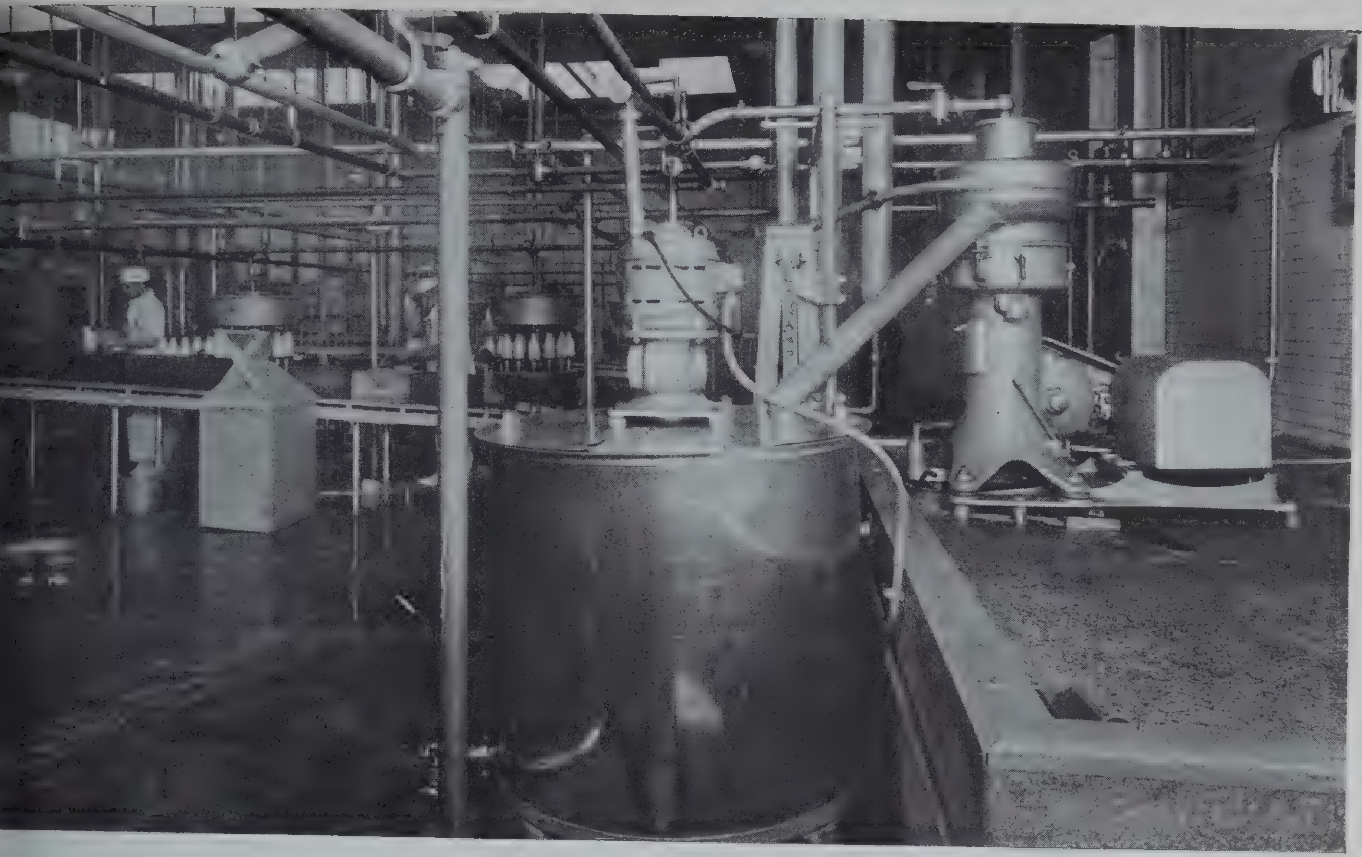
* General engineer, Westinghouse Electric & Manufacturing Company.



n the largest milk plant west of New York —a New Series DeLaval

The new Mayfair plant of the Bowman Dairy Company, Chicago, is said to be the largest milk plant in operation west of New York City. Equipment has been selected with extreme care, especial attention being given to sanitary features, dependability and economy of operation — with past performance in other plants as the yardstick.

A New Series De Laval Separator is installed because

—Reports from operators show that these machines skim to 1/100 of 1% (Babcock) with milk at normal separating temperature;

—They produce high quality cream of exactly the desired density—particularly important features in the milk plant;

—De Laval Separators have for many years been noted for their dependability, durability and low maintenance cost, and New Series machines are further improved in this respect.

If the New Series De Laval is better for this new Bowman plant, it must be better for your plant as well. There is a size which exactly meets the needs of every creamery, cheese factory or milk plant, capacities ranging from 10,000 pounds of milk or 12,000 pounds of whey to 2500 pounds of milk or 3000 pounds of whey an hour.

Write for full details.

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NEW YORK CHICAGO

DE LAVAL PACIFIC COMPANY
San Francisco

THE DE LAVAL COMPANY, Limited
Montreal Peterborough Winnipeg Vancouver

Galaxy of Methods Used

Great Number of Methods of Purchasing and Bases for Establishing Market Milk Prices

By PROF. WM. H. E. REID*

THE total volume of whole milk produced during the year of 1925 was 116,505,395,000 pounds, of which amount 46.89 per cent was used in the manufacture of creamery butter, cheeses of all kinds, condensed and evaporated milk, powdered milks, ice cream and several other by-products of milk. Of the remainder of this enormous amount of milk 46.62 per cent was utilized for household purposes, 3.47 per cent was fed to calves, and it is estimated that 3.00 per cent was wasted. The 46.62 per cent of the total volume of milk utilized for household purposes was marketed in quarts, fractions of quarts, or in bulk. The total number of possible consumers of whole milk produced who reside in the United States, be it consumed as fluid milk or in the form of a milk by-product, was 115,378,094.

The production and marketing of whole milk, especially when the volume produced is almost unbelievable, represents a vast economic problem. One of the outstanding phases of this problem is the methods practiced in the purchase of the product.

Primitive Methods.

When this country was sparsely populated many families kept cows of their own, a practice which continues to prevail in many of the small towns of today. Many of these families who did not own a cow of their own would procure the small amount of milk needed from a man who lived in the country, and who would deliver his milk in town, his patrons coming to his vehicle with their own receptacle to obtain the mlk. This procedure of marketing milk could not be said to be conducive to a large consumption of milk of a high quality. The most undesirable feature of this practice was that it was often difficult for people to obtain a satisfactory milk supply. As a result of this difficulty new methods of marketing and methods of payment for milk were inaugurated and developed. Some of the more progressive people who kept cows and sold their surplus of milk soon saw the advantage of marketing their product at a profit and began to deliver their milk to the neighbors instead of causing them to come for it. From this primitive beginning our present day milk dealers and distributing plants, having innumerable routes, have been established.

The question of arriving at prices satisfactory to all concerned has been the cause of more trouble, misunderstandings, and ill-feeling than any other one question in the entire milk industry. The basis on which dealers and producers proceed with their business relations varies, as there may or may not be a written or verbal contract between the two parties.

The former practices which invited considerable friction between the dealer and producer have been almost entirely eliminated, particularly among the larger buyers of milk. Many smaller plants continue to a limited degree to tolerate methods which are quite one-sided. The old practice of the dealers notifying the producers either by mail or by simply posting the price in a conspicuous place in the plant or at the station and giving the producers a limited time in which to sign the contract has, in a large measure, been discontinued. More modern procedure is for the representatives of the dealers and p ducers to meet at definite intervals when the price f the succeeding period of time are to be carefully det mined.

How Milk Prices Are Determined.

The number of systems used in buying milk and arr ing at prices throughout the country is innumerab However, the different bases followed can be said to few. Without question the basis, as set forth by t bureau of markets, and which limits itself to sev classes, is very practical and is to be recommended. Th are as follows:

1. Agreements based on consideration of probal cost of production and the available supply in relati to the estimated market requirements.

2. Prices based on previous months' price of chee in some primary cheese market, with an additional allo ance for the extra cost of production of a high qual of milk, plus the estimated value of whey for farm fe ing purposes.

3. Prices based on previous months' price of butt in some important butter market, either with or with separate allowance for special quality of milk, and som times an arbitrary allowance for variations in seaso cost of production.

4. A combination of two and three prices beg based on both butter and cheese prices as shown by agreed-on quotations for a period of a month preceding the date of the announcement of prices to be paid milk in the ensuing month.

5. Same as No. 3, except that the current prices of butter is used instead of the previous months. For this reason the milk prices cannot be determined until sev- eral days after the end of the month in which delivery of milk is made.

6. Prices based on net return to dealer.

7. Prices contingent upon the prevailing prices of milk in some large centers of consumption, or at various condenseries, cheese factories or milk stations supplying some large market.

Basis of Payment.

The practicability of these classes is apparent when one realizes the frequency of their use. They are impartial and assure justice to those parties who may be concerned. Several of the classes require that the dealer and the producer, or their representatives, must familiarize themselves with the butter, cheese and condensed milk markets, in addition to their knowledge of market milk. The estimable value of all of these classes lie in the fact that almost regardless of the location of a market milk plant one or more are applicable.

Milk prices paid in different parts of the country can be compared only with difficulty because for the most part the basis of payment is for the different unit in the different sections. In past years the system most commonly practiced was to purchase milk by the an. gallon or quart, but this practice, having been proven inaccurate, has been almost entirely superceded by systems that are more reasonable and have assurance of issuing justice.

(Continued on page 94)

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* Associate Professor, Dairy Manufactures, College of Agriculture, University of Missouri, Columbia, Mo.

llinois Dairyman

ays Sales increased 25% in one year

Tested and Approved
2517
Good Housekeeping Institute
Good Housekeeping Magazine

DOWNING BROS., Rock Island, Ill., have been using Thatcher Superior Quality Milk Bottles for over ten years and Thatcher Posters on wagons and windows for over two years. Did this policy pay? Read the following:

> *"By increasing the public interest in milk from a health standpoint, Thatcher National Advertising in The Saturday Evening Post and other magazines has proved a valuable aid to us. The best proof of this lies in the fact that our sales last year increased 25% over the preceding year!"*

The above is typical. Everywhere, dairymen are finding that Thatcher advertising helps build greater milk sales. Make your sales "jump" by tying-up to Thatcher.

"MORE TRIPS PER BOTTLE"

The most important item in buying milk bottles, is the final cost per bottle to you. The first cost or purchase price means little or nothing to you. From the actual experience of dairymen and from exhaustive laboratory tests, it has been definitely proved that Thatcher Superior Quality Milk Bottles will give you more trips per bottle. For Thatcher Bottles are tougher, more uniform in quality, have a better distribution of glass, and consistently perform better in actual service than any other bottle made.

Specially designed lehrs, used exclusively by Thatcher, help to give Thatcher Bottles that Superior quality and wear-resisting toughness not found in ordinary bottles. The Thatcher Trade-mark is blown on every Thatcher Bottle for your protection and guarantee.

Then too, millions of milk users see and read the celebrated "A Bottle of Milk Is A Bottle of Health" advertisements of Thatcher Bottles in The Saturday Evening Post and Good Housekeeping Magazine. If you want to increase your milk sales, fill in and mail the attached coupon. It will pay you to act at once.

THATCHER MANUFACTURING COMPANY,
Elmira, N. Y.

Operating several plants throughout the country, each strategically located and devoted to making Superior Quality Milk Bottles. Prompt, efficient service—always.

Mail This Today

THATCHER MFG. Co., Elmira, N. Y.

(1) *Send me prices and further information regarding Thatcher Superior Quality Milk Bottles. We use approximately....... ..bottles a year.*

(2) *Send me............Thatcher Posters. I intend to use these Posters on my wagons......., windows........*

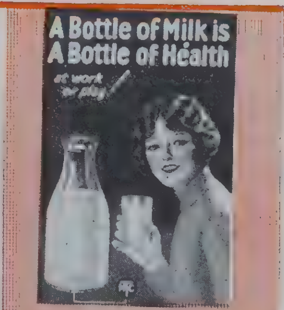
Name..

Address...

City..State............................

ost Less Because They Last Longer

THATCHER
Superior Quality
MILK BOTTLES



Put this Attractive Poster on your Wagons and Windows. Get your supply now.

MILWAUKEE

FILLERS and CAPPERS

At the Dairy Show
Detroit, 1926

Fillers for the Smallest and the Largest

Strong
Compact
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A School for Bottling Department Efficiency

The "Milwaukee" Method

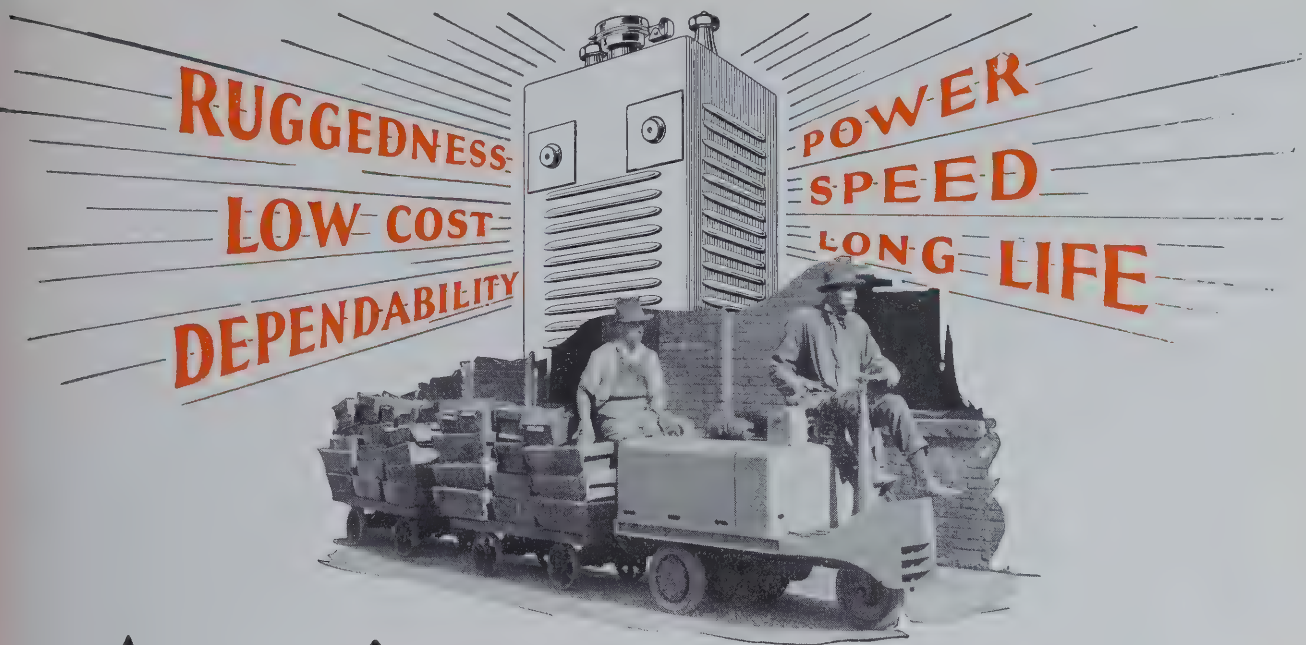
—to act as the laboratory of the Dairy Industry in every research and advance connected with the bottling of milk.

—devising means whereby the smallest dairyman may be able to avail himself of the tremendous advantages afforded by modern mechanical progress in filling and capping.

—keeping ahead of the needs of the largest plants for greater volume with the least labor and space allotments.

The Dairy World Proclaims "Milwaukee" Preeminence by their General Acceptance.

Milwaukee Dairy Supply Mfg. Co.
MILWAUKEE, WIS.



A question of Battery Characteristics

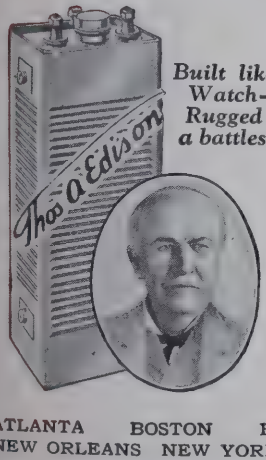
Why is it that by far the greater proportion, *nearly four-fifths,* of all industrial truck and tractor batteries now in service are Edison nickel-iron-alkaline Batteries?

Business executives are not interested in technicalities. Performance alone counts—and the performance of Edison Batteries is the factor that has given them leadership.

The facts are these. From the starting whistle in the morning until the last rushing moments of a busy afternoon, Edison Battery propelled trucks go about their work with the full vigor and power required of the job. That is the first essential. Actual tests have proved that Edison Batteries not only haul more tons, more trips, but do it in faster time.

Added to this, their long life, low cost per ton-mile, and the ruggedness of their steel construction, resisting shocks greater than any other battery could withstand; make the Edison Battery by all odds the favorite.

EDISON STORAGE BATTERY COMPANY, ORANGE, N. J.



Built like a Watch— Rugged as a battleship

Edison

STEEL-ALKALINE*

TRUCK BATTERIES

*There is no iron at all in any battery of commercial importance except the Edison. There is no nickel at all in any battery of commercial importance except the Edison. There is no lead at all in the Edison Battery. There is no acid at all in the Edison Battery.

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SUPER Milk Bottle

How Telling Belle Vernon saves waste

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Get a Stuebing truck—try it out. Prove at our risk its value and save as Telling Belle Vernon saves. There's no obligation. You are the sole and only judge. Write today

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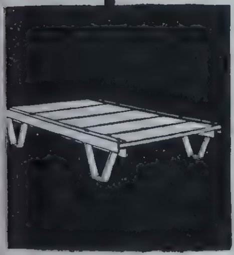
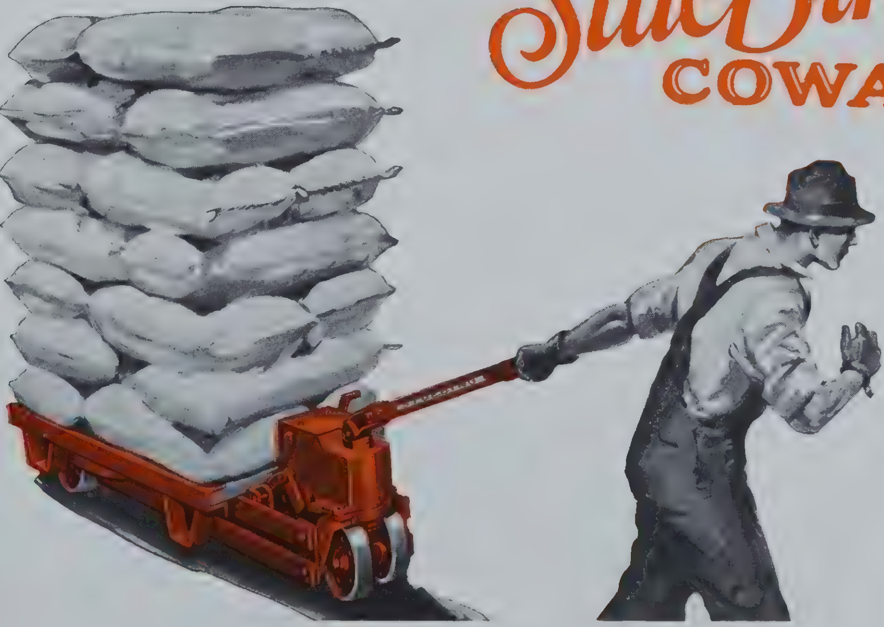


StuebingSteel-Bound Platforms match the Stuebing Lift Truck in strength of build and adaptability of service. They won't wear down or wabble



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M-W Milk Can Jackets

Protect Milk, Sweet Cream and Ice Cream Mix from extremes of temperature while in transit, insuring shipments arriving in good condition.

Increase your sales by reaching new territory and add to your profits by eliminating adjustments caused by shipments spoiling.

Milk or cream shipped in "M-W" Jackets is kept at a temperature that complies with requirements of the Health Authorities. Their use will please your customers.

Made by the manufacturers of the original

"M-W" Iceless Delivery Jackets

"The Jacket That Defies Heat"

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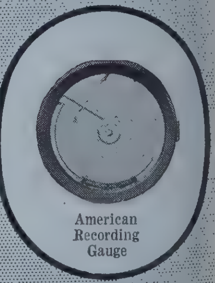

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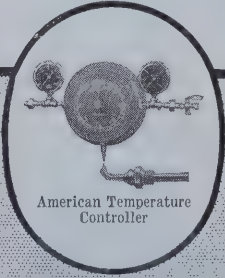

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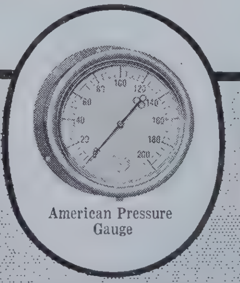

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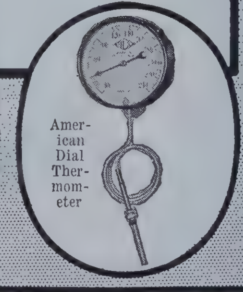

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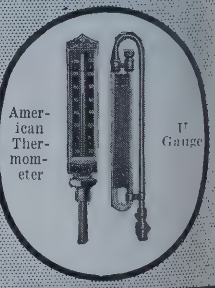

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WE started it in the South at the Army Camps during the World War and it has now spread over the entire country and is a growing success where the Milk Dealers are using

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The original Choc-O-Lishus is just as cheap and it goes further.

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It deserves your support.

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BOSTON, MASS., 170 Summer St.
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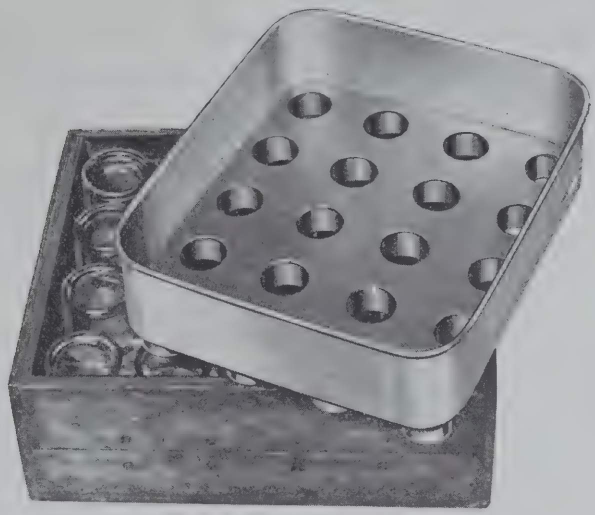

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One man can do four times the work with one of these Tom-Pax Fillers.

A creamier, more liquid cheese can be packed without the usual soiling of the outside of the container.

If time means anything to you in filling cottage cheese jars, try out one of these Tom-Pax Fillers. Sanitarily made of durable German silver and Duraluminum that stays bright.

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Exclusive Sale Agents for
The Thompson Package Filler Co.
Cincinnati, Ohio

Advantages of Right Sort of Partnership

Is Your Partner a Help or a Hindrance? Are You the Same Kind of a Partner? Relatives Make the Best Partners

By H. R. SIMPSON

ONE of our modern humorists—we forget which one—told of two partners, one a tight-wad, who walked home at night to save gasoline or carfare, and the other a good fellow, "who would give his last nickel to a pan-handler." The partners prospered. It was the wonder of the town how the two managed to hit it off together, but they did. And they made money, heaps of it.

Each of these men tired of the **status quo,** after a time dissolved partnership, each for a few days happy to be in entire control of his business. For each the millenium had arrived. Each believed his own attitude toward the public to have greatest effectiveness for profits. The first started out to follow his hard-boiled course to the limit. The second began equally hilariously to indulge his good-fellow propensities.

And, of course, in the story, both businesses went to smash. Divided, the partners fell.

You cannot compress into a single epigram or two all of the psychology of partners and partnership in business. As a starter, however, the principle demonstrated by the story just narrated, carries the investigator a long way. That story is diabolically true to life. Many men in business who, individually, would fail of any considerable success go a long way in double harness with the right man. Picking the right man, however, is as difficult—some will say more difficult—than picking a wife. Initially, one of the principles of matrimonial partnership seems to apply—the principle that unlikes team up best. The wit says that that principle is true except when it isn't.

Nature, in her wisdom, tries to keep the human race somewhere near a given level. The attraction of like for unlike in mating prevents the development of many widely separated, abnormal human types. Tall husbands and short wife, high-strung mother and unemotional father, and many other combinations of opposites are every-day matters. We see the principle many times working out very nicely. Possibly, one explanation of attraction of opposites is the tendency of humans to put a low valuation on qualities they possess, and a high one on the qualities they lack.

Aside from the fact that opposites psychologically are apt to be happier with each other than likes—an important consideration in choosing a partner for business—there are strong business reasons why opposites pair up well. If two partners are closely alike, the business management probably has a surplus of certain quality and certain kinds of ability, and also a lack of certain others. In the story, one partner was a close buyer, a careful manager; he overruled many impulsive and disastrous moves which the generosity of his partner would have involved the business in. On the other hand, the good-fellow traits of the partner were of wonderful benefit in making business friends for the business.

Where there is but one executive head of a business, not one, but a whole string of qualifications are required. The manager needs to be a good office-manager, a skillful buyer, a good salesman, a successful credit man and an efficient handler of help. In a single individual, these several abilities are nearly always present unequally. It is just right here that the partnership idea works out so well. White may be a poor credit man, but the business is safe so long as his partner, Black, is a good one.
Green may be a poor hand at handling help an
pleasing the public, but the store will prosper if Gr
ability in buying is supplemented by his partner Bro
qualifications for supervising an organization and
chandising.

The foregoing are not only arguments for pic
the right sort of partner. They are cogent reason
carefully considering the partnership system of busi

Some Rules for Partners.

It has been our observation that partnership
sisting of father and son, and of brothers, are
likely to be permanently successful. There is a pro
to the effect that brothers are not necessarily frie
It is true. Though brothers, they frequently have
trary temperaments and abilities and accordingly
theoretically adapted for partnership with each o
Upbringing in the same home and long association
each other have created in them the ability to wor
gether. They know with reasonable certainly in
vance, after a childhood spent together, whether
can hit it off as business partners. Maybe they are
in disagreement and fight like a couple of game-c
These things only stimulate the business, how
Partnership between brothers can carry into busi
and quite often does, we believe, an ideal relation
The same holds true with great additional forc
father-and-son alliances.

Just for our personal satisfaction, we would li
see, sometime, statistics of the number of father-an
businesses in the country. One instance came befo
recently, of a merchant with whom ten sons were
ners. Think of that! And think of the satisfacti
the father in the partnership scheme. Many small
nesses do not seem to have room in any large wa
the son. This partnership with ten sons does a bu
far in the hundred thousands. The father and sons
made a great team.

Such partnership brings together opposites in
The father is naturally a conservative; cautious
his judgments; youth is enthusiastic, enterprisin
clined to be a little bit radical and hair-trigger.
youth alone is apt to make mistakes and overloo
portunities. Teamed up in a business partnership
may accomplish wonderful results. Men of the
nationality make better partners than do aliens.
planted men, as Elbert Hubbard called them, often
up especially well, if from the same district or sect
the country. Probably, a common ground furnish
such other things as the same Alma Mater, or the
fraternal affiliation, helps. We may look for opp
in business partnerships, but we musn't forget that
also must be common ground.

The Forming of Ill-Advised Partnerships is as Fri a Cause of Business Failures as the Selection Unsuitable Business Locations.

Business partnership is a mighty intimate
Relations between buyers and sellers in business
cold-blooded; we expect many of them to be so.
tions between business partners cannot be cold.
and again men attempt partnership with partie
do not like, maybe secretly dislike, or despise.

orance, they think they can beat the game. There is safe foundation for twenty-four-hour-a-day business tnership, except the genuine liking and friendliness he partners for each other.

Even with the best of good feeling existing, disagreent and misunderstanding are bound to come. For ny things, partners require to have implicit confidence one another. Time and again one partner must cone ground out of consideration for his "side-kick." rriage without love is no more dangerous a thing than iness partnership without liking. Where one partner silent, it is, perhaps, true that the qualification of sonal liking is not so indispensable. Still, it should st. Speaking of silent partners, general experience rly points out several common dangers.

One of these two conditions should exist: either, the nt partner should have an excellent understanding he particular business, or the working partner should capable of efficiently selling his backer on ideas. usands of intelligent, capable young fellows, who e interested outsiders in backing them, have discovl to their sorrow that the battle only started when much-wanted capital was secured. Nothing can more ctively throw bricks into the machinery of a business erprise than the harping criticisms and incompetent gestions of a "silent partner who cannot be sold on s by the working partner, and continually insists on intruding himself into the management." Lack of knowledge of the business need not be of serious consequence, of course, if the working partner has the whole confidence of his backer and has no difficulty in getting his consent and support when questions of policy are up for decision.

The acts of one partner are binding on the other, and either is responsible for the full debts of the partnership. A business man who has entered partnership without the necessary discretion may find himself in the position of the man on the tail of the kite. He can't let go, yet every moment he gets higher, farther and farther from earth.

Business divorce can be as disagreeable and expensive a process as divorce between husband and wife. The modern way of establishing virtual partnership with a reduction of the peril is to use the corporate forms in doing business. Here the liabilities of individual partners is definitely limited. Incorporation also facilitates frequently the not too expensive withdrawal of a partner from the business. It also is a great little device for taking care of the ambitious, efficient employee who is hungering for a business of his own. It becomes a very simple matter to take him into the business.

For the reader contemplating a business partnership, our concluding word will be one of caution: whatever you do, be careful!

The Control of Butterfat

Efficient Follow-Up System Necessary When Buying on a Butterfat Basis

By C. L. TURNER*

SOME instances, cost systems more or less efficient, have been devised and installed in the dairy and milk product industries, and while very necessary data btained therefrom, it has been found that even in e instances no attempt has been made to properly rol butterfat.

profit and loss statement and statement of assets liabilities merely show the earnings and financial ion of the company, but the derivative of the profits erlooked. Milk is bought on a butterfat content basis therefore an efficient follow-up system of this item cessary.

Not An Expensive System.

t is contended by those who do not favor a system ntrol of butterfat that it entails a considerable exe to keep such a control, but it has been found from rience that this is not the case should a system be wed somewhat as follows:

hen the farmer is paid for his milk on a butterfat , it is known at the end of each month the number ounds paid for and the butterfat composite test of. This information being available, the total ds of butterfat received can readily be ascertained. e same way purchases from dealers and commission s are paid for on a butterfat basis and total butterounds from this source also can be readily ascerd. Similarly butterfat content of butter is obtainso that should the laboratory tests be accurate the butterfat purchases for a given period are available.

he total quartage of each commodity sold is known, rom the daily standardization charts, the butterfat nt of each grade of milk and cream sold can be lated.

By taking an inventory at the beginning of the period and converting same to a butterfat basis and adding thereto the total butterfat purchases and deducting therefrom the inventory in butterfat units at end of period provides total butterfat to be accounted for. The sales in quarts being known and the tests at which the commodities were sold also being available gives the total butterfat pounds sold, and therefrom can be learned how much butterfat loss has been sustained during a period.

Possible to Trace Leakage.

In cases where receiving stations are maintained it is possible to trace leakage of butterfat as beween these receiving stations and the main city plant. By the installation of a butterfat check in reference to milk received at country receiving stations it can be readily ascertained if the farmer is being paid on a greater butterfat test than he may be entitled to. From experience it has been found that the testing of milk at country receiving stations is not any too accurate, and great saving has been effected through the adoption of butterfat control at each outside receiving station.

It is surprising what a vast amount of interesting information can be obtained by the installation of a butterfat control system. A check is obtained on the butterfat content of the commodities sold and the laboratory and standardizing departments can be held accountable for any product being sold with a greater butterfat content than is necessary. Every pound of butterfat lost through overstandardization means a loss in dollars and cents, and as plant expenses are in almost all cases controlled, it is equally as important to have an efficient control of butterfat content of the product.

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* f Turner & Crook, accountants and auditors.

The Milk Plant Superintendent

The Peculiar Abilities that are Necessary for Success in Managing a Modern Milk Bottling Plant by One Actually Doing It

By H. W. VETTERLEIN, Utica, N. Y.

TO MAKE a city milk plant a success, a good, safe milk for the consumer, day after day, is essential Much depends on the plant superintendent. He must be a good judge of men. Labor turnover is a large item of overhead expense, and the plan superintendent must know who to hire and also who to fire. If he can get a good bunch of men, and hold them, the profits will be much greater than where there are many changes. It costs a large steel company about one hundred and twenty-five dollars to hire a laborer and break him in to do a job well. I often wonder if it isn't nearer five hundred dollars in the case of a milk plant man. The superintendent must be able to pick the man to do a particular job in a large plant. One man might be valuable on the receiving platform, and still not make a success in any other position.

Of course, in smaller plants, one man usually does a number of different things, in the day's run, so it is up to the superintendent to get men that can make good at any job in the plant. A superintendent must not be afraid of hard work, because it often happens that when a man is off on account of sickness, he should be able to take his place. He must be able to handle men, hold their respect, and get them to do their best. He should thoroughly understand all operations, so as to instruct beginners in the right way.

Indiscriminate hiring and firing is bad business, and has been the cause of some firms going out of business, or at least not making much profit. He must know when a man is worth more money, to hold him, because if you can keep a good man, year after year, it is better for all concerned. He must also know when a man begins to feel too important, and asks for more wages than he is worth, because any man can be replaced by one as good or perhaps better. So it is just as important to know when to let a man go as it is to hang onto him. It all depends on the size of the plant and the number of men employed as to whether the superintendent should have daily manual labor to do.

In some small plants the superintendent takes in the milk, pasteurizes, makes buttermilk, etc., but he is really a working foreman, while in large plants he has a foreman under him.

I believe the foreman should do the testing and standardizing of milk and cream, unless there is a man that can be absolutely relied on, because much trouble can be caused, and money lost, by incorrect standardization. The superintendent should check up on this often. He must thoroughly understand refrigeration and be able to do repair work. If a plant has a good foreman, the superintendent with a helper can do all of the repair work. Of course, in very large plants, he wouldn't have the time to do much actual labor. He should make reports of the day's operations, such as milk received, separated, bottled, sold, butter made, etc. Also look after the supplies of bottles, caps, brushes, repair parts, and keep enough on hand. He must know how much alkali to use in washing bottles to do good work and still not waste any. Also how much washing powder to use in washing up, because much money can be wasted this way. Some water is very hard, so it naturally takes more soda to soften it. A superintendent should do f quent inspection work, see that everything is clean. should keep abreast of the times, read all he can on m and put the good suggestions into practice. Also good on commercial starters, because the average da worker has hazy ideas on the subject of starters. course, there are exceptions, and in some plants, a m will know more about starters than the superintende He should be put in charge of this end because if starters are not right the butter, commercial butterm and sour cream will not be right either. He should neat in appearance, and try to have the men take pr in this respect. It is a good plan to have everyone on clean jackets and overalls every day because in average plant one day's work will soil them. A s cessful superintendent must be able to "keep his hea because some days everything seems to go wrong a the man that "flies off the handle" will never be a s cess. He must be honest, and always work in interest of his employer. Also study the buying a selling end of the game. It is a very good plan fo prospective superintendent to learn the milk busi from the ground up. Some of the best superintende were raised on the farm, entered a milk plant as hel pursued a course in a good dairy school, and gradu worked up.

A four-year dairy course is excellent, but not ne sary to success. A two-year course is much chea and some successful milk men have only had the adv tage of an eight or twelve weeks winter course, wh some very successful ones never saw a dairy school

As bacteria plays such an important part in the r game it will help a superintendent very much to get he can on bacteriology and the dairy school or colg is the place to get it. Milk with too high bacteria cou should be rejected at the receiving platform and a su intendent can often tell the farmer how to lower h count. Everything that the milk touches in the p should be absolutely sterile. A superintendent sh know how to get a low count in the bottled milk, h be able to show the men how to do it.

Experience, and plenty of it, is what counts; an a I said before, a dairy school course is good, but not ne essary for all. So it really depends on the man. Ex perience in different plants is very good, but not essen tial. There are successful superintendents in plant i which they started as helpers, while others have wo in several different ones.

A superintendent should always "be on the jo" during the day's run because, as the saying goes, "wh the cat is away, the mice will play" sometimes happen in the milk plant.

To sum up, a superintendent who is conscientious broadminded, honest and a hard worker will mos al ways make good.

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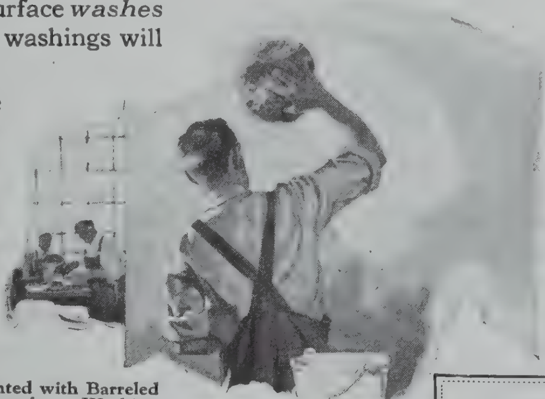

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California Milk Dealers Meet in Oakland

Sixth Annual Convention Held in Connection with Pacific Slope Dairy Show

THE state of California Milk Distributors' Association held its sixth annual meeting on Thursday, November 18, at the Civic Auditorium in Oakland. The state was represented with about 60 members of the association, this number augmented by a few visiting delegates from other Western states who had come to attend the Pacific Slope Dairy Show.

President D. M. Dorman of the Crescent Creamery Company of Los Angeles and Secretary Fieweger of Oakland arranged for an interesting program of topics of general interest.

H. A. Walsh, secretary of the Southern California Milk Dealers' Association, Los Angeles, spoke of the adoption of the universal bottle by the dealers in the vicinity of Los Angeles. The universal bottle was discussed at the convention last year, but then it had not been in use a sufficient time to prove its success.

All new bottles are purchased by the members upon requisition of the association, and from bottle manufacturers who are licensed to make them. Each member is required to furnish a record each month of all bottles used, and by comparing the number purchased with the number used, the association determines the number each dealer should buy to maintain his average or pro rata.

Discuss Universal Bottle.

It is necessary to keep an accurate record of purchases in order that each member buys his own share of the whole. Dealers who buy less than their share, according to the reports and records available, are liable to lose their membership in the association, and lose the privilege of using the universal bottle.

In the selection of a particular type of bottle, standard specifications are observed. This has eliminated different size caps, and milk appears to have a uniform cream line in all the bottles.

The universal bottle used by the Southern California association has a No. 2 cap seat, and is identified by the symbol of the Southern California Milk Dealers' Association, and a series of dots around the neck, and a double cross at the bottom. This bottle is easily distinguished in a case. It is registered in the state and county, and the bottle exchange has full authority to prosecute any person using it who is not licensed to do so. The members in turn, are not allowed to use the bottles of any one not a member of the association, or others.

Benefits derived from the use of the universal bottle cannot be determined in cold figures, according to Mr. Walsh. The association has had considerable effect on the milk dealers from an ethical standpoint, and has probably paved the way for other co-operative work, such as advertising, which may be taken up in the future.

The average number of trips for each bottle has been considerably increased, over that of the privately owned bottle. Including the three classes—wholesale distributors and those having both types of business—the average number of trips per bottle is 33. Those doing only retail business show a very high tripage, this due, no doubt, to his having better control of his returns. Wholesale distributors' returns are the reverse. Retail dealers' bottles average 43.6 trips, while the wholesalers' bottles average only 24.1 trips.

The drivers of association members pick up all b tles at the present time, those not belonging to mem firms being cleared through the regular bottle exchan Credit of two cents is given for bottles picked up, a charge of three cents made for bottles returned to association or its members by the bottle exchange. bottle exchange is a separate and distinct organizat and it handles the bottles of both members and n members of the association that controls the univer bottle. Later on they expect to have the associat members' drivers pick up only the universal bottles.

The universal bottle was first adopted about th years ago. With one exception, the milk dealers c tinued using bottles on hand bearing their own bran but all new bottles purchased were of the standard ty Today, with 39 members, about 97 per cent of the bot used by the association members are universal bott The saving is estimated at 25 per cent to 40 per cen bottle cost, besides the time saved sorting, and the pense of clearing more bottles through the bottle change.

The discussion following Mr. Walsh's address i cated there is considerable interest in the San Fr cisco and East Bay districts in the universal bottle. T plan could no doubt be worked out satisfactorily o co-operative basis in most other localities.

Dry Milk—An Opportunity.

Dr. H. E. Van Norman spoke of the undeveloped m ket for dry milk. While the uses of dry milk h showed a remarkable increase in the last few ye there is a world of opportunity for further developm As instances, he cited the use of dry milk by taurateurs and hotel owners who are serving abou per cent of the food eaten by the American people. milk can be used to improve the quality of puddi pastries, etc.

Milk dealers can dispose of surplus dry milk to h farmers supplying whole milk. In most of the sect where dairying is intensely developed and where il is sold in its whole state, it is considered poor polic t raise calves, for the fresh milk is too valuable. bred calves can profitably be allowed to feed on f whole milk the first two weeks, then fed milk made powdered skim and warm water for a couple weeks, when they will have begun to eat dry f The dry skim milk can then be mixed with the dry thus giving the producer a market for his whole and the milk dealers a good market for the powd skim.

In Asia, Dr. Van Norman said, there is a huge un developed market for powdered skim milk. An Au ra lian firm is now shipping dry milk and sweet butt t China, reconstituting those materials to make sweet standardized whole milk, and selling it in the cie of China in the same manner whole fresh milk is old in this country. A Western milk dealer is even ow shipping powdered skim and butter to Alaska, recon stituting the products, and selling fresh Pacific Cas products in that country.

Other markets for dry milk will be found among the sausage manufacturers, who have found that the addi tion of powdered milk gives their product a better ody and flavor, and among the cracker manufacturers who anxious to find means for improvement. Chocolate npanies are now using huge quantities of dry milk, l prospects for future development of this outlet are usually good.

Experimental Work at Davis.

Dr. Roadhouse, president of the Pacific Slope Dairy ow Association, spoke about the work being done by staff at Davis and the men doing post-graduate work the university branch. They are now trying to demine the effect of feeding at varying periods previous milking upon the flavor of the milk. In some sections ere cattle are fed a great deal of alfalfa there is a pronced foreign flavor in the milk, and it was found at feeding of the alfalfa within five hours prior to lking is the cause of it. Feeding grain in connection th the alfalfa did not effect any improvement, accord- to the experiments thus far conducted, and the use silage made the feed flavors even more pronounced. me of this off flavor, however, could be eliminated by nning the milk immediately over a surface cooler. y other type of cooler did not seem to effect much provement.

Experimental work is also being done relative to the king of cheddar cheese from pasteurized milk, and us far a very satisfactory quality of cheese has been oduced. Other men are working on the use of eleccity for heating water to sterilize dairy farm utensils, th particular reference to its cost compared to the use kerosene, gasoline and the steam boiler.

Causes of sticky butter, common in the West where ich alfalfa is fed to dairy cattle, and the errors in ermining the butterfat content of milk by the Babk method are also being investigated. There is a varion of .058 per cent of butterfat in the Babcock meth- due partially to the incomplete separation of the during centrifuging, and a way of eliminating it is ng sought, so far, without success. The fat that does rise to the surface after centrifuging is partially set by the moisture that is in the fat in the neck of test bottle. Running the tester at higher and lower eds has been tried, and lower speeds have been found produce better results than high speeds. The machine s operated at such a high speed that the test bottles ke, but the tests made at a higher speed invariably wed a greater error than those run at slightly slower ed than is recommended.

Frank J. McGovern, business agent for the Milk vers' Union of San Francisco, spoke on the relationp that may exist or fail to exist between the milk gon driver and the customer. He pointed out that ployers should work closely with their employees, esially those on the outside of the plant who are not easily controlled, take more interest in their personal irs, and be very careful in the selection of men for work. Instruction of the men who are in close tact with the public, in the technicalities of the protion and handling of milk, Mr. McGovern believes, s ery important.

New Legislation.

Dr. J. J. Fry, chief of the dairy bureau of the state artment of agriculure, spoke briefly of the new regu- ons pertaining to the manufacture of dairy products, new definitions which may be enacted and be made rative in the near future. There are four of import- to the dairy industry.

One will extend the period at which milk may be held at he pasteurizing temperature to an hour, or more. In ectors now question operators whose pasteurizing te perature charts show the milk was held longer than the usual time, for some milk dealers have held at very long periods to further reduce the bacterial count of milk that was before pasteurizing, of a very high bacterial content.

In order that the people may be properly informed as to what kind of product they are buying, it is proposed to require that only the buttermilk that remains after churning may be sold as buttermilk. All other cultured milks and cultured skim milks are to be sold under another name, which will inform the buyer that it is not churn buttermilk he is buying. The names "cultured buttermilk," and "cultured milk" were proposed. Considerable discussion followed.

Cultured Buttermilk Is Discussed.

One milk dealer pointed out that it would not rectify the matter to call buttermilk made from skim milk and culture a cultured buttermilk, but would only tend to make the matter worse, for the buyer would think that cultured buttermilk is something more than buttermilk, whereas it is not even real buttermilk.

Buttermilk made from skim milk has been known as buttermilk and many milk dealers have established a good business in this commodity. Requiring that the product be marketed under another name may result in considerable loss in revenue without effecting any improvement in the product or giving the public more for its money. Cultured buttermilk, as made in most plants, has all the constituents of the genuine churn buttermilk and more. Simplifying the process of obtaining buttermilk by taking the fat out in the form of cream before the culture, or starter, is added, instead of taking it in the form of butter, cannot be considered deception of the buyer as to what he really gets when he buys commercial buttermilk.

It is proposed also to reduce the maximum bacterial content permissible in milk, before pasteurization, from 200,000 to 100,000, and in pasteurized milk from 15,000 to 10,000 or less. There was some objection to this proposal, but Dr. Fry said the department wished to make the standard for California approximately the same as that of Eastern cities, where a standard milk ordinance prepared by the United States Department of Agriculture is quite generally used.

There are to be only three grades of milk in California, if new proposed legislation is passed and made effective, as follows: Certified milk, grade A pasteurized, and grade A raw. There will be still the regular milk which may be known as grade B. This will eliminate the grade known as guaranteed milk, which is not certified, yet is close to it, but is better than most grade A pasteurized.

These rulings will not affect modified milk, and others, such as iodized milk, mineral milk, etc., the contents of which are printed on the caps.

How Los Angeles Collects Cash in Advance.

K. L. Carver of the Crescent Creamery Co., Los Angeles, told of their system of selling milk, for cash in advance. They use aluminum tokens, with holes punched in the center, in the shape of diamonds, stars, circles and squares, each one indicating a certain unit of value. Each driver employed is required to deposit $100.00 cash, and the route manager gives him $50.00 worth of the tokens. The driver sells the tokens to his customers as needed, and turns in the cash, drawing new tokens on his account when necessary.

The company demands cash in advance for all tokens sold to the drivers, and discourages drivers selling tokens on credit to their customers. A few do it, and take their chances of collecting, but, on the whole, when they learn the company would rather have them lose a customer than take the risk personally of collecting later on, they adhere quite strictly to a cash-in-advance system. Drivers are paid a straight commission of 11 per cent.

Adjustments are required occasionally when the price of milk goes up or down. Drivers are authorized to make the adjustments among their own customers, or in cases where there is a misunderstanding, the adjustment is left in the hands of the route inspector.

President D. M. Dorman discussed the advantages and disadvantages of mergers and consolidations. He believes that the merging of the interests of dairy products manufacturers is advisable, if savings can be effected in costs of manufacture, delivery, etc.

Edward F. Moran, attorney for the association, talked about "Ethics," with particular reference to moral obligations of competitors to each other, as compared to legal obligations.

New officers of the association will be elected at a special meeting to be held in San Francisco in January.

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MILK SCORES OF SLOPE SHOW.

Name—Address	Score
Guaranteed Cream.	
Crown City Dairy, Pasadena, Cal	96.00
Home Dairy, Palo Alto, Cal	92.8
Pasteurized Cream.	
Raitt's Sanitary Dairy, Santa Ana, Cal	94.8
Crown City Dairy, Pasadena, Cal	94.6
Stockton Milk Co., Stockton, Cal	94.00
Producers' Milk Co., Oakland, Cal	93.5
Mutual Dairy Association, Los Angeles, Cal	92.9
Cream — Raw.	
Taylor Dairy, Palo Alto, Cal	91.1
Goat Milk.	
Henderson & Wilson, Hayward, Cal	96.1
Sanatog Dairy, Los Angeles, Cal	95.4
Non-Graded Milk—Raw.	
Smith's Honolulu Dairy, Honolulu, T. H	97.2
Orchard Home Dairy, Chowchilla, Cal	97.00
W. E. Castro, Atwater, Cal	96.9
A. E. Owens, Ceres, Cal	95.8
Sunshine Dairy, Merced, Cal	95.6
Hughson Dairy, Hughson, Cal	95.6
Orland Dairy, Orland, Cal	94.6
Bonnie Braw Dairy, Waterford, Cal	92.5
Non-Graded Milk—Pasteurized.	
Paglio Dairy, Gustine, Cal	96.2
H. R. Smith, Patterson, Cal	95.9
Sanitary Milk Co., Merced, Cal	95.2
Forden's Farms, King City, Cal	94.4
Grade A—Raw.	
Santa Monica Dairy, Venice, Cal	98.2
Prospect Dairy, Pasadena, Cal	97.3
Golden Guernsey Dairy, Lankershim, Cal	97.1
Banner Dairy, Pasadena, Cal	96.9
Bay View Dairy, Palo Alto, Cal	96.9
O'Haver Dairy, Moneta, Cal	96.8
Taylor Dairy, Palo Alto, Cal	96.8
Ramona Dairy, Pasadena, Cal	96.8
Mt. View Dairy, Long Beach, Cal	96.7
New Home Dairy, Los Angeles, Cal	96.7
Mae Maderia Farm, San Leandro, Cal	96.6
Crown City Dairy, Pasadena, Cal	96.5
Mission Dairy, San Fernando, Cal	96.5
Old Farm Dairy, Los Angeles, Cal	96.3
Calla Lily Dairy, Glendale, Cal	96.2
Malcola Dairy, Bell, Cal	96.2
Smith's Honolulu Dairy, Honolulu, T. H	96.1
A. V. Austin, Van Nuys, Cal	95.9
Central-Shuey, Oakland, Cal	95.6
Ruud's Dairy, Gardena, Cal	95.3
Thompson Bros., Compton, Cal	95.2
La Encina Dairy, Mayfield, Cal	95.2

Name—Address	Sco
Keystone Dairy, Wilmington, Cal	94.
Gold Medal Dairy, Burbank, Cal	94.
James McBain, Los Angeles, Cal	94.
Lincoln Family Dairy, Torrence, Cal	94.
Western Dairy, Alameda, Cal	93.
Producers' Milk Co., Oakland, Cal	93.
Raitt's Sanitary Dairy, Santa Ana, Cal	93.
Americo Dairy, Bell, Cal	92.
San Pedro Creamery, San Pedro, Cal	92.
Certified Milk.	
Adohr Stock Farms, Van Nuys, Cal	98.
Arden Dairy, El Monte, Cal	97.
Burr Creamery Co., Los Angeles, Cal	97.
Meadowlark Dairy, Pleasanton, Cal	97.
Home Dairy, Palo Alto, Cal	97.
Hind-Clarke Dairy, Honolulu, T. H	97.
Guaranteed Milk.	
Mt. View Dairy, Long Beach, Cal	98.
National Creamery Co., Los Angeles, Cal	98.
Delbridge Dairy, Pasadena, Cal	97.
Calla Lily Dairy, Glendale, Cal	97.
Mutual Dairy Association, Los Angeles, Cal	97.
Burr Creamery Co., Los Angeles, Cal	97.
Log Cabin Dairy, Pasadena, Cal	97.
Crescent Creamery Co., Pasadena, Cal	97.
Crown City Dairy, Pasadena, Cal	97.
Brant Rancho, Owensmouth, Cal	97.
Home Dairy, Palo Alto, Cal	97.
Fullerton Sanitary Creamery, Fullerton, Cal	97.
Vim Dairy, Oxnard, Cal	96.
James McBain, Los Angeles, Cal	96.
Maple Leaf Dairy, Pasadena, Cal	95.
Stanford Dairy, Palo Alto, Cal	94.
Palo Alto Dairy, Palo Alto, Cal	93.
Grade A—Pasteurized.	
Stockton Milk Co., Stockton, Cal	98.
Dairy Farm Co., Los Angeles, Cal	97.
Raitt's Sanitary Dairy, Santa Ana, Cal	97.
Excelsior Creamery, Santa Ana, Cal	97.
San Pablo Creamery, San Pablo, Cal	97.
Mutual Dairy Association, Los Angeles, Cal	97.
Adohr Creamery, Los Angeles, Cal	97.
Producers' Milk Co., Oakland, Cal	97.
Pasadena Co-op. Creamery, Pasadena, Cal	97.
Crescent Creamery Co., Long Beach, Cal	97.
Crown City Dairy, Pasadena, Cal	97.
Poppy Hill Creamery, Richmond, Cal	97.
Crescent Creamery Co., Los Angeles, Cal	97.
Burr Creamery Co., Los Angeles, Cal	96.
Paramount Dairy, Burbank, Cal	96.
Fenton's Creamery, Oakland, Cal	96.
San Pedro Creamery, San Pedro, Cal	96.
Peninsula Creamery, Palo Alto, Cal	96.
Stanford Milk Co., Palo Alto, Cal	96.
Willow Brook Dairy Co., Oakland, Cal	96.
Valley Dairy Co., El Monte, Cal	96.
Southwestern Dairy, Los Angeles, Cal	96.
Hansen Dairy, Los Angeles, Cal	96.
Santa Monica Dairy, Venice, Cal	96.
Central-Shuey, Oakland, Cal	96.
Mt. View Dairy, Long Beach, Cal	96.
Arctic Dairy Products Co., Los Angeles, Cal	96.
Palo Alto Dairy, Palo Alto, Cal	96.
Snow White Creamery, Palo Alto, Cal	96.
Western Dairy, Alameda, Cal	96.
Central Dairy Delivery, Modesto, Cal	96.
Mutual Creamery, Oakland, Cal	95.
Crescent Creamery, Pasadena, Cal	95.
Henry Creamery, Los Angeles, Cal	95.
Montana Dairy, Pasadena, Cal	95.
Cloverdale Creamery, Huntington Park, Cal	95.
Milk Producers, Stockton, Cal	94.
American Creamery Co., Oakland, Cal	93.
Walnut Grove Creamery, Oakland, Cal	92.
Hamilton Creamery, Palo Alto, Cal	92.

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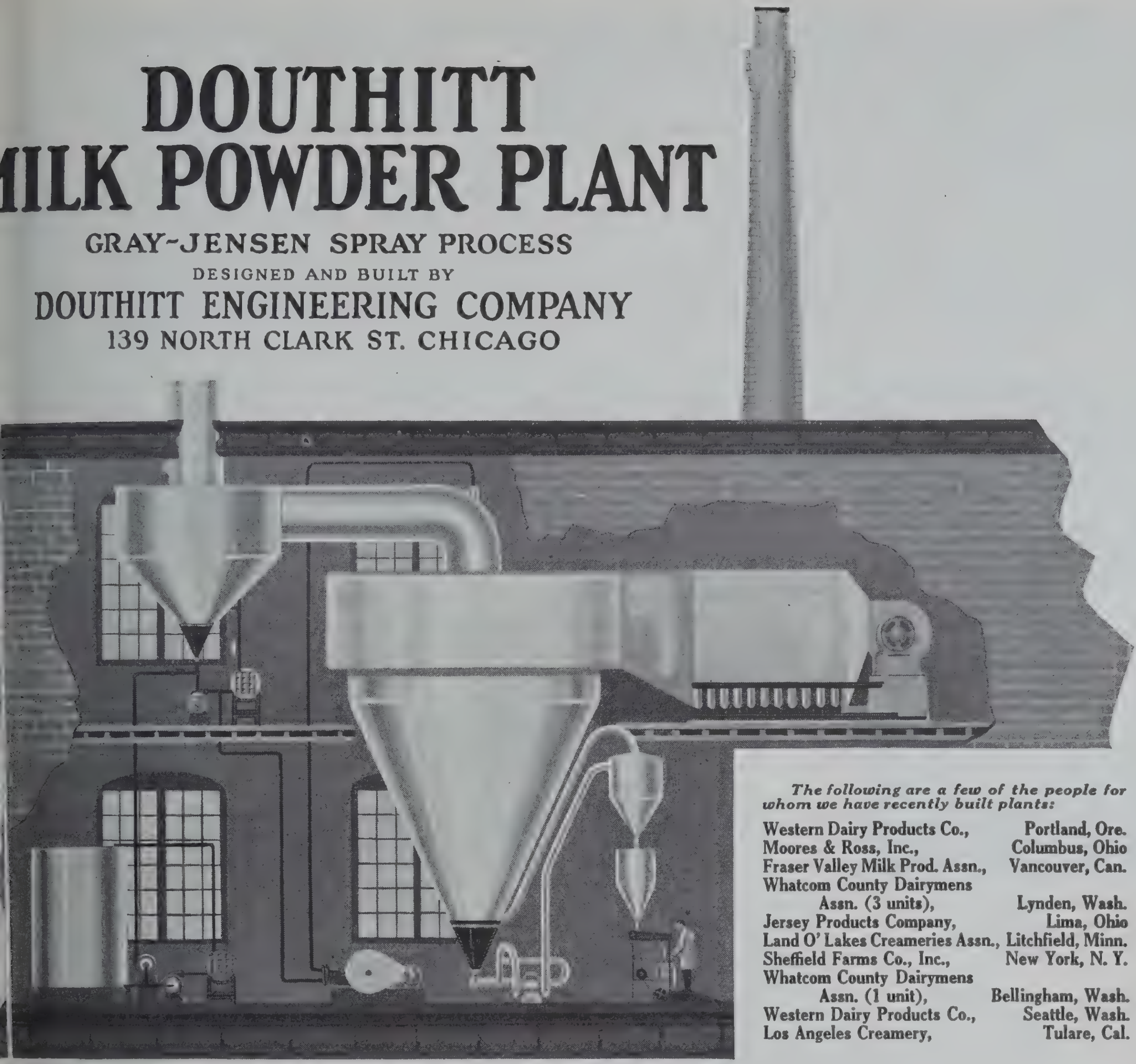
LONDON FIRM WINS AT LONDON DAIRY SHOW

At the London Dairy Show held October 19-22, fir prize, a silver medal, was awarded to George S. Clayto dealer in dairy supplies in London, for his bottle fillin machine, also a bronze medal for a pasteurizing pla display.

DOUTHITT
ILK POWDER PLANT

GRAY-JENSEN SPRAY PROCESS
DESIGNED AND BUILT BY
DOUTHITT ENGINEERING COMPANY
139 NORTH CLARK ST. CHICAGO



The following are a few of the people for whom we have recently built plants:

Western Dairy Products Co.,	Portland, Ore.
Moores & Ross, Inc.,	Columbus, Ohio
Fraser Valley Milk Prod. Assn.,	Vancouver, Can.
Whatcom County Dairymens Assn. (3 units),	Lynden, Wash.
Jersey Products Company,	Lima, Ohio
Land O' Lakes Creameries Assn.,	Litchfield, Minn.
Sheffield Farms Co., Inc.,	New York, N. Y.
Whatcom County Dairymens Assn. (1 unit),	Bellingham, Wash.
Western Dairy Products Co.,	Seattle, Wash.
Los Angeles Creamery,	Tulare, Cal.

2 Plants Operating. 6 Plants Being Installed.

WE guarantee to recover on capacity operation milk powder equivalent to 100% of the solids i the milk. No other plant can make such recovery.

o precondensing necessary. In fact, no condensing ter used. The only water required is for boilers d to wash plant up each day.

ly one man necessary to operate plant and pack wder in barrels.

e plant is easily kept in absolutely sanitary condition. It can be thoroughly washed and sterilized each day.

Easily and instantaneously regulated to leave any desired percentage of moisture in powder.

minute from milk to powder; the shortness of time during which the milk is exposed to heat insures superior quality of powder, entirely soluble in cold water, manufactured at lowest possible cost and sells for highest market price.

The powder is automatically and instantaneously removed from the drying chamber, also cooled as delivered into barrels. Other plants require from 1 to 20 hours to accomplish the same result. Milk powder allowed to remain in drying chamber until the day's run is completed becomes thoroughly mixed while being removed; therefore there is no advantage in grading such powder as the lowest quality made that day governs the grade for the day's run.

The extra recovery of milk powder, the saving in fuel, labor, and power, as compared to other milk powder plants, is sufficient to pay for one of our plants in from 1 to 3 years. Manufacturers are discarding other types of milk powder plants and installing the Douthitt plant, the life of which is from 15 to 20 years.

We will furnish a guaranteed market for all Skimmilk Powder manufactured on our plants.

Write today for booklet describing the Douthitt Milk Powder Plant.

Please Mention The Milk Dealer.

Some Reasons for Scoring Milk

Winner in Milk Judging at National Dairy Exposition is Awarded Gold Medal Offered by the International Association of Milk Dealers. Taste and Smell Most Important Checks on Milk

AT THE recent National Dairy Exposition in Detroit the International Association of Milk Dealers offered a gold medal to the winner of first place in milk judging. This coveted prize was won by Willis Porter Stoops, who will graduate this month from the College of Agriculture, Ohio State University. Mr. Stoops' home is at Wooster, Ohio, and after he has completed his graduate work he expects to enter the market milk business. Mr. Stoops submitted a very interesting article on "Why Milk is Scored," which we are glad to publish as follows:

WILLIS PORTER STOOPS,
Winner of Gold Medal Offered by International Association of Milk Dealers.

WHY MILK IS SCORED.

The grading of milk is manifestly more important than that of any other dairy product, since it is the source of all dairy products. Without a good foundation and framework any structure must fall. Therefore, good is the prime requisite of all the dairy industries, and no amount of processing can produce good milk from poor milk.

Good milk is fresh, clean, sweet and pleasing to the senses. It has no objectionable off-flavors or odors. Milk from one herd may be good one day, but decidedly off in flavor the next day. Everlasting vigilance is the only safeguard of consistent high-quality milk.

No test has replaced the senses of taste and smell for a quick and approximate check on milk. It is the test that is paramount to the consumer, and, since he is the final judge, we must not forget that with all of the chemical tests that taste and smell will discover most of the undesirable qualities in milk. When one or two cans of bad milk go through with the good milk all the milk will be damaged. All dealers have had trying experiences with milk that no quick chemical test could detect any decided fault in the milk, yet a bad flavor or odor existed in the milk that played havoc with the dealer's trade. Children are especially quick to detect any off or foreign flavor.

One of the largest dealers in Ohio has five different grades of milk, varying as to quality and fat content. By working with the producers they receive some very high quality milk. Inspectors carefully go over the milk and each shipment put in the proper class. Bonuses are paid for the better milk. The plant manager or superintendent must know how to grade milk in order to train the men on the platform receiving the milk that they can really score the milk proficiently. This means that the inspector must be higher paid than the ordinary receiving man, but this is the cheapest and best form of milk insurance. There are many instances of small dealers who do not co-operate with their producers, and also fail to make a close inspepction of the receippts at their plant. Such plants are small because of such methods and should be and often are forced out of business.

By offering such a good product to the public the dairy industry as a whole, and the market milk man in particular, are performing a wonderful service to humanity. In this, as in any other field of endeavor, the idea of service should be uppermost and remuneration so feverishly sought after by some will come as a natural reward. Volumes have written on the service rendered to man by religious wor but much remains to be said of the invaluable work done humanity by the vendors of the product of the "Foster Mo of the World." It is only by having a product of fine qu that the dairyman can truly say that the cow is the fo mother of the world. Only by establishing and adherin strictly high standards can the ideal be approached. W the standards set must never be lowered, the milkman never cease to strive for a better product, since no one ever be sure that perfection has ever been reached in matter.

As a natural result of close inspection of the milk, sound business methods and plenty of the never-say-die s the dairyman will succeed. The public demands a good p uct, and the distributor who supplies it will make a profit, and at the same time know that he is making a tribution of inestimable value to the health of mankind.

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DO WE USE THE AVAILABLE TOOLS?

Whenever dairy inspectors get together it is q common to hear discussions of inadequate laws, fa legal machinery, lack of sufficient funds and persor and other handicaps of inspection work. This is perf ly proper, for such an exchange of ideas may lea ways and means of improving conditions. But it is fortunate if anyone allows himself to be so discoura by such obstacles that he feels that little can be don secure a better milk supply.

In the same way, we are prone to discuss at le minor points and hair-splitting technicalities. The justment of these fine details is extremely desirabl order that our thought and technique may be stand ized along definite lines. With it all, however, we keep a clear conception of relative proportions and goal for which we are aiming.

Primitive man had crude tools, yet he fashioned himself necessities and conveniences that were a dis advance over previous experience. The modren saw livers a square, true timber; but many buildings st ing today bear, on their beams, the mark of the fashioned broadax.

The foregoing lines should not be considered as a for old-fashioned equipment and methods. Added kn edge is necessary for progress, but advancement is s times slow. The vital thought is that much can b complished if the will drives the instrument. Many have vastly improved their milk supplies through patient, untiring efforts of faithful inspectors, who used wisely the tools at their command.

Do we need a new tool? Very well. Let us tr get it, but in the meantime let us use to advantage to that we possess. The dairy inspector's tool-kit sh contain many implements, some of new device and as old as the saw and the mallet. Patience, courage common sense are not new tools; but their careful accomplishes wonders.

Doubt is an attribute of scientific advance. If w satisfied with known facts, new discoveries would be made so often. Doubt which only tears down e lished principles is futile; that which leads to inte thought is useful. It is a good rule to cling to a u tool and use it with energy until a new and better o evolved.—Bureau of Dairy Industry, U. S. Depart of Agriculture.

GRIDLEY
DAIRY CO.
REFRIGERATED
TRANSPORTATION

Fruehauf Trailers are used by the Gridley Dairy Co., of Milwaukee, to increase the efficiency and substantially cut the costs of Milk transportation.

Fruehauf Trailers

and the low-cost haulage of Milk

"Less labor and more profit" is the keynote of Fruehauf Trailer performance in the haulage of Milk throughout the country. Trailer Tanks, Refrigerator Trailers, Trailers with stake-and-rack bodies—all contributing substantially to greater efficiency and lower costs!

CLOSE COOPERATION

Fruehauf engineers for years have worked shoulder to shoulder with men of long training in the transportation of Milk. Time after time we have built Trailer equipment to meet the precise haulage requirements of certain Milk distributors—and out of this wide experience has come an understanding and appreciation of fundamental factors in low-cost hauling.

If you are not hauling Milk on Trailers at this time, the use of Fruehauf Trailers will result in immediate and tremendous savings over your present haulage costs! May we prove this statement — without obligating you in any way?

Pioneer Builders of Semi-Trailers, Four-Wheel Trailers and Adjustable Pole Trailers.

BACKED BY 35 YEARS' EXPERIENCE

FRUEHAUF TRAILER COMPANY

BRANCHES AND DISTRIBUTORS IN ALL PRINCIPAL CITIES

0942 Harper Avenue
Detroit, Michigan

A Couple of Suggestions From Colorado

How a Denver Milk Dealer Looks After the Customer Who Changes Address. A Boulder Milk Dealer Dresses His Girl Employees in Lavender

By WILLIS H. PARKER

IT TAKES a mighty early bird to beat a milkman on the job and perhaps that is one of the reasons why C. G. Beardsley, superintendent of sales and distribution of the Windsor Farm Dairy, Denver, Colo., compares good salesmen to the early birds, for the first gets the business and the latter gets the worm—both profitable, according to the point of view. He was referring to the constant watchfulness of the salesmen toward the empty houses. He cautions his men to watch all the empty houses all of the time, and the moment one shows signs of life, to leave a sample of milk and a milk card.

In the large city, there generally is confusion at moving time in the regularity with which certain supplies, such as milk, are transferred from one address to another. With milk, there generally is a lapse of a day or two before the schedules get down to normal and during that time the customer must buy milk elsewhere—the neighborhood store or some dairyman who chances by during the day time. In other words the person handling milk at the psychological moment will get some business then and perhaps all the business henceforth.

Thus, the milk distributor who is watching the empty houses and notes activity some morning in one or more of them, leaves a sample bottle of milk (free of charge) and a card, not only stands a chance of getting the business henceforth, but also supplies a need at a critical moment. Perhaps the tenant notified his previous milk man to leave milk at the new address but there is a hitch somewhere in the machinery and the order doesn't get to the man on the route, which includes the new address, and the customer looks in vain the next morning for the familiar bottle of milk from his regular dairy. If a Windsor salesman leaves a bottle without an order, certainly the customer may have excuse to feel disappointed in his old dairyman and the resentment justifies a change in dairies.

On the other hand, there is a chance that the newcomer on the route is a regular Windsor dairy customer and the driver on the old territory was not notified of the proposed change of address soon enough to permit him to notify the driver on the new territory of an addition to his list of customers. Certainly good will is gained by taking care of the newcomer's milk needs without a break in the schedules.

In this connection the company has a very strong rule relative to reporting new customers, quits and transfers. This instruction is given each salesman:

"If you know of any prospects moving in on someone's route, report them to the salesman direct, or to the office, so that they may receive proper attention. Be sure and make your transfers promptly so that your competitor won't beat you to it. Call and see your quits personally on the same day they quit. Turn in your quit cards and new customer cards promptly, so that they may be called on by the representative from the office."

It costs money to obtain new customers and since there are hundreds of families in every city of any size, changing addresses every month, a dairy company cannot afford to permit a competitor to slip in at the time the moves are made, and get the business, because recognizes the need of the product at that particu time—a time when the regular dairyman has failed keep the faith and deliver the goods at the new locati

Lavender Smocks and Cottage Cheese.

Lots of folks make successes because they do thi according to the most approved methods. The Wat- Hardy Dairy Company of Boulder, Colo., are succeedi apparently because they are following the idea of doi things a little bit differently than others. This is pecially true in connection with the uniforms worn the girls who work in the offices and behind the counte waiting on the customers.

Where the generally accepted idea is to garb girls in pure white and starched uniforms, the Wat- Hardy Company prescribes lavender smocks, which th furnish the girls in the same manner that other dair furnish their girls with white dresses.

A rather unusual idea and yet how effective!

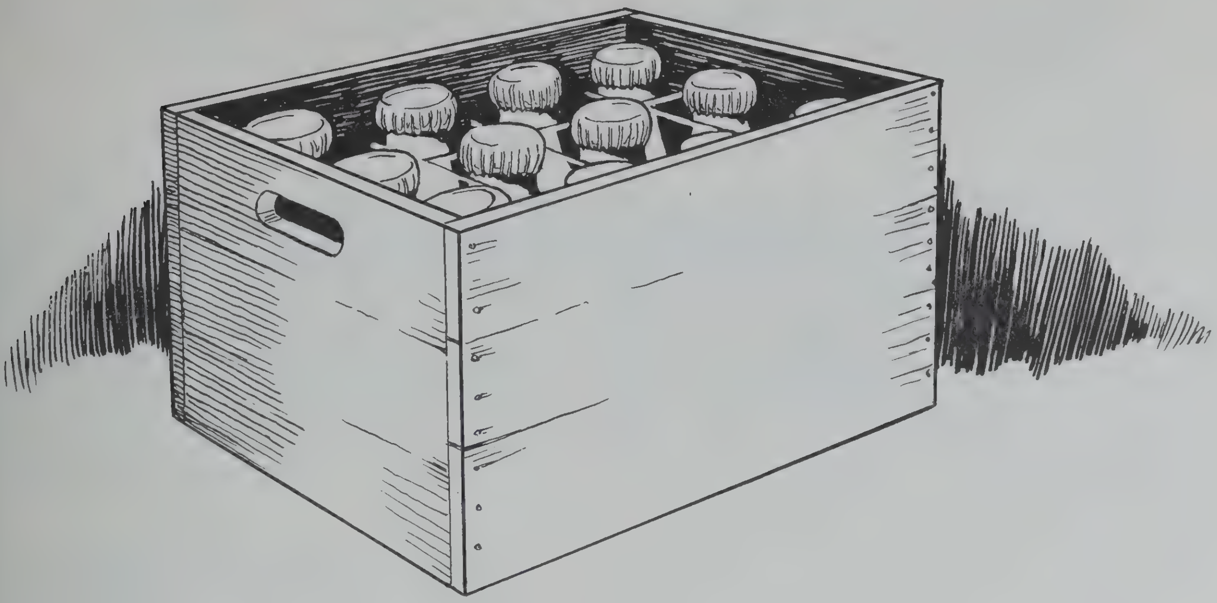
Attractive looking girls to wait on the trade are sets rather than liabilities and the color of a woma dress has much to do with how well she looks. So women cannot wear white, some cannot wear black, green, but it is widely known in style circles that th is one shade of lavender—orchid—that any woman c wear. The blonde or the brunette look equally well, not better, in orchid than in many other colors. The haired girl looks prettier, the black haired girl lo just as good and so does the maiden with perox tresses or golden locks. Lavender and yellow are r tones, and, on the left side and near the shoulder, embroidered in yellow silk, the company's monogram—W.H.—just enough fanciness to take away the sever of the smock lines.

So much for the appearances of the girls themsel—actually some of them look better in this costume th they do in the gowns they wear to and from their w but which are concealed under the smock. Now for general color scheme in the sales rooms as effected the lavender attired girls and the woodwork and m-chandise.

The woodwork is white, an appropriate color fo dairy sales room. The merchandise—milk in bott cottage cheese—is white. It takes very little imagi-tion to understand how well lavender and white h-monize. Then the butter—yellow—yellow and laven are royal colors.

The average well decorated dairy shop is a cold lo-ing place for everything is white. The idea is to p-mote the feeling of cleanliness. We wonder, sometim if it isn't possible for our dairy concerns to put a to of warmness in their decorations and still not detr from the general cleanly appearance of the sho Watts-Hardy is doing this very thing by breaking monotony of the pure white with the warmth of co given the place by the lavender attired girls.

Anyway it's different from what most dairy sh have and customers have remarked about it, accord to Fred C. Watts, one of the proprietors.



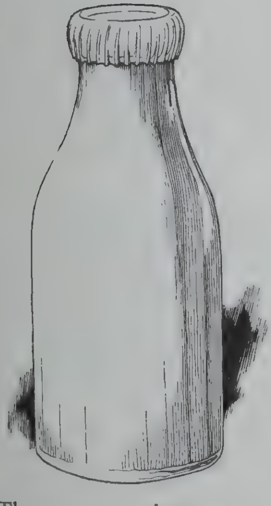
Seal those bottles!

EVERY bottle of milk delivered to the consumer is a potential breeding ground for disease—unless it is really sealed. And only one cover made is an effective and sanitary seal.

The Westlake Sanative Seal, of five-ply spruce paper, is moulded tightly over the lip of the bottle forming an air-tight, water-proof seal which completely protects the customer against contamination from unclean hands, or dirty ice.

It cannot be knocked off or jarred loose in handling, but by a simple turning and lifting movement may be removed and replaced as a dust cover yet cannot be retightened and used as a seal again. This insures the customer against any tampering without instant detection.

Send for complete descriptive bulletin and prices.



There are no wires, or any other equipment of any kind required to keep the Westlake Sanative Seal in place on the bottle. Consequently it is the easiest to apply and the simplest to remove of any cover made.

The Lakewest Corporation
Division of
American Machine & Foundry Co.
5502-5520 Second Avenue BROOKLYN, N. Y.

Paducah Entertains Association

Meetings in Blue Grass State Well Attended to Celebrate Third Anniversary

THE Dairy Products Association of Kentucky cut its "three candle power birthday cake" at the Lake View Country Club, Paducah, November 18, with quail for dinner at the club and duck for supper at the Palmer House. Charles G. Vahlkamp of the association was the unsurpassed host of the day.

The Kentucky association has carried the reputation of having conventions that have meant something in its short career, and the meetings that were held this year, at Paducah, were sufficient evidence to prove that despite the many wonderful things that have been said of the association and the men behind it, there has been no over-rating of them. The meetings which were largely attended were splendid tributes to Mr. Vahlkamp, president of the association, and Carlton Ball, its secretary. To these men, not enough credit can be given for the advancement of dairying in the blue grass state; for they have worked untiringly to put the dairy industries on a firm footing.

Attracts Large Representation.

Not only did the convention attract a large attendance of loyal Kentucky dairy boosters, but a large representation from other states were also present. Indiana, Illinois, Ohio and Tennessee sent large delegations and were very much in evidence during the progress of the convention. Included in the list of guests were: D. P. Adams, Tennessee state dairy commissioner, and H. C. Horneman, chairman of the National Butter Educational and Publicity Campaign.

An invitation was extended by J. O. Barkmen, acting head of the dairy department of the University of Kentucky, to hold the next general meeting in Lexington on January 27, in conjunction with the Annual Farm and Home Convention. The invitation was accepted and inasmuch as the Ohio Dairy Products Association will hold its annual convention in Cincinnati, January 25-26, it was planned to send a good representation from the Kentucky association to Cincinnati to bring the Ohioans on to Lexington for the meeting.

The meetings were especially well attended. The morning was devoted to a general session and a meeting of the board of directors. It was during the morning session that the joint meeting aimed at the existing motor vehicle tax in the state. A motion that was unanimously carried instructed Carlton Ball, general secretary of the association, to advise the governor of Kentucky that the association was opposed to the existing Kentucky Motor Truck Law, as it applies to the taxing of commercial trucks engaged in the transportation of inter-state freight.

Sectional Meetings.

The afternoon was given over to the meetings of the various sections of the association. On the whole, the milk dealers had an excellent meeting. They discussed several subjects of concern to their welfare in a general way, although no specific plans were adopted.

Ice cream manufacturers discussed, at length, the new codification of state rules and regulations pertaining principally to the retailers of ice cream.

Creamerymen in session rejuvenated the idea of uniform cream grading and a committee was appointed to devise such plans for consideration at the next meeting. Recommendations were also made in regard to the super-
vision of cream station advertising. The cream c
ments committee was continued indefinitely and arran
ments made whereby the creameries of Tennessee
secure this literature through the Kentucky associat

Before closing, the assembled convention went
record as giving their appreciation to Mr. Vahlkamp
the excellent and untiring work that he has done
promoting the interests of the Dairy Products Asso
tion of Kentucky. A further mark of appreciation
tendered to Mr. Vahlkamp in the form of a Gladst
bag, bearing the good wishes of the association.

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CLEVELAND GETS NEXT EXPOSITION.

With invitations from eight cities extended to th
the executive committee which met to decide the pl
of the next Dairy Industries Exposition agreed u
Cleveland as the most suitable for the 1927 exhi
Other cities asking for the next exposition were:
troit, Atlantic City, Philadelphia, Minneapolis and
Paul, Columbus and Kansas City.

In deciding on Cleveland, it was pointed out t
Cleveland has ample room for housing the gigantic
position in their huge Public Auditorium and an
This space, it is said, is at least equal to the space t
was available in Detroit, and that the Auditoriun
within a short distince from the down town hotel cen

In making the selection, the officers and other re
sentatives of the International Association of M
Dealers and of the National Association of Ice Cr
Manufacturers were invited to attend the meeting of
executive committee of the Dairy and Ice Cream
chinery and Supplies Association to decide on the
for the the next exposition. As yet, no definite d
have been chosen for the event, but according to in
mation, a temporary two weeks protection period
been fixed.

No specific vote was taken on Kansas City and
Paul and Minneapolis, inasmuch as their geograph
location was somewhat against them, and as no comp
exmination as to their facilities had been made. H
ever, a final vote and a complete examination wil
taken for future consideration. Philadelphia was
carded because of the impossibility for the city's re
sentatives to enter into an immediate building lease.

Of the remaining cities, Cleveland was selected
cause of show and hotel conditions, and because of
"economic relation of the Dairy Industries Exposi
to the dairy products manufacturing industries."

Dates for the exposition will be fixed when it
comes known what the convention plans and desires
of the major dairy products manufacturers' associati

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NEW USE OF MILK DEALER.

Mr. Boyd, manager of Kankakee Pure Milk Co.,
month cuts out the cover of the copies of the reg
monthly Milk Dealer and puts it up in a special fr
which he has prepared for it right at the end of
customers extra call counter. He has had many
tomer comments on the attractive cover plates—w
serves as a plant milk poster.

Resisting the Tide

The average business lasts less than ten years. During a period of ten years, any business will have become either a success or a failure.

The **Case Plan** has not only weathered the storm of competition, but also the more formidable opposition of skepticism, and is now entering its twelfth year.

During this time such companies as the following have not only adopted the **Case Plan** as standard equipment, but nearly all are as enthusiastic now, after years of experience, as when first the Plan was installed:

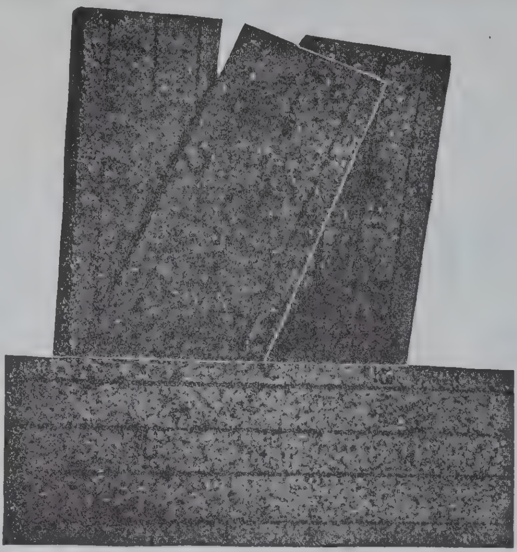
Abbott Alderney Dairies, Philadelphia, Pa.
Belle Isle Creamery, Detroit, Mich.
D. H. Ewing's Sons, Louisville, Ky.
Pevely Dairy, St. Louis, Mo.
Risdon Creamery, Detroit, Mich.
Scott-Powell Dairies, Philadelphia, Pa.
St. Louis Dairy Co., St. Louis, Mo.
Trapp Bros. Dairy, Milwaukee, Wis.
Western Maryland Dairy, Baltimore, Md.
Whiting Milk Companies, Boston, Mass.

While the above list represents only ten of over fifty successful contracts, yet the prominence of these organizations, and the fact that the **Case Plan** is their vehicle for sales development, should cause one to pause before treating this Plan lightly.

Mr. Milkdealer, how can you resist the battery of such organizations as are listed above? Do you consider your judgment better than theirs?

Can You Resist this Tide of Opinion?

MAXWELL CASE
" " *Milk Sales Promotion* " "
NEW ROCHELLE, NEW YORK



The Best Insulator

Authorities now agree on the supremacy of Pure Baked Cork Board for cold storage insulation purposes, and

PURE BAKED CORK

for cold pipe lines.

Substitutes have been tried and have failed.

For high grade corkboard, second to none in quality, always specify

Mundet Jointite Cork Board TRADE MARK

Our organization of trained engineers throughout the United States will gladly help with your insulation problems without the least obligation.

L. MUNDET & SON, Inc.
Hillside - New Jersey
Established 1865
New York Office: 461 Eighth Ave.

Also Manufacturers of Jointite Pure Cork Sectional Pipe Covering and Moulded Fitting Covers.

SCOPE OF WORK OF REFRIGERATING ASSOCIATION.

By F. B. Fulmer.

The seventh annual convention of the National A ciation of Practical Refrigerating Engineers held Kansas City, Mo., was a successful meeting from ev point of view.

As the name implies, the membership of the organ tion is composed largely of the actual operating gineers. The organization had its inception from a operating engineers of ice plants in the southwest, m ing together to relate experiences, discuss methods improvement and to co-operate with each other in creasing the efficiency of their respective plants. La as the organization began to grow and branch out membership began to increase from engineers of stor plants and the dairy industry.

Refrigeration classed as an industry is making rapid strides and its scope of application is ever seek new fields, so that at present refrigeration is used some form in 227 lines of commercial business.

The organization is purely an educational one, for the past few years has been supplying its mem with printed lectures in bulletin form for study. course of lectures has proved to be very instructive, it is reported that the subject matter contained in lectures has received very favorable consideration fr public institutions where mechanical refrigeration being taught.

There is a large exhibit of refrigeration applia at each convention and the proceeds derived from sale of exhibit space is converted into the educati fund which in turn supports the cost of printing lectures and monthly bulletins sent to the members is reported that approximately $7,000 was derived fr exhibit space at the convention recently held in Ka City. It is understood that the officials in charge planning for a large educational program for 1927.

Where there are several refrigerating engineer one city or locality, they form a local branch of the tional organization and are known as a "chapt Where an engineer is operating in an isolated plan can become a "member-at-large"—paying the same and receiving the same printed matter as the cha member. The general office of the organization i located at 5707 W. Lake St., Chicago.

As refrigeration is one of the foundation stone the dairy industry it is quite apparent that the engine of creameries, ice cream and milk plants should b interested in this fast growing organization as man their problems will, undoubtedly, be dealt with in forthcoming literature. Many of the engineers known to the dairy industry are now members and of the past national presidents is the chief engine a large creamery concern.

The papers presented at the last convention largely dealt with the questions involved in the efficient operation of refrigeration plants. The national convention will be held in San Francisco time in the fall of 1927—this being the first time national meeting has gone to the Pacific Coast.

MILK PRICES IN GREAT BRITAIN.

According to a report by Consul Maurice L. Staf made public by the Department of Commerce, the manent Joint Milk Committee of Producers and Dis utors of Great Britain has set milk prices for the pe October to March, at 16½ pence (33 cents) per g (the British imperial gallon is approximately 20 per larger than the American gallon), and for April to tember, inclusive, at 12 pence (24 cents) per gallon.

Cosco

Cosco Bacteria Exterminator

For All Sterilizing, Disinfecting
and Cleansing in
The Dairy, Creamery,
Milk Bottling Plant,
and Ice Cream Factory

Bacteria

*A Positive
Germ Destroyer
Leaves No Odor
Is Tasteless*

Xterminator

Its Unusual Strength
Requiring Only
Minimum Quantities
Makes It The Most
Economical Cleanser
Offered

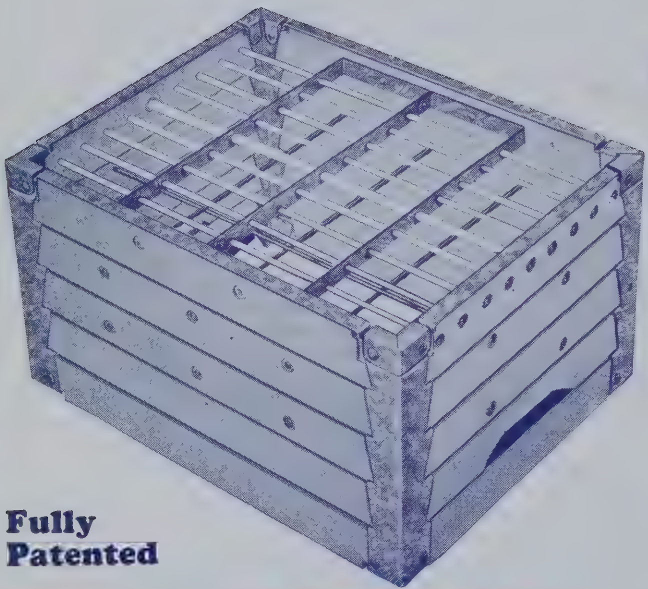
SETHNESS COMPANY

CHICAGO
659 Hobbie St.

NEW YORK
1133 Broadway

Sethness, Chicago.
Send Trial Callon C-B-X ☐
Send Particulars on C-B-X ☐
Name..........
Street..........
Town..........
State.......... M.-D.

Why is it



Fully Patented

Beware of Imitations

The "Woolsey" is the only Wire Laced Bottle Crate on the market

The Jobbers and Makers of Woolsey Crates extend their sincerest wishes for a Joyful Xmas and a Prosperous New Year.

The Northwestern Collapsible Carrier C

Ask These Jobbers:

A. H. Barber-Goodhue Co.,
Chicago, Ill.—St. Paul, Minn.
Indianapolis, Ind.

N. A. Kennedy Supply Co.,
Kansas City, Mo.
Oklahoma City, Okla.

Meyer-Blanke Co.,
St. Louis, Mo.
Birmingham, Ala.
Dallas, Tex.

Oliver M. Dean & Sons,
Worcester, Mass.

Beatrice Supply Co.,
Denv

Ohio Creamery Suppl
Clevela

Harry N. Glynne Co.,
New Have

Why— is the Woolsey Bottle Crate being so widely imitated?
is it, that you are offered something "just as good?"

Hard headed business reasoning establishes the act that milk dealers get greatest value in wear nd bottle preservation from

The RESILIENT

WOOLSEY BOTTLE CRATE

n bottle crates, like in every other commercial bject, only **GREATEST VALUE FOR THE MONEY** vill attract permanent users.

xperienced bottle case buyers have long since ceased experienting.

hey made a thorough test of Woolsey Crates.

hey learned to their satisfaction what the Woolsey Wire Lace nd Unit Slat Construction means to their costs for bottle crates nd bottles.

re not the findings of so many successful milk plant operators fficient reasons for you to

emand Woolsey Bottle Crates

e only and original Wire Laced unit slat constructed crate?

0 Talmadge Ave., S. E.,
MINNEAPOLIS, MINN.

1821 Callowhill Street,
PHILADELPHIA, PA.

mmond, Ltd., Toronto, Canada
& Parsons Co., ty. Ia.—Omaha, Neb.
ll Co., Great Falls, Mont.

N. W. Creamery & Dairy Supply Co., Seattle, Wash.
T. C. Power Co., Helena, Mont.

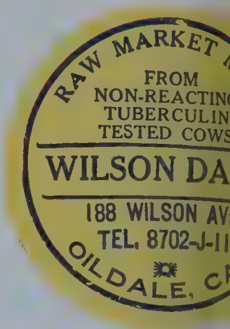
Oakes & Burger Co., Cattaraugus, N. Y. Erie, Pa.
Phoenix Seed & Feed Co., Phoenix, Ariz.

Geo. W. Prising Co., Inc., San Francisco, Calif.
Warr Supply Co., Los Angeles, Calif.

FREEMAN DAIRY
PURE
FRESH
MILK
MORAN, TEXAS

ROBERT HALL
GRADE
A
14 SENECA ST.

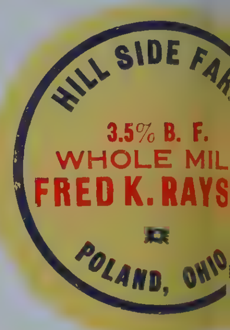
JOE GRAY'S DAIRY
GRADE B
RAW MILK
PHONE 1204W
JERSEY MILK


RAW MARKET
FROM
NON-REACTIN
TUBERCULIN
TESTED COWS
WILSON DA
188 WILSON AV
TEL. 8702-J-1
OILDALE, C

T. P. HEREFORD
SPECIAL RAW MILK
SAFETY
FIRST
WEDNESDAY
POWDERLY, ALA. PERMIT NO. 36

COLUMBUS
PASTEURIZED AND CLARIFIED MILK
Jersey Maid
DAIRY PRODUCTS
PHONE 741
CO-OPERATIVE CREAMERY CO.

Chapman Dairy
DOUBLE CREAM
Wichita Falls


HILL SIDE FA
3.5% B. F.
WHOLE MIL
FRED K. RAYS
POLAND, OHIO

RIVERSIDE DAIRY
PHONE 70
TUBERCULIN TESTED

PORTLAND DAMASCUS MILK CO.
DAMASCUS
MILK
PERFECTLY PASTEURIZED

The Toledo-Baltim

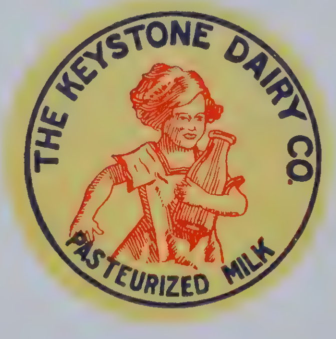
TOLEDO, OHIO

"Qua

Pa

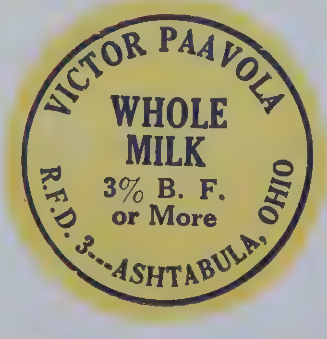
We advertise your business for you

G. K. PHOENIX
TUBERCULIN
TESTED
FILTERED
MILK
CENTRALIA, ILL.


THE KEYSTONE DAIRY CO.
PASTEURIZED MILK

RABE'S DAIRY
PHONE
ELMHURST 26
PASTEURIZED MILK
TUBERCULIN TESTED
ELMHURST, ILL.

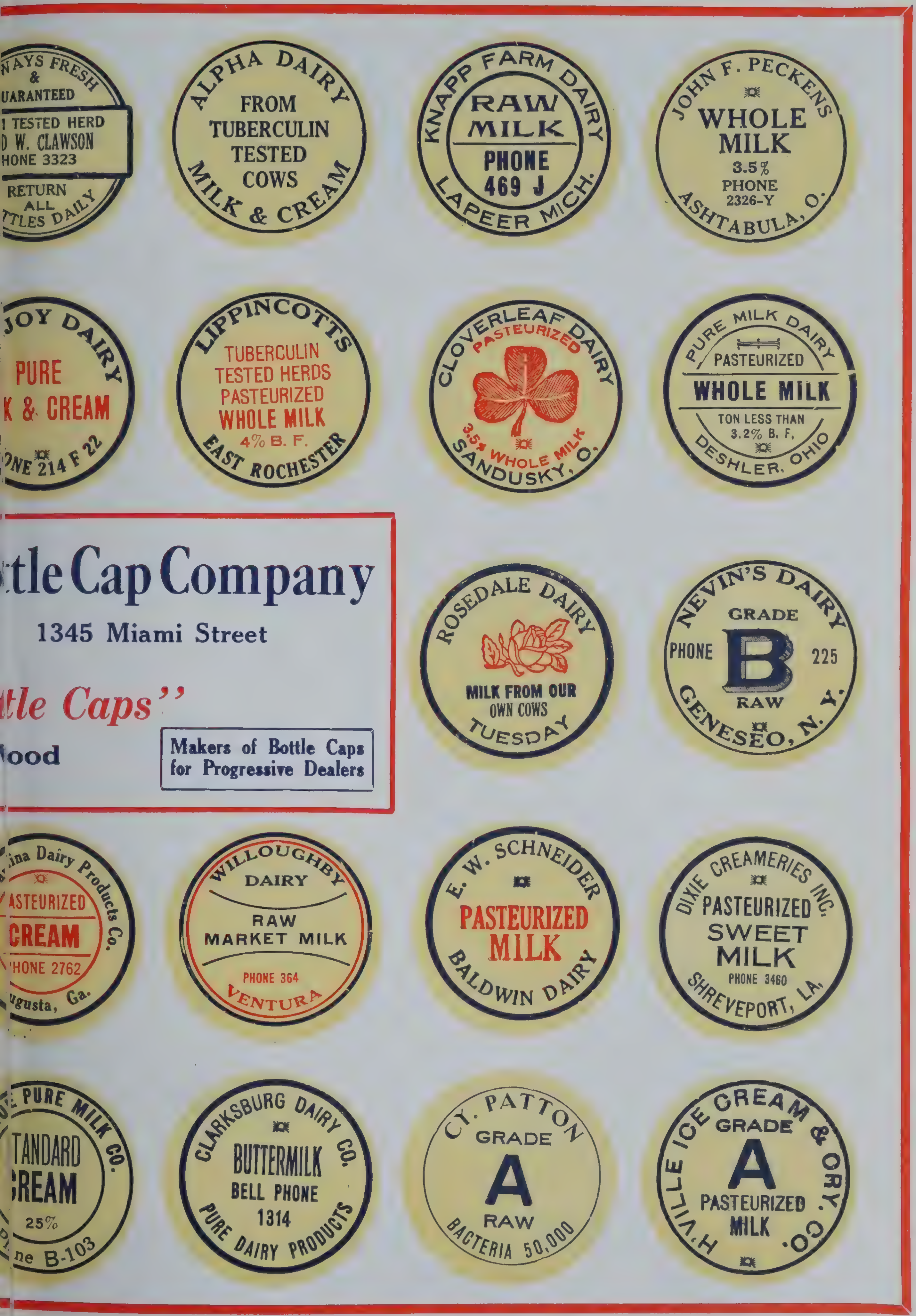
FROMKNECHT & H
T.B.
TESTED
F & H
CREAM
2865 PINE AVE. MU


VICTOR PAAVOLA
WHOLE
MILK
3% B. F.
or More
R.F.D. 3--ASHTABULA, OHIO

KIDDER FARM DAIRY
GRADE
A
RAW MILK
S. P. KIDDER, JAMESTOWN, N. Y.

LECHE PURA DE VACA
SOL. 34
LIC. NO. 59
TEL. 1728
ANTERO RIVERA

PURITY MILK
PASTEURIZE
MARKET
MILK
H. B. RATHBUR



AYS FRESH & UARANTEED 1 TESTED HERD D W. CLAWSON HONE 3323 RETURN ALL TTLES DAILY
ALPHA DAIRY FROM TUBERCULIN TESTED COWS MILK & CREAM
KNAPP FARM DAIRY RAW MILK PHONE 469 J LAPEER MICH.
JOHN F. PECKENS WHOLE MILK 3.5% PHONE 2326-Y ASHTABULA, O.
JOY DAIRY PURE K & CREAM ONE 214 F 22
LIPPINCOTTS TUBERCULIN TESTED HERDS PASTEURIZED WHOLE MILK 4% B. F. EAST ROCHESTER
CLOVERLEAF DAIRY PASTEURIZED 3.5% WHOLE MILK SANDUSKY, O.
PURE MILK DAIRY PASTEURIZED WHOLE MILK TON LESS THAN 3.2% B. F. DESHLER, OHIO
ROSEDALE DAIRY MILK FROM OUR OWN COWS TUESDAY
NEVIN'S DAIRY GRADE PHONE B 225 RAW GENESEO, N. Y.
ina Dairy Products Co. ASTEURIZED CREAM HONE 2762 ugusta, Ga.
WILLOUGHBY DAIRY RAW MARKET MILK PHONE 364 VENTURA
E. W. SCHNEIDER PASTEURIZED MILK BALDWIN DAIRY
DIXIE CREAMERIES INC. PASTEURIZED SWEET MILK PHONE 3460 SHREVEPORT, LA.
PURE MILK CO. TANDARD REAM 25% ne B-103
CLARKSBURG DAIRY CO. BUTTERMILK BELL PHONE 1314 PURE DAIRY PRODUCTS
CY. PATTON GRADE A RAW BACTERIA 50,000
H'VILLE ICE CREAM & CRY. CO. GRADE A PASTEURIZED MILK

tle Cap Company

1345 Miami Street

tle Caps"

ood

Makers of Bottle Caps
for Progressive Dealers

The BEST BULWARK

CLEARNESS
ACCURACY
STRENGTH

ATLANTIC
Milk
Bottles

CLEARNESS

—that the customer may see the quality of milk you are distributing.

ACCURACY

—that the customer may get the amount that he or she buys.

STRENGTH

—that the bottle may last the dealer as long as possible. Bottle loss is one of the milk distributor's problems. Less breakage, less cost.

ATLANTIC BOTTLE CO.

FACTORY: BRACKENRIDGE, PA.

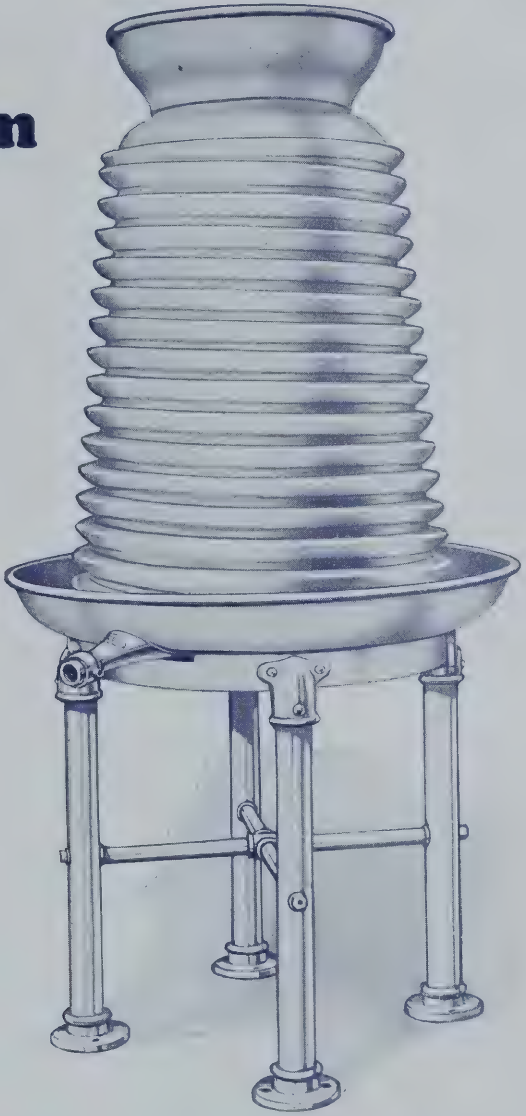
90 W. Broadway, New York **327 S. La Salle St., Chicago**

THE
H·H·MILLER INDUSTRIES CO.
CANTON, OHIO.

Chilly King Milk and Cream Coolers

Unexcelled for the cooling of Fluid Milk, Heavy Cream and Pasteurized or Homogenized Ice Cream Mix.

Made in sizes
1,000 to 10,000
lbs. per hour.



Also manufacturers of MILLER BRINE ICE CREAM FREEZERS, MILLER PASTEURIZERS, AUTOMATIC MILK HOLDING MACHINES, VATS, TANKS, M&M BOTTLE WASHERS, ETC.

Please Ask for Bulletin and Prices

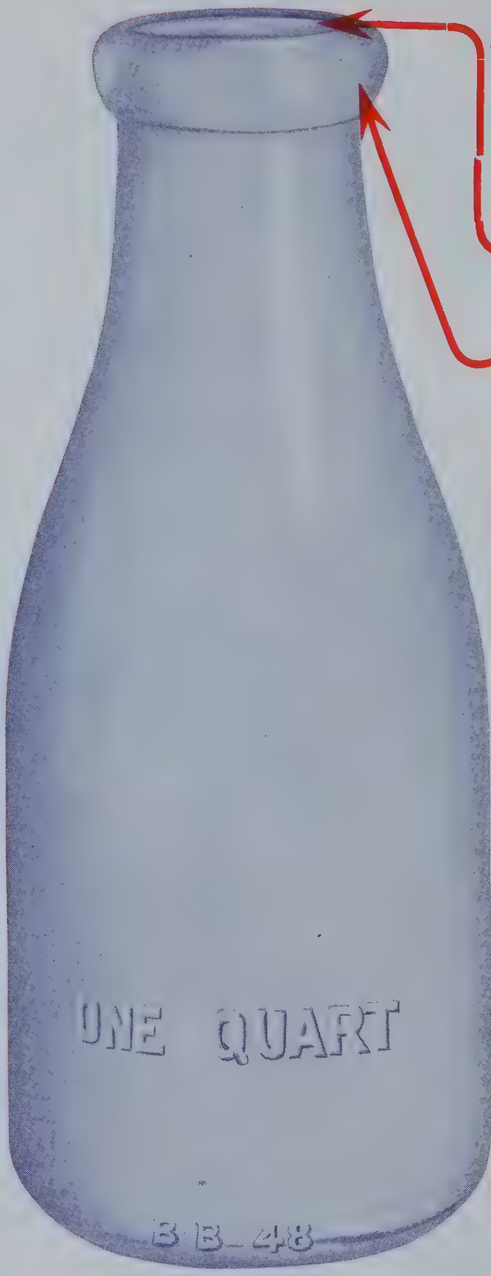
Automatically Processed Milk Bottles of Quality

Our Motto:

Quality

Economy

Dependability



Six Little Details All Big

1. Round cap seats that hold the cap
2. Well formed heads designed to obviate chipping
3. Accuracy in capacity uniformly maintained
4. Glass clear in color
5. Scientifically annealed (tempered) giving maximum strength
6. Grace in design, making a pleasing package

You Want Quality
Let Us Serve You

BERNEY-BOND GLASS COMPANY

Main Office-Factory: CLARION, PENNA.

CHICAGO Representative: A. F. MARTIN, 1654 Cleveland Avenue, Chicago, Ill.
MICHIGAN and OHIO Representative: Lock Box 56, Redford, Mich.
NEW YORK, N. Y., Hudson Terminal Bldg., 50 Church St.
BOSTON, MASS., 170 Summer St.
PHILADELPHIA, PA., Abbott Bldg., Broad and Race Sts.

VERSITY OF ILLINOIS DAIRY MANUFACTURERS' SHORT COURSE.

he annual short course in the manufacture of dairy lucts will be offered by the department of dairy husdry of the University of Illinois beginning January 927, and continuing through January 29, 1927.

he first week of the course will be devoted to butaking, the second week to the handling of milk for milk supply and the last two weeks to the manuire of ice cream and condensed milk.

he subjects, which will be treated in lecture and ratory work, are as follows:

Buttermaking.

uying and grading cream; testing of cream, butter- and butter; preparation of cream for churning; ning; preparation of butter for market; marketing utter; scoring butter; and handling of eggs by neries.

City Milk Supply.

ethods of buying and grading milk; the milk plant atory; processing milk and the effect of plant esses upon quality of milk; standardization of milk cream; whipping of cream and cream plug forma- manufacture of soft cheese; manufacture of fered milk drinks; handling of surplus milk; study of labor costs; cleaning milk plant equipment; and riological control in the milk plant.

Manufacture of Ice Cream and Condensed Milk.

rinciples of condensing; manufacture of sweetened unsweetened condensed milk; milk products used in manufacture of ice cream; preparation of the ice n mix; standardization of ice cream; processing the and freezing ice cream; ice cream defects; the comion of ice cream; the use of stabilizers, fillers and overs; manufacture of fancy ice creams, frappes, ets, and ices; and testing and judging ice cream.

e instruction work will be given in the new Dairy factures Building, which is equipped with new and rn machinery of different types, so that in addition ture and laboratory work in the manufacture of arious dairy products the student will have the opnity to study and become familiar with the operaf several makes and styles of dairy equipment.

is course is planned primarily for those who have ome practical experience in the manufacture of products and, although practical experience is not ed for admission, men who have had this experivill receive the greatest benefit.

e only expense is for board and room while in atnce, as no fees are charged for the course.

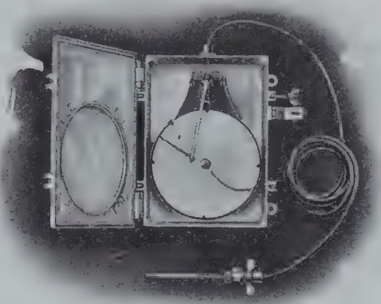
* * *

ISSISSIPPI ICE CREAM SHORT COURSE.

e dairy department at A. & M. College, Miss., will a short course for buttermakers and ice cream s January 24 to 29, 1927. This course is open to xperienced operator.

e program will include lectures and practical work am grading, testing, neutralization, pasteurization, making, control of composition, refrigeration andardzation of the ice cream mix. Special work standardizaton of the ice cream mx will be given nen interested in this particular phase of the work.

arge number of applications have already been re-. Those desiring to enroll should write to the department for application blanks. A five-dollar tory fee will be charged. Meals and room can be d at low cost.



Standardization
— of —
Dairy Equipment

The enviable high degree of efficiency attained by many plants is due largely to the standardization of dairy equipment.

Approved sensitive bulbs and standard sanitary vat fittings for all makes of pasteurizers are included among the many features that recommend

BRISTOL'S
Recording
(Dairy) Thermometers

Other characteristic features of Bristol's Recording Thermometers are the trouble free working mechanism of simple construction, and the direct attachment of penarm to pressure element, insuring an accurate record at all times.

If you did not receive a copy of our latest bulletin at the Dairy Show write us for it now.

The Bristol Company *Waterbury, Connecticut*
FOR 36 YEARS MAKERS OF
BRISTOL'S RECORDING INSTRUMENTS
Ask Any Technical Engineer

BRISTOL'S—The most extensive line of recording instruments, including — Pressure, Liquid Level, Temperature, Electricity, Motion, Speed, Humidity, etc. Ask for our catalogs.

High State of Efficiency in Bowman Plan

New Mayfair Plant of the Bowman Dairy Company, Chicago, Illinois, is the Latest of Several Fine
New Bottling Plants to be Erected in that City. Nothing Left Undone
to Gain Highest Possible Efficiency. Bottling Machines
Run 12 Hours Out of 24.

FIFTY-TWO years ago the founders of the Bowman Dairy Company entered the milk business, and built in that time the large modern milk business that it conducts today. The latest effort of this large organization is evidenced in a new, large, efficient and ultra-sanitary pasteurizing and bottling plant, known as the Mayfair plant. A plant so efficient, so well arranged, having so many interesting, valuable features, that milk dealers in all parts of the country will wish to know about it in detail.

First, to gain an idea of the efficiency of the Mayfair plant of the Bowman Dairy Company, Chicago, it is recorded that the plant is now handling, in its second month of operation, 250,000 pounds of fluid milk in addition to a proportionate quantity of the other products: regular cream and whipping cream; sour cream; buttermilk, and cocoa milk. And this volume of milk is handled by 102 employees. In the words of a prominent advertiser: "There's a reason." And the construction and plan of this plant are the biggest single answer, though, too, loyalty of the employees must be considered, for without their co-operation it could not be done.

The Mayfair Plant.

The plant operates twelve hours every day, that is, the eight bottling machines are filling empties for twelve hours, and, of course, the three washing machines are operating, as well as the pasteurizing equipment, etc. The employees work eight-hour days, except Sundays, when the hours are reduced to six, and are allowed one day off in seven and are given two weeks vacation each year.

Contributing to the efficiency of this newest of the Bowman Dairy Company plants, is the fact that practically all of the equipment used to handle the fluid milk for bottling is laid out on the ground floor. The plant faces toward the west and there is an alleyway on the south. Here it is that the wagons, returning from their daily routes, unload into a series of doors which lead into a room running the entire length of the building. The return cases, with their empty bottles, are taken off the wagons and trucks, put onto conveyors at the windows and roll to the bottle washing machines. Men remove the bottles from the cases, place them into the washing machines and the cases continue their journey, passing through case washing machines, until they meet the bottles again at the filling and capping machines.

We have said the building faces the west and that these unloading windows are on the south. They travel, from the time they are unloaded, directly northw through the bottle washing machines, to the fillers cappers, thence by conveying machinery into the frigerated room running parallel with the receiving r on the south, which is at the north and which is se also by an alleyway and with doors through which wagons are loaded.

Thus, the majority of the bottles and cases sin pass from the south side of the building to the nc where they are stacked and iced and stored until loa onto the route wagons and trucks in the morning, re to be sure, for delivery to the consumer's doorstep.

As for the course of the milk, another item in efficiency of this plant, it is received on the north of the building, practically all of the 250,000 pou coming in refrigerated cars, of which, it is in esting to know, the man Dairy Company o ates a fleet of forty. spur on which these are spotted is elevated so the milk is already a elevation above the gro floor level before unloa

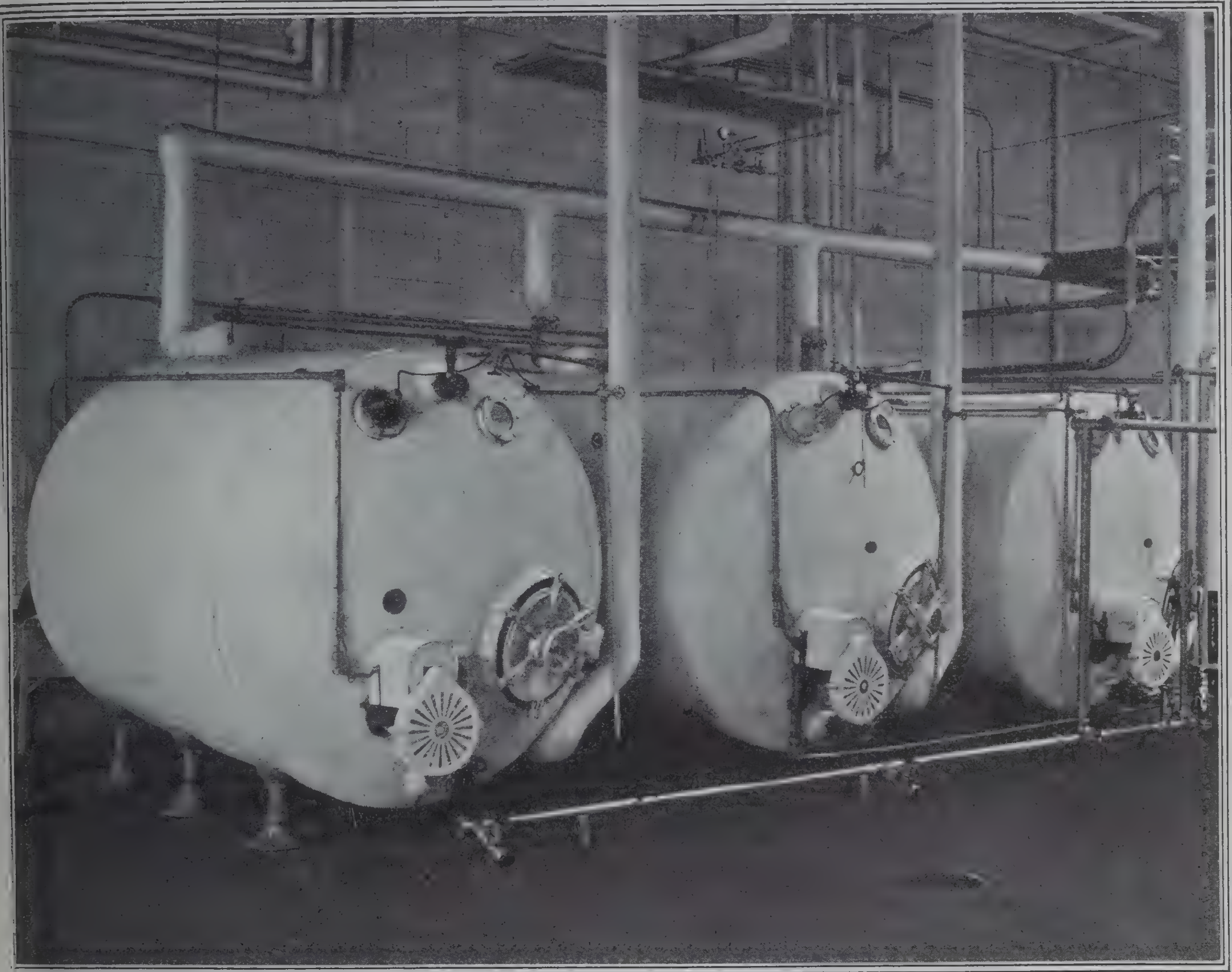
By filtered air pres the milk is condu through sanitary pipe four glass-lined conta tanks, which are situate a balcony above the tling and pasteur room. It flows from container tanks to the distance flow pasteure where it is automati heated, held and coole the exact temperatur quired and then flows t intermediate contai tanks which takes ca the fluctuating reci ments of the bottle fi machines. The milk remains in it for a time and just immed before being bottled. A recording gauge is attach that the amount of milk in this tank may at all tim ascertained as the length of time it remains befor bo tling has some effect upon the cream line, which us of course, at all times be uniform.

There are no further steps to the flow of milk, has been unloaded from the tank cars, been pasteurize and bottled, where it joins the parade of the bottle an cases, from south to north, and finds the ultimat en of all good milk.

Sanitation, which is the omnipresent thought milk dealers, is carefully looked after in the Mayfai plant of the Bowman Dairy Company. The usua pr cautionary measures are observed, or, perhaps it soul be written the unusual, for practically every day this day is following unusual precautions and measure to insure sanitation. There are completely autc

BOWMAN AND PFAUDLER

—Are Both in the Dairy Business to Further the Production of Pure Milk



attery of glass-lined Storage Tanks i he Bowman Dairy Co., Chicago.

℄ The presence of Pfaudler glass-lined equipment in the new Mayfair plant of the Bowman Dairy Co. adds one more name to the already long list of model plants—Pfaudler equipped.

℄ This famous Chicago Company based its purchase largely on the unfailing service which their other Pfaudler equipment had given them in the past.

Pfaudler Wishes You
A MERRY CHRISTMAS
and
A MOST
PROSPEROUS 1927

THE PFAUDLER COMPANY
Dairy Division ROCHESTER, N. Y.

PFAUDLER

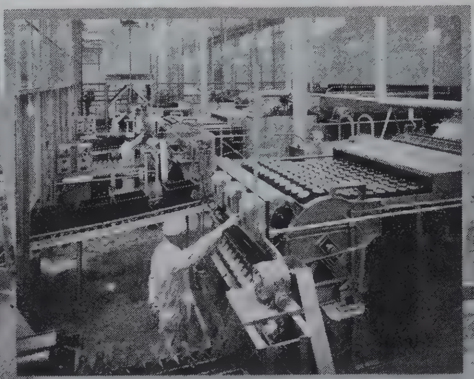
PURER FOODS THROUGH GLASS LINED EQUIPMENT
Pfaudler

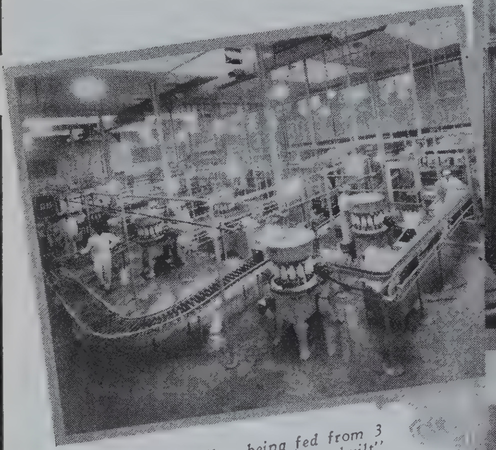
A TYPICAL MEYER INSTALLATION

BOWMAN DAIRY COMPANY

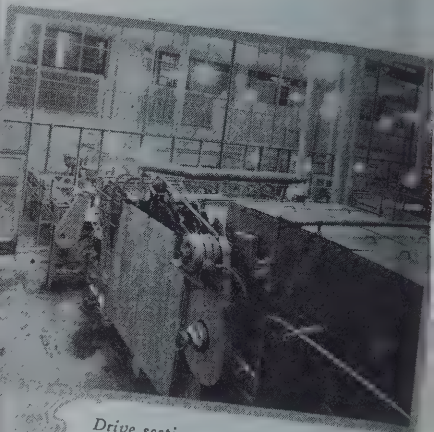
Mayfair Plant *"For 51 Years the Standard of Quality"* **Chicago, Ill.**

Discharge and inspection requires but one operator delivering 120 bottles per minute on each unit.

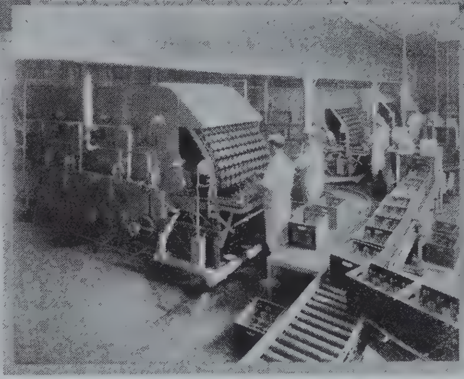




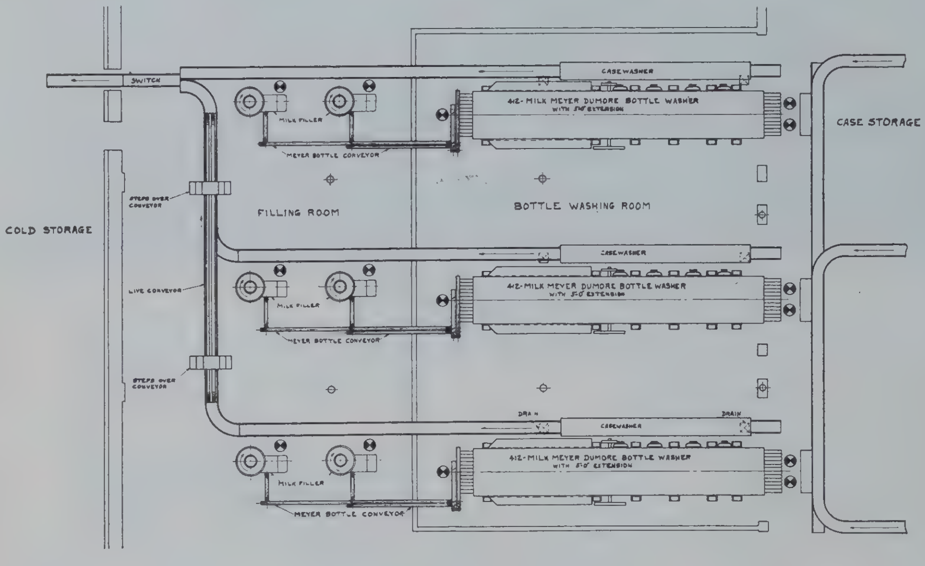
Six Type "L" Fillers being fed from 3 No. 312 Dumores with "Meyerbuilt" conveyor.



Drive section of a Dumore Bottle Cleaner showing a 3 H.P. motor driving entire machine. A ½ H.P. motor drives bottle conveyor.



Showing operators loading 3 120-bottle-per-minute Dumores. Each operator also handles cases.


SWITCH
CASEWASHER
412-MILK MEYER DUMORE BOTTLE WASHER WITH 5'0" EXTENSION
MILK FILLER
MEYER BOTTLE CONVEYOR
CASE STORAGE
STEPS OVER CONVEYOR
FILLING ROOM
BOTTLE WASHING ROOM
COLD STORAGE
LIVE CONVEYOR
DRAIN

Floor Plan of the Bowman Mayfair Plant.

The Mayfair Plant of the Bowman Dairy Company, Chicago, Ill., is the largest and most modern dairy west of New York City. The three Meyer Dumore Bottle Cleaners shown above are the most recent additions to the battery of *nineteen* Dumores purchased by the various Bowman Plants.

The Bowman Dairy Company knows, as all other Dumore users do, that to consistently maintain a high quality product, all equipment must be o the most efficient design.

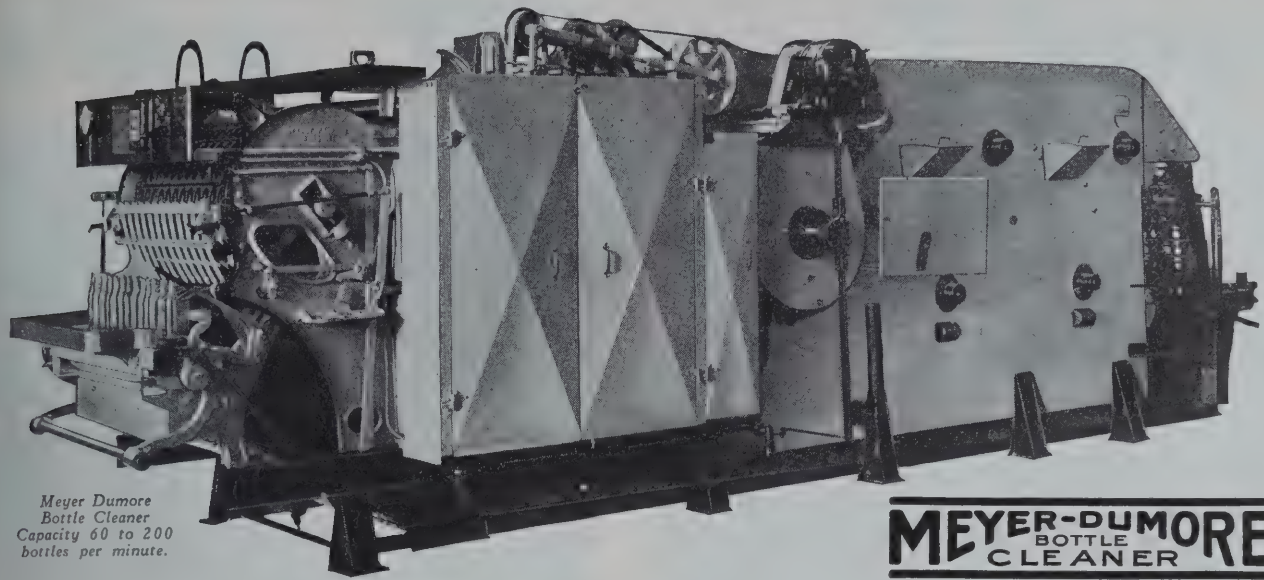
The freshness, richness and purity of Bowman's Milk is safely guarded by Dumore - cleane bottles. In upholding the Bowman slogan, "For 51 Years th Standard of Quality," th Dumore is performing a splendid and highly satisfactory service in every way. Let us sen you bulletins regarding th Dumore and Dumore Junio Bottle Cleaners—the facts mea money to you.

Geo. J. Meyer Manufacturing Co.

Largest Builders of Bottle Cleaning Machinery in the World

569 Barclay Street
MILWAUKEE, WIS.

Offices:
NEW YORK and CHICAGO



Meyer Dumore
Bottle Cleaner
Capacity 60 to 200
bottles per minute.

MEYER-DUMORE BOTTLE CLEANER

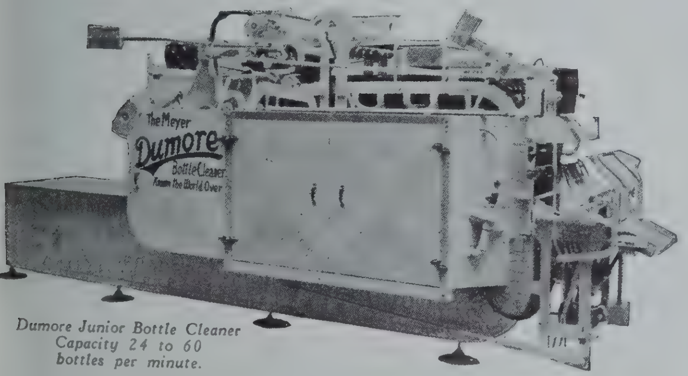
35 Dumores Sold in 25 November Business Days Indicates the Choice of Experts

At the recent Beverage Show held in Buffalo, November 8-12, MEYER DUMORE Bottle Cleaners were again the almost unanimous choice of purchasers buying bottle washers. *17 orders were placed in the five days of the Show!* Our DUMORE sales for the month of November were 35. In October we received orders for 19 machines. During the first nine months of 1926 we received 139 orders, or a total of 193 for the eleven months of 1926.

With December still ahead, this record indicates a 15% greater sales volume than any previous year.

Imitations as usual only emphasize the superiority of the original. The many imitations of MEYER DUMORE Bottle Cleaners in dairies have only increased the popularity of the original.

The Beverage Show was attended almost exclusively by Brewers and Bottlers of Carbonated Beverages. These men are thoroughly familiar with all types of bottle washers. They all start in a small way and have the opportunity to test and judge all makes of machines.



Dumore Junior Bottle Cleaner
Capacity 24 to 60
bottles per minute.

DUMORE-JUNIOR BOTTLE CLEANER

15 machines sold replaced brushless Hydrosoaker type machines.

4 machines replaced Air Brush machines which are being discarded.

2 machines replaced other types of brush washers.

1 machine replaced an imitation machine which has been on the market only a few years.

Geo. J. Meyer Mfg. Co.

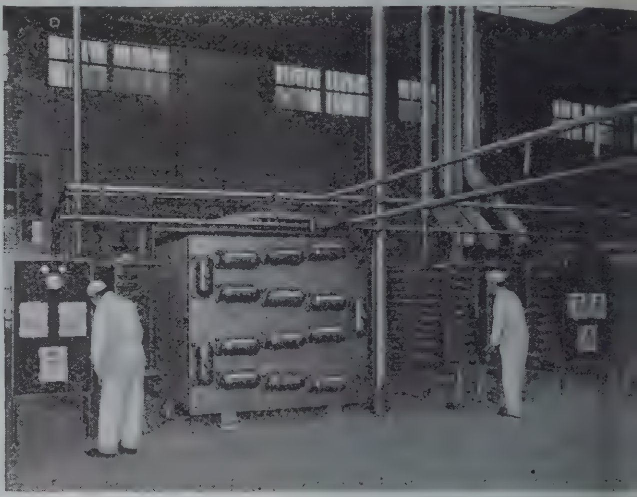
Largest Builders of Bottle Cleaning Machinery in the World

569 Barclay Street
MILWAUKEE, WIS.

Offices:
NEW YORK and CHICAGO

controls on the heating water of the pasteurizers that insure positive circulation of correctly heated medium at all times. In the Mayfair plant there are devices attached to each bottle washing machine which chlorinate the water used in washing the bottles. Despite the fact that Chicago's water supply is chlorinated, this plant takes the extra precaution of re-chlorinating. The devices used on these machines regulate the strength of the chlorination and the bottles, emerging from the

Complete Laboratory.



Pasteurizing System at East End of Main Room.

washing machine not only spotlessly clean, but sanit and sterile, as well.

This is, as we have written, a single story plant. there is a balcony. Visitors to the plant are co fortably taken care of in an attractive lounging room this balcony from which they have a clear, unobstruc view of the bottle washing, pasteurizing and fill operations. This lounge room is enclosed in glass visitors can thus stand and listen to an explanation

View from West End of Main Room, Mayfair Plant, Bowman Dairy, Chicago.

hy Were These Crates Selected

MILK BOTTLE CRATE CO.

As standard equipment in the splendid new *Mayfair Plant* of the Bowman Dairy Company, the story of which appears in this issue?

The reason is because in the minds of the astute management, our crates—100,000 strong—have conclusively proven their superiority.

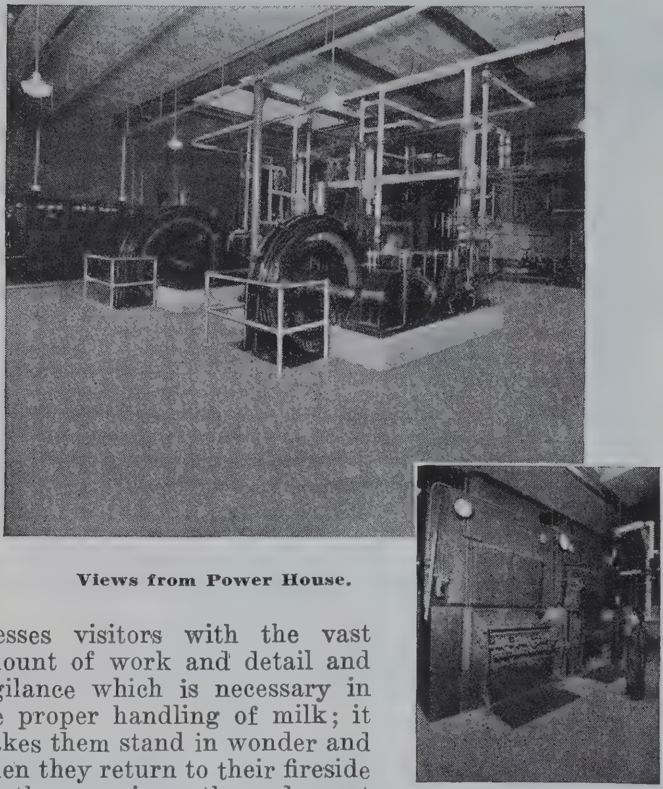
ARE YOU interested in a crate which approaches 100% perfection in both durability and bottle protection? We make it.

An addition to our plant has recently been completed, giving us 25,000 feet of floor space, light and well equipped and practically doubling former manufacturing capacity. We are enabled to offer old customers better service and to take on new business, which, during the past 18 months, we have been forced to decline.

Milk Bottle Crate Company

1543-45 Kingsbury St. · Chicago, Ill.

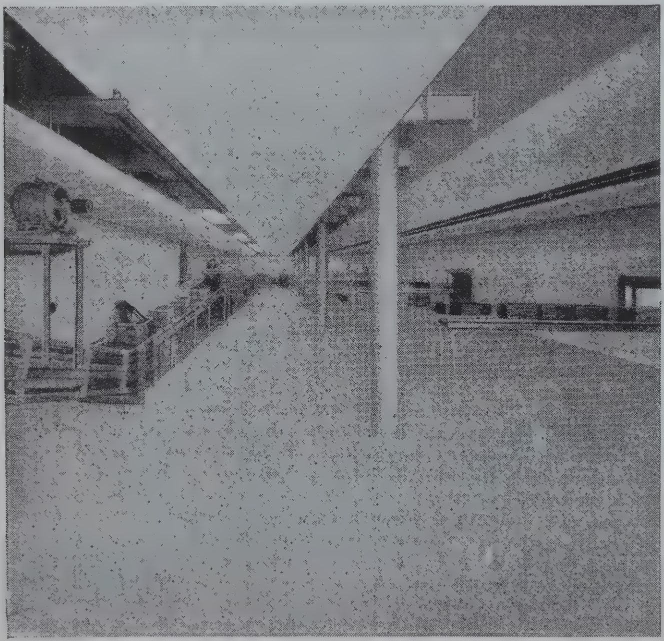
the working of the plant and the various operations without being disturbed or having to strain an ear to hear.



Views from Power House.

This is an advertising feature of much value. It impresses visitors with the vast amount of work and detail and vigilance which is necessary in the proper handling of milk; it makes them stand in wonder and when they return to their fireside in the evening, they do not marvel at the cost of a bottle of milk, or are they very apt to complain about "its high price." Also it "sells" them on the merits of the milk sold by this company, for here they see how everything is clean, how their health, and the health of their babies and children is safeguarded with all possible human caution.

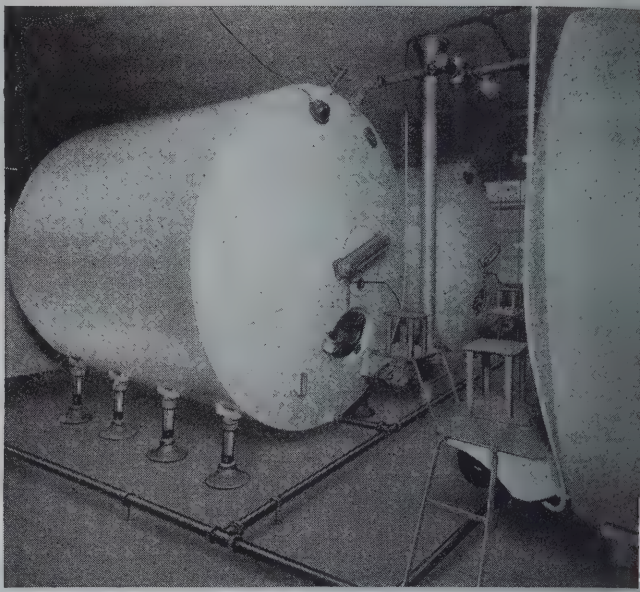
The pipes leading to the pasteurizers, from the boiler and refrigerating units, as well as from the air pumps, are contained in a pipe loft over the ceiling of the large main room. They are, therefore, not visible, but the enclosure is of such size as to permit easy access to them for repair purposes, or cleaning. The usual unsightly maze of piping on the ceiling is thus greatly minimized.



Refrigerated Room for Storing Bottled Milk.

The appearance of the room is thus kept neat and cle

Where does this plant secure its efficiency? H does it differ from most other plants in securing effici operation, at a saving in labor and in time and, sim taneously, in producing the highest possible grade milk? Consider that approximately seventy per cent the bottles and cases are passed directly through t plant from the returning wagons with only one handli and only stored for a comparatively few hours! Th is a big saving here, and a great deal of efficiency.



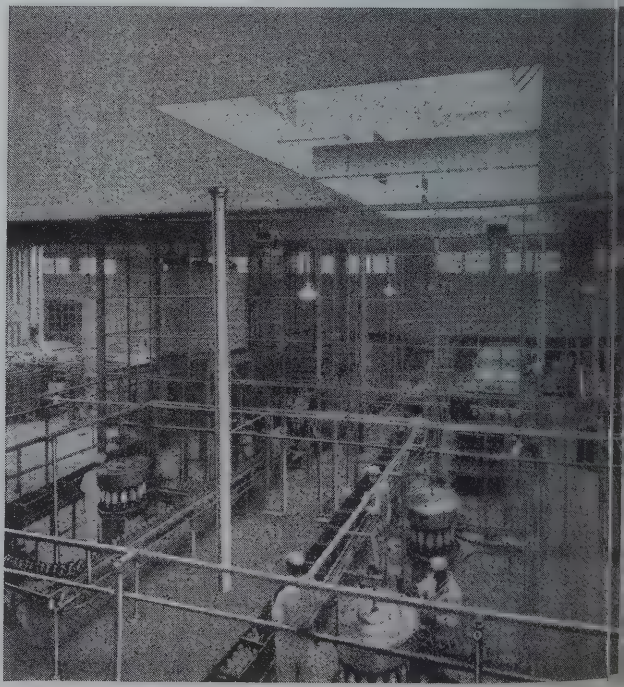
Glass Lined Containers.

Consider, again, that the plant is in operation twelve hours during the day. The machinery and equ ment is working a longer number of hours than prev in many plants, therefore their idle time is less and have found another saving and another step in efficien of this Mayfair plant of the Bowman Dairy Company

And consider, if you will, that there are no stairs climb, that the work is, in the main, confined to ground level floor!

There, we believe, are the reasons for the efficien of this plant.

We have written nothing about the power unit



View from Visitors' Balcony.

EVERY PUMP

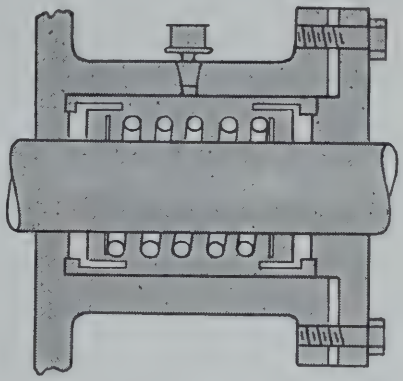
HOT WATER, COLD WATER and BRINE

— IN —

BOWMAN DAIRY CO.'S NEW "MAYFAIR" PLANT
IS FULLY EQUIPPED *with*

Cooke Seal Ring

A Mechanical Device Ending Rotating Shaft Trouble



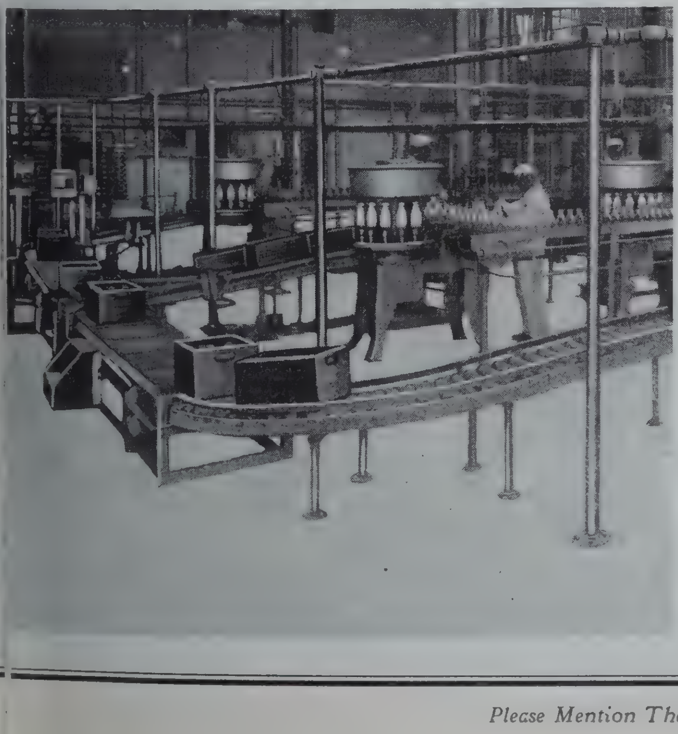
Why do YOU tolerate Leaks, Trouble, Unnecessary Expense, Scored Shafts, Hot Boxes, Shutdowns, Dirt, Motor Overload and Excessive Friction in YOUR Plant when they can be so Simply and Completely ELIMINATED?

Let us PROVE this

Write for circular C. IT ROTATES WITH THE SHAFT **30 N. Green St., CHICAGO**

COOKE SEAL RING

COMPLETE SYSTEM of
Gravity, Belt, Power Roller and Apron CONVEYORS
at new
Bowman Dairy Co. *Mayfair Plant,* Chicago



Designed and Manufactured by

Alvey Manufacturing Company

St. Louis, Mo.

Manufacturers of

AMCO CONVEYORS

of all types.

Specialists in Designing Conveyors for the Dairy Trade

BRANCH OFFICES IN ALL PRINCIPAL CITIES

Bowman Dairy Company
:: *Pasteurizing and Bottling Plant* ::
4127 North Kostner Avenue, Chicago, Ill.

IN this modern plant, the finished cement floors in the Receiving, Cold Storage, Main Bottling, Pump, Vat and Cocoa Rooms were rendered proof against lactic acid by means of the Special Hard-n-tyte Acid-proof Treatment. All other cement floor surfaces were made dense, hard and more resistant to wear by application of standard Hard-n-tyte Surface Treatment. Concrete driveways on the property were likewise hardened with standard Hard-n-tyte Road Treatment.

¶ These are all chemical processes of the General Chemical Co., 40 Rector St., New York, N.Y., and were applied by their authorized sales and contract engineers, W. F. Harvey Sales Company, Chicago, Ill.

L. H. LAMONT & CO.
Electrical Contracting
ENGINEERS
9 So. Clinton St. : Chicago, Ill.

Notice the Electrical Installation in the Bowman Plant.

If your aim is quality your best friend is—

B-K
Bacili-Kil
Trade-Mark

Use B-K in your plant
Recommend it to dairymen

85% of bacteria in milk comes from contact with non-sterile utensils, cans, equipment.

95% of these bacteria can be removed quickly and economically by a B-K rinse.

GENERAL LABORATORIES
Dept. 1■M MADISON, WIS.

the plant. The power plant, and the refrigerating machinery are in a separate building, across the alley wa on the north. They, too, are models of efficiency and a rather unique thing about them is that they are maintained spotlessly clean, as clean as the room which houses the filling and capping machines. There are also a laboratory, a room where the cocoa milk is manufactured and storage rooms for bottles, crates and other items used in the operation and maintenance of a model milk plant.

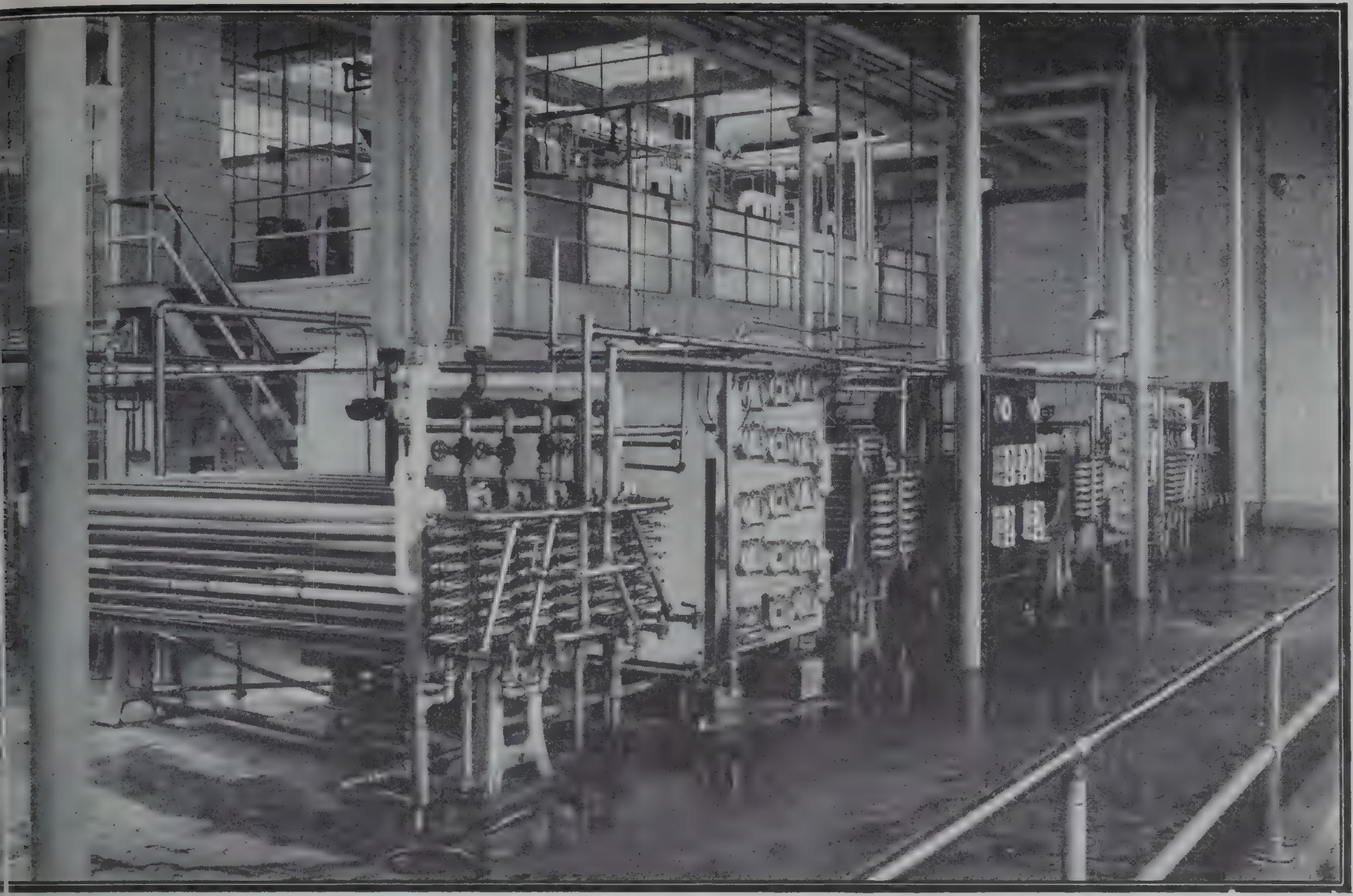
There is an interesting plan behind this plant, which readers will find wort studying in the accompanying drawing. The phot graphs will show how the plant looks and will give tru ideas as to its arrangement. It is so planned that th minimum produces the maximum and, for that reason it will interest and appeal to other milk dealers who ma find in it the idea or plan they have been seeking in co nection with the remodeling of their present plants c in the erection of a new one.

The Mayfair plant of Chicago's largest dairy con pany, the Bowman Dairy Company, is, therefore, pr sented to you at this time. We believe it is worthy your attention. We found it a tribute to the compan and to all those who have been responsible for its plan ning, construction, and methods of handling milk a milk products. Its efficiency is proven by the quantiti of milk handled; but even more so by the fact that t Bowman Dairy Company Mayfair plant is modell similarly to their other city plants, which have been operation sufficiently long to prove their economy and ficiency. When we have written that this type of plant h proved satisfactory to this company, we have said it a

Visitors' Room on Mezzanine Floor.

⁂

You cannot afford to miss a single copy of The M Dealer. Have you sent in your renewal?



—And Now at Mayfair Too!

The Bowman Dairy Company knows milk plant equipment. For several years it has used two 10,000-pound Burrell-Simplex Regenerative Continuous Long Flow Pasteurizing Outfits *complete* at its Chicago State Street plant. They were so satisfactory that the Mayfair plant was equipped with the same type of apparatus.

The Bowman and hundreds of other modern plants use Burrell Pasteurizers because the milk is held *positively* for not less than 30 minutes nor over 35; because there is no loss of temperature during the holding period; because there are no dead ends, pockets or valve mechanisms; because there is no possibility of interleakage of raw and pasteurized milk; because being under pressure from heater to cooler the milk cannot foam in the holder; because the construction of the entire outfit permits sterilizing by steam under pressure; because there is need for only one pump in the entire outfit; because they occupy the smallest floor space per unit capacity; because of simple and inexpensive control devices the outfit can be operated automatically with part of one man's time; because a Burrell-Simplex Internal Tube System heats the milk in less than one minute and cools it in less than three minutes; because the remarkable application of the regenerative principles frequently reduces coal consumption as much as 60 per cent; because *"nothing moves but the milk"*—there is no mechanism and no agitation.

Where the most care is used in the selection of equipment is where most often you find Burrell apparatus. Write us for literature today.

D. H. BURRELL & CO. INC. **LITTLE FALLS, NEW YORK**

TRADE MARK

BURRELL

SIMPLEX

airy Creamery Cheesery and Milk Plant Apparatus

Prof. Burke's Inquiry -:- Department -:-

Correspondence Covering a Variety of Su jects of Interest to Milk Distributors

Dear Sir:—I would like to know if you can tell me how to standardize milk and cream by the point or unit method.

I know how to standardize with skim milk but not with whole milk. Suppose I wanted to make 15 gallons of 35 per cent cream and had to standardize with 3.5 per cent milk and the cream to be standardized tested 50 per cent, how would I figure it out?

I would also like to know where I can buy a good book on standardizing milk and cream.

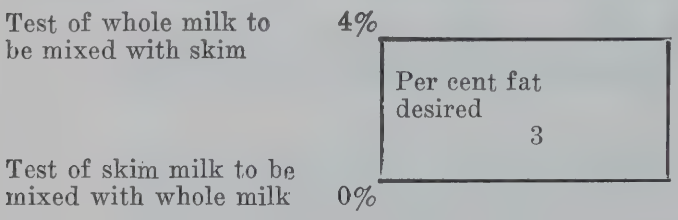
Reply: The method most generally used is that devised by Dr. Pearson, formerly of Cornell University. It is spoken of as the square or rectangle method and eliminates many calculations. For the sake of simplicity I am going to begin with the following problem:

First: How much skim milk and how much 4 per cent milk are necessary to make fifteen gallons of 3 per cent milk?

SOLUTION:

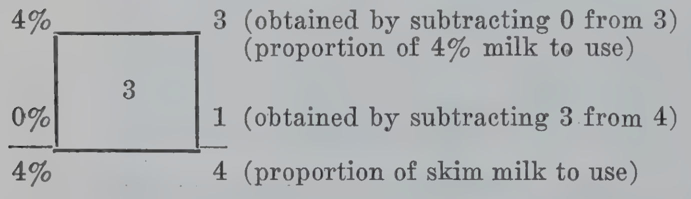
First: Unless otherwise specified, we consider centrifugally separated skim milk as containing no fat, i. e., 0 per cent.

Second: To solve the problem, draw a rectangle and in the center place the percentage of fat desired. In the left hand corners place the percentages of fat in the products on hand, in other words to be mixed. Thus:


Test of whole milk to be mixed with skim
4%
Per cent fat desired
3
Test of skim milk to be mixed with whole milk
0%

Third: Subtract diagonally and thus obtain in either right hand corner a figure representing the proportion of each ingredient to mix with the other.

Thus:


4%
3 (obtained by subtracting 0 from 3)
(proportion of 4% milk to use)
3
0%
1 (obtained by subtracting 3 from 4)
4%
4 (proportion of skim milk to use)

Note: That the smaller is always subtracted from the larger.

As a check to show you have started correctly, note that the difference between the two figures on the left equals 4 the same as the sum of the figures on the right.

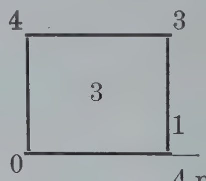
Fourth: The figures on the right of the square indicate the proportion of milk to skim milk that must be used to make three per cent milk. In other words, they must be mixed at the rate of three parts milk to one part of skim milk.

Now if you were to take three gallons of 4% milk and one gallon of skim milk and mix you would obtain four gallons of three per cent milk. However, you desire fifteen gallons. Your fifteen gallons is, therefore, 15÷4 or 3.75 times as great. Therefore, to obtain a total of fifteen gallons we must multiply both three and one by 3.75, thus:

3×3.75=11.25 gallons of 4% milk and 1×3.75=3. gallons skim milk.

11.25+3.75=15 gallons total.

To summarize:



4 parts=15
Then 15÷4×3=11.25
15÷4×1= 3.75

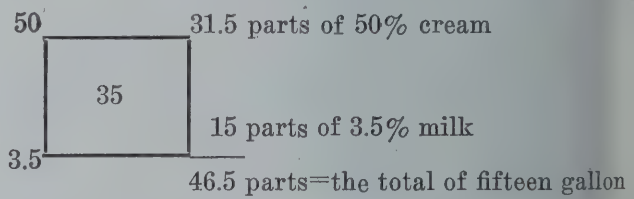
15.00 gallons

Proof: To prove the problem, check the fat in t different amounts of products used. Our total is to fifteen gallons of 3% milk, then 15×.03=4.5 units of f Since skim milk contains no fat all of the 4.5 units mu come from the 4% milk: 11.25×.04=4.5 units showi the problem is correct.

Problem 2: Solving your own problem.

How much 50% cream and 3.5% milk must be mix together to produce fifteen gallons of 35% cream?

Solve this in the same manner as above, thus:


50
31.5 parts of 50% cream
35
15 parts of 3.5% milk
3.5
46.5 parts=the total of fifteen gallon

31.5÷46.5×15=10.1 gallons of 50% cream to use.
15÷46.5×15=4.9 gallons of 3.5% milk to use.
Proof: 15 gal. 35% cream contain 5.25 units of f

Therefore:
10.1 gal.× .50=5.05 units fat
4.9 gal.×.035= .17 units fat

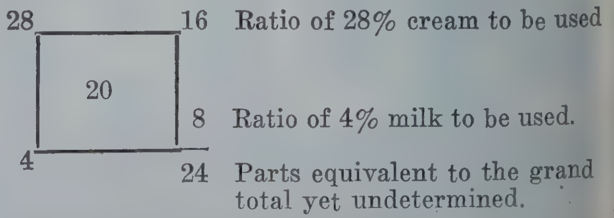
5.22 units fat

The slight error is due to not having carried problem out farther.

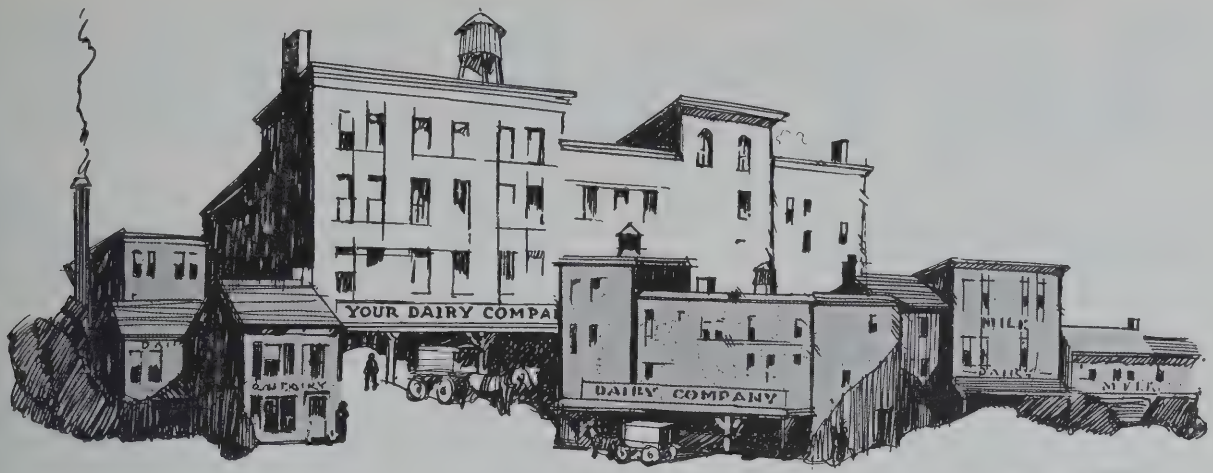
I now wish to call your attention to a second ty of problem reading as follows:

How much 4% milk must be added to fifteen gall of 28% cream to reduce the test to 20%?

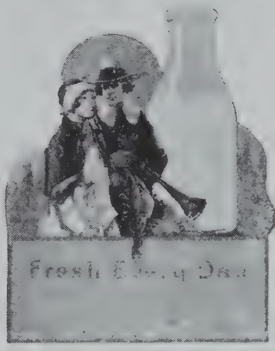
Note this problem does not call for a definite num of gallons. Your result will therefore be greater th fifteen. Solve it as follows:


28
16 Ratio of 28% cream to be used
20
8 Ratio of 4% milk to be used.
4
24 Parts equivalent to the grand total yet undetermined.

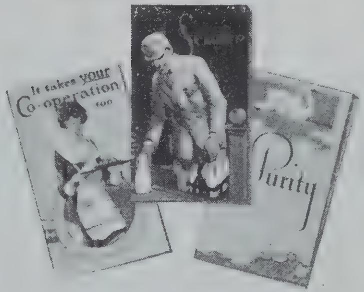
(Continued on page 78)


YOUR DAIRY COMPA
DAIRY COMPANY
MILK
DAIRY

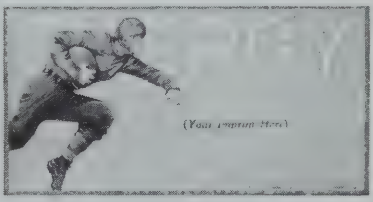
iving YOUR BUSINESS a Personality —



ON the loading platform of your plant it is "*your milk*"—is it still "*your* milk" when it reaches the homes of your customers or is it just "milk"?

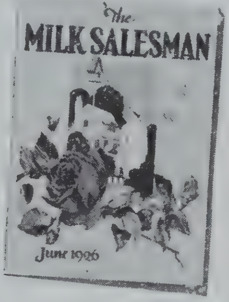

It takes your Co-operation too
Purity

The answer to that question depends entirely on whether you preserve your identity clear through to the homes you serve. And it's a mighty important question because millions of gallons of milk flood the cities of this country every day. And if you're spending money to get good milk and to give good service, you can't afford to submerge the personality of your business in the daily Niagara of milk that pours out over the country.


(Your imprint Here)

That's what advertising is for.

Never mind now about education. The purpose of advertising isn't to educate—it's to sell goods. And you can use it, if you like, to make *your* milk stand head and shoulders above the common level.


The MILK SALESMAN
June 1926

Let us tell you how we are helping other dealers do this job. We've had a lot of experience in the milk business. We know the milk man's message and the milk man's market. Maybe we can help you. Drop us a card.

HE FARRAR ADVERTISING COMPANY

108 FULTON BUILDING :: :: :: PITTSBURGH, PENNA.

Please Mention The Milk Dealer.

In this case the sixteen parts is equivalent to the fifteen gallons.

Therefore: 15÷16×24=22.5 parts or grand total

Since fifteen gallons are cream then 22.5—15=7.5 gallons must be 4% milk.

Proof: 15 gal.×.28 cream contains 4.2 units fat.
7.5 gal.×.04% milk contains .3 units fat.
—
Total 4.5 units fat.
Total gallons made 22.5 gal.
Then 22.5×20=4.5 units fat.

You can solve any similar problem using the same methods. However, I believe you would find it more desirable to work the problems in pounds rather than gallons. I would assume cream to weigh 8.4 pounds per gallon and milk 8.6 pounds. I suggest you obtain a copy of Bul. 98, Cornell Reading Course, entitled "Practical Examples in Dairy Arithmetic."

* * *

Dear Sir:—We would appreciate it if you would help us locate the cause of our "stringy milk."

We gather milk from 15 farms at from 7 to 8 A. M., the night's milk being cooled at farm by setting can in tub or tank of cold water. We pasteurize this milk (both night's and morning's together) to 142-145 degrees, hold 30 minutes, pump up through a filter and aerate to about 52-55 degrees, and bottle it. It takes one-half to one hour to bottle it off. Then it is run in the cooler room, temperature 42 to 45 degrees. About half of our milk is sold the same morning it is received from the farms and half is held over until early next morning. The fresher milk seems to bother us just as much as the day-old milk. The stringy condition shows up after the milk has been partly used up and set away a few hours, then the cream seems stringy. We have tried to find the localities in which the ropy milk is produced, but it seems to show up here or there under most every condition at times and then again nowhere for weeks. We never have found it upon first opening a bottle regardless of age, but always after it has set a few hours, if at all.

Reply: There are numerous possible causes of the difficulty which you are having with stringy milk. This trouble, as you probably know, is caused by a type of bacteria. A few types of these organisms are fairly resistant and may withstand the temperature of pasteurization although experiments have proven that the common organism producing this defect is generally killed at 145 degrees for 10 to 15 minutes.

Another possibility is that the infection has spread in the plant and the bacteria are being transferred to the milk at some point in the process of handling it after pasteurization.

I note that the trouble appears to develop chiefly in the cream. This is natural in that the cream as it rises through the milk would tend to sweep the milk of some of its bacteria so that the organisms would be more concentrated in the cream.

From what you mention in your letter I am inclined to believe the difficulty can be traced directly to one of the farms from which you obtain your milk rather than through any possible plant contamination. I suggest that you set aside in a sterile bottle, about one-half pint of milk from each farm as it is received. In this way you can quickly detect the herd which is causing the trouble. Then I advise that you have the dairyman clean up his premises and disinfect, using lime plentifully. If cows are wading in water, especially shallow pools, or passing through marshy ground on the way to the barn it is possible the bacteria may get on their hides. In this case small scurf particles might fall into the pail during milking and contaminate the product.

Again I suggest you examine the tubs or tanks which the cans are set. I have frequently found th far from sanitary. In such cases it would be very e to contaminate the milk. Even at your plant a can t had set in stale, contaminated tank water might c moisture of condensation into the vat of milk while were emptying it.

As a final precaution I suggest you check the ac racy of the thermometer on your pasteurization vat recently found a case somewhat similar to yours wh the thermometer registered incorrectly, resulting in sufficient pasteurization.

Dear Sir:—I am very much obliged to you for y letter of August 9 explaining to me the Mitche method for testing fat in buttermilk.

Please excuse me, Prof. Burke, if I insist asking again for your advice for my buttermilk business.

People here like the buttermilk as it is when c curdled but not broken. There is the reason why as s as I mix the starter with the skim milk I immedia bottle the buttermilk and leave it to curdle in the bott Sometimes we put the buttermilk in glasses instead bottles and people say that buttermilk is only good w they turn over the glasses and the curdled milk d fall. At the same time whey must not come out beca in case it does people say that milk has been watere

For avoiding the shaking of the buttermilk whe is delivered to our stores in the wagons now as soon the buttermilk has been bottled I send the bottles to stores and let the milk to curdle in the stores, curdling taking place in twelve to fourteen hours can do this at present moment because our store's t perature is about 20 to 22 degrees C. but I am af that it will not be possible to follow in the same when summer comes with higher temperatures.

What do you advise me to do for my butter business now that you are acquainted with our local ditions?

Reply: I believe you can overcome wheying-off dencies by employing gelatine in its manufacture. So time ago an interesting article appeared on the sub of the use of gelatine in buttermilk, in The Milk De This was in the July, 1925 issue in case you should to get the publication. The author suggested the dition of .25 per cent gelatine to the buttermilk. It prepared as follows:

The gelatine was added to the skim milk in powde form and this heated to 170 degrees F. for 20 min (about 76½ degrees C.). This was followed by coo to the setting temperature when 5 per cent of mo starter was added. The author of this article tried half per cent gelatine but found the buttermilk t especially stiff and rather difficult to break up. author likewise found that the acidity in the comme buttermilk where gelatine was used was about one-t per cent less than in the control buttermilk contai no gelatine. I believe you can overcome your troul by using the powdered gelatine as above. I suggest purchase a high grade product for in this event can be used.

Personally, I have never had to add gelatine to raw skim milk in order to obtain a good viscous bu milk. However, I have added the gelatine to the p uct after it was prepared. In fact, I have experime with this phase for sometime and have known for past several years that gelatine (approximately .3 cent to ½ per cent) would materially assist in re venting wheying-off after the product was alr broken up. Since you want your product to appea the bottles unbroken, you, of course, will have to the gelatine before the addition of starter. If you se a high grade gelatine it will not be injured to any ex

SAD, *But True*—

ABOUT five or six years ago, the dairymen began to change over from the old Case Type Bottle Washers to the automatic, with the result of a big saving in labor. These new machines also employed dormant soaking which was a new method of soaking to the dairymen and many salesmen tried to leave the impression that this method of soaking was the cure for all bottle washing problems. The result was that regular soft drink and brewery type bottle washers were offered and sold as milk bottle washers and they have not been a real success because they were not built to combat with the dirts, butter-fats, greases, etc., which are found in milk bottles.

We knew that merely dormant soaking would not do the work successfully, or economically, for you cannot keep on dumping the dirts, butter-fats, etc., from dirty bottles directly into the dormant soaking tanks and expect to have a good clean solution nor a sanitary one; neither can you expect to operate in this manner without a big expense for alkali.

THE CLEVELAND BOTTLE WASHERS were therefore designed primarily for washing milk bottles and employed not only dormant soaking but pressure soaking as well and the two systems are applied in such a manner that the dirts, butter-fats, etc., are flushed out of the bottles before they enter the tanks and the bottles again receive hydraulic soaking and flushing after the dormant soaking so that the bottles are thoroughly soaked, sterilized, and are free from every deposit when they leave the soaking tanks.

The Cleveland Bottle Washer with its patented system of pressure and dormant soaking, hot water brushing, self-cleaning attachment and other special features delivers the cleanest and most sterile bottle at one-half the expense.

xperience
s proven
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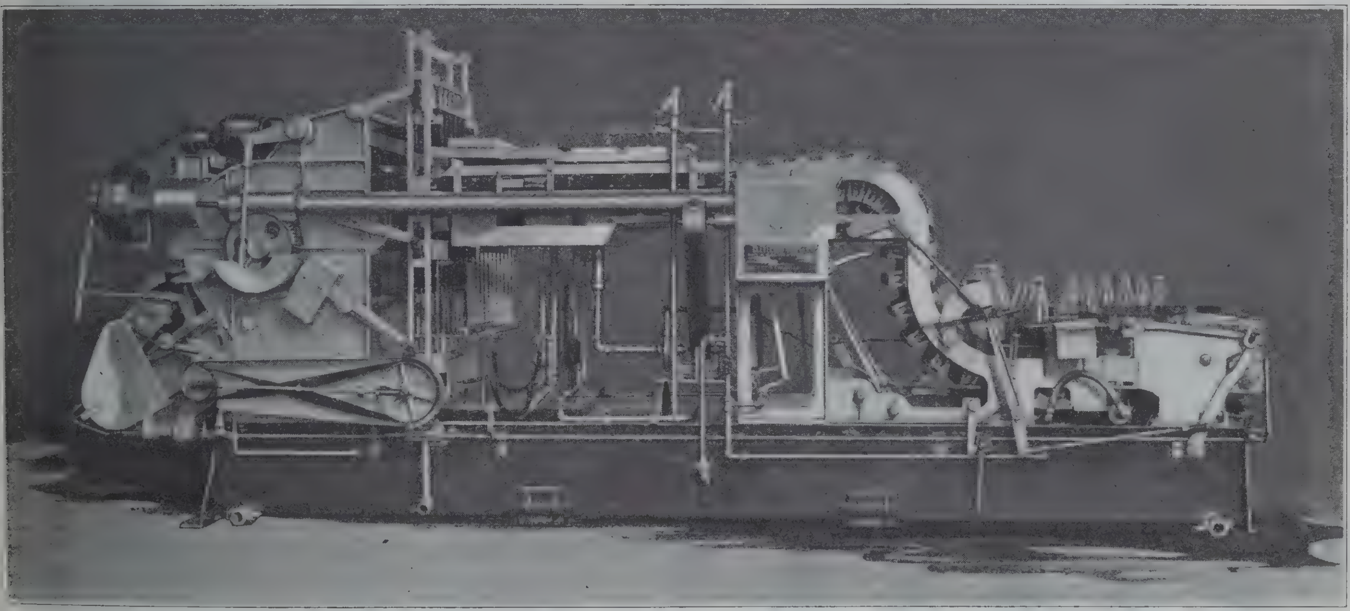


THE CLEVELAND SIMPLEX No. 60

C RRECT PRINCIPLE and PROPER DESIGN means CLEAN and STERILE BOTTLES and ECONOMY

If you want the best and cheapest in the long run, be sure to investigate ***The Cleveland***

B ILT IN ALL SIZES BY..........

HE UNION ENGINEERING CO., Cleveland, O.

Please Mention The Milk Dealer.

NAPACANS
FOR
COTTAGE CHEESE

MANUFACTURED BY
W.C.RITCHIE & COMPANY
831 W. VAN BUREN ST.
CHICAGO, ILL.
Page's
COTTAGE CHEESE
THE PAGE DAIRY CO.
TOLEDO — OHIO

by heating to 170 degrees F. for 20 minutes, althoug
would not hold it longer than this. I believe you w
get even better results if you will dissolve the gelati
in a small amount of water heated to not higher th
140 degrees F. and then add it to the bulk skim mi
at about the time it reaches 140 degrees F. in the co
ing process.

Finally, I might state that I do not know your la
regarding the use of a product such as gelatine in t
manufacture of buttermilk or in other dairy produc
in Lima, Peru. It might be well for you to look this
before you employ the use of gelatine.

HOLD ANNUAL RABBIT DINNER.

(By Special Correspondent)

Fried rabbit, cranbery sauce, cider, pumpkin pie, w
all the goodies and trimmings. That's just what ha
pened at the close of the old fashioned hunting mat
between the drivers and salesmen of the Reliable Dai
Co. of South Bend, Ind., on the evening of November

They chose sides and went hunting for the hoppi
bunnies, but several of the salesmen found they cou
catch new milk customers much more easily than th
could catch or find the elusive cottontails in the bush
and fields.

Sixty-three rabbits, however, were brought in a
served at the Chamber of Commerce building, and eve
employee of the Reliable Dairy Co. was present with
members of his family, including the four Palmer bro
ers, George, Walter, Frank and Will, as well as th
father and mother.

This is not a butcher shop.
The result of a day's hunt.

Think of it, just 15 years ago George Palmer,
manager, started washing milk bottles in a dish
and delivered all the milk in one wagon, and now
modern wagons and trucks cover every part of So
Bend and suburbs, both wholesale and retail.

The annual rabbit dinner is the occasion for inspi
tion, education and co-operation, and this year the pr
cipal speaker engaged was T. J. Newbill, director of
National Dairy and Food Bureau of Chicago, who
livered one of his popular lectures on milk and
salesmanship.

The splendid family spirit of co-operation and a
eral good time was had by all in games, dancing
music.

The value of such contacts is in the way that
used and the Reliable Palmer boys know the valu
interesting the other side and neglected side of go
will in their organization by getting the wives and
ilies of the employees interested in the organization.
wives have a great influence, as surveys show, on
annual turnover of help engaged in the retail
business.

Getting Quality into Powdered Milk

By Which Surplus Milk is Turned to Greater Profit!

THE Rogers Way of reducing Surplus Milk to its most concentrated form results in a product highly superior in texture, color, solubility and minimum moisture content.

Experienced buyers readily appreciate the quality milk powder made the Rogers Way. It assures a better market and a better market seldom fails to reflect itself in more profit for the seller.

The Rogers Way

Let us tell you all about the Rogers way of reducing surplus milk to powder—the market for the product and the experience of users.

USE THE COUPON.

C. E. ROGERS

7[illegible]1 Witt St. Detroit, Mich.

C. E. Rogers,
8731 Witt St., Detroit, Mich.
Tell us how to make more profit out of surplus milk.

Company ....
By ....
Street ....
City .... State ....

Safeguarding the Milk Supply of Cities

Requirements for the Pasteurization of Milk and Methods of Enforcement. Checking by Competent Authorities Necessary

By WALTER W. SCOFIELD*

PURE, wholesome milk is the one article of food which is essential for the well-being of every person at some period of life. The supremacy of people who use material quantities of milk in the diet over those who do not include milk needs no elaboration here. Suffice it to say that pure, wholesome milk is the most essential food for the people of this country.

The realization of the importance of milk in the diet has been greatly emphasized during recent years by studies of nutrition and by intensive campaigns of advertising. These efforts have resulted in increasing the consumption of milk to a marked degree.

Epidemics Due to Milk.

All of you realize that milk is a medium well adapted for the life and development of bacteria and that the common conditions under which it is produced result in the serious contamination of a large proportion of our milk supply. The contamination of milk with dangerous bacterial life and also the adulteration of milk with foreign substances is a matter of grave public concern because such dangerous milk cannot be detected in most cases by the consumer. A very brief reference is made to the history of milk-borne epidemics in this country to emphasize the fact that milk is the one food which is not adequately safeguarded and which is causing an unnecessarily large number of cases of illness even at this time. In a study made by the American Child Health Association, it was learned that there were 43 milk-borne epidemics involving 1,373 cases in this country in 1924, and 44 milk-borne epidemics involving 1,913 cases in 1925. The diseases included typhoid fever, scarlet fever, septic sore throat, which are reportable in most states, and certain other diseases. In this study it was forcibly pointed out that the available statistics are most incomplete because of the fact that much illness and many deaths in children result from diarrhea and enteritis and that these diseases of children are frequently caused by impure milk. Tuberculosis is another disease which may be transmitted by milk and on which we have no statistics of value although we do know that a very large percentage of the dairy cows in many sections of this country are affected with bovine tuberculosis. We are forced to the conclusion that, while pure milk is a most valuable food, impure milk takes first place in this country in causing more illness than any other food. I am presenting these facts, which are very well known to you, for the purpose of pointing out the necessity for food officials to place greater efforts, time and thought upon the subject of milk control in order to reduce the number of cases of illness attributed to milk. Most of us devote a great amount of time and energy in correcting minor or technical violations of adulteration or misbranding of foods. Would it not be of greater value to the people if we were able to assure them that the milk supply was safe? Surely the people of this country will never consume as much milk as they should as long as outbreaks of disease continue to be traced to this food.

Pasteurization—An Epidemic Preventive.

What is the answer to this problem? In my opi
there is but one answer, pasteurization. This pro
affords ample protection against the possibility of
transmission of disease by milk. Again referring to
studies of epidemics caused by milk it is striking
practically no outbreaks of the "reportable" dise
have been traced to milk, which had been properly
teurized. In consulting the records of the deaths
children from diarrhea and enteritis over a period
years in our larger cities it is apparent at once tha
very marked decrease has occurred since a large
centage of milk supplies have been pasteurized.

Supervision over the pasteurization of milk pres
a field of endeavor to the food control officials whic
most important. It is obvious that the heating of
at temperatures or the holding of milk for periods
time which fail to destroy the dangerous bacteria or
cooling of milk after pasteurization to a tempera
which results in the incubation and development of
viving organisms or the re-infection of pasteurized
by unclean apparatus or receptacles may be worse
no pasteurization. That such conditions are allowe
exist in some pasteurizing establishments is well kn
to those who have made a study of them.

Proper Equipment Necessary.

What requirements for pasteurization should
adopted in order that a safe product will result? In
eral, the requirements should be drawn in a broad
and adopted as a part of a state code or by the de
ment of the state having authority so that the req
ments will be uniform throughout the state and
apply to all types of equipment. The equipment
only varies widely as to the materials used in its
struction but also in the principles of operation.
more simple makes use of a vat in which milk is he
for the required time. Other types provide for a
tinuous flow of milk after heating through tanks,
partments or pipes or the automatic filling and disc
of milk at regular intervals from compartments by
use of gears and valves. In the general supervisi
such establishments it seems necessary for the inves
tors to make detailed studies of the different mac
in order to ascertain whether or not milk does re
proper treatment in them. The general sanitati
the plants should receive consideration. Floors
may be flushed with water are essential. Piping s
be limited to the type which may be taken down
each operation and thoroughly brushed and cleane
adequate supply of pure water should be pro
Waste liquids from the plant should be disposed
such a manner that a nuisance is not created.
should be separated apart from rooms in which m
handled. Soap, towels and lockers should be pr
for employees so that their persons may be clean
they perform work in the plant. Clean garme
washable material should be provided for them a
quent intetrvals.

Watch Misbranding.

In connection with the labeling of milk the con
is entitled to the truth. The fact that milk has

---

* Chief, Bureau of Foods and Drugs, New Jersey State Department of Health. Paper read at meeting of food, drug and dairy officials' association, Washington, D. C., October, 1926.

Over 500 Dairies are using

KOKO-MALT

It's Making a Big Hit !

for their

Chocolate Malted Milk Drinks

HERE is a new product which is blended from a special Dutch-processed, double milled cocoa and pure barley malt extract with special flavoring to intensify the full chocolate flavor and absorb the bitterness of cocoa.

DAIRIES bottling chocolate milk should be interested in this new preparation. It means a great saving in your syrup purchases. The cost of one gallon of delicious chocolate malted syrup made from KoKo-Malt, which is sufficient to flavor 10 gallons of milk, is 75 cents.

We will be glad to send a sample of KoKo-Malt sufficient to make one gallon of syrup to those interested in this new hit.

THE DAIGGER CORPORATION

Manufacturers

WASHBURN'S PRODUCTS

413-415 Beethoven Place CHICAGO

pasteurized on a particular day together with a statement of the name of the proprietor and the place of pasteurization should appear on the cap. In practice, milk is commonly pasteurized one day and distributed the following day. Unscrupulous dealers may resort to unfair methods of competition by using caps bearing untruthful statements as to the time of pasteurization. Instances of such misbranding should result in prompt legal action as deception of this character is inexcusable. Regulations demanding the date of delivery or the date of shipment on pasteurized milk only aid the dealer in deceiving the public.

A requirement fixing a definite period of time after pasteurization during which pasteurized milk may be sold seems desirable. A period of 36 hours after pasteurization is ample for the distribution of pasteurized milk. On the other hand, it seems unwise to attempt to fix a definite period of time between production and pasteurization as it becomes necessary to draw milk supplies from greater and greater distances or from points which have inadequate transportation. The initial bacterial condition of the milk as well as the temperatures maintained during transit have as great a bearing upon the quality of the milk up to the time of pasteurization as the factor of time.

A requirement that milk shall not be pasteurized a second time should be rigidly enforced.

A Satisfactory Heating and Holding Temperature.

Aside from sanitation it is most essential that milk be heated to a temperature and held at that temperature a sufficient length of time to destroy the dangerous bacteria and then immediatetly cooled to a temperature at which bacteria will not multiply rapidly. There is a considerable difference of opinion as to the proper temperature but we believe that a minimum of 142 degrees F, maintained for 30 minutes does destroy dangerous organisms effectively without injuring the cream line. The attempts which are being made by certain officials to demand a minimum of 145 degrees F. are being opposed strenuously by large milk interests. A much greater amount of research work is needed to settle this disputed point but the evidence available at present indicates that a minimum of 142 degrees for 30 minutes is effective and, in fact, provides some margin of safety. In order to show the temperature and time of pasteurization a recording thermometer should be required to be used on each operation and these records should be dated and filed for reference. Most authorities have not required recording thermometers upon coolers but the cooling of milk to a temperature of 50 degrees F. or lower should be required. The thorough cleansing of all equipment and receptacles is most important and milk should be bottled at the place of pasteurization by mechanical fillers and cappers so that the chances of contamination of milk after pasteurization will be reduced to a minimum.

Testing Pasteurizing Equipment.

In order order to determine the efficiency of the pasteurizing process it seems highly desirable, if not necessary, to make checks on the operations of the different plants, using some scientific method which will prove exactly what results are being obtained. A commonly used method consists of making bacterial counts of the raw milk and by making bacterial counts at the differenc points during the process. Samples of milk are usually taken as received, immediately after pasteurization, immediately after cooling, from the bottle filler and from a bottle which has been filled and sealed. By comparing the results obtained from these different samples, the general efficiency of the plant may be determined
high count at some point usually limits the caus
trouble to a particular part of the apparatus.

In practice, there is only one objection to such
and that is the fact that it requires considerable
and necessitates transporting a considerable amou
laboratory material to the different plants.

In New Jersey we have been interested in ma
another special test to determine whether or not
teurizing equipment of the type through which
flows continuously, actually holds milk the required
of 30 minutes. In this work we have followed the
od recommended by the Bureau of Dairying, U. S
partment of Agriculture, in which a culture of B. P
giosus is used as the testing agent. In making
tests care should be exercised that the pumps ar
erated at the same rate as during the regular pr
A culture of the organism is introduced in water a
ordinary tap temperature at the inlet of the "hold
section and the time is noted. At regular inte
for a period of 30 to 40 minutes samples are
at the outlet. Check samples are taken of the
before the culture is introduced. The samples
plated and the first plate to show the characteristi
colonies of the Prodigiosus organism gives the ap
mate time of holding. Technical objections have
made against this method that water is used in m
the test rather than milk and also that the temper
is that of tap water rather than of pasteurizatio
practice, however, we have obtained very satisfa
results and also results that are startling. The c
uous flow "holders" which employed two to thre
indrical vats were most faulty as the organism wa
erally recovered in less than nine minutes. We
found only a few pasteurizers of the continuou
type that met with this test. In apparatus of the
type which generally employs valves and timing
leaking valves or faulty timing may be demonstrat

Cleansing of Containers Important.

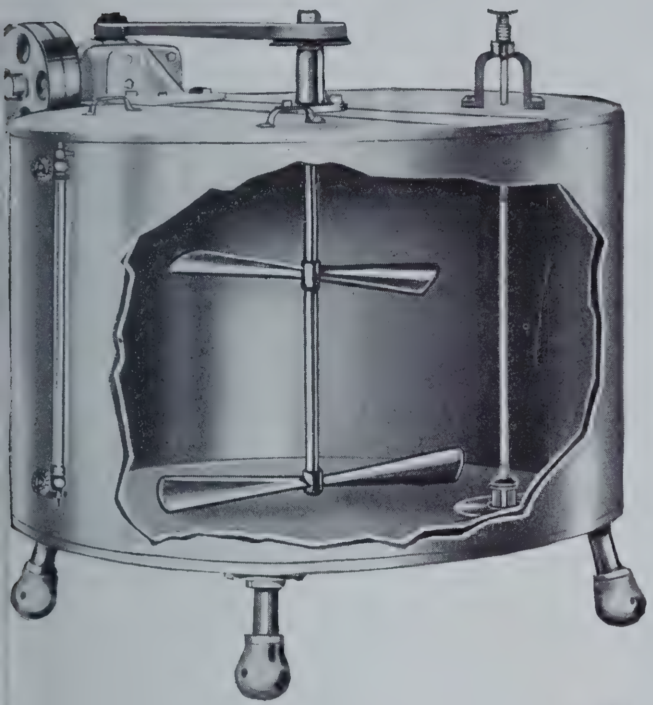
It also seems important to make determinati
the strength of alkali in the solutions used in w
milk bottles by taking samples of the solutions fo
the washers and determining the alkalinity by tit
and also by making bacterial tests of the milk bott
fore and after washing to determine the degree
ciency obtained. During recent years the large
panies have installed large bottle washing ma
which operate automatically. Most of these ma
are built so that the milk bottles pass through di
compartments containing alkaline solutions, fol
which the bottles are rinsed with clean water.
these machines are not designed to use high te
tures in the process of washing the bottles but
in part upon the action of the alkaline solution
tain practical sterilization. It frequently happe
these alkaline solutions are used for long periods
or for the cleansing of enormous numbers of
without renewal or checking the strength of th
tion. Under such circumstances the alkali solutio
become very weak because of the neutralizati
actually become filthy from the dirt carried into t
tions and the results are far from satisfactory.

Policy of Co-operation.

In the enforcement of this work we have fou
a policy of education and instruction yields grea
sults as most of the persons or firms pasteurizi
today realize the importance of safeguarding the
uct and generally welcome constructive critici

Write For The Facts!

On These Labor and Time Saving Machines



CRESCO Pasteurizer

A thorough test in your own plant will prove it does wonderful work.

Your milk will have a fine flavor and show a very good cream line.

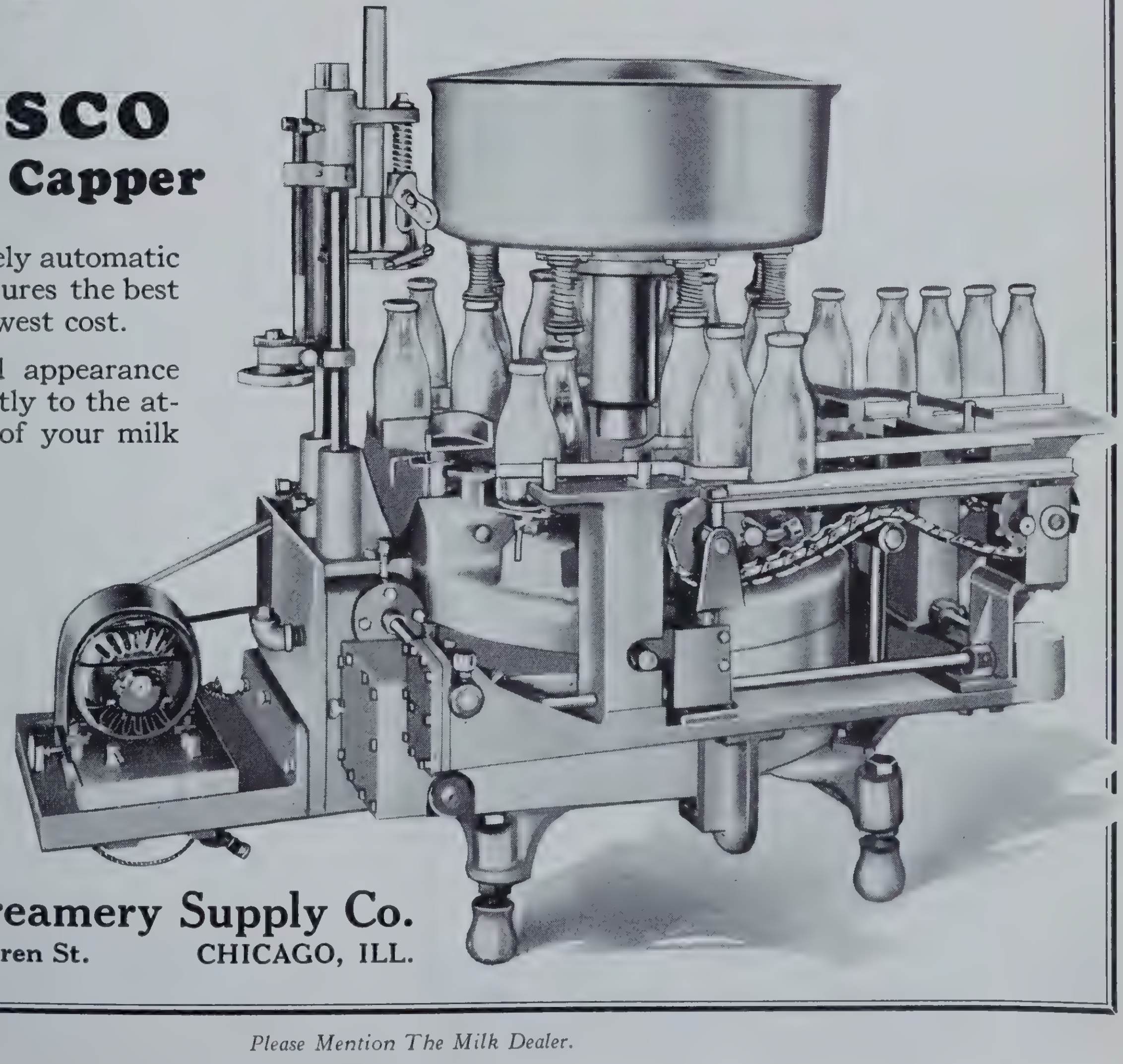
You will be more than pleased and your trade will be more satisfied with your milk.

You will easily gain more trade when your milk is pasteurized in the Cresco Pasteurizer.

CRESCO Filler and Capper

The completely automatic operation assures the best job at the lowest cost.

Its splendid appearance will add greatly to the attractiveness of your milk plant.

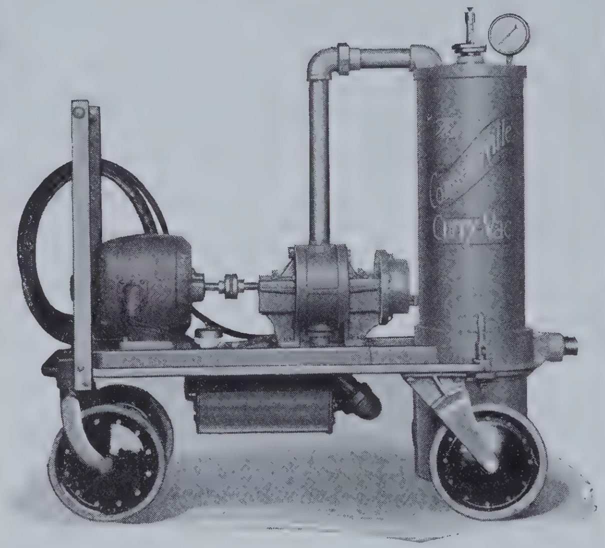


Write for the Facts!

On a postal or in a letter write "Send me The Facts about the Cresco labor and time saving machines." Sign your name and address and mail to—

Cresco Creamery Supply Co.
1845 W. Van Buren St. CHICAGO, ILL.

Why Not a Xmas Present?



A "CONNERSVILLE CURRY-VAC"

To the Stablemen—

Put a Curry-Vac in your stable as a present to the men who are working to keep your animals well groomed. They will appreciate it as the work will be easier, more quickly done, and all that dust will be eliminated.

For the Cows—

Cows actually enjoy being cleaned by a Curry-Vac. Not only do they like it but it does them good. They are more healthy, and produce more milk on less feed when kept clean. Curry-Vacs greatly reduce the bacteria in milk.

For the Horses—

Horses that are cleaned by Curry-Vacs will out-work those that are hand cleaned. The pores of the skin are kept open and all dirt and dandruff are removed. Disabled horses are almost unknown with Curry-Vacs.

Send the Coupon for Information on these Machines.

United Vacuum Appliance Corp.
CONNERSVILLE Dept. M12 INDIANA

Please send information on ( ) Truck ( ) Stationary Type Curry-Vacs for ( ) Horses ( ) Cows.

Name ....
Address ....
City ....

New Jersey we statrted the work of checking the tinuous flow type pasteurizers less than three years and had at that time approximately 50 plants u faulty continuous flow equipment. Without any c action we have succeeded in having the equipmen more than one-half of these plants changed and mo the others are contemplating making a change a early date. Of course, we propose to take drastic a against those persons or firms who refuse to confor the requirements after instruction.

In the enforcement of requirements governing teurization, it seems highly desirable for the state to ploy agents who are able to devote their entire tim this special work and to require all pasteurizing p to be licensed by the state authorities. This prin seems contrary to the tendency at this time in n states of delegating work pertaining to local affai local authorities. However, as pasteurizing plants frequently located in small communities where tra men are not employed to supervise such operations as pasteurizing plants frequently supply several munities or even ship in inter-state commerce, it s imperative for the state authorities to supervise work, if satisfactory results are to be obtained. granted that additional inspection by municipal in tors is desirable where competent men are employe

In summing up, I desire to make the follo points:

1. Milk is the most important food.
2. Milk is the cause of more illness and deaths any other food.
3. Proper pasteurization of milk renders this food for human consumption.
4. Pasteurization should be checked by comp authorities to see that it is effective.

⁂

THE REAL BOSS.

By Vernon Varney.

Who are you working for,
Friend of mine,
As you steadily plod each day?
Who is your prodder?
Who is your goad?
Who is your spur, I say?

Is it he who sits
In the office there
With the door with the painted name?
Is it he who hands you
Your weekly check
With a murmur of praise or blame?

Who are you working for,
Friend of mine?
Did you ever stop to consider?
Are you sold to one
Who will help you most,
Or just to the highest bidder?

There's only one man
To work for, friend,
And that one employer is — YOU!
No matter what business
You chance to be in,
It's to YOU, friend, SUCCESS will be due!

Oh, the BOSS of the SHOP
May be somebody else:
It may be HIS WORK that you do,
But the BOSS of YOURSELF
Can be NOBODY ELSE —
The BOSS of YOURELF is YOU!

Books are Appreciated Xmas Gifts

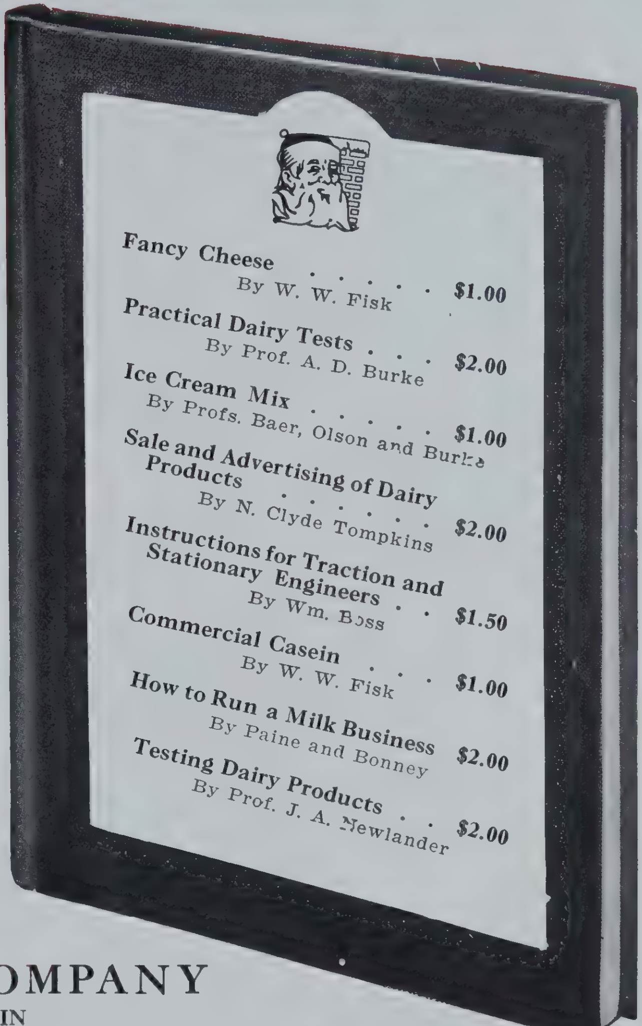
ESPECIALLY
WHEN THEY ARE
HELPFUL

Give these Books on Dairy Products Manufacturing this Christmas

EACH IS WRITTEN BY AN EXPERT IN HIS LINE.

SENT ANYWHERE POSTPAID UPON RECEIPT OF REMITTANCE

THE
OLSEN PUBLISHING COMPANY
MILWAUKEE - - WISCONSIN



Fancy Cheese . . . . . By W. W. Fisk	$1.00
Practical Dairy Tests . . . By Prof. A. D. Burke	$2.00
Ice Cream Mix . . . . . By Profs. Baer, Olson and Burke	$1.00
Sale and Advertising of Dairy Products . . . . . By N. Clyde Tompkins	$2.00
Instructions for Traction and Stationary Engineers . . By Wm. Boss	$1.50
Commercial Casein . . . By W. W. Fisk	$1.00
How to Run a Milk Business By Paine and Bonney	$2.00
Testing Dairy Products . . By Prof. J. A. Newlander	$2.00

KEEPING TURNOVER RECORDS.

a bulletin recently issued by the Policyholders' ce Bureau of the Metropolitan Life Insurance Com- n emphasis is place on the importance of keeping rord of why employees quit.

e dairy plant operator is always confronted with abor problem, just as other employers of labor. employers are keeping records of why employees and the following "Hints on Keeping Turnover ds," contained in the bulletin, are interesting:

Be sure that every employee is interviewed before g. Require an O. K. from the interviewer before final ff.

Check up doubtful cases to see if the reason given e empoyee and his immediate superior tally. If not, r information and good judgment will be necessary.

There may be several reasons for leaving. Check the ou think most important and note further details, if ary, to help you recall the case.

It is most important to decide whether an employee harged, laid off, or quits voluntarily. For example, a ho feels that he can't learn the job may quit voluntarily for that reason. He should not be entered on the turnover record as "Discharged — couldn't learn," but as "Quit — couldn't learn."

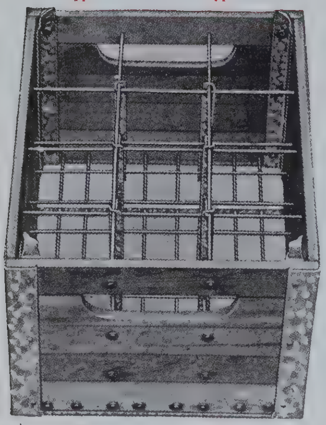
5. Remember, that in many kinds of work an employee who is insubordinate may be fully competent, physically and mentally. Do not confuse discharges for incompetency with those made for disciplinary reasons. The former implies improper selection or placement; the latter may indicate faults in the supervisory force as well as in the employee.

6. Do not conclude that the reason "Leaving for a Better Job" always means competition in the labor market. Some employees, particularly girls, are inclined to give this reason to conceal the real one. Find out, if possible, just what the better job is and how it is better.

7. Consider each exit from the company in the light of previous experience as shown by the analyzed record to date and take any necessary action at once.

"Milk Dealer" Want Ads buy, sell or exchange anything, anywhere. What have you that you would be better off without?

More Trips *and* Longer Wea



More trips—longer life—that's the only way you can make your case investment pay returns.

Broken, weak or wobbly cases mean delays—in the plant or on the route.

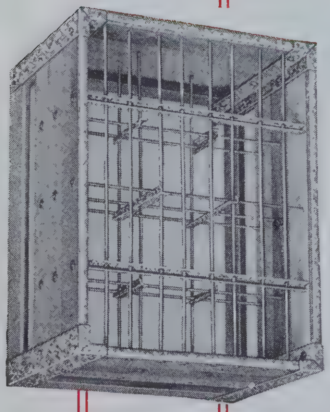
Using damaged cases to get the very last trip out of them is poor economy. Like going out on a long automobile trip with a worn, frazzled tire that is sure to "blow."

Every large milk plant continually needs new cases. Send in your order now for a dozen Armor Klad Cases. A year or two from now, you'll be more pleased than ever with your purchase. Your first dozen of Armor Klads will mean more dozens later on.

Some excellent territory is still available for reputable Jobbers

Armor Klad

Bottle Case



BUILT *for a* BATTLE OF BUMPS

Crash—bang—bump! That's what the average bottle case goes through many times daily. Armor Klad Cases are built to stand this guelling wear. They are completely protected and re-inforced, top, sides and bottom, with heavy galvanized iron. They are made with an extra margin of strength for the hardest use and abuse. And they will give you a twenty-four hour service year in and year out. Fewer parts, securely riveted. Nothing to come loose or apart.

G. H. TENNANT CO.
MINNEAPOLIS - MINNESOTA

Before You Buy—Let us send You a Sample Case for Inspe

WIDESPREAD FRAUDS.

(From The Milk Messenger, London, England.)

Many months ago we circularized all readers of The k Messenger that there was a man travelling through country soliciting subscriptions for the Olsen publi- ons, "The Milk Dealer," "The Ice Cream Review," the "Butter, Cheese & Egg Journal." We issued a ning against handing over any money to this man for reason that none of this money was being passed to publishers or ourselves. Unfortunately, many people parted with their money before our warning reached n, and others were beguiled, after the warning, to d over the cash for reduced subscriptions. As we, selves, were powerless to act, not having been direct- lefrauded, we could only bring the matter to the ce of Scotland Yard. A certain firm that had paid man money was, however, bold enough to admit r mistake, and good enough to have a warrant issued.

For many months nothing apparently happened. e we were telephoned from the Irish Free State of man's presence there, and once a Birmingham firm phoned us while he was on their premises, but each this elusive fellow slipped away.

During all this time Scotland Yard was inexorably king the man down, and finally Detective Inspector Vesley and Detective Sergeant D. Fish of the Yard him by the heels. Some of the difficulties experi- d in trying to follow him may be guessed, from the that he often changed his outward appearance, times he was clean shaven, sometimes he had a d and moustache, and others only a moustache. her, he was known in various places as Edgar Lane hews, his real name, and in others as Eugene de ville, S. Bell, Wilson Ford, or E. Lane. It was un- his last name that he was soliciting for subscriptions ne Olsen publicatons. He is alleged to have been in Canada, educated in England, and lived at times e United States, so that he could well act as being ish, Colonial or American. He at one time adopted popular horn-rimmed glasses. It was a matter of e difficulty to obtain a photo of him, and there was ys a chance that he might not resemble his photo in way. The Olsen publications were not the only ones aimed to represent. His capture is a warning to the ve not to think that Scotland Yard can be tricked er. He was finally brought before Mr. Wilberforce ndon Sessions, where he pleaded guilty to over 250 es, and was sentenced to 18 months' hard labor.

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MEMPHIS PLANT ENLARGES.

ne dairy business of Reed Bros., Memphis, Tenn., een growing so rapidly during the last few months they have found it neseccary to enlarge their al- modern plant. The improvements, calling for an diture of around $8,000, are now practically com-

ne firm has enjoyed a splendid business from the Its immediate popularity is proof that the prod- fully up to the highest standard as to merit the endation of all patrons. The firm has a unique , "A bottle of milk is a bottle of health," and the have had no difficulty in convincing their cus- s of the truth of the slogan.

e partnership of Reed Brothers was formed about ars ago. The firm is well known throughout this ory. They do not profess to operate the largest in this section but they do claim to put out the very roducts in their line that it is possible to produce.

"Costs 50% less to clean with Oakite"

ACCORDING to the superintendent of a large New York dairy.

Here OAKITE materials are used for washing bottles and cans. Also for general cleaning. And OAKITE does the work *economically*. So economically, in fact, that cleaning now costs only one-half of what it did formerly. Time is saved. Less labor is required. Less cleaning material is needed.

Perhaps you, too, can obtain a similar saving, or some other worthwhile benefit that comes with OAKITE cleaning. Call in one of our service men and find out. Have him show you how thoroughly, quickly, and economically OAKITE removes casein, dried-on milk and dirt from separators, pasteurizers, milk coolers, and other dairy equipment.

Get in touch with us; or write for booklet. No obligation.

Oakite Service Men, cleaning specialists, are located at
Albany, Allentown, Pa., *Atlanta, Ga., Baltimore, *Boston, Bridgeport, *Brooklyn, Buffalo, Camden, Charlotte, N. C., *Chicago, *Cincinnati, *Cleveland, *Columbus, O., *Dallas, *Davenport, *Dayton, *Denver, *Des Moines, *Detroit, Erie, Flint, Mich., Fresno, Cal., *Grand Rapids, Harrisburg, Hartford, *Indianapolis, Jacksonville, Fla., *Kansas City, *Los Angeles, Louisville, Ky., *Milwaukee, *Minneapolis, *Montreal, Newark, Newburgh, N. Y., New Haven, *New York, *Oakland, Cal., *Omaha, Neb., Philadelphia, *Pittsburgh, Portland, Me., *Portland, Ore., Providence, Reading, *Rochester, Rockford, Rock Island, *San Francisco, *Seattle, *St. Louis, Springfield, Ill., Syracuse, South Bend, Ind., *Toledo, *Toronto, *Tulsa, Okla., Utica, Vancouver, B. C., Williamsport, Pa., Worcester.

**Stocks of Oakite Materials are carried in these cities.*

OAKITE
TRADE MARK REG. U.S. PAT. OFF.
Industrial Cleaning Materials and Methods
OAKITE IS MANUFACTURED BY OAKITE PRODUCTS, INC.
formerly **OAKLEY CHEMICAL CO. 30B THAMES ST., NEW YORK, N.Y.**

The Chains in the Dairy Industry

Some of the Big Organizations in the Dairy Industry That Are Revolutionizing Sales and Management

THIS seems to be the day and age of CHAINS—chain grocery stores, chain restaurants, chain hotels, etc. The dairy industry has become impressed with the chain idea and as a result there are several now in existence, prominent among these are the following:

1. National Dairy Products Corporation.
2. Southern Dairies.
3. U. S. Dairy Products Corporation.
4. Western Dairy Products.
5. General Ice Cream Corporation.
6. United Milk Products Corporation.
7. Eastern Dairies, Inc.

1. National Dairy Products Corporation: Of all the chains the National Dairy Products Corporation is the largest, having been formed by a combination of a large number of the leading milk and ice cream plants in the United States. They operate in over 1,600 cities and towns in 13 or more states extending from New York to Nebraska and south to Tennessee. They were incorporated December 8, 1923, under the laws of Delaware, with general offices at 120 Broadway, New York City. A few of the many concerns in the National Dairy Products Corporation include the following:

Rieck-McJunkin Dairy Company, Pittsburgh.
Sheffield Farms Company, New York.
Supplee-Wills-Jones Milk Company, Philadelphia.
Clover Farm Dairy Corporation, Memphis.
Nashville Pure Milk Company, Nashville.
Hydrox Ice Cream Company, Chicago.
Chapell Ice Cream Company, Chicago.
Thompson Ice Cream Company, Chicago.
Carpenter Ice Cream Company, St. Louis.
Breyer Ice Cream Company, Philadelphia.
Franklin Ice Cream Company, Kansas City.
Union Ice Cream Company, Nashville.
Luick Ice Cream Company, Milwaukee.

In addition to these and other milk and ice cream companies there are included the Harding Cream Corp. of Omaha, also the Consolidated Buttermilk Corp. The above are only a few of the many companies involved. Officers of the National Dairy Products Corporation are as follows:

T. J. McInnerney, president.
James G. Lewis, treasurer.
F. J. Bridges, secretary.

2. Southern Dairies: With offices in the Homer Building, Washington, D. C., was incorporated August 5, 1925, under the laws of Delaware. This concern produces ice cream almost exclusively, their output in 1925 being a little under 5,000,000 gallons. They have more than 20 concerns as members of this corporation including the following:

Southern Dairies.
Chapin-Sacks, Inc.
Montgomery Dairy Products Company.
Palm Beach Creamery Company.
Horn Milk Products Company.
Hanover Creamery Company.

The officers of the Southern Dairies, Inc., are:

E. S. Perot, Jr., president.
H. W. Shaw, secretary and treasurer.

3. U. S. Dairy Products Corporation: With of
in the Franklin Bank Bldg., Philadelphia, is somev
older than some of the other chains, having been in
porated in December, 1922, under the laws of M
land. This incorporation includes several dairy
panies in the state of Pennsylvania, especially in
eastern portion including Philadelphia, Scranton, R
ing and others. Included in the list of subsidiary
panies are:

Scott-Powell Dairies.
Kelly-Lester Milk Company.
Glouster Sanitary Milk Company.
Woodlawn Farms Dairy Company.
And others.

Their sales in 1925 amounted to a little over $9,
000. The officers of the U. S. Dairy Products Corp
tion include:

F. W. Bacon, president.
H. Williams, Jr., treasurer.
E. D. Richmond, secretary.

4. Western Dairy Products: Was incorporate
little over a year ago, namely, October 1, 1925. T
were incorporated under the laws of Delaware and
their general offices at 1501 Fourth Avenue South, S
tle, Wash. This corporation operates 15 or more plan
Washington and Oregon and have an annual produc
of approximately 3,000,000 gallons of ice cream.

This corporation includes the following:

Seattle Ice Cream Company.
Velvet Ice Cream Company.
Olympiac Ice Cream Company.
Polar Ice Cream Company.
Hazelwood Ice Cream Company.
Mt. Hood Ice Cream Company.
White Clover Ice Cream Company.
Butter Cup Ice Cream Company.
And others.

The president of the Western Dairy Products
H. Berch; the vice-president and secretary is F
Campbell, and the treasurer is J. Frank Holt.

5. General Ice Cream Corporation: Incorpo
July 16, 1925, in New York, with general office
Schenectady, N. Y. This corporation serves over 5
cities and towns and a population of over 4,500
their sales of ice cream in 1925 being a little over 40
000 gallons.

Included in the General Ice Cream Corporatio a
the following:

Albany Ice Cream Company.
Amsterdam Ice Cream Company.
Elmira Ice Cream Company.
Hoefler Ice Cream Company.
International Ice Cream Company.
Rochester Ice Cream Company.
Syracuse Ice Cream Company.
Wheats Ice Cream Company.
And others.

The officers of the General Ice Cream Corporatio are

V. E. Hovey, president.
L. C. Anderson, secretary.
S. T. Nivling, treasurer.

6. United Milk Products Corporation: United Mil

GRAHAM BROTHERS
GB
DETROIT

Dollars Earned, Miles Run, and Work Well Done

Graham Brothers Trucks are known the world over for unfailing records of dollars earned, miles run and work well done.

They are quality trucks, built complete in sizes and body styles to fit the needs of your business. They are priced low. They are serviced quickly, skillfully and reasonably by Dodge Brothers dealers everywhere.

The G-B emblem marks a truck that will work well and ably day in and day out, live long, cost little and make money for its owner.

GRAHAM BROTHERS
DETROIT
A DIVISION OF DODGE BROTHERS, INC.

Graham Brothers Trucks, with Dodge Brothers ¾-Ton Commercial Cars, meet 91% of all hauling requirements.

1-TON CHASSIS, (G-BOY) - - -	$ 885
1½-TON CHASSIS - - - - - - -	1245
2-TON CHASSIS (Disc Wheels With Dual Rear, Optional)	1445

f. o. b. Detroit

GRAHAM BROTHERS TRUCKS

SOLD BY DODGE BROTHERS DEALERS EVERYWHERE

Products Corporation is possibly the youngest of all large dairy corporations, having been incorporated in March, 1926, under the laws of Delaware. Their offices are at 1252 Broadway, Cleveland, O. This corporation includes the following:

Western Reserve Condensed Milk Company.
Gifford Milk Products Company.
Libby, McNeil and Company.
Wisconsin Butter and Cheese Company.
Troy Milk Products Company.
Merton Dairy Products Company.
National Dairy Company.
American Milk Products Company.
And others.

The officers are H. N. Gifford as president and P. H. Haynes as secretary and treasurer.

Another corporation which possibly should be mentioned along with those of the above is Eastern Dairies, Inc.

7. Eastern Dairies, Inc.: They include the following:

New Haven Dairy Company, Connecticut.
Tait Brothers, Massachusetts.
Coon Ice Cream Company, Vermont.
Dolbey Ice Cream Company, Rhode Island.
And others.

In addition to these there are a good many other chains, possibly smaller but nevertheless important. All of these mark a pronounced trend in the dairy industry at the present time toward combinations.

⁂

THE DAIRY INDUSTRY IN ENGLAND.

C. E. Finley, an employee of the Telling-Belle Vernon Co., Cleveland, Ohio, made a trip through England on a bicycle last summer. He was surprised to find the English milk industry so progressive, and his views are given in the following article, taken from "Telling Tales":

> Americans, when traveling in strange lands, are often surprised to see so much progress in industries in which we consider ourselves the leaders. The milk and ice cream industries are good examples of this.
>
> In England, the United Dairies, Ltd., is the largest dairy corporation, and its plants are by far the most modern. This concern has a capital of £5,000,000, and practically controls the milk supply of London and vicinity, the most densely populated district in the world.
>
> One of the newer plants, that of Curtis Brothers & Dumbrill, located at Streatham, London, puts to shame many of America's so-called modern dairies. The plant is just six month's old, and when built it embodied all the good features of the best plants in this country. Before beginning o tions, the company sent several of its young men to Am to make an extensive survey of the industry. Mr. Wa chief chemist, spent several days in our Cedar Avenue two years ago.
>
> This plant is a model of cleanliness, economy of oper and efficiency of methods. At the time of our visit 1 gallons (English) of milk were bottled daily, and the ing force was amazingly small. The plant's capacity is 2 gallons, and the manager at that time expected to be ru at full capacity within three months.
>
> These are some of the outstanding features of this A large and wonderfully equipped chemical and bacteri cal laboratory in which some interesting and profitable e ments were being conducted; an automatic wagon w and a vacuum for cleaning horses; a drying room fo ployees' clothing; scholarships for the sons and daught employees and farmers who produce the milk used b plant; a fund for training the future executives of the pany by sending them to other plants and to other cou for a study of the industry.
>
> The dairy industry in England is in its infancy. plants of United Dairies were the first to bottle milk in quantities. Even now these plants are almost the only to retail milk in bottles. The English people are sl adopt new habits, and for this reason United Dairies been compelled to use an extensive educational cam Even now, many small dealers do not pasteurize and peddlers fill the bottle received from one customer with for a future customer without washing the bottle. The lish housewife has been accustomed to and demands tw liveries a day. Gradually they are being shown the f expense of such a system.
>
> Milk finally has received the attention of Parliament soon there will be strict enforcement of a law just re passed requiring the pasteurization and bottling of all Certain boroughs of London have advanced so far as quire all milk sold within their boundaries to be from culin tested cows and to be produced on inspected far
>
> If "jolly old England" continues her progress we will be sending over there for new ideas about this dairy bus

The Gaulin HOMOGENIZER
Guaranteed to Stand the Test of Years
FOR 15 YEARS
Gaulin
Manufacturing Exclusively Emulsifying Machinery
"Only Gaulin Can Build a Gaulin"
MANTON-GAULIN MANUFACTURING CO.
BOSTON MASS., U. S. A.

⁂

PLANS FOR SYSTEMIZING CORRESPONDEN IN YOUR OFFICE.

Two piles of correspondence ordinarily are mor cient than three, or four, or more. Pile number for immediate handling, pile number two for lat tention.

One of the most efficient correspondents we eve had a famous around-the-office "tomorrow" d Going through a day's desk work, he would put into this drawer. Invariably, the first thing on th row, he would completely clean it.

Have two things handy as you go through you —a memorandum pad and waste basket. When a can be replied to in 10 to 20 words pencil it on th gin or write a brief penciled memo. Hand on stenographer. Into the waste basket throw ma proportion that eventually will go there. The hal be cultivated of examining satisfactorily once, than twice, a large majority of advertised propo

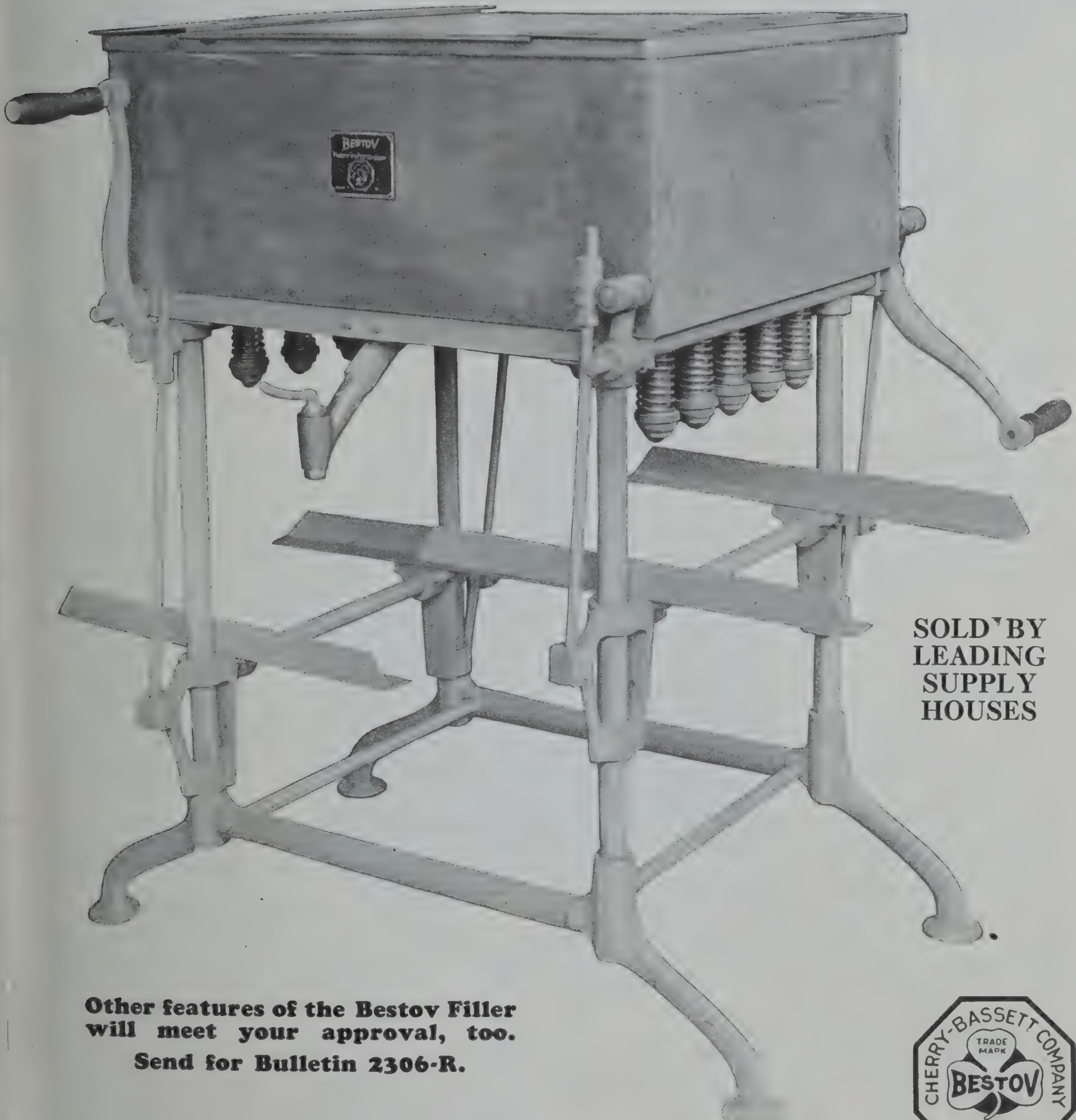
The habit of putting aside for later considera one of the most deadliest the desk worker can ge True, many things have to be put aside for such tion—they deserve it. However, the average desk er delays final action on double the number of he needs to. And each delayed decision cuts do ciency.

Imagine yourself writing a telegram or nigh —and see how briefly it is possible for you to c letters. Nine out of ten correspondents use more than they need to. A great many use double the really necessary. Training brings ability to co ground clearly, fully, yet in brief space.

When you buy a bottle filler, be sure the valves are right

---For the valves *are* the filler. If flimsy, leaky and generally imperfect, you will be dissatisfied, regardless of cost, just as long as the filler lasts.

Bestov Fillers are built with simplified valves, easily kept clean. They won't leak, and always snap shut firmly because they are *ground*. In addition every valve is factory tested with 50 lbs. pressure.



SOLD BY
LEADING
SUPPLY
HOUSES

Other features of the Bestov Filler will meet your approval, too.

Send for Bulletin 2306-R.

CHERRY-BASSETT COMPANY
TRADE MARK
BESTOV
MILK PRODUCTS EQUIPMENT

Cherry-Bassett Company

Pittsburgh

Philadelphia
Baltimore
New York City

Syracuse

GALAXY OF METHODS USED.

(Continued from page 32)

There continues to remain a wide diversity in the basis of payment, although the present-day tendency is toward payment by the hundred weight with a tolerance for butterfat above or below a basic fat standard.

In order to ascertain more accurately the methods used for the purchase and payment of whole milk, a questionnaire was prepared and sent to milk plants in the United States and Canada. Replies were received from forty-eight states and several provinces of the Dominion of Canada.

Many Methods Used.

The following paragraphs give in detail the methods used by many of our largest and most successful market milk distributing plants. When the answers were compiled, repetiton of the same methods was found. However, each method, regardless of the number of companies using it, will be stated but once:

1. The pooling system. For all milk, regardless of fat, a fixed price is paid all patrons per one hundred pounds.

2. Uses a plan called the surplus plan. This plan has been in use since 1918, and a brief outline of its main points are given here. A price is paid per quart, f. o. b. town in which plant is located, with the added stipulation that it will not be required to pay more for milk than its competitors. An amount not to exceed one per cent will be deducted to pay for advertising to increase the sales and consumption of whole milk. At all points where milk is bought on weight and test in addition to the price as finally determined, the company will pay for each additional one-tenth of one per cent butterfat, above three and seven-tenths, an amount per hundred weight equal to one-tenth of the semi-monthly average of a pound of ninety-two score butter, as quoted for the local market by the United States bureau of agricultural economics and will deduct an equal amount per hundred weight for each one-tenth of one per cent butterfat below three and seven-tenths per cent. The company will also add .0075 per hundred weight additional to zone prices for class number one milk delivered in producer's cans. In case of strikes or other causes which shall interfere with the transportation of milk, the company shall not be required to accept milk beyond its needs.

Slight Variations.

3. States that milk is purchased by the contract method. A premium is paid for milk above three and seven-tenths per cent butterfat, figured on United States Department of Agriculture bureau of agricultural economics quotations for ninety-two per cent score butter of local market. The price per quart is eight and one-half cents f. o. b. town in which station is located.

4. Buys milk by a contract with the producer called the pooling system contract. This contract is advantageous to both producer and milk dealer. The producer receives nine and one-half cents per quart for his milk. No further deails are given for this class.

5. Does not purchase milk by contract. The price is not set in advance. The producer has no knowledge of what he is to receive for his product until his check arrives on the fifteenth of the following month.

6. Buys milk by contract which is based on four per cent milk f. o. b. town in which station is located. The present price is seven and one-quarter cents per quart, or $3.37 per hundred weight. A premium is paid for milk of low bacterial count.

7. Does not use the contract system. All purchases of milk are made from the shipper and not from producers direct.

8. Uses a method that is known as the two-p plan. The price paid for the fluid milk is determine a formula which is worked out by the dealers and ducers.

9. Buys milk on the open market from producer a butterfat basis. The base price paid is three and half per cent, with a differential of four cents for tenth of one per cent up or down. They do not buy a contract as it is not necessary, as the same price is for all milk. A high retail value for the milk is m tained and no concern is caused by a surplus. The of payment for milk to the producers is the fifteent each month.

10. Pays $3.00 per hundred weight, plus a prem for three and one-half per cent milk. The company mates its needs for the following month and then not the producer as to the volume of milk the company buy from him at the basic price. By this system the ducer is permitted to keep his surplus milk at hom

Individual Surplus Plan.

11. Buys milk by the individual surplus plan. producer is allowed to set his base as the numbe pounds he expects to produce each month during year. He is allowed to change his base between Jan 1st and 25th of each year. At the present time the ducer receives $2.72 per hundred weight, when mil retailing at eleven cents per quart. When retailin twelve cents per quart $3.04 per hundred weight is for four per cent milk.

12. Uses the contract system and buys directly the producers.

13. Does not use the contract system but buys butterfat basis. Five cents per pound of butterf paid for delivery.

14. Represents a number of plants located in large city. All milk is purchased on a non-contract A majority of the plants purchase the milk on a w and fat basis.

15. Represents several milk plants in a large Two prices are paid, one for shipping stations an other price for the direct shipper. A premium for scoring farms and high grade milk is paid.

16. Uses the surplus plan in the event that their do not consume the average quantity. The quanti then pro-rated to take care of the milk furnished their needs.

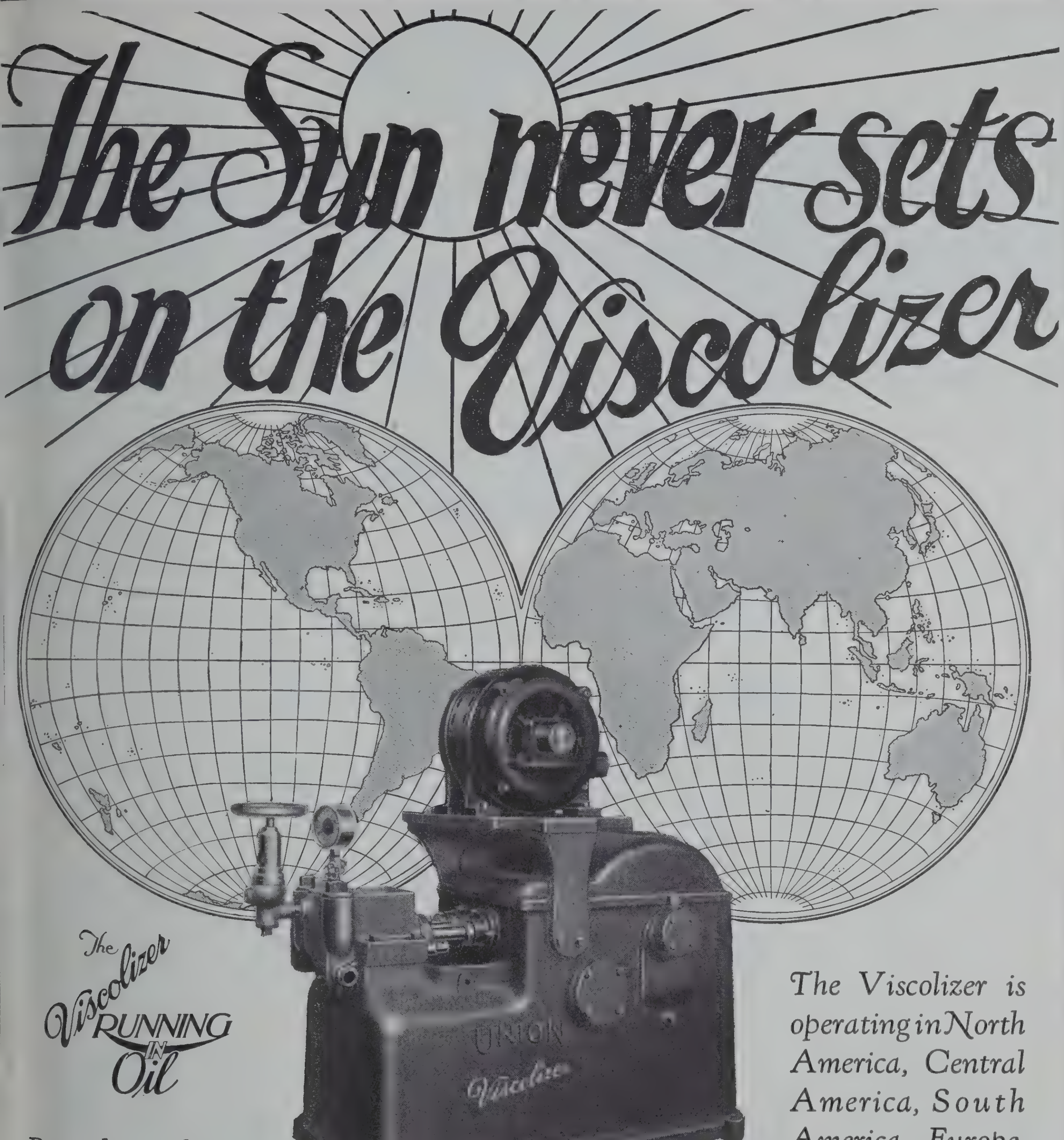
17. Is a plan whereby a state dairymen's associ is maintained which sells milk to the dealers. information on this plan was not received.

Paying for Quality.

18. Consists of several plants from one region. do not have contracts with the producers but buy milk where they can get the best supply. The price was $3.24 per hundred weight for four per cent milk $3.84 per hundred weight for five and five-tenth cent milk.

19. Does not buy by contract. They pay a pre for milk of a low bacterial count. One-half of a c paid for milk having a bacterial count of less than per c.c. This count is taken from an average of plate counts per month.

20. Uses the contract system. About eighty pe of their milk is bought by contract from producers the remaining twenty per cent is based on surplu receives net butter quotation from a large city m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The Viscolizer is operating in North America, Central America, South America, Europe, Asia, Africa, Australia, and in fact all over the world.

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There Are More Viscolizers in Use Than All Other Similar Machines Combined.

WRITE FOR DESCRIPTIVE LITERATURE

DISTRIBUTION DIRECTED BY

JOHN W. LADD CO. **CHERRY-BASSETT CO.**

AND SOLD BY LEADING DAIRY SUPPLY HOUSES EVERYWHERE plus twenty cents per pound butter. The contract price is $4.45 per hundred weight.

21. Uses no contracts, and pay $2.70 for milk testing four per cent.

22. Represents several Canadian stations which state that they use both the contract and non-contract method of buying milk. The prevailing price seems to be about $2.65 per hundred weight for three and one-half per cent milk, with three cents premium above the three and one-half per cent butterfat, or three cents deducted below.

Butterfat Standard.

23. The milk is purchased under the requirement of a written contract. The dealer agrees to purchase milk at $2.50 per hundred weight from September 1 to June 1. The basic butterfat standard is three and one-half per cent, with a tolerande of four cents for each one-tenth of one per cent of fat above or below the standard. From June 1 to September 1 the price paid for milk shall be the open market price, or shall be fifty cents per pound of butterfat of standard test and for all butterfat in the milk above he standard, sour cream prices shall be paid.

24. A price of $3.00 per hundred weight is paid from September 1 to November 1, after which the price is $2.50 per hundred weight, to June 1. From June 1 to September 1, the price shall be as paid by the open market. The butterfat standard during the entire year shall be three and one-half per cent, with a tolerance of five cents for each one-tenth of one per cent, above or below the butterfat standard. The dealer agrees to accept all milk the producer delivers during the entire year. The agreement is verbal. All milk must have a temperature of fifty degrees Fahrenheit or lower at time of delivery.

25. Blank Dairy Company purchases a large volume of market milk. They desire to purchase milk of the best quality and have assurance of receiving a uniform volume during twelve months of the year. A contract is prepared and considered by the parties concerned. The Blank Dairy Company agrees to purchase and pay for, under the terms and conditions hereinafter set forth, all milk delivered during the year of 1925. For all milk delivered the dealer agrees to pay $3.00 per hundred weight for three and one-half per cent milk, with a premium of one-half cent per gallon of milk having a bacterial count of less than 50,000 per cubic centimeter, taken from the average of eight plate counts per month. For every point above three and one-half per cent the dealer agrees to remit three cents additional per one hundred pounds. For every point below three and one-half per cent, a deduction of three cents per one hundred pounds is made. Milk shall not be adulterated or misbranded within the meaning of the Federal Food and Drug Act of June 30, 1906, or acts in amendment of or in addition thereto. The producer hereby licenses the Blank Dairy Company, its servants or agents, to enter upon his premises at reasonable times for the purpose of inspecting his cows, buildings, apparatus and methods in the production of milk. In consequence of present conditions, both in country, market and a sales market, the Blank Dairy Company reserves the right, if necessary, to modify prices and conditions quoted that in any way shall oblige the Blank Creamery Company to pay more for its milk during the month of August than any other dealer operating in Blank City.

Some Limited to Locality.

The systems, as stated, are variable in their application and contents. It is easy to observe that the use of several of the systems is limited to particular localities, others are more elastic and command wider application. A large number of the different sections of the co utilize the contract system to an advantage or di vantage.

Some contracts play an important part in the chase of a large volume of market milk. It woul timely to enumerate several of the advantages and advantages of the contract from the standpoint of dealer and the producer.

Advantages of Buying Milk by Contract.

1. The dealer is certain to receive a definite am of milk which is specifically indicated by the contra

2. The dealer, because of his control of the situa is able to secure a milk of a high and standard qua

3. The dealer has much less trouble with his pat as the agreement aids in smoothing out foreseen understandings.

4. The contract can improve the dealer's busi because it is made more stable and he possesses b control of the situation during a twelve-month peri

5. He has the privilege of farm inspection, whi in itself an asset not to be overlooked.

6. He does not have to receive the milk unle meets the specifications of the contract. This sectio the contract is sometimes used to an injustice to the ducer as some dealer will intentionally find the ducer's milk unsatisfactory when he is experiencin surplus that otherwise would be passed unnoticed.

Disadvantages of Buying Milk by Contract.

1. The dealer is compelled to handle a surplu milk when his customers decrease their consump The margin of profit enjoyed during that part of year when the demand equals the supply is elimin The producer, in this instance, has the upper hand, a much as he has a stable market just so long as he plies with all sections of the contract.

2. Expense involved in making contracts. The ex pense is borne by both parties, however, the major pa absorbed by the dealer.

3. Trouble encountered when producer fails to contract. Every producer who is offered a contract not accept, and oftentimes when a producer has kn edge of the details of the contract he may endeav capitalize on his knowledge to the extent of inv other producers to join him in holding out for a b price, or to formulate a general boycott of the milk ply of the dealer.

4. The contract may hinder his business. Ex ence with a contract teaches that every phase of the agreement cannot be made to so favor one party. party must be willing to be slightly penalized.

Advantages of Buying Milk Without Contract.

1. Need not have any surplus. At a season of the year when the flow of milk greatly exceeds the dem of the consumer, a dealer can, on pre-arrangement ac cept a quantity of milk only sufficient to comply wit the demand. The price of milk may be reduced durin the flush season, or the dealer may object to accepti part or all of the milk of certain producers. Rather sustain this latter loss the producer who is broadmi and not too selfish, will gladly share what othe might prove to be a loss for all parties concerned.

2. Can stop buying from producer more easily his product falls below standard.

3. Saves expense of making contracts.

4. Can regulate price more easily. As condi and markets take an unforeseen turn the dealer ca increase or decrease the supply to meet his own needs.

5. Less trouble with patrons. When the proc

Cleanliness
Purity
and
Long Life

The one ideal
Metal for you
to Specify for
your Plant ~
Equipment is

MALLEABLE
American
Nickel
99%
PLUS

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FROM
COBALT

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CLEARFIELD, PENNSYLVANIA

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is obligated by a contract he is sometimes prone to take upon himself unnecessary authority or should he desire to free himself of a contract that perhaps would not stand the test in court and has knowledge of this fact, he may make conditions unpleasant for the dealer, particularly if the dealer is experiencing a shortage of milk.

6. Better satisfied. Yes and no. The foregoing statements indicate that the use or failure to use a contract in the purchase of milk may or may not cause the dealer and the producer to be satisfied.

Disadvantages of Buying Milk Without Contract.

1. Milk supply not so stable. The dealer is less likely to have a desirable control of a portion of the local or nearby milk supply. The producer is prone to change from one dealer to another as a better price is offered. This change on the part of the producer may ultimately work to his disadvantage, as the dealers soon learn that he is not reliable as a regular patron.

2. Company must be rather large. Influence must be had by a company to have absolute assurance of receiving a supply of milk necessary to furnish its trade daily. Should an enormous oversupply present itself the company must be positioned to cope with the problem and should be financially capable of absorbing their oversupply or stand the loss. A small company may be financially embarrassed if called upon to face this predicament on more than one occasion.

3. Not certain of milk supply all the year round. The average producer is highly desirous of delivering his milk to a plant where he has some assurance of having a market twelve months of the year and several years in succession.

4. May have desire to raise price to secure amount of milk needed. Should competing companies issue costracts that meet in a satisfactory manner the wants of the average producer, the company not issuing contracts must resort to some procedure to secure sufficient milk to fill its orders. The most common method is to offer a price for milk exceeding that of its competitor. Such a practice costs money. Should its competitors decide to meet the increase in price and perhaps make a further increase in the way of retaliation, the situation can be made most embarrassing for the concern failing to issue the contracts.

Method number one, the pooling of milk, which dates back to 1850, has one and only one advantage, in that it requires very little figuring on the part of the milk dealer and is easily understood since a fixed price is paid for one hundred pounds of milk. The disadvantages of this method are so numerous that they easily outweigh the one advantage mentioned.

Buying on Tradition.

Surprising as it may appear, a large number of milk dealers continue to practice this method. Their reason for doing so in most instances is that the method has been practiced for so long a period of time that should a change be made, the producers would become suspicious. One serious objection to this method is that it encourages dishonesty. When milk is paid for by weight alone there is a temptation for the patron either to increase the weight by adding water, or remove a part of the cream. This is, of course, fraud and imposes a penalty upon the other patrons. Such a system of payment cannot be too strongly condemned.

The price paid for milk, based on consideration of the probable cost of production and the variable supply in relation to the estimated market requirements, is a logical method and is used to some extent.

Buying milk by contract with inserted clauses
are conducive to the production of a high grade prod
with considerate prices seems to be the most unive
method. Flavor, odor, acidity, richness and body sho
determine the quality of the milk. Too high a prem
for dairy farm scores and low bacterial count should
avoided as it is doubtful if this procedure pays.

The method of purchasing milk from the produ
that is the most practical, and one which is without q
tion the most satisfactory to the dealer and produce
the buying of milk by the hundred weight, with a defi
butterfat base, the producer to be reimbursed or
alized as the butterfat test of his product deviates f
the standard. Due recognition should be given to
quality of the milk, the conditions under which it is
duced and its subsequent care until delivered to
plant of the dealer. A contract between the dealer
the producer may or may not be advisable.

Regardless of what the understanding may be
tween the dealer and the producer, the consuming pu
is entitled to the highest quality of product that i
possible to produce. This high quality product n
then be carefully safeguarded by the dealer or dist
utor. An understanding between the producer and
dealer which is entirely satisfactory to all parties g
assurance that the consumer will receive milk of
highest quality.

⚜

FAMOUS BUSINESS PROVERBS.

By John T. Bartlett.

> "Only he who attempts the absurd is capable
> of achieving the impossible."—UNAMUNO.

Business history is replete with stories of men
knowing a thing was impractical, set out to do it—
succeeded.

Specialty salesmen have a maxim that the most
likely prospects are the ones they sell to.

Another piece of evidence: "I'm ready to try
thing once," says the modern sophisticate.

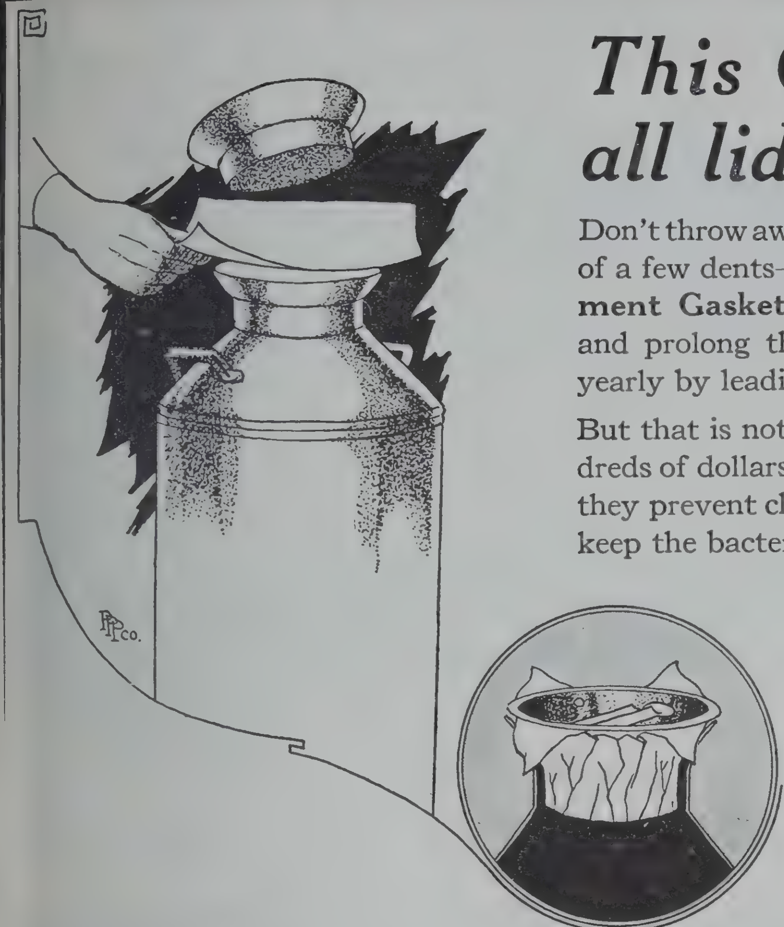
Unamuno, in a more literary, comprehensive
expressed a truth in crystal words which in business
been demonstrated again and again. Mass opinio
right in a great many things. A strong social insti
in man is to respect such opinion. It is easy to re
why. Disregard for the overwhelming majority
from the beginning meant at least disapproval.
popularity, and, a great many times, punishment,
always been possibilities.

If mass opinion were always right, the desire
social approval, as the psychologists term it, woul
purely beneficial to the human race. The masses,
ever, are frequently wrong. The masses are pio
Always, must there be leaders, who are courag
enough to assume the risk of leadership.

Courage to be different, to try out the impossi
because it is believed the impossible is genuinely
tical—is a quality of extraordinary value in the bus
man. Judgment is necessary, of course—else his fail
keep the intrepid experimenter almost continuously
merged. When the successful combination of cou
insight and skill in application is possessed, how
then follow the big surprises in commercial endea

⚜

Do you need a good superintendent, buttermak
buttermilk man? We can find him for you, throu
"Milk Dealer" Want Ad.



This Gasket makes all lids fit like new!

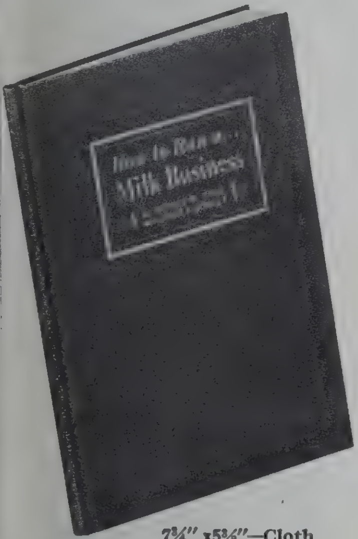
Don't throw away perfectly good cans or lids because of a few dents—use **Paterson Vegetable Parchment Gaskets.** They make all lids fit like new and prolong the life of every can. Millions used yearly by leading milk shippers.

But that is not all! Parchment Gaskets save hundreds of dollars worth of "spilled milk and cream"; they prevent churning of cream in the lid and help keep the bacterial count where it belongs.

Parchment Gaskets are easy to use. They come cut to size in packages of 1000. **Soak them thoroughly in clean water,** place over neck of the can and jam down the metal cover.

Samples and prices from your
Dairy Supply House or write direct

The Paterson Parchment Paper Co.
Passaic, New Jersey



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Accurate Control of Your Business;
More Sales; and Lower Expenses.

The plans and methods used by other successful MILK DEALERS to build up prosperous businesses are for the first time told in this handy book. Much of the information given has never before appeared in print.

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ASK FOR QUANTITY DISCOUNTS

THESE PLANS WILL BE WORTH MANY TIMES THEIR COST TO YOU—NO MATTER HOW LARGE OR HOW SMALL YOUR BUSINESS IS.

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THE OLSEN PUBLISHING COMPANY
FIFTH and CHERRY STREETS • • MILWAUKEE, WISCONSIN

Fluid Milk Market Report for United States for Nov., 192

By Bureau of Agricultural Economics, Market News Service, United States Department of Agriculture.

Table I—Producers' Prices for Standard Grade Milk Testing 3.5% Butterfat, Delivered F. O. B. Local Shippin Point or Country Plant.

Prices which appear in this report are secured through the co-operaton of milk distributors, producers' associatio and municipal officers. Dealers' buying prices unless otherwise indicated, represent prices applying to all milk delivere by producers. For cities where a "surplus plan" is in effect, the prices reported in table III are for "basic" quantitie All per cwt. buying prices have been converted to a 3.5% butterfat basis for comparative purposes.

Sections	Range of November Prices		Prices Compared for Same Markets			
	Number Local Markets	Prices per Hundredweight	Number Local Markets	1926 Average for November	1926 Average for October	1925 Average for Novem
New England	8	$2.94–$4.10	7	$3.48	$3.41	$3.56
Middle Atlantic	15	2.30– 3.15	14	2.86	2.83	2.67
E. North Central	24	1.96– 3.29	22	2.55	2.50	2.51
W. North Central	19	1.66– 3.27	18	2.26	2.25	2.27
South Atlantic	15	2.80– 5.81	14	3.82	3.83	3.95
E. South Central	5	2.25– 3.42	5	2.66	2.55	2.73
W. South Central	6	1.90– 3.30	6	2.64	2.57	2.66
Mountain	5	1.93– 3.20	5	2.44	2.42	2.57
Pacific	9	1.80– 3.13	9	2.57	2.55	2.76
United States	106	1.80– 5.81	100	2.79	2.76	2.81

Above prices include "basic" prices where a surplus plan or pooling plan is in effect. Cities where prices are bas upon current butter quotations not included.

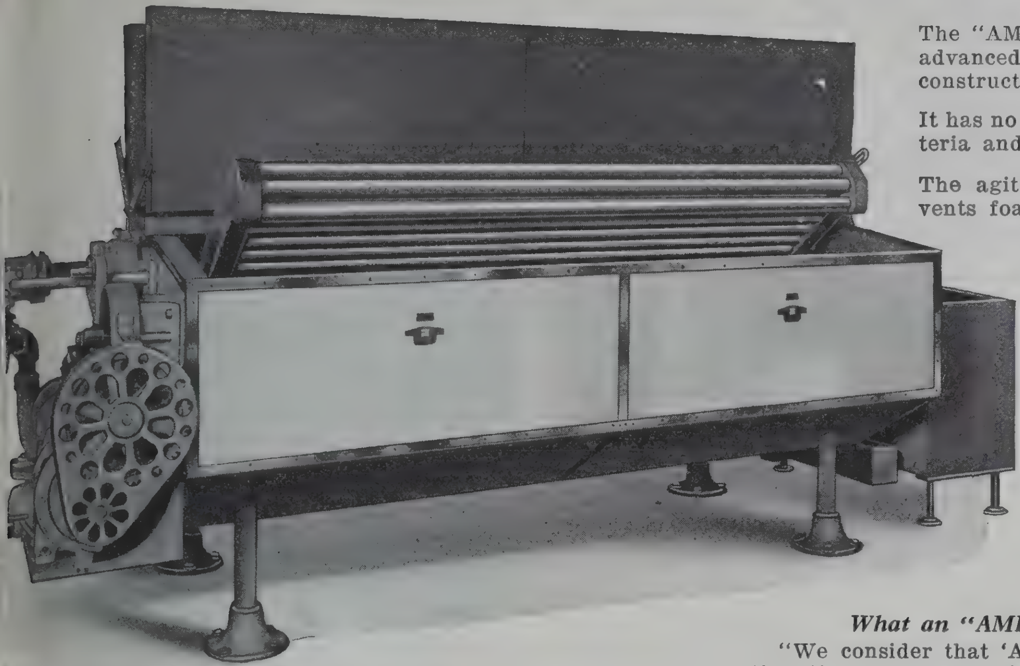
Table II—Prices for Special Grades of Milk and Certain Milk Products.

The following table shows the wholesale and retail prices reported for "special" and "certified" milk and certain oth products delivered at wholesale buyers' places of business and at the home of retail customers.

Cities	Special Milk	Certified Milk	Cultured Buttermilk		Cottage Cheese		Light Cream 18-25% B. F.	
	Retail Price per Quart	Retail Price per Quart	Wholesale Price per Gal.	Retail Price per Quart	Wholesale Price per Lb.	Retail Price per Lb.	Wholesale Price per Gal.	Retai Price p ½ P
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	$	Cts.
Akron	16–18	20	20	8	8	10	1.30	16
Albany	18	..	..	10	..	..	1.60	17–2
Albuquerque	..	..	..	..	18	..	1.75	15
Allentown	16	..	..	13	12	14	2.00	17
Asheville	19	25	..	..	15	..	2.00	20
Baltimore	..	30	44	14	7–10	15*	1.70	16
Birmingham	20	25	25	7–10	..	..	1.50–1.60	20
Boston	18	26	..	10	..	..	1.17–1.79	..
Buffalo	14	26	24	10	10*	12*	1.50–1.60	20–2
Chicago	17	25	..	10–20	..	15*	1.30–1.80	16
Cleveland	19–20	25	..	12	12–15	15–20	1.26–1.88	15–2
Colorado Springs	17	..	15	6	..	..	1.20	11
Columbus	17	25	35	12	10	12	1.45	14
Dallas	24	..	20	8	15*	20*	1.40	11–1
Denver	14	..	..	8	..	..	..	14
Des Moines	14–25	..	20	9–11	8–10	10–14	1.45	14
Detroit	..	25	..	..	..	..	..	16
Duluth	14	25	13	8	..	..	1.40	16
El Paso	18	..	25	11	15*	20*	1.50	15–1
Evansville	15	..	25	9½	12*	15*	1.60	14
Harrisburg	..	..	28	9	..	..	1.50	13
Hartford	27	27	..	..	..	..	1.40	18
Indianapolis	16	..	25–32	10–12	10–12	15–20	1.10–1.75	12–1
Jacksonville	25	..	30–35	10–12	20	..	1.60–2.25	20–3
Kansas City	15–25	25	25	10	15	15*	1.60–1.90	11–1
Lincoln	14	20	20	10	12	15	1.25	10
Long Beach	20	28–30	25–30	10	10	15	1.30–1.60	17
Los Angeles	..	28–30	25	10	..	..	1.30	17
Louisville	17	24	..	13–14	..	..	1.00–1.63	16
Memphis	..	30	15–20	6–7	..	..	1.10–1.40	15
Miami	35	35	50–60	20	25	35	2.00	30
Milwaukee	14–18	25	16–18	6	5–7	9–10	1.30–1.65	14
Minneapolis	..	22	..	13	10*	12*	1.40	14–1
Nashville	18	..	22	10	17	20	..	16
New Orleans	18	31	40	14	..	..	1.20	17
New York	30	28	28	11	..	..	..	..
Omaha	15	20	20	10	10	..	1.30	11
Philadelphia	15	30	..	9–13	..	..	1.56	17
Pittsburgh	..	25	20–25	10	..	..	1.25–1.40	16
Portland	..	..	..	..	..	..	1.40	15
Richmond	16–18	..	25	8	..	15	1.20–1.30	14
Rockford	..	..	..	..	..	..	1.40	15
Salt Lake City	15	..	15	7	..	..	1.35	15
San Francisco	..	25	..	14	..	20	1.80–2.50	20
Scranton	18	25	20	8–10	..	..	1.40–2.40	20–2
Seattle	..	20	50	20	12	15	1.30	14–1
Sioux City	..	25	15	6	10	10*	1.20	10
Spokane	18½	18½	20	10	10	15	1.55	15
St. Louis	18	25	..	10–18	13	15	1.26–2.00	15–1
Trenton	17	30	40	13	..	..	1.76	15–1
Trinidad	20	25	25	10	..	..	..	..
Washington	18–20	30	60	15	15–20	15–20	2.00	20
Wilmington	20	..	24	10	12	13*	..	17

* 12 oz. package

“AMERICO” THE PASTEURIZER WITH A PURPOSE



The “AMERICO” embodies the most advanced principles in design and construction.

It has no stuffing boxes to gather bacteria and contaminate the batch.

The agitation is gentle. This prevents foaming, churning and breaking of fat globules.

Heating is done with water below 160° F. There is no burning on the coils nor scorching of the product.

The flush type outlet valve is standard on all vats.

Thorough cleaning of all parts is accomplished with ease as the coils can be raised out of the vat.

What an “AMERICO” User Says:

“We consider that ‘AMERICO’ is nearer perfection than any pasteurizer we have ever used.”

The new “AMERICO” with improved coil control

MERICAN COPPER & BRASS WORKS
Manufacturers of Dairy Equipment

610-616 E. FRONT STREET
CINCINNATI, OHIO

SOLAR
MILK CANS

ALWAYS DEPENDABLE - - - - -

Each separate part chemically treated and cleaned, evenly and heavily coated with pure tin and then assembled by expert workmen. Quality is guaranteed—workmanship is guaranteed.

REMEMBER—when prompt shipment is imperative, you can rely on us.

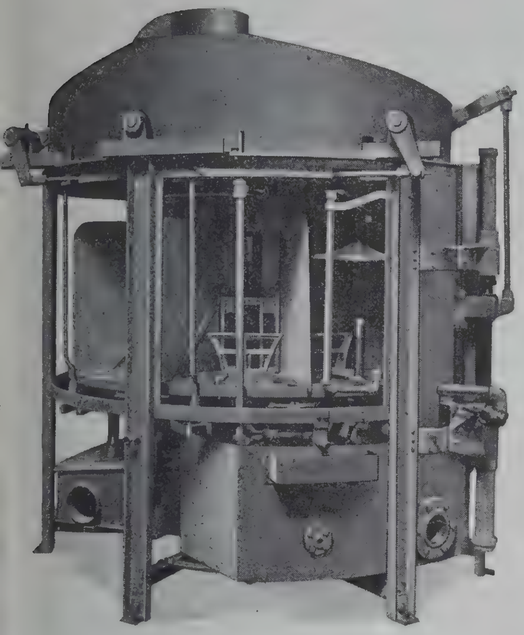
SOLAR - STURGES MFG. CO.

MELROSE PARK . . . ILLINOIS

Table III—November Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat Test of Milk Sold
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5-20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
ALABAMA—							
Birmingham	3.42–3.90	Flat to 4.2%	45–50	14	18	14–18	4.0
Mobile	....	..	45–50	14	16	16	3.25
ARIZONA—							
Phoenix	....	..	32–36	9–10	10–12½	10–12½	..
CALIFORNIA—							
Fresno	Butter Market Basis		35	11	13	12–13	3.8
Long Beach	3.26–3.33	9.3–9.5	43.33	13	15	15	4.1
Los Angeles	3.33	9.5	43.33	13	15	..	3.6–4
Oakland	2.82	2.9+	35	9	12	10	3.8–4
San Francisco	3.11–3.21	2.9+	41.3–41.6	12	14	13–14	3.6–4
Santa Barbara	Butter Market Basis		40–45	11–14	15–16	15–16	3.8–4
COLORADO—							
Colorado Springs	2.45	6	30	9	11	11	3.4–3
Denver	2.19	6.25	..	..	12	..	3.5
CONNECTICUT—							
Bridgeport	4.68*	4	48	14	16	16	3.6
Hartford	4.22*	4	46	14	16	..	3.9
New Haven	4.22*	4	50	14	16	16	3.7
DELAWARE—							
Wilmington	3.23*	4	44	13	13	14–15	3.6–3
DIST. OF COLUMBIA—							
Washington	3.60*	7	42–48	11–15	15	13–15	..
FLORIDA—							
Jacksonville	4.53	10 to 4.2%	55–60	18	20–21	20–21	4.0–5
Miami	6.40–6.67	Flat	70	20	23–25	20–25	4.0
Tampa	5.81	Flat	60	18–22	18–25	25	3.5
GEORGIA—							
Atlanta	2.80	8	50	..	..	..	4.0
ILLINOIS—							
Chicago	See Table II		32–38	13	14	14	3.5
Joliet	2.70	4	38	..	14	14	3.8
Quincy	....	..	30	8	10	10	3.5
Rockford	2.55	6	28	9	11	11	3.6
Springfield	2.25	4	34	10	12½	12–13	3.8–4
INDIANA—							
Elkhart	2.25	5	30	7½	10–12	11–12	4.0
Evansville	2.31	6.6	34	11	12½	12½	3.7
Fort Wayne	2.10	4	40	11	13	12–13	3.8
Indianapolis	2.10	6	28–32	10–12½	12	11–12	3.6–40
South Bend	2.55	4	32	10	12	12	3.8–40
IOWA—							
Burlington	2.55	4	30	8	10	10	3.6
Clinton	Butter Market Basis		30–32	9	..	..	..
Davenport	2.20	5	28	8	10	8–10	3.6
Des Moines	2.65*	5	32	9	12	11–12	3.5–37
Iowa City	2.27	6.5	30	9	12	12	3.5–38
Mason City	2.25	5	..	10	12	..	..
Ottumwa	2.25	5	35	10	12	12	3.
Sioux City	2.30	5	30	8	10	10	3.6
KANSAS—							
Kansas City	....	..	35	10	12	12	3.
Topeka	2.10–2.20	4–5	30	8	10	10	3.
KENTUCKY—							
Lexington	2.90	Flat	40	12	15	14–15	4.
Louisville	2.42–2.47	4–5	32	11	13	13	3.8–0
LOUISIANA—							
Alexandria	2.91	Flat	40	12	15	13	4.
New Orleans	3.04	4	35	12	14	14	4.
MARYLAND—							
Baltimore	3.55*	5.8	44	14	14	15–16	4.
Cumberland	4.15	5	40	13	15	15	4.0–2
MASSACHUSETTS—							
Boston	3.86*	B. M. Basis	41	12	14½	12	3.
Easthampton	....	..	46	12	14	14	3.
Fall River	....	..	..	..	14	13–14	..
Lawrence	3.95	Flat	44	11½–12	14½	12–15	..
Pittsfield	2.94	4	36	11	14	14	..
Springfield	3.49	Flat	40	12	15	11–12	3.
MICHIGAN—							
Battle Creek	2.80	4	40	..	12	12	..
Detroit	3.00*	5	..	..	14	..	..

JENSEN
The Mark of Merit



JR. BORDEN

Can Washer, Sterilizer and Drier

Built on "The Rising Nozzle Spray" *Principle*

THOROUGHLY WASHES
(Not Merely Rinses the Surface)
DRIES (BONE DRY)
Milk and Ice Cream Cans and Covers

Every CRACK and CREVICE as well as SURFACE of can is freed from dirt, putrified casein and fat due to the

HIGH TEMPERATURE
RISING NOZZLE
HIGH PRESSURE

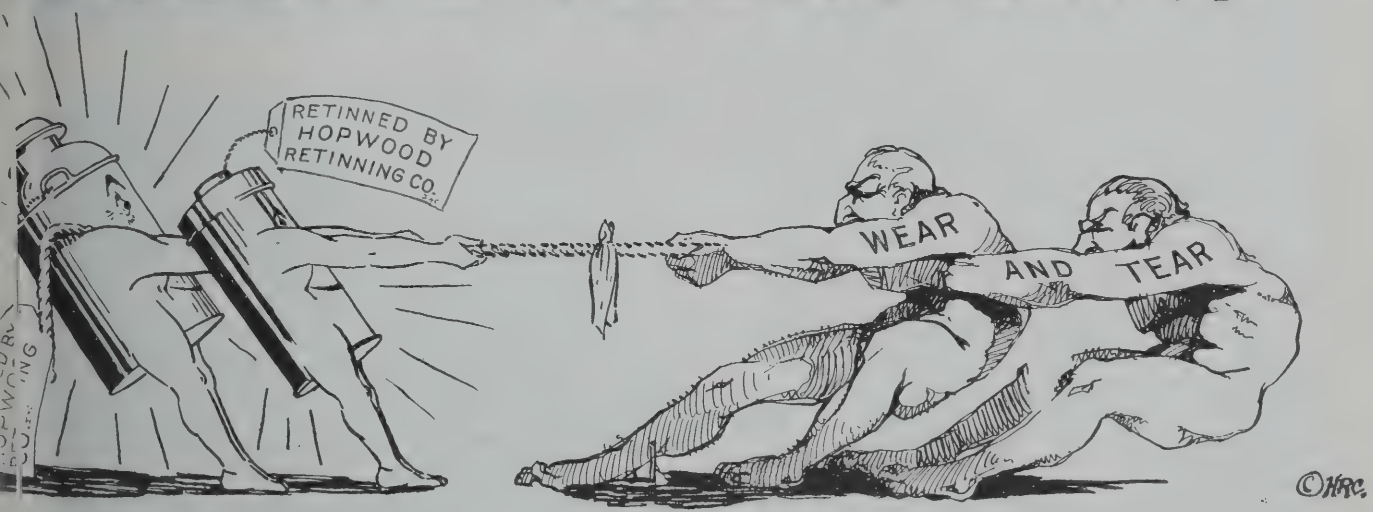
Features of the JR. BORDEN

Write us for detailed information!

Jensen Creamery Machinery Company

BLOOMFIELD, N. J.
OAKLAND, CALIF.

OLDING THEIR OWN


RETINNED BY HOPWOOD RETINNING CO.
WEAR
AND
TEAR
©HRC.

Ship your rusty or leaky cans to us for re-tinning. We are a Reliable, Experienced Concern.
High Quality, Quick Service at Right Prices.
We have been connected with the manufacture and re-manufacture of Milk Cans and Ice Cream Cans since **1898**

HOPWOOD RETINNING CO., Inc.

in Office
56 Commercial Street
Brooklyn, N. Y.

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Table III—November Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat Test of Milk Sold
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5-20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
Grand Rapids	2.48*	4	30	8–9	9–12	9–12	3.
Kalamazoo	3.00*–3.20*	4 to 4%	38	11	13	13	3.5–
Lansing	2.25	Flat	30	8	10	10	..
MINNESOTA—							
Duluth	2.70*	5	30	10	12	12	3.
Minneapolis	2.60*	5	34	9½	11	10–11	3.5–3
Northfield	3.27	5	32	9	10	10	3.
St. Paul	2.60*	5	..	..	11	9–11	..
MISSOURI—							
Kansas City	2.50	3.5	40	10–11	13	10–13	3.6–
St. Louis	2.80	3	35–38	11	13	11–13	3.5–
MONTANA—							
Butte	2.60	10	30–35	11	13	13	3.5–
Lewistown	....	..	30	8	10	10	3.
NEBRASKA—							
Lincoln	2.01	5.75	28	8½	10	10	3.
Omaha	2.25	5	28	9	11	11	3.4–
NEW JERSEY—							
Atlantic City	....	..	48	..	15	..	..
Camden	....	..	38	..	13	..	..
Hoboken	....	..	34	10.6	15	15	3.
Trenton	3.41*	4	40	11	13	14–15	3.
NEW MEXICO—							
Albuquerque	3.20	5.8	40	12–12½	15	15	4.0–
NEW YORK—							
Albany	3.17*	4	38	15	15–17	16–19	3.
Buffalo	2.90*	4	35–40	11–11½	13	11–13	3.5–
New York	See Table II		40	14	15	15	3.
Rochester	2.85*	4	40	11	12½	..	..
Syracuse	....	..	32	11	13	13	3.
Utica	3.02*	4	36	10	12	12	3.5–
NO. CAROLINA—							
Asheville	3.80	4	48	14	17	17	4.
Biltmore	3.80	4	..	..	..	..	..
Greensboro	3.70*	6	50	14	17	20	4.
Winston-Salem	3.30*	4	45–50	13	16	17–18	4.3–
NO. DAKOTA—							
Mandan	2.75	4	35	8	13	10	3.6–
OHIO—							
Akron	3.40*	5	40	11	13	13	3.
Cleveland	3.50*–3.60*	5	42–44	11–12	14–15	10–15	3.5–
Columbus	2.69*	5.2	38	10–11	12	12–13	3.5–
Toledo	....	..	36	10½	..	..	.
OKLAHOMA—							
Oklahoma City	2.10	6	35	10	12½	12	4.
Tulsa	2.45–2.80	7–8	30–40	8¾–11	12½–18	10–20	4.
OREGON—							
Portland	2.20	5	30–35	9	12	10–11	4.
Salem	2.05	5	32	9½	12	12	4
PENNSYLVANIA—							
Allentown	3.16*	4	36	11	13	13	3
Altoona	3.16	4	42	11	13	13	4
Harrisburg	2.55	4	32	9	11	11	3
Philadelphia	3.49*–3.52*	4	38–40	12	13	13	3
Pittsburgh	3.90*	5	34–40	13½	14–15	..	3.6
Scranton	3.10	4	38–40	12	12–13	13–14	3.5
RHODE ISLAND—							
Newport	....	..	..	..	15	15	3.9
Providence	3.86*	B. M. Basis	55	12	15	..	3
SOUTH DAKOTA—							
Sioux Falls	2.50*	5	30	10	12	12	3
TENNESSEE—							
Chattanooga	2.80	8	45	12	18	18	4
Memphis	2.58–2.73	4.5	32–40	10–11	15	12–13	4.3
Nashville	Butter Market Basis		..	..	14	14	
TEXAS—							
Dallas	2.60	4	30	10	12	10–12	4
El Paso	3.50*–3.60*	5	35	12	15	13–15	3.6
UTAH—							
Salt Lake City	2.45	7	28–30	9½	10–11	11–12	3
VIRGINIA—							
Newport News	4.20	6	50	15	17	17–20	3
Richmond	3.93–4.05	5	44	13	14	..	3

* Basic prices for fluid milk.

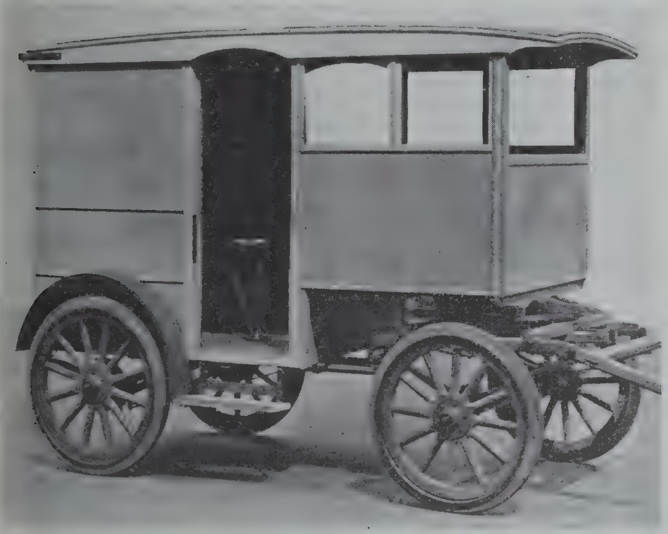
CHRISTMAS is not only the season of "good will," but is also the time when we allow ourselves the privilege of enjoying our friendships to the fullest extent.

Business friendships are the real life of business prosperity, and service is the basis upon which we have enjoyed many friendships in the Milk trade.

We sincerely extend to the Milk industry the heartiest Christmas Greetings and Good Wishes for success in the coming year.

J. B. FORD COMPANY WYANDOTTE, MICHIGAN

A New Step Forward in Milk Wagon Construction!



This new construction eliminates renewal of axles and axle boxes.

One greasing lasts a whole year.

New style rubber tires that out-last three sets made of steel.

Banishes 9/10 of ordinary wheel repairs.

Bodies built of white oak and plymetl panels.

Timken Roller Bearing axles and roller bearing fifth wheel, and special automobile foot brake.

Selected hickory gear and extra heavy springs.

Draft is three times as easy on the horse.

Loads 36 to 42 cases.

Semi low-down construction.

HERE IS THE WAGON THAT WILL CUT REPAIR BILLS AND GIVE YOU LONGER SERVICE.

GET OUR PRICES NOW!

JOHN GUEDELHOEFER WAGON CO., Inc.

ESTABLISHED 1880

202 KENTUCKY AVENUE INDIANAPOLIS, IND.

Table III—November Cost and Selling Prices.

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			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5-20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
WASHINGTON—							
Everett	....	..	28	7	9	9	3.8
Seattle	....	..	31	8½	11	10	4.0
Spokane	2.35*–2.55*	5	34	10	12	12	3.8–4.
Tacoma	2.70	5	35	10	12½	11–12	3.6
WEST VIRGINIA—							
Clarksburg	3.25	5	40	13	15	16	3.8–4.
WISCONSIN—							
Beloit	2.50*	5	30	8	10	10	3.8–4.
Kenosha	3.00	4	40	11	12	12–13	3.6
Madison	Butter Market Basis		36	9	10	10	3.75
Milwaukee	2.90*	4	30	9–9½	11	10–11	3.5–3.
Oshkosh	Butter & Cheese Market Basis		..	9	10	10	4.0
Racine	2.75	4	38	10	11	11	3.5
Sheboygan Falls	Cheese Market Basis		..	..	11	11	..
Superior	2.70*–2.74*	5	32	11	12	12	3.8–4.
Wausau	2.25	3	..	8½	10	10	3.8

* Basic prices for fluid milk.

Table IV—November Cost Prices of "Standard Grade Milk" 3.5% B. F. for Cities Where Part of the Supply Purchased Through Country Stations.

Cities	Prices Paid Producers per cwt. raw Milk (Flat prices of 3.5% B.F. basis)		Freight Zones to Which Country Station Prices Apply
	F. O. B. City	At Country Stations	
New Haven, Conn.	$4.22*	$3.70*	28c rate.
Washington, D. C.	3.60*	2.97*	35c 10-gal. can.
Chicago, Ill.	Unavailable	2.50–2.55	All.
Baltimore, Md.	3.55*	2.97*	35c rate.
Boston, Mass.	3.86*	3.12*	191-200 mile zone.
St. Louis, Mo.	2.80	2.20	34c rate.
Trenton, N. J.	3.41*	2.85*	41-50 mile zone.
Buffalo, N. Y.	2.90*	2.62*	28c rate.
New York, N. Y.	Unavailable	3.10*–3.15*	201-210 mile zone (53c rate).
Cleveland, O.	3.50*–3.60*	3.22*–3.29*	All.
Philadelphia, Pa.	3.49*–3.52*	2.91*–2.95*	51-60 mile zone.
Pittsburgh, Pa.	3.90*	3.15*	All.
Scranton, Pa.	3.10	2.80	30c rate.
Dallas, Texas	2.60	1.90–2.20	All.

* Basic prices for fluid milk.

NOTE: At all places in the above tables where prices are not shown, the information was either not reported or not available.

ALBERT RATZENSTEIN PASSES.

Albert Ratzenstein has sold his last bill of goods and has started on his last, long road trip.

For many years identified with the dairy industries, and serving as secretary and treasurer of the Cresco Creamery Supply Co. of Chicago, the death of Mr. Ratzenstein was received by those with whom he was acquainted as a severe shock. It was known that he was in poor health for some time past, but death is never expected. On October 25 it was found necessary to operate on Mr. Ratzenstein and from that time until his death, six days later, the human current supplying life steadily grew fainter.

Although a man of but 47 years of age, the deceased was connected with the dairy industry for the past 35 years, and the host of friends that he has made during that time are countless. Mr. Ratzenstein is survived by two sisters and three brothers.

OHIO COMPANIES MERGE.

The Kenmore Pure Milk Co., Kenmore, O., and Barberton Pure Milk Co., Barberton, O., have been solidated. Tony Rock, proprietor of the former comp for the past seven years, announced the name of the firm will be the Kenmore-Barberton Pure Milk Co.

R. M. Parker, formerly head of the Barberton pany, will remain with the new concern which has of on Wooster-rd., Kenmore.

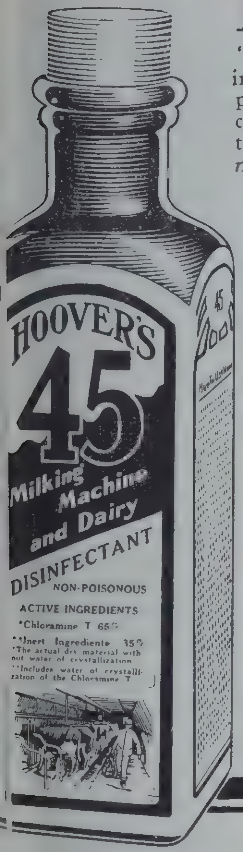
Rock started the Kenmore business with one which has now expanded to 15. Five routes have added since the merger Monday.

A total of 2,000 gallons of milk and 1,000 gallon dairy products are handled daily.

"The merger will assure our customers of service," Rock said in making the announcement of merger.

No additions will be made to the present plant the exception of installation of some new machiner was announced.

.s Economical As It Is Efficient


HOOVER'S
45
Milking Machine and Dairy
DISINFECTANT
NON-POISONOUS
ACTIVE INGREDIENTS
*Chloramine T 65%
**Inert Ingredients 35%
*The actual dry material without water of crystallization
**Includes water of crystallization of the Chloramine T
45

"Hoover 45's is a highly efficient disinfectant, deodorant and cleansing agent, prepared especially for use in dairies, creameries, ice cream and cheese factories, etc. It is very powerful, yet is *non-poisonous* and is therefore an ideal preparation for flushing out milking machines, washing milk cans, cleansing milk vats, ice cream cans and other equipment of a similar nature. It is *safe to use, thorough in its action, and at the same time very economical.*

One 10-oz. bottle of "Hoover's 45" (it comes to you as a white powder soluble in water) will make 475 gallons of powerful solution that is chemically permanent. Large quantity production enables us to offer very attractive prices.

Let us quote you prices covering your requirements for a disinfectant and cleansing agent of this nature.

The
UNIVERSAL MILKING MACHINE COMPANY
Dept. M **Waukesha, Wis.**

Leffel CREAMERY BOILERS

Save Time Labor Fuel

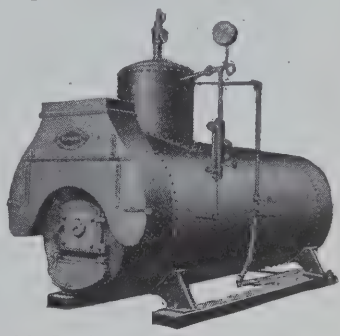
There is no extra or installation expense when you get a Leffel Creamery Boiler. No masonry foundation is required. Heavy wooden skids provide all the foundation needed.

Simply pick out a level spot—slide boiler into place and fire.

Leffel Creamery Boilers are ingeniously constructed to utilize every possible unit of heat from the fuel to give maximum steam production at the lowest possible cost.

In all sizes from 6 to 150 H.P.

They come to you completely equipped with all necessary fittings. A highly efficient, self contained boiler that conforms with all state boiler laws.



Write for more complete details and prices.

The James Leffel & Co. BOX 330 SPRINGFIELD, OHIO, U. S. A.

A MILK FILTER

..very Plant Can Afford

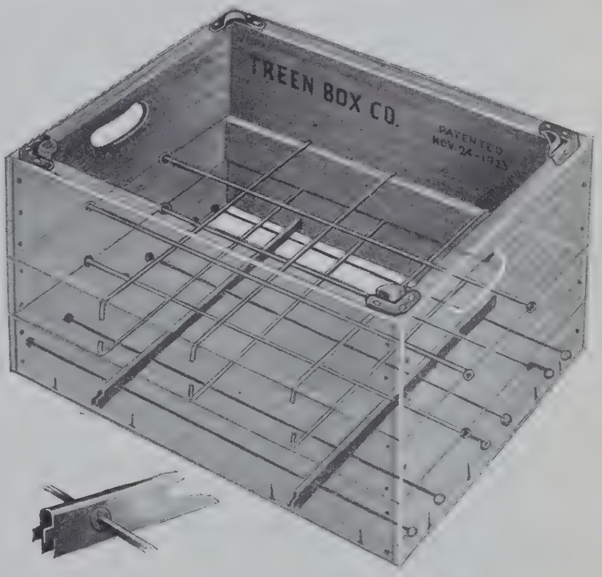
The Chicago Filter

HERE is an inexpensive milk filter that has proved its efficiency in a great many milk plants. It has a very large filtering area and its direct hook-up with the milk line saves floor space. Easy to clean. Nothing to get out of order.

Send for Illustrated Circular.

.RTHUR T. BARLASS CO.

32 W. AUSTIN AVENUE
CHICAGO, ILL.


TREEN BOX CO.
PATENTED NOV. 24-1925

Made in 2 and 3 Grid styles for 12 Quarts—20 Pints

Moderately Priced Milk Box

Cross wires inserted in sides with angle ends support sides both ways.
Galvanized Channel cross braces.
Non-Breakable Steel stacking corner irons.
Strongly constructed in every detail.
Made of Selected Maple.

A TRIAL ORDER IS THE BEST SAMPLE. WRITE FOR PRICES.

TREEN BOX COMPANY
Tioga and Memphis Streets : PHILADELPHIA, PA.

Wanted!
MEN

¶ We want men familiar with manufacture of dairy products, who can make plain statements of facts that carry weight, to sell an article of standard usage and of proved superiority to the dairy industry. Selling experience not necessary if you know the details of dairy products plant operation.

¶ College men with knowledge of chemistry and bacteriology preferred.

¶ Excellent territories are open. The first men selected get first choice.

¶ State experience and qualifications in first letter.

¶ All communications held confidential.

ADDRESS D-713
℅ THE MILK DEALER
MILWAUKEE, WISCONSIN

SELECTION AND OPERATION OF BATTERY CHARGING EQUIPMENT.

(Continued from page 30)

ing rate), until the battery begins to gas or bubble, the battery voltage has reached a predetermined va Then the current is reduced to another fixed rate, kn as the finishing rate, at which it is maintained until specific gravity of the electrolyte ceases to rise. A c pletely discharged battery will require about five h at the starting rate, and two hours at the finishing in order to complete the charge. For only partially charged batteries, obviously the charging time is redu

In the constant potential system both the Edison lead types of batteries require charging equipment greater capacities than are required for the constant rent system, as the energy demand at the start of charging period is very high. This fact, in conjunc with the fact that Edison batteries do not give as g a performance when charged by this method, practic limits this system to installations where all batteries ing charged are comprised of the same number of c which makes it possible to impress the same volt across all of them. Even for lead batteries this sys is not so desirable, on account of the excessively h rates taken by the batteries when fully dischar These high rates will cause violent gassing and overh ing of the battery in usual cases, and often cause bu ling of the plates.

The modified constant potential method of charg is similar to the constant potential method, in that batteries are placed on the line and allowed to cha completely without further attention from an opera but it eliminates the undesirable feature of high star rates on the battery. This is accomplished by placin fixed resistance in series with the battery, of such oh value that with a given voltage impressed the charg current at any time during the charge will not be jurious to the battery.

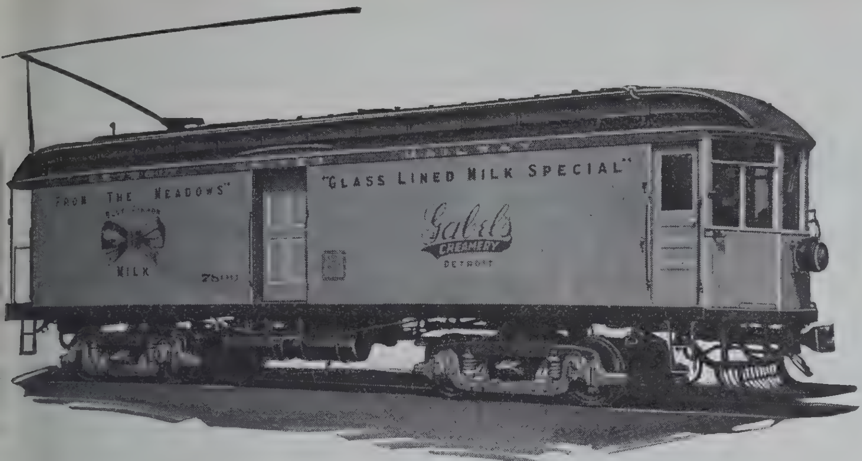
The modified constant potential method is fin great favor among lead battery users, because it le itself readily to the use of automatic charging equipm this feature making it possible to dispense with an tendant after the batteries have been placed on cha

The modified constant potential method is more sirable for charging Edison batteries, than is the stra constant potential method, but still does not possess marked advantages to be gained by the use of the stant current system. If charging voltage differs gre from the battery voltage it will be possible to em this method satisfactorily with the Edison type of tery. The difference in line voltage and battery vol should be such that when the proper resistance i serted in the battery circuit the charging current t battery will not vary over 20 per cent from the sta the finish of the charge. On account of the loss of p in resistance this method of charging will be found i cient compared to the constant current method.

The choice of battery charging equipment is de mined by the conditions as to the source of energy w may be classified as either direct or alternating cur All Edison batteries can be charged at the usual rat potential, varying from 1.5 to 1.85 volts per cell, i lead batteries by potential varying from 2.1 to 2.7 per cell.

If direct current is available, the existing suppl cuit may be used if the voltage is suitable, or the voltage may be reduced to a suitable value by mea a motor-generator set, counter EMF cells (for cha lead batteries), or a balancer set.

Counter EMF cells may be used for charging



(General American Milk Tank Car, interurban type, owned and operated by Gabel Creamery Company, Detroit.)

The illustration below shows the General American Milk Tank Car Equipment for interurban service. Two 2500 gallon, glass lined, seamless, one piece tanks mounted on General American patented cradles. Tanks are insulated and equipped with all accessories.

Now! Interurban Lines to Haul Your Milk

Read What This Progressive Dealer Does.

FROM their country plant, right through the heart of the city and over a switch into their own building. From Flint, Michigan to Detroit, a distance of 73 miles at a cost of 22 cents per 100 pounds. That's how Gabel Creamery Company in Detroit use interurban cars with General American Milk Tank equipment. Rapid, economical, safe transportation. Less handling, no spillage, or spoilage. An efficiency builder and money-maker for Gabel's.

This new General American development opens up new opportunities for dairymen whose plants adjoin interurban lines. No change of milk temperature, no duplication of labor, no loading and unloading overhead...just direct-to-destination, rapid transportation, proved and profitable.

This was made possible through the foresight of the Detroit United Railway and their co-operation with General American engineers.

Write us if you are interested. A letter to our nearest office will bring the detailed facts to you.

O NOT EXPERIMENT
E HAVE DONE IT FOR YOU
G A
GENERAL
AMERICAN
ET A CAR BUILDER
UILD YOUR CAR

GENERAL AMERICAN CAR COMPANY

DIVISION OF GENERAL AMERICAN TANK CAR CORPORATION

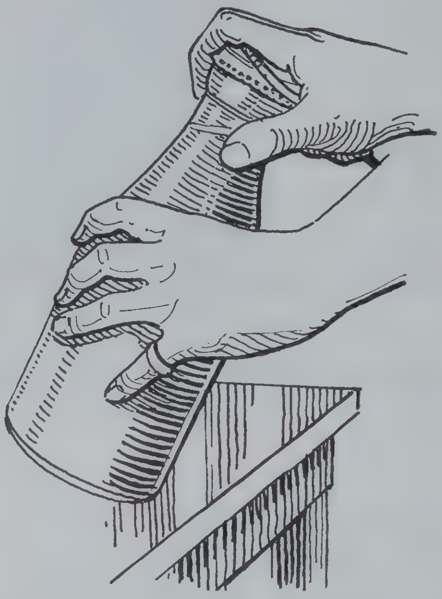
General Offices: 940 Illinois Merchants Bank Bldg., CHICAGO

Eastern Offices:	*Pacific Coast Offices:*	*Midwestern Offices:*	*Southern Offices:*
17 Battery Place, New York 327 Ford Bldg., Detroit, Mich. Munsey Bldg., Washington, D. C.	Rialto Bldg., San Francisco, Calif. Bartlett Bldg., Los Angeles, Calif.	1946 Railway Exchange, St. Louis, Mo. 502 Cosden Building, Tulsa, Okla.	Union Indemnity Bldg., New Orleans, La Magnolia Bldg., Dallas, Texas

Glass Lined Refrigerator Milk Tank Cars

THE
DACRO
METAL CAP

Here at last is the perfect package of Milk or Cream, pure and sweet pasteurized IN the bottle! Made possible by a mechanically perfect closure.



Pure, sweet MILK—delivered under hermetic seal to the home. Handy openers supplied at small cost.

The Dacro Metal Crown—This remarkable cap is made on exactly the same principle as the famous Crown Cork which revolutionized the bottled beverage industry. The Dacro Crown is a hermetic seal. It automatically locks under the glass rim of the bottle. It is scientifically a perfect closure. Sealed with the Dacro Crown, Milk or Cream can be pasteurized in the bottle, an exclusive advantage of this seal. The Dacro Crown covers and protects the pouring lip. It KEEPS clean milk clean! No danger of contamination or tampering with pure contents. And the Dacro Crown can be replaced for temporary covering and seal after opening bottle.

PASTEURIZE YOUR MILK
IN-THE-BOTTLE

THE
Crown Cork & Seal Co.
BALTIMORE, U. S. A.

Inventors and originators of the famous "Crown Cork"

batteries if the required voltage reduction is not m than 12 per cent of the bus voltage, the function of counter EMF cells is to absorb a portion of the line v age, and thereby adjust the voltage impressed on the tery terminals.

If the bus voltage is approximately twice the va required for charging a balancer set may be used to g advantage. A balancer set consists of two direct curr machines, electrically connected in series across the m line bus to provide a 3-wire system, obtained by us the two main circuit wires across which the machines connected, and a third wire brought out from the mid of the machines.

If the voltage supply is not suitable for either counter EMF cell of a balancer set, or, if the only sou of power is alternating current, the M-G set will be m satisfactory for reducing the voltage to the proper va for charging, on account of the wide range of voltage which they may be supplied.

The capacity of motor-generator sets required charging purposes depends upon:

(a) The method of charge to be employed.
(b) The number of cells in each battery, to be char in series.
(c) The number of batteries to be charged simul neously.
(d) The time available for charging.
(e) The amount and duration of boosting desired.

For small installations, rectifiers may be convenien applied for charging industrial batteries. This equ ment is somewhat cheaper than a motor-generator and control, but is limited to installations involving o a few batteries.

Control systems can be arranged to provide for automatic charging or for simply automatic terminat of charge, in addition to the common non-automatic a tures furnished. On all equipment overload and reve current protection should be provided on the equipm more for the protection of the battery than for the cha ing equipment.

By full automatic equipment it is understood that once a battery is placed on the line the charge will pro- gress to completion without further attention. In cas of power failure the batteries will not only be disconne from the charging line and from each other, but u restoration of power, all battery circuits will be cl and placed on the charging line. As each battery rea full charge it is cut off the line and when the last bat has been disconnected the motor generator set wil shut down. The motor generator set will automatic shut down in case of overload and the charge will be continued. This is very desirable, since, if the set is down on account of overload, cause for the over should be investigated before charging is resumed.

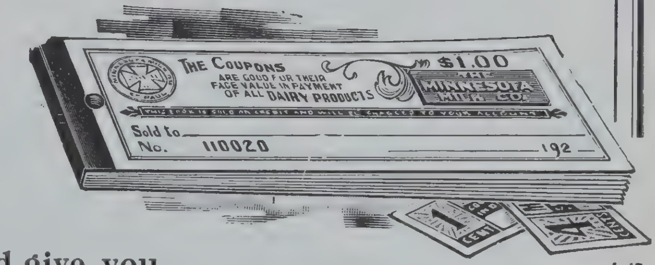
Automatic termination of charge is becoming a mon practice where it is found desirable to use a mod constant potential method of charge. This featur automatic termination requires an ampere-hour as well as the contactor or circuit breaker in each tery circuit. The charge may be terminated when required number of ampere hours have been put the battery. This is accomplished by simply setting ampere-hour meter so that when the pre-determ charge has been reached, the meter contact will func to short the holding-in coil of the magnetic contact breaker, causing it to disconnect the battery from charging source.

National Dairy Coupons

The ideal means of handling consumers' accounts.

Convenient and practical for milk distributor and consumer.

Concentrates consumers' requirements to your regular route supply instead of customers splitting requirements at a competitor's retail store supply.


THE COUPONS
ARE GOOD FOR THEIR FACE VALUE IN PAYMENT OF ALL DAIRY PRODUCTS
$1.00
THE MINNESOTA MILK CO.
Sold to
No. 110020
192

National Dairy Coupons get the cash in advance. They simplify your accounting and give you added working capital.

For transient business and apartment deliveries National Dairy Coupons supply the solution to a great problem. They cut down lost accounts and retain the customer so long as he has unused coupons.

Samples, prices and names of users sent on request.

Get an early start in 1927 with National Dairy Coupons and note the beneficial results of their use.

National Checking Co., St. Paul Minn.

CHAMPION MILK JUDGES.

Canadians have been given credit for being good judges of many things heretofore. Now they also have the distinction of being judges of milk par excellence.

The winning team and their spoils.

At the milk judging contest, held in Detroit during the National Dairy Exposition, a team from the University of British Columbia carried away first honors in the milk judging contest. By doing so they won a large cup donated by the J. B. Ford Company, and another which was given by the International Association of Milk Dealers. The team was coached by N. S. Golding, professor at the University of British Columbia.

That the Canadian girls have a sense of taste, as well as "good taste," is well demonstrated by the fact that the winning team had one of the gentler sex on their trio. Reading from left to right in the picture are: Sydney J. Bowman, Prof. N. S. Golding, coach, Miss Helen I. Milne and Jack Berry.

⚜

MAKING THE SCHOOL KIDDIES STRONG.

(Continued from page 26)

"Does it pay? Anyone can readily see that if this saving could be made in one room, it would be a tidy sum if systematically used through all of the schools.

"The satisfaction to be derived by the milk plants, is that they enjoy a nice increase of business, by the increased consumption of milk, and not by the trading of customers at the expense of their competitors.

"Aside from the monetary gain, it ought to be a great feeling of satisfaction to the various milk dealers, to know that they had been a big contributing factor in the making of better boys and girls, physically, and that in turn will make better men and women.

VERMONT OPERATORS AND MANAGERS MEE

The sixth annual short course conference for op
tors and managers of dairy plants offered by the da
department of the University of Vermont was held N
16 to 18, inclusive. More than 100, including sev
from surrounding states, attended this course.

The Vermont Dairy Plant Operators' and Manag
Association held their annual meeting at the same ti
There were many interesting discussions and the m
ing was terminated by a most enjoyable banquet.

Among the many activities of the association
year there will be a special study and effort made
start producers on the right road to equalize product
throughout the year. This is a very live problem
through the East at present.

Senator A. P. Bigelow of Middlesex and E. W. Pa
of Middlebury were re-elected to the board of direc
to succeed themselves. The board later organized
E. W. Parent of Middlebury, president, J. W. Berry
Richmond, vice-president; E. C. Hillis of No. Montpe
treasurer, and Prof. H. B. Ellenberger of Burlingto
secretary.

In the butter exhibit first place was won by
Lamoille Valley Creamery, East Hardwick, Vt., wi
score of 93.5. Second, third and fourth were won
W. H. Ware, Corinth Co-operative Creamery, Cori
H. W. Gillette, Richmond Co-operative Association, R
mond, and O. E. King, Washington Creamery, Wash
ton, respectively.

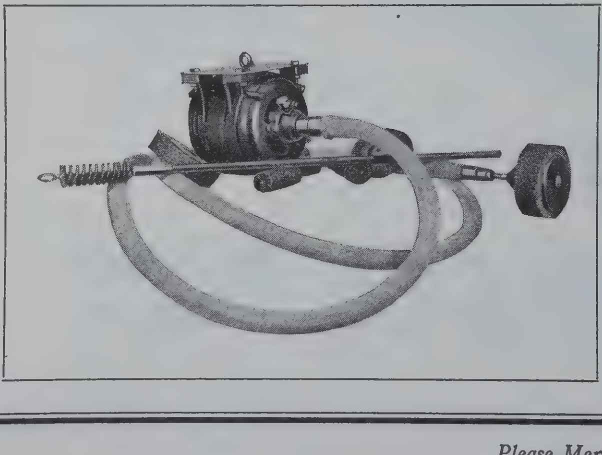
Awards in the butter judging contest were as
lows: First, B. C. Jennings, East Hardwick; second
N. Paquette, Enosburg Falls, and third, E. C. Hillis,
Montpelier.

In the milk judging contest honors were concentr
at Barre. A. Pierce running first, Dr. E. H. Banc
second, and William J. Chamberlin third.

The Barre representation also came in strong in
ice cream judging contest, William J. Chamberlin
ning first, Dr. E. H. Bancroft, second, and E. C. Hill
No. Montpelier third.

Much interest was taken in the can rolling con
for much milk must be handled in that way in the st
First honors went to L. L. Garrand of Grand Isle, se
to Frank Simpson of Underhill and third to Elmer
of Richmond.

While there is still much butter printed out by
directly from the churn, there were not many willin
enter the butter printing contest as contestants.
place went to L. L. Garrand of Grand Isle, second
C. Hillis of No. Montpelier and third to B. C. Jenn
of East Hardwick.



The King Cleaner *vs.* Steel Wool and
Harsh Brushes

RESULTS—Both will keep Sanitary Piping and tubular pasteurizing equipment perfectly clean,—but—the King Cleaner will not ruin the tubing, and requires far less time and effort for the work.

Send us diameters and lengths of tubing in your equipment and we will advise you size and price of Cleaner needed.

King Sanitary Pipe Cleaner Co., Inc.
SANDY HOOK, CONN.

MUCKLE BOTTLE CRATE

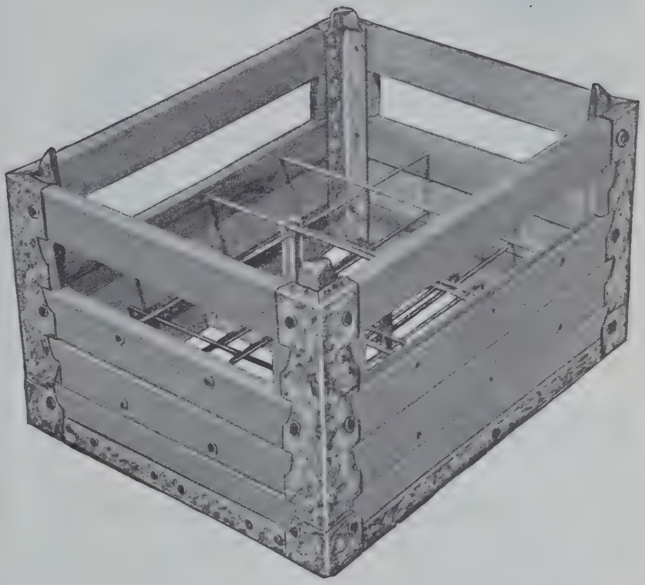
(PATENTS ALLOWED)

LIGHTEST AND MOST DURABLE

Designed by Mechanical Engineer

M—ade in 24 models and sizes.
U—nsurpassed in construction.
C—linched and riveted corners.
K—eeps production up.
L—et Muckle reduce your overhead.
E—very crate a masterpiece.

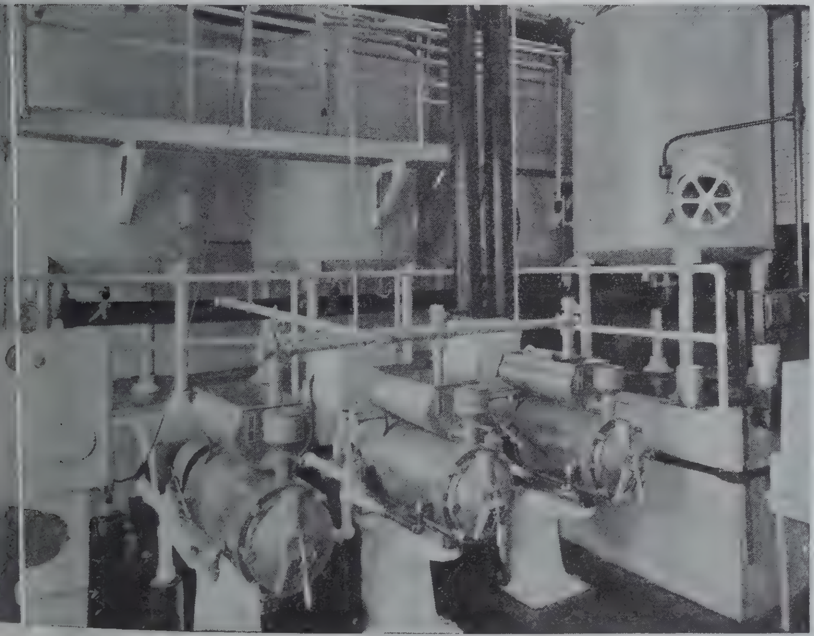
C—rate superiority.
R—emember the name.
A—sk your jobber.
T—he crate for your requirements.
E—very user satisfied.
S—old by Jobbers or direct.



MANUFACTURED BY

MUCKLE MANUFACTURING CO.
OWATONNA, - - MINNESOTA

GLASCOTE



More Than Thirty-six Thousand Gallons

of Glascote glass lined storage capacity now in use by Abbott's Alderney Dairies in various eastern plants. Ideal conditions illustrated by this view of part of the equipment at Bridgeton, N. J., can be duplicated anywhere.

Get details for your installation from new Bulletins now ready.

HE GLASCOTE COMPANY, EUCLID, OHIO {Cleveland District}

EW YORK OFFICE Park Row arclay 1784	CHICAGO OFFICE 127 North Dearborn St. Dearborn 9731	DETROIT OFFICE 1217 Book Building Cadillac 0799	ST. LOUIS OFFICE 905 Carleton Building Garfield 3561

Making Your Can Investment Go Farther

RETINNING your cans is true economy when done right, because the extra service re-tinned cans will give, pays for the cost of the work many times.

ONE LOT WILL
CONVINCE YOU

Thompson-Bremer & Co.
1750 Carroll Avenue
CHICAGO, ILLINOIS

CLIPPER
All Steel

Bottle Cases will reduce your case "turn over." When you buy a lot — *They Last!*

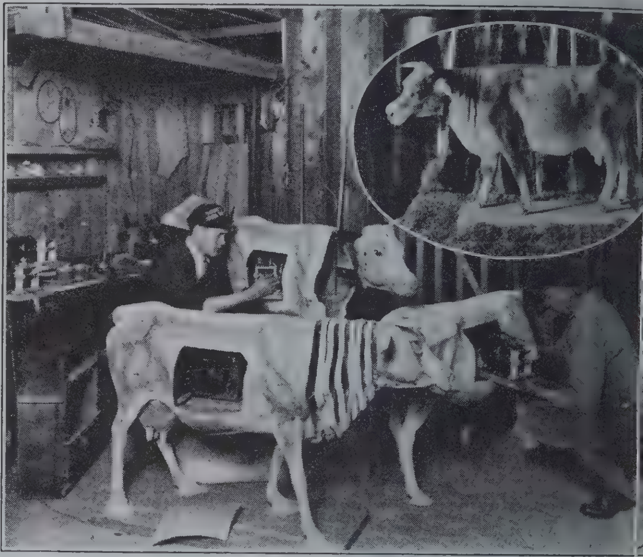
TRY THEM AND SEE

Made by DEFIANCE PRESSED STEEL CO.

A SYNTHETIC COW AT LAST.

Perhaps the synthetic cow has at last truly c into her own. Perhaps all the talk we have he about her has finally resulted in her actuality, in being in fact a part of the dairy industry. And, haps, also, that part is not so terribly small.

But this synthetic cow we are writing about, which we believe has a part to play in the dairy in try, does not give fluid milk; neither does she cons luxuriant grasses; nor does she produce milk. W she does do, and do mighty well, is to present a pic of vivid likeness to her milk-producing "sistern." wears a coat of hair of the proper colors and shades; switches her tail in the true fly-chasing fashion; moves her jaws as evenly, slowly, contentedly as purple ribboned grand champion at the National Da Show; she rolls her eyes, and moves her eye br But she is synthetic!



Working on the Innards of the Mechanical Cow. Insert Sl the Finished Bovine.

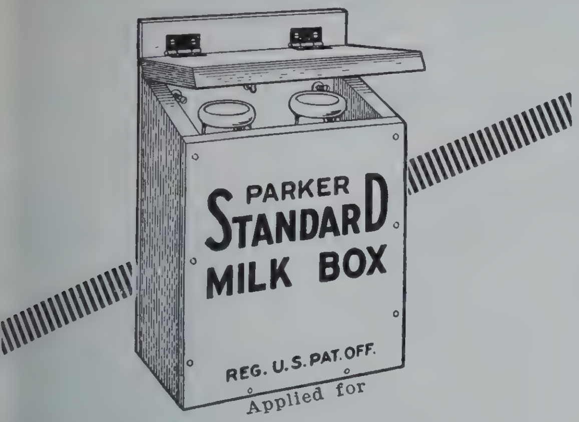
There really is no secret to the means by which i cow operates. She is electrically powered. And "life-likeness" is assured by her manufacturers.

Where does this synthetic cow come in for a plac the dairy industry? Well, she has been found to in thousands of people to pause in their pretended h to be about business; to pause and gaze and look—n read advertisements which an on-the-job dairyma ice cream manufacturer has had set in the display in dow. Yes, even the hustling crowds of our large m politan cities have been forced to stop, look and li They are attenton-getters par excellence and ca used in window displays with surety of impelling sands to read or look at whatever message a dairym ice cream manufacturer wishes to impress upon the minds of his city's inhabitasts.

Nearly everyone likes animals. Little childre their infanthood, learn among their first three wor speak of dogs as "bow wows." Many elderly, dig people, men and women both, will stop and lower dignity to speak or caress or pet a dirty, little, fo looking "bow wow." And a horse, or herd of cow flock of sheep, or even the smaller hen or more lowl will evoke words of astonishment when seen by a g of city dwellers passing through the countryside.

So these synthetic cows have the power of attra They arouse curiosity, evoke praise and people m at their "likeness" to the "Foster Mother of the H Race."

Of ourse, they are mechanical cows. Electricall op-



Give Something Useful!

If you have been distributing costly calendars or novelties as a year end "good will" policy you will find the Parker Standard Milk Box will get you more good will and return its cost in a quicker return of empty bottles.

Parker Standard Milk Boxes are inexpensive and can be shipped on short notice. ¶ WRITE or WIRE.

Parker Standard Milk Box Co.
28 North Warren Ave. SAGINAW, MICH.

Sweet Curd
Large Flake
Cottage Cheese

We want to sell you the cheese, not the formula.

Large and small orders solicited, and successfully shipped by our method anywhere.

Average delivered price:

Chicago Territory . $6\frac{1}{2}$c
Ohio and W. Penn. . 7c
Atlantic Seaboard . $7\frac{1}{2}$c

Let Us Send You a Sample Tub!

Thomes Cottage Cheese Co.
Minneapolis : : Minnesota

The ContamoTester
(Patented July, 1925)

SAFEGUARDS
AND
Rapidly Improves
THE
Raw Milk Supply

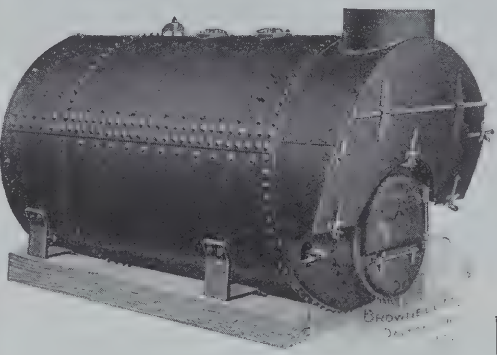
y applying a combination of three simple tests) the raw milk supply. These tests show uickly—accurately and cheaply

Which Milk is
Unfit for Use.
High in Bacteria.
High in Acidity.
Off Flavored.

. child can operate the ContamoTester.

Sold on 10 Day Approval Basis.
Price $85 F. O. B. Buffalo
Write now to insure prompt delivery.

ACTEAL ANALYTICAL LABORATORIES INC.
176 FRANKLIN ST.
BUFFALO, N.Y.



Brownells comply with latest ASME and state codes.

Boilers for the Creamery Trade

Brownell started building steel boilers long before the Civil War and the craftsmanship born of long experience dominates the product.

In the *Creamery Field* the Brownell Boiler is well known —recognized as a product of distinction—correct in design, of accurately known strength, proven dependability.

Representatives near you — ready to serve. Bulletin B-3 ready to mail.

THE BROWNELL COMPANY, Dayton, Ohio
Established 71 Years Ago.

BROWNELL BOILERS

The Sensation of the Exposition!
—In Detroit

ANIMATED
Life-Like Cows
That Move Their Head, Eyes, Mouth and Tail

Messmore & Damon Inc.
407-A

On display at J. L. Hudson's Department Store, Detroit, Mich. Between 6 and 7 P. M. over 3,200 people stopped to view these animals.

At the Exposition we have registered 500 representatives from the largest dairies and ice cream plants in the United States, Canada and Europe, making actual sales to these countries.

These cows will secure good locations for your displays. They will work for you night and day, bringing increased business and reputation.

If interested, write or wire for full particulars.

Messmore & Damon, INC.
404 West 27th Street New York

erated, man-built. But they are probably more ne perfect than the synthetic stuff which has given, in past few years, so much prominence to the term: thetic.

They are manufactured by a New York firm w specializes in making animals, and which has achi national fame and reputation.

And now every milk dealer, every ice cream manu turer can have a little cow in his plant, or on dis where its advertising value will be the greatest.

* * *

COLLECTION METHODS WHICH COLLECT

(Continued on page 27)

fane, with the net result that not only does the collec letter fail to bag its game quietly, persistently and sistently, but it loses a valuable customer—more quently than it brings home the mustard. And so out goes collection letter No. 3:

"I like to see you coming here regularly to make chases, but I see by your account that you have sto buying here.

"Now, I don't want you to do that, but I do want to settle up your account as quickly as possible, ei by large payments or smaller ones, but do it regula and get started right away. The sooner the better.

"Frankly speaking, I don't like the collection en this business. I like to see you make purchases and as promptly as you can. Telephone me why you c pay and I'll make all reasonable allowances, or sen a check in part with a promise to pay the balnce— when.

"That will make you feel better—and me too!"

"This sob letter, as it might be called, gene makes the customer most apologetic for the delinqu and secures the necessary promise which enables m shelve the account temporarily until the date set for ther payments. Invariably I secure a small check, a promise.

"At this point many others would no doubt use belaying pin on the heads of the debtors, instead of u subtle psychology to drive home the idea of paying **paying now.** And so they rile the debtor, ruffle feathers, and, instead of paying the debtor becom fighting cock or a stubborn mule, as the case ma All the debtor can see is red, and the writer of that l is gored and impaled on the horns of a further dile —suit or charging off the debt.

"However, for those still failing to reply, this l now goes out five days later:

"Back in the Stone Age, records were carved stone slab. When the debt was due, Mr. Creditor sented the account in a very polite fashion—holdin slab in one hand, while in the other he carried his mallet. The debtor had no alternative.

"Today, there are the courts, quick judgmen seizure of property, or a making-it-impossible to again hold property, real or personal, in your name that judgment is satisfied.

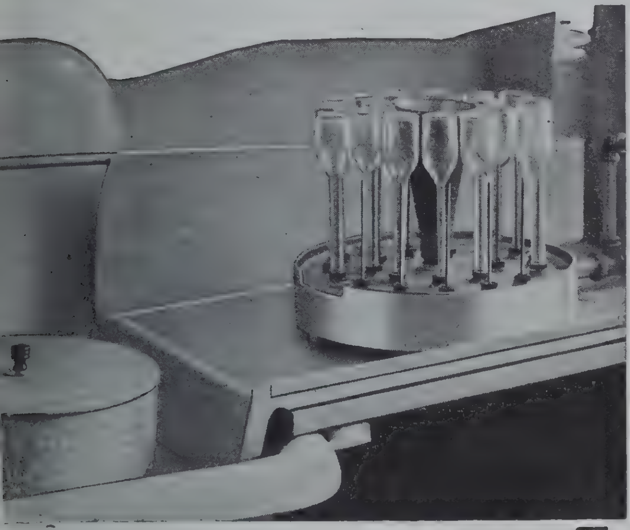
"What a penalty to have hanging over one's simply from letting an account grow stale!

"Frankly, I'm getting to the end of my rope Will you compel me to sue or will you now answe letters and pay something on your account? You until next Tuesday to attend to this matter. I'm going to wrie you any more letters."

"This method generally gets what it goes after. ical treatment is now clearly essential. I must pu tooth out by the roots—just simply eradicate th

Wilson
Test Bottle Washer

A Steam and Hot Water Pressure Washer



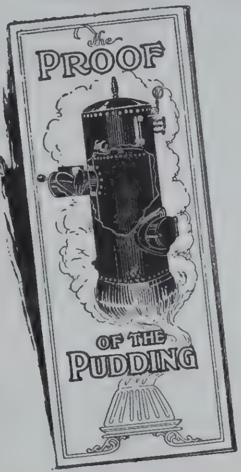
Simple to Install—Washes Quick and Clean.
Made in 2 sizes to wash 24 or 36 Milk or Cream Bottles—*and it does it in 2 to 3 minutes.*
No Brushing—Stops Breaking of Bottles.
Send for Leaflet explaining operation.

Stout Mfg. Co., 610 Sycamore St.
Milwaukee, Wis.

THE good will of our patrons and friends is one of our most valuable assets. The spirit of the season brings to us renewed appreciation of old associates and of the value of new friends. May your Christmas be happy and success attend your New Year is our cordial wish.

The "Original" GEM FLUELESS BOILER

Will make 1927 a Happy and Prosperous Year



BECAUSE

It has No Flues to Clean or Repair.
It Raises Steam Quicker.
It Burns the Cheapest Coal.
It Requires Less Attention.
It is Made for Dependable Service.

Read What The Users Say

"THE PROOF OF THE PUDDING"

Contains names and addresses of users from coast to coast. Write for your copy, No.167.

Prompt Shipment--Terms

Monarch Sales & Engineering Co.

2010 Locust Blvd.,
ST. LOUIS, MISSOURI

363 W. Erie St.,
CHICAGO, ILLINOIS

Juruick
REFRIGERATION

The Juruick Refrigerating Unit

ou need never think about your refrigeration after ou install a JURUICK Self-Contained Refrigerating nit. This automatic machine provides the easiest, irest and most economical means of cooling milk ter pasteurization and keeping it fresh in storage.

Send for Juruick folder today.

merican Engineering Company
2417 Aramingo Ave., Philadelphia, Pa.

KLEENKUP

The Cottage Cheese Package That Leads in Sales—

The most extensively used Cottage Cheese Package. It leads in sales because other packages are not possessed of the same advantages. It's the most attractive package — is easy to fill — contents easily removed — nest when empty — little storage space required. Printed with your own label in one or more colors. Being snow-white it makes an immediate appeal to the consumer. It actually sells its contents. Keeps the cheese fresh and clean. Send for samples and prices.

Mono Service Co.
NEWARK NEW JERSEY

WESTERN MARYLAND
DAIRY
COTTAGE
CHEESE

count from my books or put it in litigation. And so this letter concludes the final ceremonies. Generally, by that time I'm down to rock bottom anyhow and have only a few dozen accounts left out of a big stack.

"This is, of course, the final straw which breaks the camel's back, and to court we go if it is worth the struggle.

"By continuous pressure and shortening up the gap in collections, I find that I can bring up my cur collections to a surprising degree, and my system r be said to be just about eighty-nine per cent succe in getting accounts paid-up, or partial payments r and in the remaining cases—well, it was just an bum credit risk, and if the debtor is worth anythi all or has prospects of ever paying, we haul him court and let him tell it to the judge."

Getting the Story Over to the Consum

California Milk Company Uses the Sort of Direct Advertising That Convinces. Telling an Old Story in a New Way

THREE pieces of advertising literature have come to our desk from the Excelsior Creamery Company of Santa Ana, California. They are used in direct-to-the-home soliciting, and are effective.

One is a small blotter—always useful in the home, and always good advertising. A cut of a football player occupies at least half the space, supplemented by these words:

"To hit the line hard drink plenty of pure, rich milk—at least a quart a day. Excelsior Creamery, phone 237."

A poem, entitled "A Modern Milking Song," adorns the second piece of literature, and reads as follows:

The milkmaid's song
Is far too long,
  The swain's not through his haying;
The pale moonlight
Dispels the night
  And starts the curs to baying.

The milkmaid's gone,
The milking's done,
  No more such temporizing;
The game's too big
For any prig
  Takes work of men's devising.

No cow can wait
Before a gate
  Some maid and swain are swinging;
The milking's done,
The milkman's gone,
  Just see the full pails swinging.

'Twas all in vain
The maid and swain
  Took so much time in thinking;
We hope the maid
Convinced the jade
  But we want milk for drinking."

The third piece carries the following strong appeal and is, we believe, the sort of argument that convinces:

We invite you, if not already a customer of ours, to become a user of our rich, sanitary Dairy Products.

This company started the Pasteurization of milk in this county. Those who have made a study of the milk problems in cities know that this celebrated method of treating milk has added **safety** without removing any value from the product.

Our bacteriologist makes daily tests of milk to determine its quality and cleanliness. We alone can offer you this high degree of service.

All dairy herds are regularly inspected and—

Tuberculosis Re-Actors (if any) are Disposed of at Once.

We positively will **not** Pasteurize infected milk, even tho' the process will destroy the T-B germ.

Every herd as well as our modern, complete plant are open to your inspection at **any** time.

The growth of this company has been rapid. This is due to the appreciation of the people for our success in keeping the standards of all our products of the highest qu We appreciate business enough to try to deserve it. T a-day service, if you want it.

Cream, Protein, Milk Sugar, Minerals, Vitamines, th main elements in milk, are present in our milk in the p quantities for balancing it as a nourishing, pleasant

Sincerely yours,

EXCELSIOR CREAMERY COMP

The Largest Retailers
of Milk in Orange County,
Covering the Entire County.

Telephone 237
or
Give Order to Our Route Men.

◆

SOLVING YOUR COLLECTION PROBLEMS

By Amos Shaw Place.

Problem—We have not sufficient collection bus by a great deal, to justify us in employing a profess collector. In fact, our margins are such that any sonal visits to collect cost us more than condi justify.

Solution. Combine collecting with selling. I normal operation of any business granting credit, sions are bound to arise calling for a personal visit t delinquent. A system which has no regular pract respect to such situations all too many times d action on them, and losses are sure to result. The tion of the problem I have found in most successf is a combination of collecting and selling ability i same man.

It simply means that the business takes a sale and teaches him how to collect, or a collector and te him how to sell.

In an ideal situation the employee is equally c tent in both respects. In practice, this condition s obtains, because the psychology of collecting and ing diverge sharply. Salesmen are disposed to be lenient with parties whom they hope to sell or to as customers. The trained collector usually lac enthusiasm and mental attitude of the salesman.

The "answer" is usually keen supervision man, whichever the type to which he belongs. Sal can be made to collect with at least reasonable r if instructed and controlled. A good collector c taught to at least make suggestions for purchases acquire information which can later be used as th of selling effort. Report blanks which require th to report on every interview from the selling and c ing angle have proved good stimulants.

If selling and collecting are combined, the c the latter can usually be brought within reas limits even though personal solicitation be used.

PHILADELPHIA
Chestnut and 39th Street
Hotel Pennsylvania
Fireproof—Unrestricted Parking—Garage

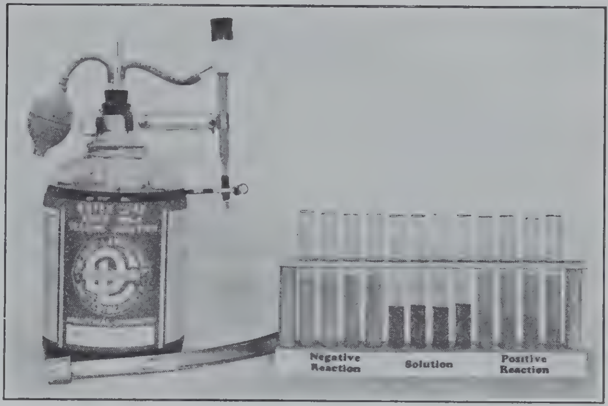
OSCAR W. RICHARDS, Manager

600 ROOMS—500 BATHS

ooms with running water from $2.50 per day
Rooms with private bath and shower from
$3.50 per day

Food and Service the Best

ar West Philadelphia Station Pennsylvania Railroad
University of Pennsylvania—Franklin Field



QUICK-KURD
Sour Milk Testing Solution
RAPID *ECONOMICAL* *CONVINCING*

A simple and reliable test for high-acid and Garget milk that can be **performed by anyone in a few seconds.**

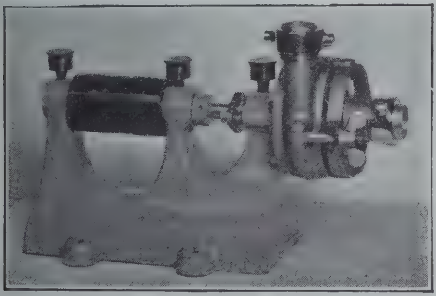
Placing a dipper of milk in the test tube containing solution and shaking undesirable milk will produce an unmistakable **curd** at once.

No. 18. Supplied for eliminating milk over 0.18% acidity and Garget milk. One Gallon (sufficient for 375 tests), $2.50.

No. 22. Supplied for eliminating milk over 0.22% acidity (milk that will curdle on heating), and Garget milk. One Gallon (sufficient for 375 tests), $2.50.

Outfit Complete, tubes, dippers, etc., without solution $5.00

THE DAIRY LABORATORIES
2300 LOCUST STREET PHILADELPHIA, PA.
New York Baltimore Washington
"The Home of Flav-O-Lac Liquid Cultures"



How it Works
What it Does

W-Z
Su er-Sanitary
ilk Pump

All the details of how this one piece sanitary milk pump works and the efficient work it does is told in our illustrated circular.

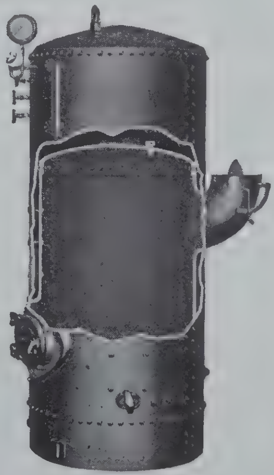
If you are thinking about new milk pumps for your plant, be sure you send for one of these circulars and learn how you can benefit from the W-Z milk pump. If your supply house can not supply, write

WRIGHT-ZIEGLER CO.
BOSTON, MASS.

The Famous Flueless
— Boiler —

Famous as a Quick Steam Producer.
Famous as a Fuel and Repair Economizer.

BOILER is regularly constructed with extension to form ash pit, but can be furnished with cast iron base, in all sizes up to and including 48 in. diameter, without extra charge. Boiler comes complete with fire door and frame, ash door, grates, elbow and damper, hand hole plates complete. Steam trimmings include safety valve, steam gauge and syphon, water gauge, gauge cocks, blow-off valve, injector complete with check and feed valve. All constructed to comply with the A. S. M. E. code for 100 lbs. working pressure and tested to 150 lbs. hydrostatic pressure.



Boilers carried in stock at all times.

See your nearest jobber for further particulars.

Schwab Boiler &
Machine Company
16th & Canal Streets
MILWAUKEE, WIS.

NOTES OF THE TRADE

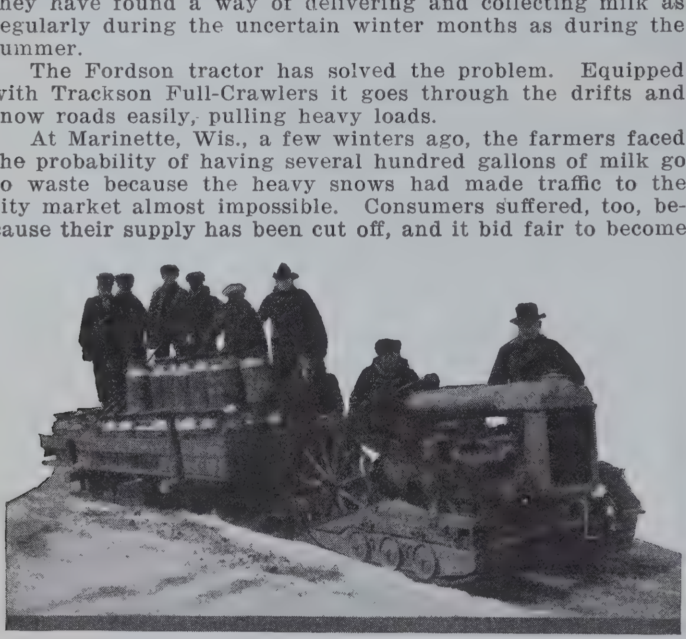
News of Interest Concerning What Our Readers and Advertisers are Doing to Develop the Industry. We Invite Correspondence Relative to New Products and New Equipment.

PLOWING THROUGH THE SNOW DRIFTS.

Certain Wisconsin milk companies and condenseries are no longer daunted by winter weather and snow drifts, for they have found a way of delivering and collecting milk as regularly during the uncertain winter months as during the summer.

The Fordson tractor has solved the problem. Equipped with Trackson Full-Crawlers it goes through the drifts and snow roads easily, pulling heavy loads.

At Marinette, Wis., a few winters ago, the farmers faced the probability of having several hundred gallons of milk go to waste because the heavy snows had made traffic to the city market almost impossible. Consumers suffered, too, because their supply has been cut off, and it bid fair to become a regular milk famine until the Trackson-Fordson saved the day by hauling sled-loads of milk through the drifts to the market.



Hauling sled-load of milk with Trackson-Fordson at Marinette, Wis. On one trip the crawler-tractor pulled two sled-loads or sixty cans of milk through drifts as deep as seven feet.

A condensery at Marinette has been able to collect from the farmhouses regularly every day during the past two winters, by using the crawler-tractor, thus keeping up production as well as during the summer.

Inspired by the success of these companies, the Merton Dairy Company last winter asked the Raab Motor Company of Milwaukee, Wis., to help solve its winter haulage problems. The dealer suggested a Fordson with Full-Crawlers, the unit used at Marinette, and took a machine to Merton for a demonstration.

Carleton Sperry of the Raab Company went to Merton a few days after a very heavy snowstorm, when the snow had drifted and packed very hard. The crust on the drifts was so thick and hard that men walked on it without breaking through.

The road to be plowed in the demonstration was a stretch on a hillside with a southern exposure, where the drifts had piled in uneven depths. At no time was the pressure equal on both sides of the plow. In a half hour the machine had made three trips over the worst half-mile of the stretch.

The strain on the Fordson was so terrific that it seemed impossible that it could stand up under it. In going through the first time, the driver charged into the snow as far as the tractor would push the plow, then backed up and charged again, and so on. Eight feet of the road were opened up in this way, and trips along the sides opened up four feet more on each side. Most of the plowing was one-sided and the tractor frequently had to back up, half turn, and make a sort of cut-out on the north side of the road, where it was badly drifted, to get straightened out on the road again.

Another milk dealer who uses this system for winter delivery is Frank A. Nelson, Tomahawk, Wis. When the snow makes other means of hauling impossible, he uses his Trackson-Fordson to haul milk, oil, and gasoline to lumber camps and dealers. He covers his forty-six mile route in all k of weather, making the trip with the crawler-tractor in s hours.

The Full-Crawler for Fordsons is manufactured by Full-Crawler Company, 500 Clinton St., Milwaukee, Wis

* * *

PFAUDLER ISSUES TWO NEW CATALOGS.

The Pfaudler Co., Rochester, N. Y., manufacturer glass-lined dairy equipment, have recently issued two pieces of literature as follows: Catalog No. 673 desc the company's new standard series for 1927. This is a special low priced line of equipment which appeared on the market two years ago. Included in the line is the famous "C-Gal," manufactured in sizes of 60, 100, and 200 gallons.

There is also included some single-shell equipment, such as a sherbet mixer, a portable tank, and other units.

Bulletin No. 674 describes the new 1927 Model Pfauderette which was introduced at the National Dairy Exposition. Price list, data, and com specifications are included.

PURER DAIRY PRODUCTS THRU GLASS LINED EQUIPMENT
Pfaudler
NEW STANDARD SERIES
DAIRY
EDITION
1927
CATALOG NO. 673

Copies of the above may be had by addressing Pfaudler Co., Dairy Division, Rochester, N. Y.

* * *

PROF. GOSS JOINS NAFIS.

William A. Goss recently resigned his position at P University Agricultural Experiment Station, Lafayette, n to become assistant manager with Louis F. Nafis, Inc. Ch cago, manufacturers of scientific glass apparatus for t milk and its products.

Soon after Mr. Goss graduated from the dairy ma turing course at the University of Minnesota Agricu College in April, 1922, he became an assistant inspec the creamery license division at Purdue and in Dece 1923, was made associate chief of the division, with pe vision of the inspection and calibration of all test bottl milk pipettes used in Indiana; testers' licenses and t spection of testing equipment, records, etc., for buying mil and cream on the Babcock test at plants and shippin sta tions. This work kept him in close contact with the v branches of the dairy industry.

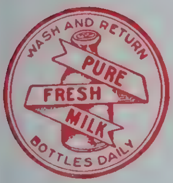
* * *

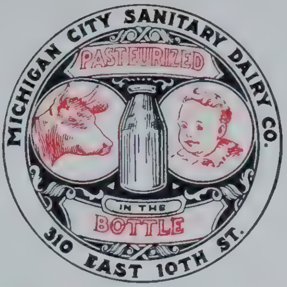
AN ATTRACTIVE SOUVENIR BOOKLET.

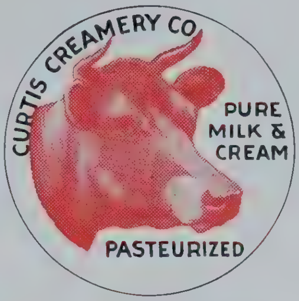
Bruce Dodson & Co., 28th and Wyandotte Sts., City, Mo., has recently prepared a very attractive boo inform subscribers at Reciprocal Exchange and Casual Reciprocal Exchange of the details of the organization re ble to them for the proper handling of fire and casua surance problems.

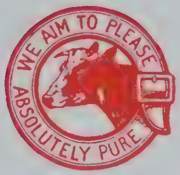
The brochure is in dedication to the founder, Bruc son, who died August 22, 1926. A record of the selected to carry on his ideals of equity and reciprocity throughout the book. The story deals with the prog the firm from twenty-six years ago down to the presen and the promise of tomorrow.

The Reciprocal Exchange serves ice manufactur


WASH AND RETURN
PURE
FRESH
MILK
BOTTLES DAILY


MICHIGAN CITY SANITARY DAIRY CO.
PASTEURIZED
IN THE
BOTTLE
310 EAST 10TH ST.


CURTIS CREAMERY CO.
PURE
MILK &
CREAM
PASTEURIZED


WE AIM TO PLEASE
ABSOLUTELY PURE

"Piquality" Caps

Eighteen Years Continued
SERVICE

We use nothing but the highest test paraffine, special odorless non-fading inks and pure white spruce wood pulp board which all go to make the finest kind of milk bottle cap.

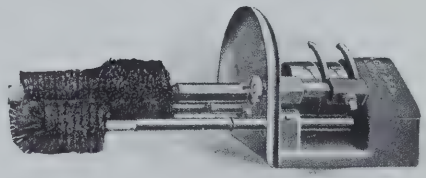
Let us submit samples and prices on your next order and convince you as to the high quality of our product.

Piqua Cap Company, Piqua, Ohio

R. G. WRIGHT & COMPANY

BUFFALO, N. Y.

Wash Sink, Rinser and Sterilizer will do better work with less labor on account of its patented automatic features.



3-Brush Belt Washer

Write for Circular

WILLIAM H. TIMM

CONSULTING ENGINEER AND ARCHITECT

PERRY BUILDING
Chestnut & 16th Sts.

PHILADELPHIA
PENNSYLVANIA

DAIRY AND ICE CREAM PLANT SPECIALIST
Consulting Service for By-Product Processes

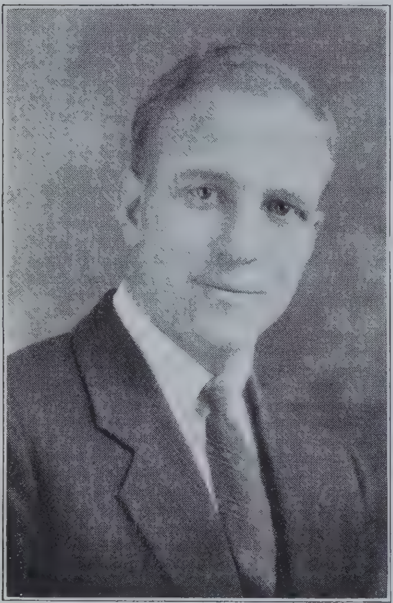
cream manufacturers, dairies and creameries, bread and cracker bakers, bottlers and beverage manufacturers, shoe manufacturers and laundries. The Casualty Reciprocal Exchange writes workmen's compensation, automobile and teams public liability and property damage insurance, employers' elevator and public liability insurance.

The booklet will be sent to anyone interested in having a copy without cost.

* * *

TRUOG JOINS MOJONNIER BROS. CO.

Mojonnier Bros. Co. announce the appointment of George A. Truog as their Western representative to succeed H. J. Liedell, who has been transferred to the New York office.



G. A. TRUOG

Mr. Truog will make his headquarters in Oakland and it is his plan to call upon the company's customers and prospects on the Pacific Coast. Mr. Truog is prepared to render service either in the laboratory or upon operating machinery, as well as promote the company's sales.

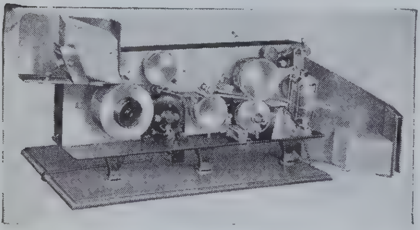
For the past several years after leaving college, Mr. Truog has been specializing in dairy chemistry in the ice cream and butter field largely, so he is perfectly competent from dairy products manufacturers' side as well as from the supplymen's side.

Mr. Truog's temporary address is Plaza Hotel, San Francisco, but he and Mrs. Troug plan on making their permanent residence in Oakland.

* * *

STANDARD MAILING MACHINE.

A machine manufactured by the Standard Mailing Machine Co. of Everett, Mass., will undoubtedly prove very popular, as well as profitable, among those plants sending out as many as 300 pieces of mail every day. The machine is so designed that it will seal, count, imprint and postmark, stamp mark and cancellation mark, and the saving of labor entailed quite readily pays for the machine within a short time. Many users also point out that it makes more rapid postal service, inasmuch as the letters go direct to the sorting rooms as soon as reaching the postoffice, which is especially valuable at the rush seasons in the postoffices.



Another advantage of the machine is that letters present a very pleasing appearance after such a machine has been used, rather than the marred letters which are so usual when they are postmarked at the postoffice.

The same company also manufactures envelope sealers and a machine for affixing stamps.

* * *

CHANGE NAME TO AMERICAN MOND NICKEL CO.

The American Nickel Corporation of Clearfield, Pa., announce that after December 1 their name is changed to the American Mond Nickel Company. There is no change in the officers and personnel.

* * *

NEW BOWMAN PLANT AT MAYFAIR.

Three Meyer Dumore bottle cleaners were installed in the new Mayfair plant of the Bowman Dairy Co. of Chicago. The new installations brings the total to 19 Dumores now in use in the various Bowman plants.

CHICAGO FIRM BUILDS ADDITION.

Announcement has been made that the Milk Bottle Cr Company, 1543-45 Kingsbury St., Chicago, has complete substantial addition to their old plant.

The extension, which is of red pressed brick exterior approximately fifty feet square, three stories and baseme running directly to their own switch track, where from vator or from spiral chute and roller conveyor, finished crates are run right into a car or to dray.

In the layout of this plant, attention has been given to the subject of light, and the building above the first floor has light on all sides. Large skylights have also been installed. The building is being equipped with an automatic sprinkler system.

Through better arrangement, added machinery, conv ors and the like, it is figured that the manufacturing capa of the plant has been doubled and economies of operat which may be passed to customers have been effected. St of finished crates of all sizes and kinds will be carried, abling the quick filling of ordinary orders.

J. H. Stoddard is president of the company; Robert St dard, vice-president and general manager, assisted by son, Robert Stoddard, Jr.

Messrs. Stoddard say "that in labor saving devices spe machinery and 'short cuts' to beat the spectre of overh that even Henry Ford has nothing on them."

* * *

OAKITE SERVICE MEN HOLD CONFERENCE ON INDUSTRIAL CLEANING.

The field service men, technical staff and executives c prising Oakite Products, Inc., will hold its tenth annual c ference in the general offices at New York December 6t 10, inclusive. On this occasion the field service men co from various parts of the United States and Canada to x change experiences and ideas and to hear and discuss tec i cal papers on various phases of cleaning.

Eighteen different technical papers will be presented v ering a wide range of subjects, among them being papers d l ing with Oakite methods employed in dairies, bottling pla s laundries, electrotyping and lithographing plants, texle mills, etc.

December, 1926, will mark the eighteenth year of e business life of Oakite Products, Inc. From a small gr p of three men in 1909, it has grown into the present large r ganization.

* * *

NATIONAL EQUIPMENT COMPANY WILL MANUFACTURE COLONY HOMOGENIZER.

The National Equipment Company of Springfield, Ma s., manufacturers of confectionery and chocolate machinery, as absorbed the business of the Colony Manufacturing Comp y, and will manufacture the Colony homogenizer. J. M. Co y will have charge personally.

The National Equipment Company is known throug ut the world, having an extensive line of high grade candy d chocolate machinery. They have branch offices in New Y k, London, Paris and Lausanne. This connection insures fi n cial stability and the production of a high grade mac e. The two stage valve will be used exclusively.

* * *

BROWNELL JOINS SCHRIEBER PRODUCTS CORP

Announcement was recently made that W. M. Brow ll has accepted a position with the Schrieber Products C p., 662 Fillmore Ave., Buffalo, N. Y. The Schrieber comp ny manufactures malt extract powder which is marketed u er the trade name "Spramalt." It also manufactures "Mal y" and malted chocolate milk for ice cream fountain use.

The plant of the Schrieber Products Corp. is said t be one of the largest in Buffalo and is so situated that it en ys advantages of water freight rates both on in-bound raw a terials and the out-bound finished products.

Mr. Brownell is manager of the malt products depart nt and advises he is enjoying his new connection very muc

Nutting

FLOOR TRUCKS

for CREAMERIES and MILK PLANTS

any handy types, each special-
built for a particular kind
work.

lidly built with Northern
ırdwood and heavy corner
ons. Large wheels and cast-
s with flat, smooth faces that
ve the floors.

ıe quarter - century truck!
any have been in use for over
years. Ask your jobber, or
ite direct for Bulletin C-6.

Nutting
FLOOR TRUCKS

NUTTING TRUCK CO.
4 Division St. Faribault, Minn.

LOOR TRUCK SPECIALISTS SINCE 1891

Buying *cheap* Cork is like throwing money away!

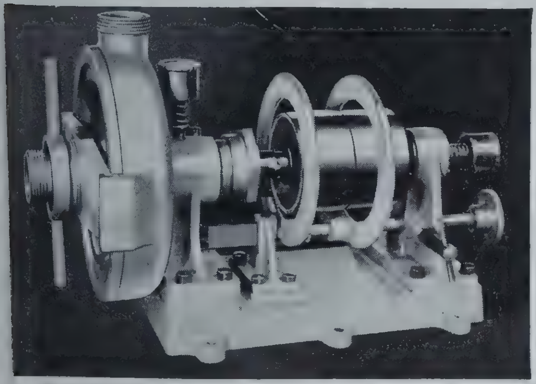
The finest materials obtainable are not too good for *your* plant.

You make sure that everything you buy is the best for its purpose. Therefore we urge you to see to it that

Crescent
100% Pure
Corkboard

manufactured with the greatest care, of the finest raw materials obtainable, is specified for your Cold Storage Rooms.

United Cork Companies
Lyndhurst, N. J.
Branch Offices in Principal Cities.



Nofome

'he Pump that Gives Greater Satisfaction!

NO CHURNING—NO FOAM.

Send for Descriptive Circulars

PECIALTY BRASS CO.
K NOSHA, WIS. ALBION, N. Y.

ARCUS COUPON BOOKS

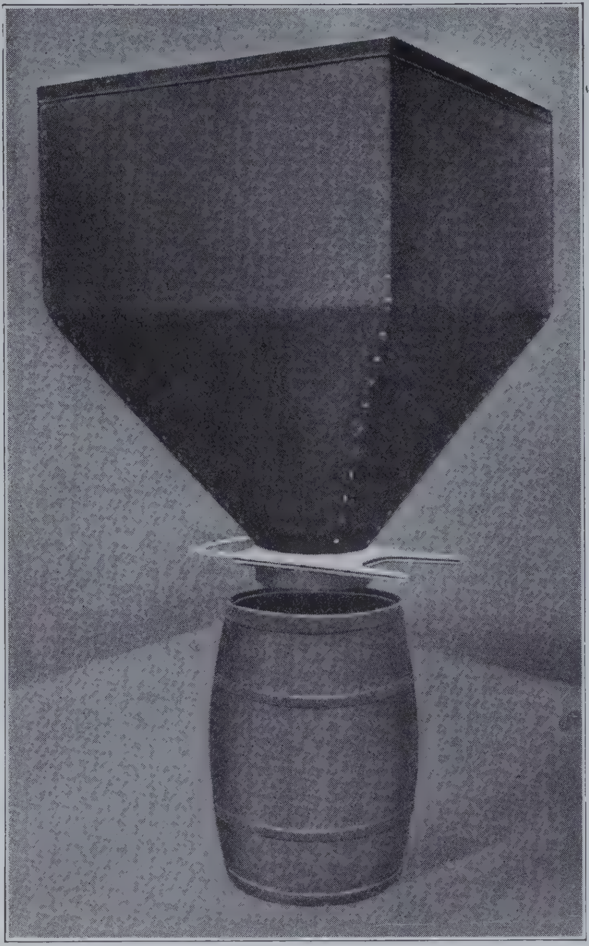
Will Help You Make More *Net Profits* in 1927

They stimulate business and stop leaks and losses.

We Do Quick Work Here!

Send for samples and prices—stating quantity on which you wish us to quote. Or—send samples of your present books for quotations.

The Arcus Ticket Company
348 N. Ashland Avenue CHICAGO, ILL.



The Jacobs Barrel Delivers Your Powdered Milk Right!

One-Piece Heads
Tongued and Grooved Staves
Sturdy Steel Hoops

A "better barrel" that prevents caking — keeps out vermin — stands export shipment :: ::

K. W. Jacobs Cooperage Co.

1907 St. Paul Avenue Milwaukee, Wis.

SOLVING YOUR COLLECTION PROBLEMS.

By Amos Shaw Place.

Problem: Every little while, in one way or anot
we find a customer owing us a trifling amount, anyt
from 5 cents to 75 cents or so. Suing for such amo
or paying them is a nuisance.

A prominent banker of this writer's city—name
nished on request—received some time ago a special
livery letter, the envelope carrying the return card
business located just across the street. Decidedly
ous, the banker opened the envelope. Within, he fo
a statement—it showed he owed the sender the w
sum of 5 cents.

10¢
5¢
50¢
20¢
25¢
BILLS
15¢
ACCOUNTS
Business man
F J D.

It's hard for him to keep those trifling amounts off his books

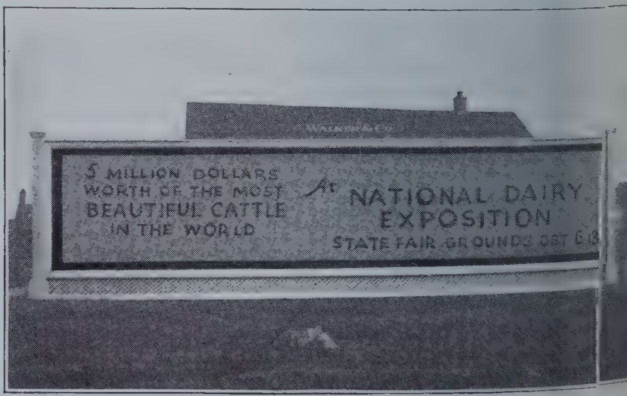
And in a note, personally written in pencil, the
itor solemnly called attention to the charge and "ho
the banker would meet it at once.

The banker did. Taking along a gift cigar, he
right across the street and paid the charge. For a
minutes, it was the most important business he had.
men had a mighty good laugh, and friendship and
will on both sides were strengthened. The credit
man with a sense of humor, had seen the good will
sibilities in the situation and had capitalized them.
in a "business like" manner, the trifling charge was a
en care of.

This "advertising" handling of petty balance i o
way. It is a good way, dealing with a great
customers.

Still another method, of course, where the cust
has more or less dealings, is to carry the charge ov
another month, when there will be other charges to a
to it, the whole making a respectable bill.

An improvement in some ways on this is to e
printed name list. The wording on this notifies th cu
tomer of the trifling balance—says paying of the an u
would be a nuisance of the debter—and explain t
charge will be added to the first purchase made b t
customer. With a great many customers, this is pe ec
ly sound procedure. The trifling amount is even al
collected, and in addition a nice little thing to build o
will has been done.


5 MILLION DOLLARS WORTH OF THE MOST BEAUTIFUL CATTLE IN THE WORLD
At
NATIONAL DAIRY EXPOSITION
STATE FAIR GROUNDS OCT 6

**One of the five large signboards located on principal roa lead-
ing into Detroit at the time of the exposition. The sig wer
donated by the Walker Sign Co.**

Where all 'round efficiency and quality of product is the chief consideration the selection results in an installation of

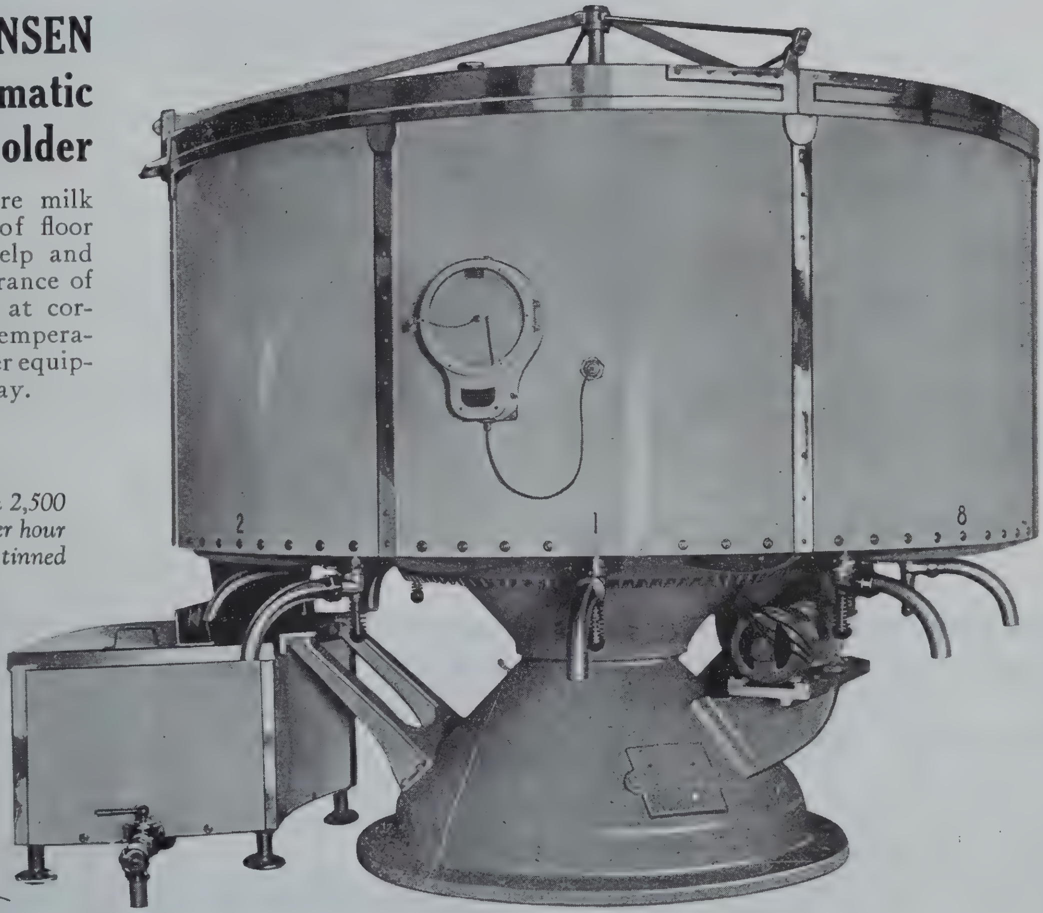
MORTENSEN

Automatic Pasteurizing and Cooling Equipment

The MORTENSEN Positive Automatic all Nickel Holder

will pasteurize more milk in a given area of floor space with less help and with absolute assurance of positive operation at correct pasteurizing temperatures than any other equipment available today.

Made in sizes from 2,500 to 20,000 pounds per hour in pure nickel or tinned copper.



Our Milk Plant Engineering Services are always under my personal supervision.

C. Mortensen

Standard Milk Machinery Co.

INCORPORATED

LOUISVILLE, - - - KENTUCKY

SECRETARY'S REPORT SHOWS SPLENDID PROGRESS.

(Continued from page 25)

requests coming into the various offices from school teachers.

Normal Schools.

In addition to the demands made upon us by the present school teachers we are finding an ever increasing demand from normal schools where young women are being prepared for the teaching profession. A large percentage of the normal schools now in the country are using dairy council literature and are adopting dairy council methods of teaching health. With these young women properly trained it will mean ever greater results than ever before in promoting health and fortunately for the dairy industry, health teaching always results in a greater use of dairy products.

New Activities.

Council activities have been extended in various ways during the past year, one of which is the establishment of the publicity department.

This department issues the Dairy Council News once each month, this going to over 5,000 important people, including all the health commissioners, the leaders in the dairy industry and others especially interested in council work. Also from the publicity department comes the Household Nutrition Sheet designed for use by household editors in the various daily and weekly newspapers throughout the country. This sheet contains the latest information on health topics and from it the household editor is permitted to clip such information as desired for reprint in the various newspapers. This nutrition clip sheet goes to 3,000 people including the editors of over 1,200 daily newspapers, to every farm paper, to all dairy journals, to all railroad magazines for employees, to all feature press syndicates and to all weekly newspapers in dairy council territories. In addition to this the publicity department has sent out 56 special releases during the past year.

Extensive work is now being done with the 4-H Boys' and Girls' Club organizations which have a membership of approximately 600,000 boys and girls in all parts of the country. The dairy council health program is being incorporated into their program with splendid success. (This work began in the state of Iowa and is spreading rapidly.)

The Quality Control Department.

Although not a new department the work of the quality control department deserves special mention. In Philadelphia there are 13 men and in Pittsburgh 3 who vote their entire time in improving the quality of m Chart No. 6 shows the improvement which took plac the milk supply i none of these cities in the first yea work. In addition to the sediment test which shows amount of foreign material in the milk, the methyl blue reductase test is now also being used to detern the keeping qualities of the milk; also, Dr. Breed's di microscopic test is being used. As a result of the nounced improvement in the milk supply of Pittsbu for example, the requirements made of the farmers h been raised so that in order to produce Grade A m the farmer must have a bacterial count only one-t as high as formerly required for Grade A.

Other Department.

The other department, including the dramatic dep ment, nutrition department, exhibit and display dep ments, and others are likewise doing excellent work.

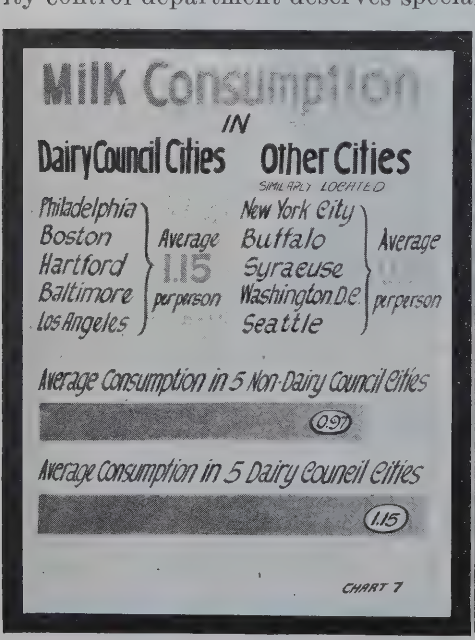
Results.

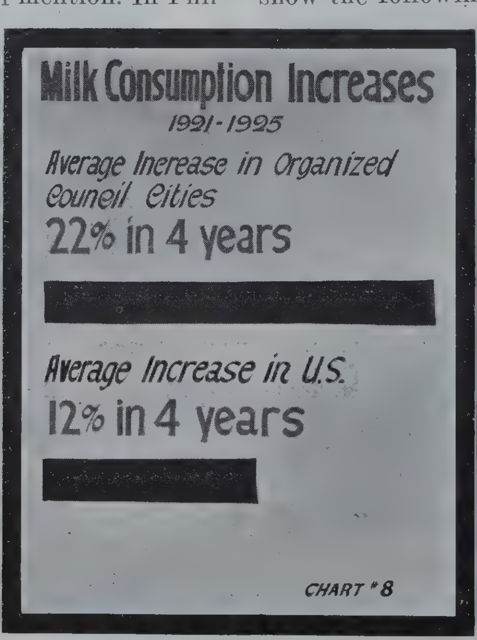
There are several ways of measuring the result dairy council work, some might prefer to measure i terms of improved health, others in terms of increa consumption of dairy products or in various other w It can be definitely stated that dairy council work improved health conditions, that it has helped stabi the dairy industry, that it has and is bringing abo greater public appreciation of the high food value the relative economy of dairy products in the daily that it has and does result in a closer relationship tween all branches of the dairy industry, particul the producers and the distributors, that quality has improved and that consumption has definitely been creased.

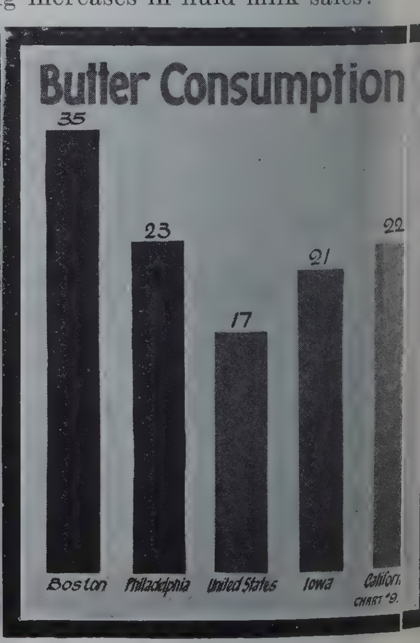
Time will not permit of a discussion of all t points, in fact only the last item. Increased consu tion will be elaborated upon. A few dairy council ci will be cited. Chart No. 7 shows milk consumption person in organized cities compared with milk consu tion in un-organized cities.

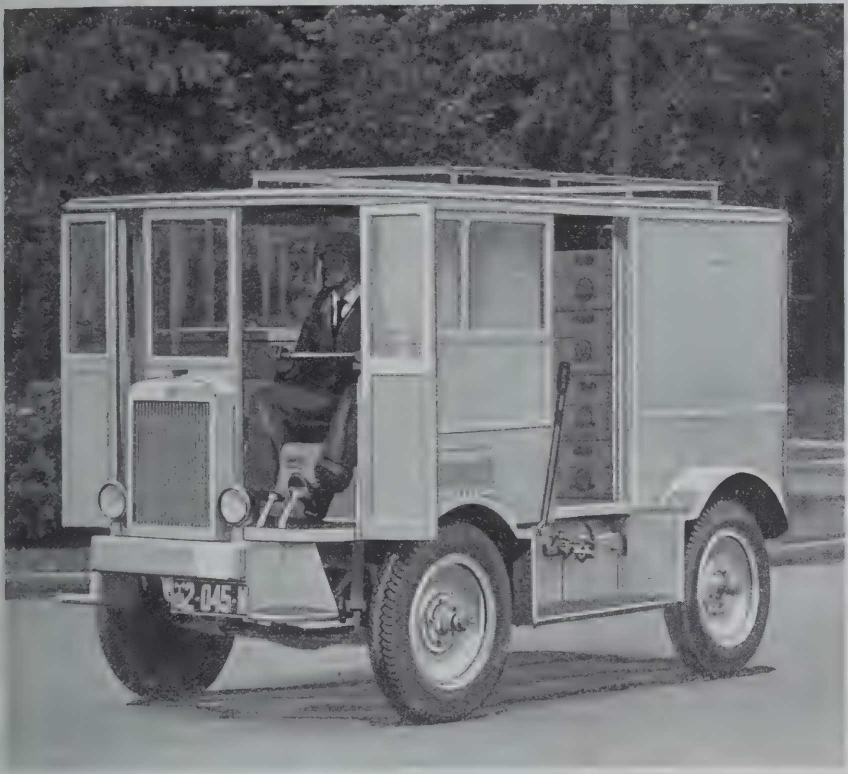
Results in Baltimore: The average daily sale milk in Baltimore in 1926 has been in round fig 17,000 quarts above the daily sales of 1925; this i increase of approximately 8.5 per cent in milk consu tion during the past year. The increase in milk c sumption in the schools in Baltimore during the a year has been approximately 25 per cent.

Results in Pittsburgh: Six representative de show the following increases in fluid milk sales:









Three point control enables driver to start or stop from the front or either side. Also unloads from front, rear and either sides.

DIVCO

The First Motor Truck to be Built Exclusively for Milk Delivery

NOT just an ordinary truck, but especially built for quick starts and stops from door to door. DIVCO three point control and slow-speed engine mean easy handling, low operating costs and exceptionally long life.

Many tests have proved that DIVCO will do the work of two horse drawn wagons in less time and at less cost per month. The load—as much as a man can deliver—is accessible at four places.

In our booklet, "FROM HOUSE TO HOUSE WITH DIVCO," are shown actual comparative delivery and operating costs on various sizes of routes. Write for it; it's free.

Detroit Industrial Vehicle Corporation
1400 Fort Street West DETROIT, MICH.

MOTOR DIVCO TRUCKS

RECORDERS
DIAL-INDICATING THERMOMETERS
CONTROLLERS
OIL-TESTING INSTRUMENTS

For Every Process there is
ONE BEST Temperature

For Every Temperature Application there is ONE BEST Instrument

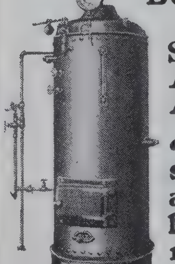
What is your process? On receipt of your brief mention we shall gladly send you an illustrated bulletin with special reference to your industry.

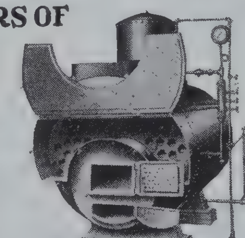
C. J. TAGLIABUE MFG. CO.
18 TO 88 THIRTY-THIRD ST. BROOKLYN, N.Y.
Insist on Mercury Thermometers with the TAG-Hespe RED Reading Column
TAG TAGLIABUE MFG. CO.
SINCE 1769

RETINNING
Ice Cream and Milk Cans

GALVANIZING
Ice Cream Lids Galvanized Outlast Lids Retinned

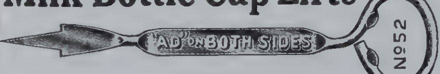
Sanitary Tinning Co.
3753-63 E. 93rd St. Cleveland, Ohio





MURRAY IRON WORKS COMPANY
BURLINGTON, IOWA
INCORPORATED FEBY 1,1870
STEAM BOILERS OF ALL STYLES AND SIZES
The cuts show vertical and horizontal boilers requiring no brick work
We build also Water-Tube and Tubular Boilers to be set in Masonry

YORK SANITARY MILK CO.
No.4



THIS SPACE FOR YOUR ADVERTISEMENT

Milk Bottle Cap Lifts

We offer to the Milk Trade the only complete line of
Advertising Milk Bottle Cap Lifts
Write Today for Samples and Prices
GENERAL PRODUCTS CO.
11 W. Park St. Newark, N. J.
No.440

1921	105,181,000 pounds.
1922	115,046,000 pounds.
1923	125,317,000 pounds.
1924	128,637,000 pounds.
1925	132,353,000 pounds.

This is an increase of 25 per cent in four years.

Results in Boston: In Boston it is very hard to just exactly what the increase in sales has been; ever, statistics show that the increase of shipments the Boston markets to the same shipping stations an approximate gain in four years of 18 per cent; thermore, the five largest dealers according to sworn statements on file in the office of the milk ad istrator show their sales of fluid milk to have incre an average of 23.57 per cent during the four year p 1921 to 1925.

Other dairy council territories show similar re Chart No. 8 shows the increase in milk consumpti organized council cities to have been 22 per cent d the past four years, compared with but 12 per ce an average for the United States.

Another interesting comparison on consumption cannot help but prove the value of dairy council is shown by comparing the butter consumption in council territories with butter consumption for United States as an average. Chart No. 9 shows in Philadelphia the consumption of butter is no pounds per person as against an average of 17 poun the entire United States. In Boston the average sumption of butter is reported by the United government as 35 pounds, in Iowa the per person sumption of butter is 21 pounds and California r consumption as being 23 pounds. If figures were able to show the consumption per person in terri where dairy council work is not conducted nat the figure would be considerably lower than 17 p which is the average for the entire country. It is evident from statistics that dairy council work ha effective in increasing butter consumption as w milk.

The Future.

The future of dairy council work depends alm tirely upon the dairy industry. The schools, the wo clubs and in fact the public at large have expressed hearty approval, and their sincere desire to use th cational material now being put out by the dairy cil. Dairy council material fills a definite need i moting the health program throughout the entire try, and by continuing and enlarging upon dairy cil work there will result a great use of dairy pr improved health and a greater nation.

⁂

PACKAGE EXHIBITION AT BERLIN.

In conjunction with the assembly of the Assa of the German Dairy Experts, and international x tion of packages for milk and milk products will in Berlin, Germany, in August, 1927.

According to present plans, the exhibition wi the nature of a competitive showing. Cash pri be offered for the best exhibit in the different cl containers for milk, butter and cheese, in add diploma awards.

Information may be secured from the headq of Verbandstag des Verbandes Deutscher Molk leute, Berlin N. 4, Chaussesstrasse 8, Germany.

Novoid Corkboard Insulation

"The Choice of Careful Buyers"

There Are Two Sides to Everything—

—including NOVOID CORKBOARD, and you will find the *inside* exactly the same in quality and even, careful bake as you will find the *outside*.

Recognizing that "green centers," so disastrous to any insulation job only after the corkboards have been erected and in service for some time, *cannot be detected by surface inspection*, NOVOID CORKBOARD is made in double width molds approximately 25" x 37", so that each sheet, after being removed from the mold, is *split* longitudinally and then carefully finished to full standard 12" x 36" dimensions.

Thus *every* standard sheet of NOVOID CORKBOARD reveals to you both the *inside* and the *outside* of the original factory product, and the uniform chocolate color guarantees you against the possibility of failure in service from underbaking.

This advantage, found exclusively in NOVOID CORKBOARD, is obvious!

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ORK IMPORT CORPORATION
5-349 West 40th Street, New York City

LOWER PRICES

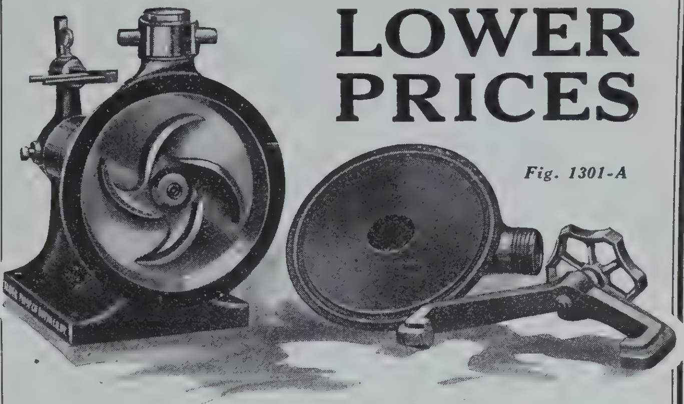
Fig. 1301-A

Showing Dissectible Features of Taber Centrifugal Milk Pump

NON-FOAMING, open impeller type; easy to clean, sanitary—bronze construction; fully tinned—here is an opportunity to buy that new milk pump you have wanted at a very favorable price.

Quality in every detail, the Taber Milk Pumps at present low prices are worth immediate investigation.

Complete information sent; no obligation. Tell us what you want the pump to do.

Write for Bulletin 20-2 Now!

TABER PUMP CO. - BUFFALO, N.Y.
BUILDERS OF REGULAR AND SPECIAL PUMPS SINCE 1859

SALES and ADVERTISING PLANS FOR

Milk Dealers!

Samples of Successful Advertisements; How to Build Up Business Among Schools, Factories and Office Buildings; How to Organize a Sales Force; Unique and Effective Ideas Used by Various Concerns to Increase Business at Small Expense;—and many other business building plans are contained in

"The Sale and Advertising of Dairy Products"

A MERCHANDISING GUIDE FOR MILK DEALERS, ICE CREAM MANUFACTURERS, CREAMERIES AND CHEESE FACTORIES.

Price $2.00

ORDER IT TODAY FROM

THE OLSEN PUBLISHING CO.
5th and Cherry Sts. Milwaukee, Wis.

Arrange Trial

KIMBERLY-CLARK CO.,
Dairy Division, Neenah, Wis.

If you will send us a Cellufilter Funnel and a supply of Cellufilter Discs, we will arrange a 10 days' trial with a patron. After 10 days, said patron will send $1.75 for funnel and order package of 300 discs at $1.35, or return funnel in good condition.

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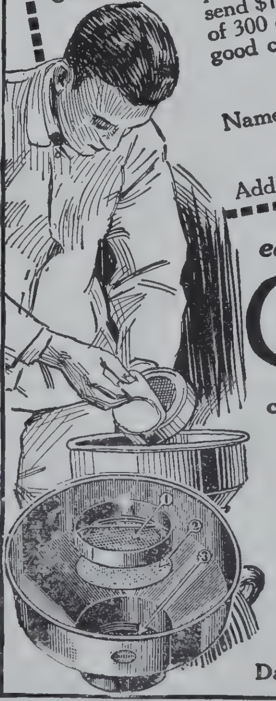


Get our plan for equipping your patrons with

Cellufilter

REG. U.S. PAT. OFF.

The strainer that means cleaner milk as well as a saving in time and money

You want cleaner milk—CELLUFILTER makes it easier for the farmer to produce it. Won't you co-operate with us?

Use coupon above—today.

KIMBERLY-CLARK CO.
Dairy Division Neenah, Wis.

The 1928 World's Dairy Congress To Be Held In Great Britain

Preliminary Announcement by the General Committee of the Congress

THE dairy industry of the United Kingdom invites the official participation of all countries in the Eighth World's Dairy Congress which will be held in Great Britain in July, 1928. A preliminary announcement has just been issued by the organizing secretary of the World's Dairy Congress. He quotes as follows:

"The seven previous congresses of this kind have been of admitted benefit from the three-fold standpoint of international relations, the development of all sections of the dairy industry, and public health; and it is hoped at the forthcoming congress, by an interchange of scientific knowledge and the mutual discussion of industrial progress and problems in the milk industry, to intensify the good results already achieved and to make further solid contribution towards the attainment by all nations of a life of prosperity, health and peace.

"Milk is an essential factor in public health, and the provision of that food, pure and safe, has become more necessary but more difficult under modern conditions of life in congested areas. The problems thus presented, and many others connected with the use and manufacture of dairy products, must be solved before milk can fill its place in the building up and maintenance of bodily health.

"Towards this solution the forthcoming congress will, it is hoped, play an important part. It will also fulfill a further useful purpose by focussing public attention on the unique food properties of milk and on the advantages of an increased consumption of milk and dairy products. In no country has milk consumption yet reached the point which is scientifically recognized as desirable in the interests of human welfare.

"Thus from many different standpoints the World's Dairy Congress is worthy of support, and it is hoped that every nation will make some effort to contribute towards its success.

"The congress of 1928 will be held under the gracious patronage of His Majesty the King. The Right Hon. Walter Guinness, minister of agriculture and fisheries, and the Right Hon. A. N. Chamberlain, M. P., minister of health, have consented to act as honorary joint presidents. The Right Hon. the Lord Kenyon, K. C. V. O., is chairman of the general committee.

"The congress is already assured of the full support of the British government and is being organized in association with the International Dairy Federation.

"It is possible that sessions of the congress will be held in London, Reading, Edinburgh and Belfast. Excursions will be arranged to places of interest throughout the United Kingdom, and every effort will be made to present to the delegates and representatives in attendance a comprehensive survey of the organization and methods of the milk industry of this country.

The annual show of the Royal Agricultural Society of England, which will be held at Nottingham during the period of the congress, will afford visitors an opportunity of seeing the finest examples of dairy cattle in a country famous for its livestock. Dairying in all its aspects, including appliances, will also be made a feature of the show, which will thus provide business facilities of which some of our visiting delegates will no doubt wish to take advantage.

"With a view of making the congress thoroughly representative of every aspect of the dairy industr is proposed that the papers to be considered at the ous sessions should fall within four main groups:

"**Milk Production**—All matters bearing on the duction of clean, wholesome milk. The breeding, fee and management of dairy cattle—education and a ory work amongst milk producers—the techniqu clean milk production—economies of milk producti milk recording—the improvement of farming metho co-operative organization of farmers—young farm clubs, etc.

"**Milk Distributing and Manufacture**—Papers ing (broadly speaking) with milk from the time it le the farm until it reaches the consumer. Transport f ities—marketing—co-operative distribution—metho processing milk—manufactured products (butter, ch condensed milk, ice cream, dried milk, casein prod —dairy machinery—metals used in manufacture—st ardization of machinery—milk bottles, etc.

"**Milk Consumption**—The importance of milk i human dietary—propaganda to encourage the consu tion of milk.

"**Administration and Control**—In this category be included all aspects of official intervention in the industry whether by way of the promotion or subsid of education and research, or by regulating the c tions under which milk and milk products may be cessed, distributed or consumed.

"The general committee of the dairy congress, will welcome the attendance of all who are concern the subjects which the congress will discuss—wheth producers, distributors, scientists, physicians, healt ministrators, welfare workers, philanthropists or sumers.

"Eminent authorities from the British Empire from foreign countries will be invited to deliver p to the congress, and there will be free ventilation discussion of the latest knowledge and discoveries ing to milk and dairy products. All accepted paper be printed in English and such other language as be deemed advisable, and circulated before congress."

Further information can be obtained by writing Olsen Publishing Co., Milwaukee, Wis. We have o tablished representative and branch office in Londo will keep in close touch with developments.

⁂

ANNUAL MEETING OF THE DAIRY AND CREAM MACHINERY AND SUPPLIES ASSOCIATION.

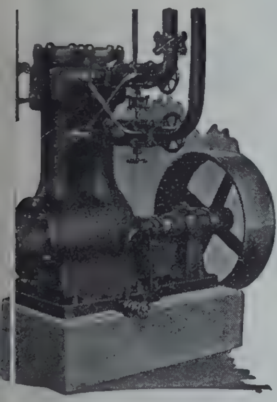
By action of the board of directors of the Dair Ice Cream Machinery and Supplies Association F January 14, 1927, has been selected as the day f association's annual meeting.

The meeting will be held in the McAlpin Hotel and Broadway, New York City, and is called for a. m.

Roberts Everett is secretary and manager.

Vilter

Enclosed Type
Ammonia Compressor



An ideal ice machine for the moderate size plant. Modern in design, made of high grade materials and thoroughly inspected and tested. Let us send a copy of our Bulletin No. 29R to you. It tells of the force feed lubrication to the piston pins, the easily operated Vilter plate valves, the oil sealed stuffing box and gives other information of value.

Let us Submit quotations on your requirements —no obligations to you.

The
Vilter Manufacturing Company
ESTABLISHED 1867
85 Clinton Street Milwaukee, Wis.

Laboratory, Mayfair Plant, Bowman Dairy Co.

Nafis Testing Glassware
exclusively, is used by the
BOWMAN DAIRY CO.
as well as by a majority of Milk Dealers.

LOUIS F. NAFIS, Inc.
Manufacturers of Scientific Glassware for Testing Milk and Its Products.
17-23 N. Desplaines St. CHICAGO

WOULD YOU LIKE TO KNOW MORE ABOUT—

"Testing Dairy Products"

A NEW LABORATORY MANUAL
By J. A. Newlander

If so, send for this book today!

It is especially prepared for those who want to get a better knowledge of dairy tests.

Price $2.00

SENT POSTPAID ON RECEIPT OF REMITTANCE.

The Olsen Publishing Co.
1 CHERRY ST. MILWAUKEE, WIS.

Increase Your Sales
BY USING A
"Cream Line" Pasteurizer

Every user of a "Cream Line" Pasteurizer has increased his sales at least fifty per cent in less than a year after installation of our equipment. Many have changed from raw to pasteurized milk without their customers knowing of the change.

There must be Good Reason for this. It will pay you to investigate.

BUILT IN SIZES
From 50 Gallon Up

Fort Wayne Dairy Equipment Co.
1600 Winter Street
FORT WAYNE INDIANA

ANNUAL MEETING OF THE NATIONAL DAIRY COUNCIL.

(Continued from page 23)

last year, without further effort on our part, we found ourselves swamped with requests for exhibits, that we could only meet to the extent of 100 this year, and had we had the equipment, and the workers, we could have probably doubled up on that this year. What the coming year is going to be I can't predict.

An Example of Demands.

"I do realize, by the requests that are now coming in, that it is going to be terrific on us. Here is an interesting thing. In 1925 I think we made one exhibit in a state college or university. In 1926 we made 20 exhibits and couldn't comply with all the requests. Those are not just exhibits for a day; some universities or colleges have taken them for a week, two weeks, three weeks, and they are up there for educational purposes.

"We have set up some of those exhibits for this meeting. Take this exhibit right here, which we call the School Room Exhibit. I will refer only to that one exhibit. Here is an exhibit that tells a story. There is a bulletin board in the form of a blackboard which is continually changing, which tells the story of the relationship of milk and dairy products in this balanced health program. It is a typification of some school children with a teacher and a map on the wall, what we call our school room exhibit.

"We completed that exhibit late in the winter. As I recall the figures, in 12 weeks we made 19 exhibits of that kind, this window school room display, in various educational groups, conventions of health workers, medical people, dentists, educational meetings, etc., and it has been out during that time every day, only in the central office long enough to get it shipped out again, and yet we could not meet the demand for it.

"That is just one exhibit. It has gone to colleges, educational institutions, conventions and so on. Other exhibits the same way. There is what we call the Health House exhibit in the back of the room. We try to put up all the food that should be eaten, as Dr. McCollum tells us, to balance up our diet to conform to a proper health program. We put those things on the roof,—the whole grain cereals—and on the sides the vegetables and fruits, etc., and we have the dairy products. Study that exhibit. It will interest you. That is a health house and the child who conforms in his habits of eating with what has been pictured in that house will thrive and develop in what we call the health house and will be healthy if he observes other health requirements, like sleep, rest, fresh air, etc.

"Requests from unorganized territory are piling in on us in the national office. Comparing the three months of last year, the first three months of our year's activities, there is an increase of November, 1926, over November, 1925, of 285 per cent, requests that have come in to the national office for our material to be used in schools, just requests for materials in schools—outside the unit territory. In 1926, during that month we received a little less than 6,000 requests, as against a little over 2,000 requests in 1925, and this period, you see of three months shows 219 per cent increase in 1926 over 1925.

Increased Needs Each Year.

"I put this month on to show you that this is a cumulative thing. Here are the three months in the one case and the one month, the last month, the month of November, so that what December is going to be, or January, I don't know. If it keeps up with the percentage of increase that has taken place between November, and November, 1925, we've got to move out in the for more room in our office.

"Many things have taken place in this industry. will hear on this program today a talk by Dr. McCo who will have something to say about some of the things that have come up in the nutritional field re ing our products and you will hear from Dr. McCo the research work being carried on in factories i city of Cincinnati that will be very illuminating.

"But I noticed this: I happened to be in Buffa the convention of the American Public Health As tion. There were some 1,400 or 1,500 health repres tives there and the year before they had appoint committee on the subject of the relation of dairy ucts to health throughout nutrition, and Prof. She was chairman of that committee. They carried on siderable investigational work during the year. T port of that committee was read by Dr. Sherman at convention. I'm not going to read the report, other an extract from it. This report recites:

> 'Present information as to cost and value ma quite clear that the entire community would sav pense and serve their nutritional needs best much as one quart of whole milk were used as for each member of population daily.
>
> 'We can go further and say that it is indispen to steady growth and development of childre least until they reach school age, that a quart of should enter their daily dietary.
>
> 'We can add a third summary of the situati the effect that unless at least a pint of milk pe son is used in a community, waste of income an ous nutritional errors are going to develop and the vitality, sturdiness and capacity to resist d of a large number of both children and adults.

"Then a little further on they make this comme

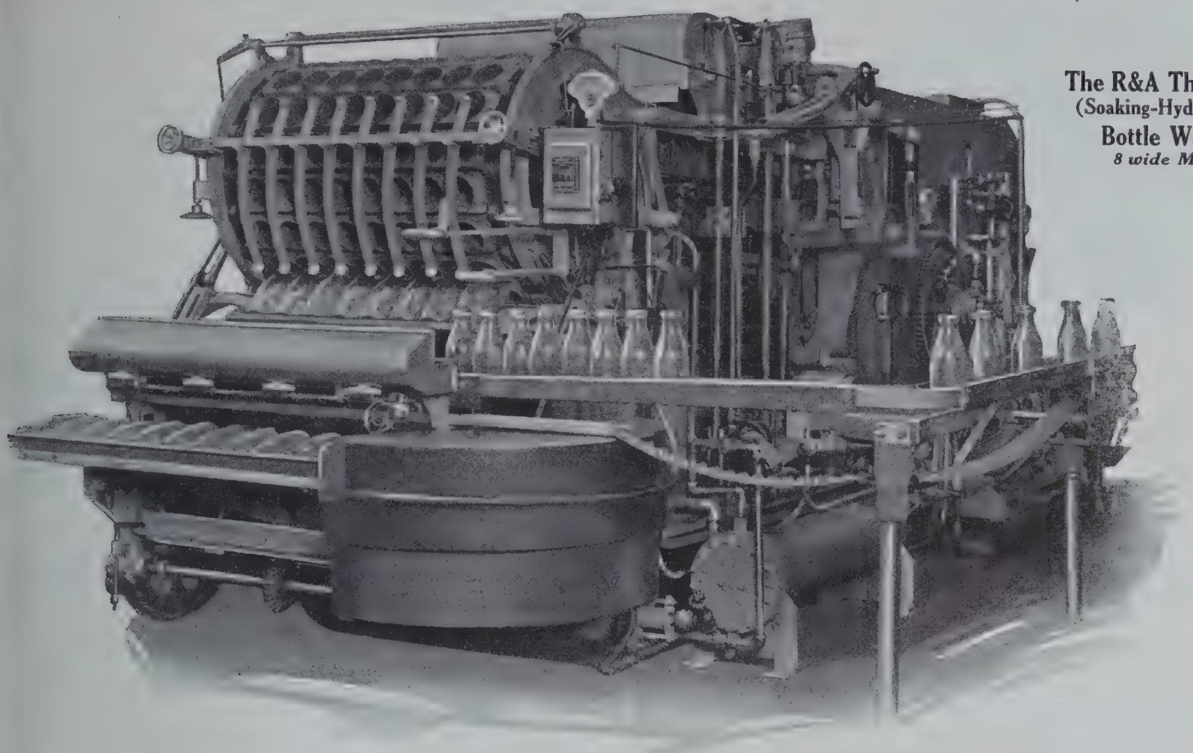
> 'Your committee feels that very special emp should be laid upon the fact that the best int of the public health demand that the activit public authorities in common with milk pro shall be such as to lead to increased milk con tion. This means that we should seek to sim rather than to elaborate, requirements of mil sumption so that the real essentials may be effec emphasized.'

"Here's the report of a committee to a na health organization. Do you sense the far-rea effect of that in the industry? Do you see what a ulus that should be to further endeavor of the organization and efforts? Do you see that that re added support?

"I often wonder why others don't see the val need of this work as it appears to me. I sometim myself, 'Am I getting over-enthusiastic on this su Is my vision of it so warped that I haven't the rig ception of it?' I can't believe that is true. Pos am unbalanced on this subject, but I was glad t that Dr. McCollum agreed with me. That is a scientific assurance that I am not clean, plumb on it.

A Challenge to the Dairy Industry.

"Can't you see what an opportunity there is We have had enormous development in the past 10 I rather suspect that without reflection at all upo in this industry that have been forward-lookin you have been so busy keeping up with the cr business on your various endeavors that you have



The R&A Three-Way
(Soaking-Hydro-Brush)
Bottle Washer
8 wide Model

We said, *"A Great Bottle Washer"*— Users say, *"The Greatest Bottle Washer!"*

NOT our opinion but the opinion of the users is what proves the unusual efficiency of the R&A Three-way Bottle Washer.

In actual service, it takes the dirtiest bottles, thoroughly washes and rinses them, delivers them sparkling clean and ready for the bottlers—and does it swiftly, surely — without hitch or miss—with a minimum of power and labor.

From the start, we have claimed that the Three-way was a great bottle washer. Now, users acclaim it the greatest bottle washer.

Ask These Owners

J. E. HARSHBARGER
Altoona, Pa.

F. BUZZELI & SON
Niagara Falls, N. Y.

SPARKS DAIRY
Buffalo, N. Y.

MUSKEGON FARMERS COOP. DAIRY
Muskegon, Mich.

F. B. MALLORY, Inc.
Springfield, Mass.

SANITARY MILK & ICE CREAM CO.
Peru, Ind.

If you are interested in getting clean bottles, we invite you for your own satisfaction to investigate the Three-way thoroughly.

Compare it, point by point with other good bottle washers. Ask Three-way users what they think of the washer. Ask them what kind of bottles it turns out.

If a Three-way owner is anywhere convenient to your city—or if you can spare the time to come to Buffalo—we will gladly let the balance of the evidence rest with the washer in actual operation.

Meanwhile let us send you complete literature.

RICE & ADAMS CORP.

1144 Military Road, Buffalo, N. Y.

time to think of this but the period has now arrived, men, when you've got to stop and think of it. Otherwise, you're going to have a reaction here somewhere.

"If this organization, through its unit activities and its central office, can't go on and meet these demands that these charts show are piling in on us, there is only one inevitable thing to follow and that is retrogression in our efforts and I am convinced that the value of these efforts is such that it will amount to retrogression in the industry if that comes to pass.

"I've tried to give you a little vision of the national aspects of this industry. Here we are absolutely entrenched in scientific fact as shown by talks that you have listened to in other meetings and extracts of the report of the Health Convention I have read to you, by common every-day observation and experience. We have opened up to us, as shown by another chart, every avenue of valuable activity in which we can spread this knowledge and here we are in an industry golden with opportunity, and I wish I could say rich in endeavor!

"The future of this industry, so far as its development goes, I believe is in the hands of the men who are in these circles between production and consumption and those manufacturing equipment necessary to market these products, and the proper relationship that we shall sustain in our educational endeavors between the consumption circle on one side and the production on the other. That can't be done without absolute, sincere support from every one in this industry. We haven't got that yet—far, far from it!

Few Men Responsible for Start.

"This council would not be in existence today if it hadn't been for a very few men, and it wouldn't be able to carry on now excepting for a very limited number as compared with all there should be in. It is in your hands, men, and I am speaking to those of the industry in this room. It is in your hands as to what this future is, absolutely, and there is not only in your hands what the future of this industry shall be but there is in your hands the absolute welfare, the development, the future of the children, the men and women of this nation, and without the development of those boys and girls into efficient men and women, with your co-operation, I see danger ahead for this industry that is almost unspeakable because a nation which has reached a point where its citizenry is so feeble mentally and physically that it can't rise to its opportunities, the opportunities the world presents, that nation is on the road to decay!"

WASHINGTON — MAINE

Notes From Far and Near

CALIFORNIA — FLORIDA

Chicago, Ill.—A milk distributing station is being ere by the H. Ronken Dairy Co., 131 Emerson Place. The bu ing will be 200 by 100 feet, and will be erected at 166 62nd street.

Chicago, Ill.—A two-story, 74 by 103 ft. pressed brick cut stone building will be erected by the Benson Dairy at 941 N. Cicero Ave. Gust Benson is president of the f which has its offices at 4842 W. Walton Place.

Cumberland, Md.—The Queen City Dairy Company cently purchased new machinery for their plant, and inclu in this purchase an automatic bottle washer.

Des Plaines, Ill.—The Des Plaines Dairy have rece made some improvements at their plant. They plan on stalling a modern milk bottle cleaner in a short time.

Du Bois, Pa.—Formal opening of the new plant of Du Bois Dairy Co. was held late in November.

Little Rock, Ark.—Terry Dairy Company recently m some new improvements to their plant, and, along with o new machinery, included an automatic milk bottle cleane

Maywood, Ill.—The Standard Dairy Company recently chased an automatic bottle cleaner.

Pasadena, Cal.—The Crescent Creamery Co. plans erection of a pasteurization and bottling plant to cost app imately $40,000. The company's main office is located at Winston St., Los Angeles, Cal.

Perth Amboy, N. J.—Puritan Dairy Company recentl stalled a power bottle cleaner in their plant.

Portsmouth, W. Va.—Arrangements for the construc of a big new milk distribution plant are under way. Ideal Milk Co. was recently incorporated, with Albert L ner, president; Robert Richardson, vice-president; H. Duis, secretary; Frank Jordon, treasurer, and W. D. M superintendent.

Red Bank, N. J.—Shrewsbury Dairy Company rec purchased a bottle cleaner.

Rochester, N. Y.—Brighton Place Dairy recently inst a large type milk bottle cleaner.

Rockford, Ill.—The Darrow Dairy Company recently chased an automatic milk bottle cleaner. The new purc became necessary with their greatly increased business.

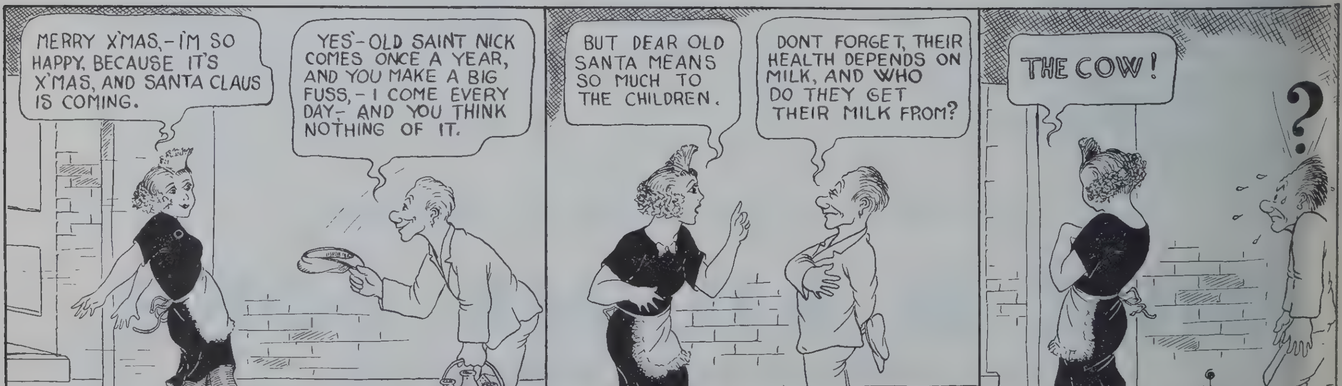
Roseburg, Ore.—The Alpine Milk Co. is contemplatin erection of a condensed milk plant here. It has alread tained option on a site, 80 by 157 feet adjoining rail tracks.

St. Louis, Mo.—The Pevely Dairy Co. is reported to under construction a $200,000 condensing plant, one an stories high. D. C. Kerchoff is president of the com which has its headquarters at 1001 S. Grand.

Whittier, Calif.—Whittier Sanitary Dairy Company recently installed an automatic bottle washer.

"Merry Christmas!"

By E. S. Mueller


MERRY X'MAS,-I'M SO HAPPY, BECAUSE IT'S X'MAS, AND SANTA CLAUS IS COMING.
YES-OLD SAINT NICK COMES ONCE A YEAR, AND YOU MAKE A BIG FUSS,-I COME EVERY DAY- AND YOU THINK NOTHING OF IT.
BUT DEAR OLD SANTA MEANS SO MUCH TO THE CHILDREN.
DONT FORGET, THEIR HEALTH DEPENDS ON MILK, AND WHO DO THEY GET THEIR MILK FROM?
THE COW!
?
Mueller

"UNLAWFUL MILK."

ccording to a news bulletin issued by the Penn- nia Department of Agriculture, a practice of sep- ng and viscolizing the milk fat has been followed by milk dealers in the state. The practice has been parate the milk, viscolize or homogenize the cream hen add it to the skim milk. A very big cream line attained in this way. The practice is, of course, ned upon by the health authorities and has been de- d fraudulent.

e bulletin issued by the health department follows:

method recently devised and adopted by certain milk butors for making the fat content of milk appear to be as large as it actually is, by means of "viscolizing" is ud and will be dealt with accordingly, state officials e.

statement just issued by Dr. James W. Kellogg, director hief chemist, bureau of foods and chemistry, Pennsyl- Department of Agriculture, outlines the position of the officials, as follows:

he sale of so-called viscolized milk, as recently adopted rtain distributors, is declared by the officials of the ylvania Department of Agriculture to be unlawful and d on the consumers of milk.

Consumer is Deceived.

he process of viscolizing is essentially the same as that mogenizing, which is employed to increase the volume ty substances, such as milk fats, by the use of high pres- which has the effect of increasing the volume of space ied by the fats subjected to this treatment. When ap- to the fats in milk it extends the cream line to about nches so that the so-called viscolized milk has the ap- nce of containing about twice as much cream or butter it usually does. The amount of fat in the cream is creased at all and only deceives the consumer into the that the milk so treated is much richer in cream than rily sold.

he milk itself is not viscolized but only the cream or rtion of it, which has been previously separated and jected to this treatment and which is again mixed with im milk. The product is in fact viscolized cream and milk mixed together after having been processed. This ce is reprehensible and in violation of the code of ethics trade and 'a fraud upon the consuming public.'

'he milk law distinctly prohibits the sale of 'milk which ad the butterfat or any portion thereof removed there- n The general food law defines adulteration as an un- ul sale of any food product if it be so mixed 'whereby ge or inferiority is concealed, or so as to deceive or ad the purchaser; or if by any means, it is made to ap- better or of greater value than it is.'

Milk Defined.

ccording to the accepted definition, 'milk is the whole, clean, lactic secretion obtained by the complete milk- one or more healthy cows.' Therefore, milk which en subjected to a process of separating and viscolizing eam and re-mixed with the skim milk cannot be claimed ning within this accepted definition and the so-called ce of viscolizing and selling milk with a falsely ex- d cream line is considered as being in violation of the uements of the law and prompt action will be taken by partment against the unlawful sales of viscolized milk.

he position taken by the Pennsylvania Department of ulture, in reference to the sale of so-called viscolized k is approved by Dr. Charles H. Miner, secretary of health, nylvania Department of Health."

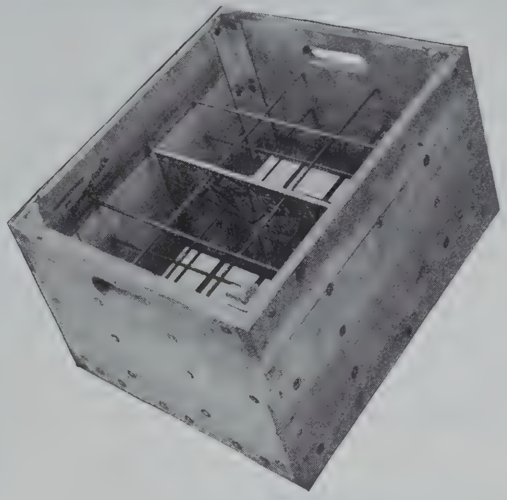
* * *

RALPH SETHNESS DEAD.

lph Sethness, treasurer of The Sethness Co., Chi- died suddenly on Saturday, Dec. 4. Mr. Sethness s 0 years of age and leaves a wife and two children urn his untimely passing. He was a very success- siness man and enjoyed the confidence and esteem ost of friends in the ice cream industry.

* * *

ccess lies in doing little things well. "Milk r" Want Ads are little things but they carry big ges. Read them regularly.



Money Savers

You can keep down your bottle crate investment with—

Republic Bottle Crates

and their life of useful service will be found to compare exceptionally favorable to any you have used.

The high one-piece galvanized iron center spacer keeps the rods permanently in line and prevents their sagging. Corners are reinforced with heavy galvanized metal—made in one piece to form stacking iron and bottom corner protection.

GET OUR PRICES
BEFORE YOU BUY

THE
Republic Box Company
1693-1711 Merwin St.
CLEVELAND, OHIO

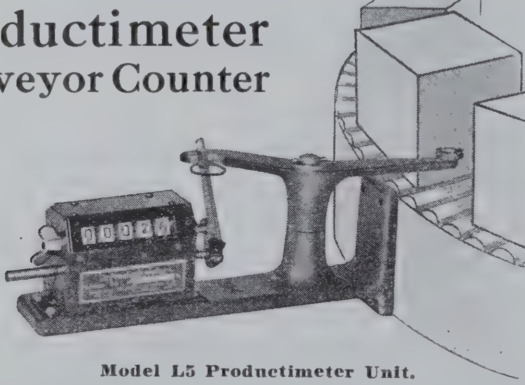
MICHIGAN SHORT COURSE.

The dairy manufacturing short course offered annually by the Michigan State College of Agriculture and Applied Science begins January 3, 1927, and ends March 5, 1927. The course in cheesemaking and the course in buttermaking are offered simultaneously. The student must therefore elect one or the other of these two; it is impossible that he take both. Previous experience is not essential, but is very desirable for students taking either of the courses.

In addition to special training by lecture and laboratory practice there are supplementary studies required. These include a course in Babcock testing and separators, creamery mechanics, dairy bacteriology and hygiene, dairy arithmetic and gymnasium. These courses are required whether buttermaking or cheesemaking is taken inasmuch as they have a direct relationship to both.

Board and room may be had in East Lansing, close to the college, at moderate rates. Board costs on the average from $6.00 to $7.00 and room $2.00 to $5.00 per week. There are ample hotel facilities in the nearby city of Lansing with ten minute street car service between city and college. Students who enroll in the course should first report to the short course office located on the first floor of the Agricultural Building where registration is taken care of and general directions given. The first day is given over to registration and location of quarters. The fee required for entrance is $5.00 for residents and twice that amount for non-residents. There is a health service fee of $1.50 which provides free medical and hospital service for anyone taken sick. Further information may be obtained by writing the Short Course Office, School of Agriculture, Michigan State College, East Lansing, Mich.

Counted As They Pass
By The
Productimeter
Conveyor Counter



Model L5 Productimeter Unit.

The Productimeter Model L5 Conveyor Counter provides a quick, easy, and accurate means of getting the count of boxes, pieces, or packages as they pass along the conveyor. Assures a mechanically accurate count and saves a man's time and wages. Unit consists of a standard 5B1 Productimeter equipped with a special mounting bracket and counting arm, ready and complete for attachment to any conveyor. Counts to 99999 and is easily reset to zero by a turn of the wing nut.

Send for special bulletin, giving details on this unit, and catalog describing 57 standard models of Productimeters for various applications, such as bottle counters, can counters, filling and sealing machine counters, etc.

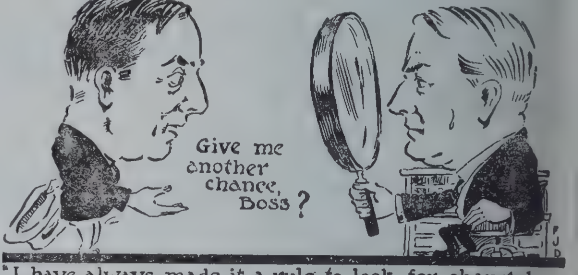
DURANT MFG. CO.
663 Buffum St. Milwaukee, Wis.

SHALL WE GIVE THIS MAN A SECOND CHAN

One fall doesn't prove a man is permanently do The practical employer realizes that, as well as the so worker. From the practical standpoint, though, w ought an employer do when an employee who has b fired once, for full cause, comes back and asks fo "second chance?" The sentimentalist says, "Give i him." What ought to be the attitude of an employ

It all depends. From the humanitarian standpo the former employee isn't helped if to hire him me shortly to fire him again. He may be actually hurt further damage to personal morale. We asked an employer, well known for his kindness, for advice pass on. This is what he said:

"I believe that most employers who give 'sec chances' find that usually the returned worker ag messes things up and has to be discharged. On pa


Give me another chance, Boss?
J D

"I have always made it a rule to look for changed conditions at this time."

the worker should feel such gratitude as to guara faithful, determined effort. In practice, he is quit apt to feel his employer is an 'easy mark' and act acc ingly.

"Most of us believe the safe side to err on is of justice and humanity to the worker. However, I always made it a rule to look for changed conditio the time of the employee's asked-for return. Is he same man, or a different man, at heart? What panions will he have, what supervision? What are conditions? I have observed a number of re-empl men who have 'come back,' and in most cases I found changed circumstances. This is particularly where the man has a new manager or 'boss.'

"Men fired by one employer often 'make good' another. The change in employers is usually respon All of us can bring out the best only in certain typ employees, and thos eare the types we ought to with.

"If conditions are changed, the man fired once be employed again with possibility of mutual profit.

⚜

MASSACHUSETTS SHORT COURSE.

Three ten-day courses will be given by the Mss chusetts Agricultural College, Amherst, Mass., d the period from Jan. 17 to Feb. 25, 1927. The co will cover the underlying principles of milk plan eration and ice cream, butter and cheese making, s emphasis being placed on milk plant and ice crea erations, and on the testing, analysis and inspecti dairy products.

The first course to be given will cover the te analyzing and inspecting dairy products. It w offered Jan. 17-28. Following this will be the c embracing milk plant and creamery operation. Th course will open Jan. 31 and run to Feb. 11. Th course will be an ice cream course and will be giver 14-25. J. H. Frandsen, head of the dairy depart points out that the courses have been so arranged all three courses can be taken with no loss in tim at a time of the year when help can easily be spa

WANT DEPARTMENT

HELP WANTED

(Rate: 2c per word)

ESMAN WANTED—Dairy machin- ouse with well established general equires the services of several addi- traveling salesmen of demonstrated y. Employment will be on a straight and expense basis. Applications give full particulars as to age, ience, general qualifications and sal- xpected. If these are satisfactory, a al interview will be arranged. Ad- D-657, The Milk Dealer. 12-26

NTED—House to house solicitor; be experienced and reliable. Steady yment. Salary and commission. Ad- D-680, The Milk Dealer. 12-26

NTED—Man with mechanical experi- training and working experience in ery, dairy and ice cream plants, to as service man in Middle West and ern territory. Give full information st letter. Address: D-684, The Milk r. 12-26

POSITION WANTED

(Rate: 2c per word)

ITION WANTED—With retail dairy on route or inside work by single No bad habits. Experienced cream- an, willing to work. Graduate of course, University of Wisconsin. ences. State full particulars in first Address: D-689, The Milk Dealer. 12-26

P ITION WANTED—As executive in or wholesale milk plant. Several practical experience in both sales executive position. Address: D-702, ilk Dealer. 12-26

P ITION WANTED—Ambitious young with four years experience in dairy including short course at Penn State ge and now employed as foreman in all milk plant desires position as an or assistant foreman in a larger plant that gives quality first con- tion. Available first of year. Loca- n Pennsylvania preferred. Address: , The Milk Dealer. 12-26

P ITION WANTED—University gradu- perienced and capable to manage or intend retail milk business. Also ar with butter and ice cream. Would ler investing. Address: D-706, The Dealer. 12-26

P ITION WANTED—Pennsylvania man, ars experience, familiar with sales tion, bookkeeping or anything in ction with the sales end of the busi- Address: D-707, The Milk Dealer. 12-26

P ITION WANTED—By dairy bacteri- t and chemist. Can also do field Highest reference in sanitation, iology and field work. Can lower ia count. Not afraid to work. Ad- D-708, The Milk Dealer. 12-26

P ITION WANTED — This man can late the sale of some company's ct in the dairy field. Has thorough edge of the industry and excellent ctions. Has sales ability, good per- ty, is young, energetic and a gradu- a leading technical school. Can rogressive company high grade rep- ation. Address: D-718, The Milk r. 12-26

P ITION WANTED — By Wisconsin as superintendent or working fore- Twenty years practical experience nmercial milk and butter. Expert in ed buttermilk and cottage cheese. years in present position. Best of for wanting to change. Familiar conditions in West and Southwest. ss: D-719, The Milk Dealer. 12-26

RATES

2c per word for ads placed under headings "Help Wanted" or "Position Wanted."

5c per word for ads placed under all other headings — "Wanted to Buy," "For Sale or Exchange," etc.

In computing amount of remittance, add six (6) extra words if wanted published under Blind Address.

Bold Type—Double regular rates.

Minimum Charge—50c.

Blind Address — EXTRA — 25c in U. S. only; 65c Foreign — To cover postage in sending out replies from this office.

REMITTANCE MUST ACCOMPANY ORDER.

IT PAYS TO ADVERTISE

NOTE: Names and addresses of advertisers using blind addresses cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of this paper.

NOTICE

The publisher disclaims any responsibility for the reliability of parties advertising in the Want Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting suspicious dealings.

We reserve the right to refuse to accept advertisements which we believe are detrimental to the dairy industries.

Want Ads are accepted up to 7th of month preceding date of issue. Forms close on that date.

POSITION WANTED—By college graduate in dairy manufacturing. Good commercial experience in butter, ice cream, market milk and plain condensed. If you are looking for a man to grow into the larger responsibilities of your business let me hear from you. Please state what you can pay to start and the general possibilities of the job. Address: D-721, The Milk Dealer. 1-27

POSITION WANTED—As assistant manager or foreman. College graduate with 4 years experience in production work. Willing and capable of handling any phase of work connected with the dairy. Julius Stueber, 1024 Holton St., Milwaukee, Wis. 12-26

POSITION WANTED — As manager or foreman by man with years of experience in evaporated and condensed milk. Will accept other position where chance for advancement offered. Also experienced in plant sanitation and laboratory. Salary and full particulars requested in first letter. Address: D-647, The Milk Dealer. 12-26

POSITION WANTED — As manager or superintendent of milk plant in the city or country. Have had experience in both localities. Experienced in plant sanitation and low bacteria counts. Also in separating, pasteurizing, bottling, testing and machinery, as well as in handling of help. Have had 15 years practical experience. Now employed but desire change. Best of references as to ability. State full particulars and salary in first letter. Address: D-723, The Milk Dealer. 12-26

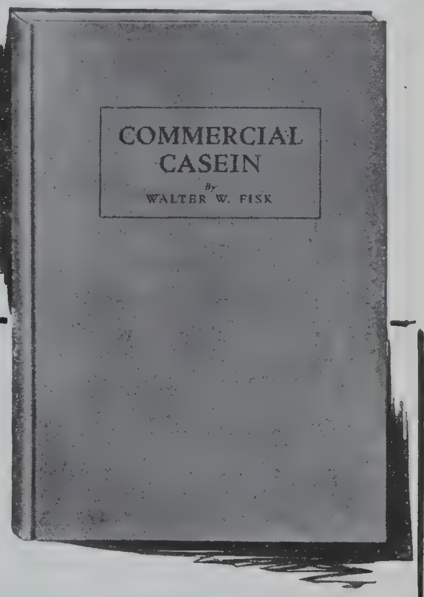
FOR SALE or EXCHANGE

(Rate: 5c per word)

BUSINESSES

FOR SALE — Milk plant completely equipped. Operating eight wagons in city of fifty thousand in central Michigan. Good supply of milk. Address: D-615, The Milk Dealer. 12-26

FOR SALE—A milk plant, bargain and terms. Sales about one million annually. Write at once. Address: D-714, The Milk Dealer. 12-26



What you want to know about Commercial Casein

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How to make it

The Equipment Needed

A good outlet for surplus skim milk.

Learn about it in this book.

Sent anywhere postpaid on receipt of

$1.00

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5th and Cherry Sts. Milwaukee, Wis.

FOR SALE—Mi'k receiving and shipping plant in northern Illinois, on direct railroad line, 110 miles from Chicago. T.B. tested territory, good location, property excellent condition. Cheap for cash. Address: D-704, The Milk Dealer. 2-27

FOR SALE — Milk plant completely equipped. Operating 20 routes—retail and wholesale—in a city of 50,000 not far from Chicago. Buying and selling 16,000 lbs. of milk daily. Wish to retire is the reason for selling. Address: D-720, The Milk Dealer. 12-26

FOR SALE—Milk plant in college town of 3,000 in Ohio pasteurizing 250 gallons milk daily; also jobbing butter and ice cream. Address: D-642, The Milk Dealer. 12-26

MACHINERY AND SUPPLIES

FOR SALE — Refrigeration Machines — Used—We have several used and new machines of nationally known make, which we can sell at a big saving to you. Will erect and guarantee the plants fully. Address: Erecting Engineers Company, 4725 West Lake St., Chicago, Ill. 10-26tf

FOR SALE—One No. 8 heavy duty Master Dual churn, belt driven, used only a short time and in very good condition; price $400. One No. 8 heavy duty Master dual CP churn with 7½ h.p. A. C. motor, direct connected. Price $600. This churn was used only part of season; reason for selling—centralized cream department discontinued. You take no chances on this equipment. Harmony Creamery Company, P. O. Box 1,066, Pittsburgh, Pa. 12-26

FOR SALE—Ice making and refrigerating machinery. New and rebuilt. Our prices on new Waynesboro refrigerating equipment, delivered and installed very low. Buy direct from the manufacturer. All sizes. Get our prices on your requirements. Geiser Manufacturing Company, "Department B," Waynesboro, Pa. 1-27

FOR SALE—Write us for bargain prices on our stock of used coil vats, coolers, brine freezers, homogenizers, etc., which have been rebuilt and are in A-1 condition. B. Riley Hauk & Son Co., 201 S. First St., St. Louis, Mo. 1-27

FOR SALE—One 300-gal. Wizard pasteurizer; one 100-gal. Wizard pasteurizer, and one 4-ft. 16 tube Alaska cooler. W. A. Croak, 417 So. Catherine Ave., La Grange, Ill. 12-26

FOR SALE—Milk wagons, new or used, drop-center or straight sill. Orcutt Wagon Works, Northampton, Mass. 12-26

FOR SALE—50-gal. Wizard pasteurizer, white vitrified porcelain enamel; 50-gal. Victor junior churn; 8 Clipper all steel milk bottle cases with retainers. All articles new. Write for prices. Address: D-688, The Milk Dealer. 12-26

FOR SALE—One 100-gal. Manton-Gaulin homogenizer, latest model, with two-stage valve, motor drive, first class condition. Price $600. One 200-gal. Manton-Gaulin homogenizer, belt drive, good condition, old model. Price $500. One 200-gal. De Laval emulsor, belt drive. Price $200. Address: D-724, The Milk Dealer. 12-26

FOR SALE—One 300-gal. C. P. pa
izer, direct motor driven, white e
outside. Used 9 months. Cost $1,10
sell for $650. One motor driven sa
pump, matches above vat, $100. Tw
tion cooling coil and hangers, $100.
150-gal. Cherry pasteurizer, belt d
$175. 1½-ton ice machine, $400. C
h.p. boiler, $75. One 20-ft. line shaft
leys and hangers. 2-h.p. single
motor. One Milwaukee air power
cost $510. All above articles in p
shape. Numerous other smaller a
for creamery and market milk plan
reasonable offer refused. A. E. Rost
28th Ave. and Rogers St., Milwaukee
Phone Orchard 1209.

FOR SALE—Milk can washer, Ma
motor driven, good condition, priced
Clarifier, No. 100 De Laval, first $75 g
Emulsor, De Laval, No. 1, 200-gals
belt driven, first $75 takes it. Ad
D-692, The Milk Dealer.

FOR SALE—One No. 100 De Laval
fier, slightly used, at a bargain.
water Jersey Farm, Coldwater, Mich.

WANTED TO BUY

(Rate: 5c per word)

WANTED TO BUY—Will buy milk
ness or interest in same, small or
What have you? Address: D-716, The
Dealer.

WANTED—Used conveyors for ha
milk cases in dairy. Must be in good
dition. Advise lengths, prices, and ge
condition. Rephan's Sanitary
Charleston, S. Car.

CAUGHT ON THE WING.

Merry Christmas! Say it to yourself, think it, feel it, live it, spread it all around from now until the day when you can say it to everyone you meet—MERRY CHRISTMAS!

* * *

Spend little effort and you will have little else to spend.

* * *

Don't fail to try because someone else has tried and failed.

* * *

The peculiar thing about faith is that the harder it is attacked, the stronger it grows. Have faith in your enterprise and neither earthquakes nor hurricanes can destroy it.

* * *

The story is told of a paint manufacturer who had been decidedly lenient with all the dealers who bought from him on credit. A day came, however, when he himself was being pushed pretty hard for money, so that, when an order came from a fellow who had paid him nothing for several months, he wrote the dealer and told him he would have to pay his old bill before he could ship the new order.

Imagine his surprise when the following day he received this telegram, collect: "Please cancel o
Can't wait that long."

* * *

Blinders were put on horses to narrow their fie
vision—but the vision of human beings should not
limited. We need to get various slants on problems,
at them from all angles, and then decide for ours
which road to take.

* * *

We've often wondered who first coined a nam
a product by shortening each part of the trade name
ending the result with "co." The first such nam
could recall was Nabisco, but now we read that n
forty years ago the Smith Tool Co., of Pennsylv
conceived the bright idea of giving its produc
identifiable name—much as the parents of "an onl
who was born a girl" named her Henrianna, afte
father, Henry, and the mother, Anna. "Smitooco'
the not-pretty name thus coined. And it has surviv
this day, for the system, which a glance through th
vertising pages of any magazine will show you is
very much used, is known as the Smitooco Syst
Coining Trade Names.

* * *

"Keep your eyes on the clock and you become e
ly one of the hands."

DON'T lose any more money on the Manufacturing of Chees

My new processes give you absolute control of QUALITY, TEMPERATURE, FLAVOR and TEXTURE. Complete any product inside of 6 hours.

I teach your men at your own plants the new processes for the manufacturing of 5 lb. loaf of Cream Cheese, Farmers Cheese, Home-made Pot Cheese, Hoop Cheese, Bakers Cheese and all soft cheeses. Light Sour Cream and Butter Milk with SOLID BODY.

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CONSULTING DAIRY
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Telephone: Whitehall 765
1 HUDSON STREE
NEW YORK CIT

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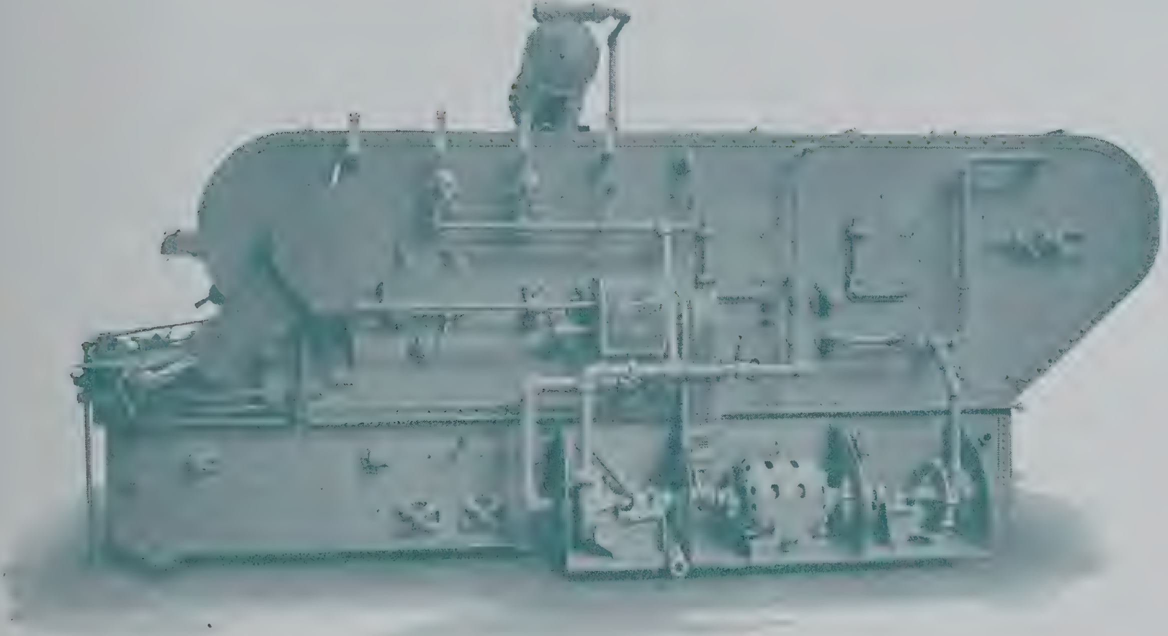
INCOMPARABLE

in washing efficiency



Some *CP* Ladewig Users:

nited Dairy Co	Chicago, Ill.
urora Dairy Co	Aurora, Ill.
unshine Dairy Co	Milwaukee, Wis.
heffield Farms Co	Grand Gorge, N. Y
heffield Farms Co	Ewing, N. J.
os Angeles Creamery Co	El Monte, Calif.
he Borden Co	Brooklyn, N. Y.
eakes Dairy Co	Red Hook, N. Y.
onolulu Dairymen's Ass'n	Honolulu, T. H.
ipps Dairy Co	New Haven, Conn.
teigerwald Dairy Co	Portland. Ore.
arst Bros	Roanoke, Va.
ea Riggens & Son	Muncie, Ind.
nion Dairy Co	Chicago, Ill.
V. H. Roberts & Son	Indianapolis, Ind.
and Springs Creamery	Sand Springs, Okla.
roducers Creamery Co	Wichita Falls, Okla.
addington Cond. Milk Co	Unadilla, N. Y.
nwood Farms	Harrison, N. Y.
orrison Cove Dairy Prod. Ass'n	Altoona, Pa.
ayonne Milk & Cream Co	Bayonne, N. J.
urity Farms	Ewing, N. J.
eakes Dairy Co	Sussex, N. J.
alley Dairy Co., Inc	El Monte, Calif.
rand Rapids Creamery Co	Grand Rapids, Mich.
horvald Jensen & Co	Rio de Janeiro, Brazil
osebud Creamery Co	Detroit, Mich.
roducers Creamery Co	Benton Harbor, Mich.
asler Dairy	Toledo, Ohio
enmore Pure Milk Co	Kenmore, Ohio
abcock Dairy	Toledo, Ohio
erkeley Farm Creamery	Oakland, Calif.

When you watch a *CP* Ladewig in action for the first time, be prepared for the biggest surprise you have ever had. Many time honored theories of rapid and efficient bottle washing have been purposely disregarded in making the *CP* Ladewig. In making a washer that surpasses everything and anything seen before you can't use a bunch of old ideas. Therefore, the *CP* Ladewig embodies a different, yet sound, operating principle.

The *CP* Ladewig washing method is soaking plus *"hydraulic scrubbing"* and, oh man! how it does clean bottles! Although incomparably efficient, it is also relatively simple. Because we believe that a straight line is the shortest distance between two points, mechanical complications are avoided and skilled mechanics are not needed to keep the washer in service.

Regardless of the type, age, size or capacity of your present washer, if you have an open mind and are interested in lowering washing costs and getting cleaner bottles, get the facts on the *CP* Ladewig.

THE CREAMERY PACKAGE MFG. COMPANY

61-67 W. Kinzie Street *Sales Branches Everywhere* **CHICAGO, ILL.**

QUIPMENT BEARING THIS *Trade* *Mark* IS ALWAYS HIGHEST QUALITY

York Crates

Save Bottles---

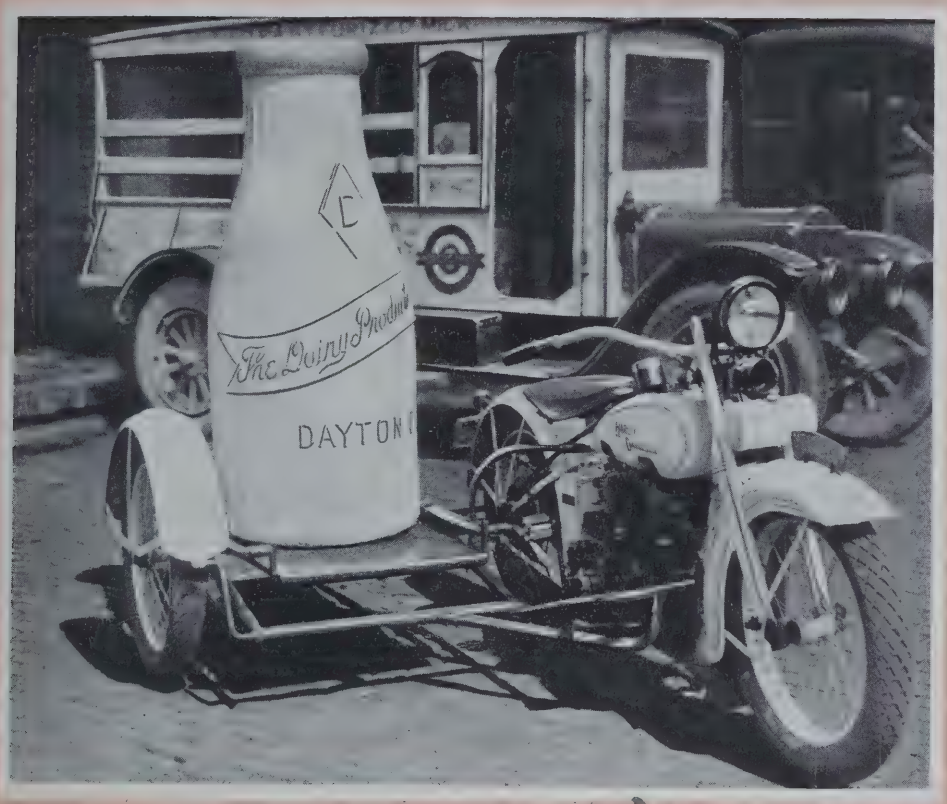
¶ More money is wasted through bottle breakage than is saved by buying cheaper crates. ¶ YORK CRATES are fitted with metal strips to protect the bottoms, and corners are double nailed thru zinc angles. ¶ The flanged cross bars inside the crates are riveted together. ¶ There is no chance for any support to break or bend. ¶ We welcome comparative tests with YORK CRATES on bottle breakage, durability or any other point.

For further information or prices, write

YORK MILK MACHINERY CO.
Manufacturers of Milk Handling Equipment
York, Penna.

Ag Sem

THE MILK DEALER


C
The Dairy Produc
DAYTON

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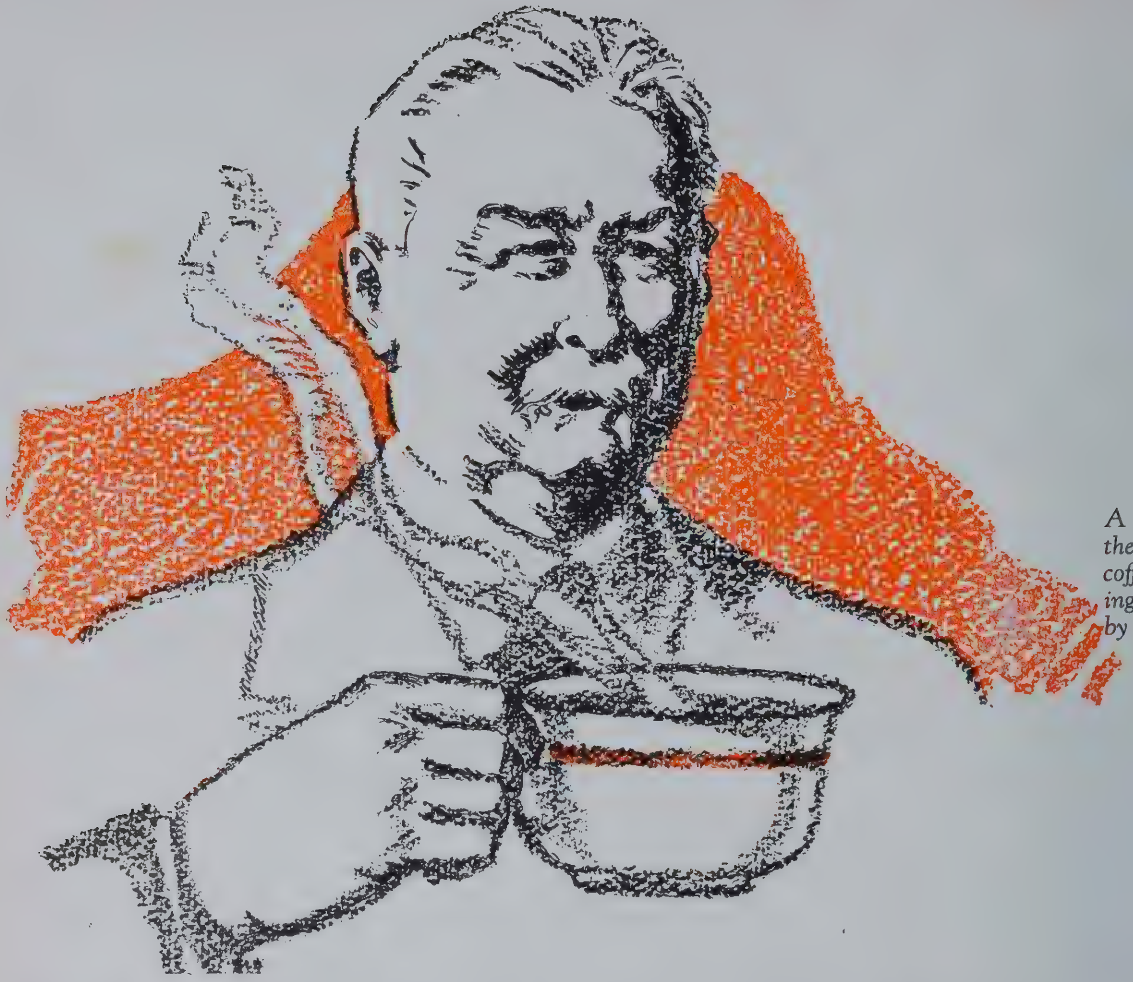
UNIVERSITY OF ILLINOIS

Volume 16 JANUARY, 1927 Number 4



A new milk drink wit
the invigorating tang
coffee; zippy and refres
ing; wholesome and like
by everybody.

All America Loves Coffee---
and now comes Coffee-Mi

Every day will bring you dozens of new customers for COFFEE-MILK in offices, shops, stores and homes.

America is the greatest coffee drinking nation in the world. That is why Coffee-Milk has such a wide, universal appeal—everybody likes it. And everywhere its popularity is spreading rapidly. Live milk dealers are increasing their milk sales with this tasty, quick-selling new drink—milk mixed with Arabian Brand Coffee Syrup.

Made from full flavored, fresh roasted coffee, highly concentrated in syrup form. Easy to mix with milk; no equipment necessary. Never settles at bottom of bottle; no sediment. Write for prices and sample.

D. ABELSEN & SON, - - Providence, R. I.

Central States Representative: M. C. DRESHFIELD, 405 East Main St., Kalamazoo, Mich.

To insure prompt reply when writing for samples or information, address direct to factory.

Sold in 12 oz. and 16 oz. bottles for home use and in one gallon and ten gallon jugs for milk dealers.

ARABIAN BRAND
COFFEE SYRUP

OUTHITT MILK POWDER PLANT

GRAY-JENSEN SPRAY PROCESS

Designed and Built by

DOUTHITT ENGINEERING COMPANY
139 NORTH CLARK STREET, CHICAGO
for

Land O' Lakes Creameries, Inc.
Litchfield, Minn.

Land O' Lakes Sweet Cream Buttermilk Powder Plant at Litchfield, Minn.

and O' Lakes Creameries, Inc. after making a thorough investigation of other types of milk powder plants purchased a Douthitt Plant because—

guarantee to recover on capacity operation milk owder equivalent to 100% of the solids in the milk. ter plant can make such recovery.

condensing necessary. In fact, no condensing water l. The only water required is for boilers and to wash p each day.

ne man necessary to operate plant and pack powder els.

lant is easily kept in absolutely sanitary condition be thoroughly washed and sterilized each day.

and instantaneously regulated to leave any desired age of moisture in powder.

ute from milk to powder; the shortness of time which the milk is exposed to heat insures superior of powder, entirely soluble in cold water, manufac- at lowest possible cost and sells for the highest price.

The powder is automatically and instantaneously removed from the drying chamber, also cooled as delivered into barrels. Other plants require from 1 to 20 hours to accomplish the same result. Milk powder allowed to remain in drying chamber until the day's run is completed becomes thoroughly mixed while being removed; therefore there is no advantage in grading such powder as the lowest quality made that day governs the grade for the day's run.

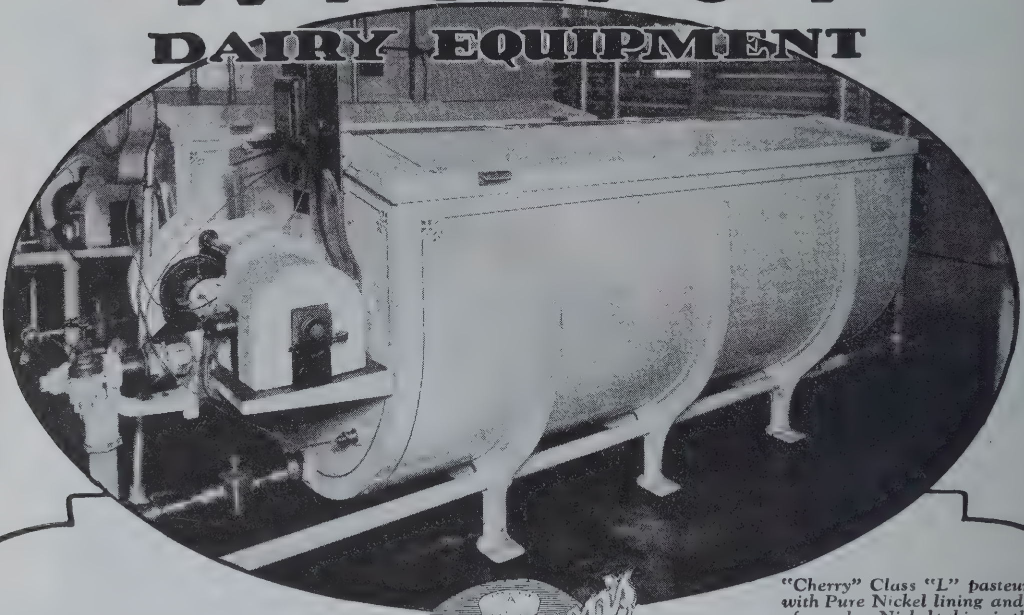
The extra recovery of milk powder, the saving in fuel, labor and power, as compared to other milk powder plants, is sufficient to pay for one of our plants in from 1 to 3 years. Manufacturers are discarding other types of milk powder plants and installing the Douthitt plant, the life of which is from 15 to 20 years.

We will furnish a guaranteed market for all Skimmilk Powder manufactured in our plants.

Write today for booklet describing the Douthitt Milk Powder Plant

When writing to DOUTHITT ENGINEERING COMPANY *please mention The Milk Dealer.*

Another user of PURE Nickel DAIRY EQUIPMENT



"Cherry" Class "L" pasteurizer with Pure Nickel lining and coil of seamless Nickel tubing in the Janssen Dairy Co. plant, Hoboken, N. J. Mfd. by THE J. G. CHERRY CO. OF CEDAR RAPIDS, IOWA.

JANSSEN DAIRY CO., INC.

WHERE THE SEARCH FOR DURABILITY ENDED WITH NICKEL

WITHOUT prejudice or favoritism, the Janssen Dairy Co., Inc. chose Nickel dairy equipment because they knew there was a definite need for *durability* with cleanliness—for a material that would last long and at the same time safeguard the purity of the milk. This company says:

> "We have to operate our equipment 365 days in the year, and cannot afford to lose any time; therefore, we believe our search for durability is warranted, and for this reason we installed all nickel . . . . . .
>
> "In using it for buttermilk purpose, we had practically perfect results, giving it a thorough test by leaving the buttermilk, after it was completed, remain in the vat for 48 hours, it leaving no metallic flavor and did not discolor the vat."

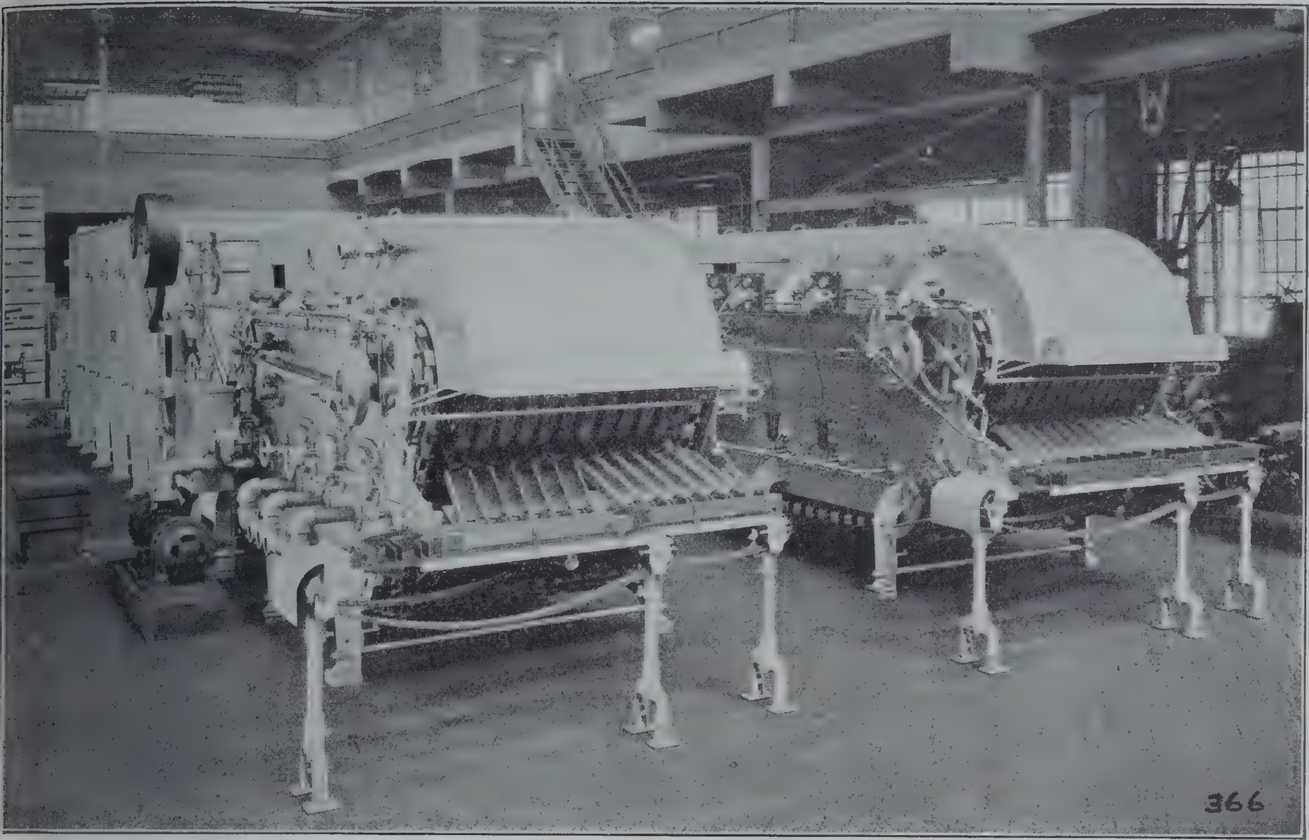
If you have been seeking convincing evidence of the advantages of using pure, solid Nickel dairy equipment, here it is—in the Janssen Dairy Company's experience. Results here, as in hundreds of other dairies, prove that Pure Nickel lasts longer, that it won't rust, that it resists corrosion, that it is easily cleaned and that it will not contaminate the product. Can any dairy demand more of equipment materials?

Why not ask YOUR manufacturer about Pure Nickel equipment? Or if you choose, write direct to us for complete information about Pure Nickel.

SEND FOR "LIST B" OF NICKEL AND MONEL METAL LITERATURE

THE INTERNATIONAL NICKEL COMPANY, 67 WALL STREET, NEW YORK CITY

When writing to THE INTERNATIONAL NICKEL COMPANY *please mention The Milk Dealer.*



The "ARISTOCRAT"

OF BOTTLE CLEANERS

APTLY NAMED BECAUSE IT IS IN A CLASS BY ITSELF

Above cut shows TWO large ARISTOCRAT units consisting of independent 5-COMPARTMENT SOAKER connected to our latest hygienic BRUSHLESS WASHER with Sterilizing and 3-Compartment Cooling attachments. Photo was taken on the assembly floor of our large modern factory.

These units are now being installed in that new wonderful plant of SIDNEY WANZER & SONS, INC., CHICAGO, ILL., where the best was the main consideration. Write us for full particulars. Our engineering staff belongs to you. 26 years experience.

Sheffield Farms selects Barry-Wehmiller Bottle Washers, Soakers and Sterilizers for their *new Jamaica*, Long Island Plant. After using 2 Barry-Wehmiller machines for more than 2 years in their New York City Plant, 2 more at the Brooklyn Plant, 2 more at the Harlem Plant, and 2 more at the Bronx Plant, all of 6 to 8 compartments in size, they have for the *fifth time ordered 2 more for their new Jamaica Plant.*

Barry-Wehmiller Machinery Company

Pioneers of Bottle Cleaners and In-the-bottle Pasteurizers

660 W. Florissant Ave., St. Louis, Mo., U. S. A. New York Office: 18 West 25th St.

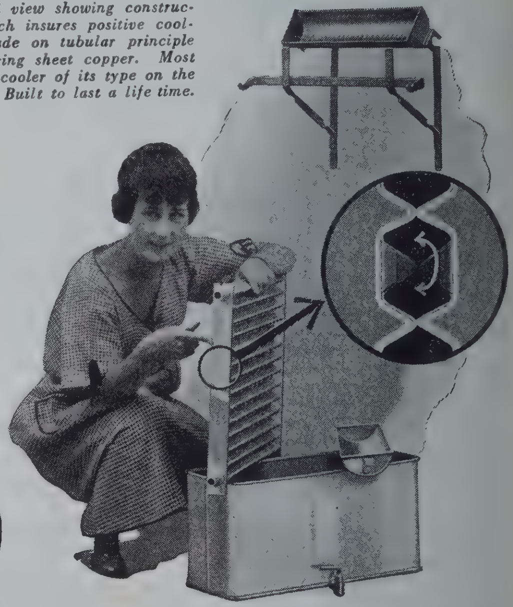
Purity Gregory Cooler

SINCE 1873, O & B Purity Milk Handling Machinery and Supplies have been made at Cattaraugus under most advantageous conditions. Our policy has always been "not how much but how well can we build." This policy has resulted in "Fifty Years of **Honest** Equipment," Honest Quality and Honest Prices.

The very atmosphere around the O & B factory at Cattaraugus breathes of sane prosperity, thrift and contentment. You will often find three generations of workmen toiling side by side. Low production costs and high quality are the natural results that you enjoy when you purchase anything in the O & B Purity Line.

We will be pleased to tell you more about O & B Honest Equipment. Write us.

Sectional view showing construction which insures positive cooling. Made on tubular principle of enduring sheet copper. Most efficient cooler of its type on the market. Built to last a life time.



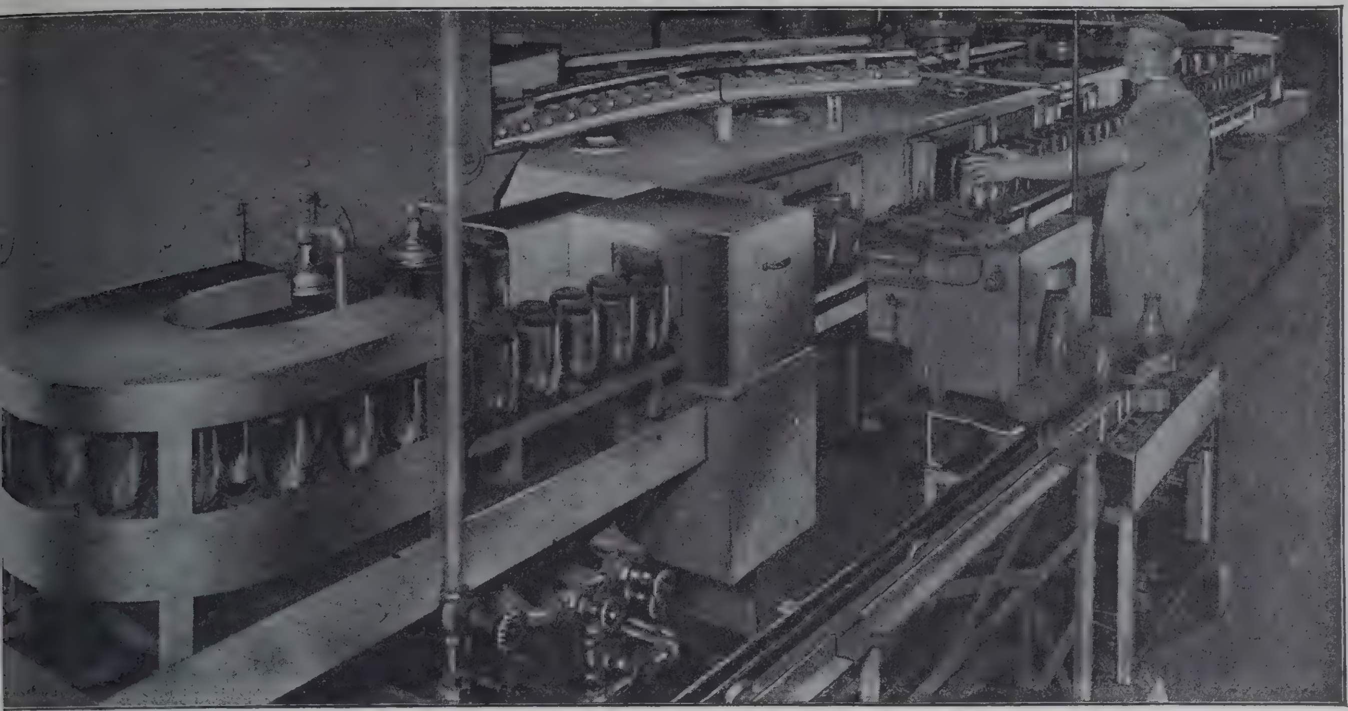
Fifty Years of Honest Equipment

Creameries, cheese factories, ice cream plants and their farmer patrons, all need the Purity Gregory Cooler, attached to farm water systems. Guaranteed to withstand 25 lbs. of water pressure. Cools within one degree of cooling water. Circulation is absolutely positive. All water must circulate through entire cooler. Coldest water cools coldest milk.

Oakes & Burger Co. Inc

ESTABLISHED 1873

CATTARAUGUS, N.Y. ERIE, PA., U. S. A.



View of Miller-Hydro at the Roseland Dairy, Chicago, Ill.

The Great Step Forward in Bottle Cleaning Methods

IN every large dairy the Miller Hydro will save several thousand dollars in salaries alone during the first year of its operation. It will completely eliminate bottle breakage and wastage even in handling an output of 2500 cases a day.

Figure what these savings will amount to in your own plant. Then consider along with the savings that over 3500 dairies, breweries and bottling plants of enormous capacity have pronounced the Miller Hydrostatic way of sterilizing bottles superior to any brush washing method that has ever been devised.

You can do away entirely with brush contamination, broken bottles and expensive replacements by installing a Miller Hydro. No other bottle washing machine made can equal its performance. It will pay for itself in your plant before you make the last payment.

Let us show you the many advantages of sanitation and economy that the Miller Hydro holds for you. Write today for complete information and list of large users.

THE MILLER MANUFACTURING CO., Bainbridge, Ga.
Chicago Office: 1305 Monadnock Block
New York Office: 105 West 40th Street

rom
irty

The MILLER-HYDRO
Bottle Washer and Sterilizer
ONE CONTINUOUS OPERATION

to
Clean

When writing to THE MILLER MANUFACTURING CO. *please mention The Milk Dealer.*

Where all 'round efficiency and quality of product is the chief consideration the selection results in an installation of

MORTENSEN

Automatic Pasteurizing and Cooling Equipment

The MORTENSEN Positive Automatic all Nickel Holder

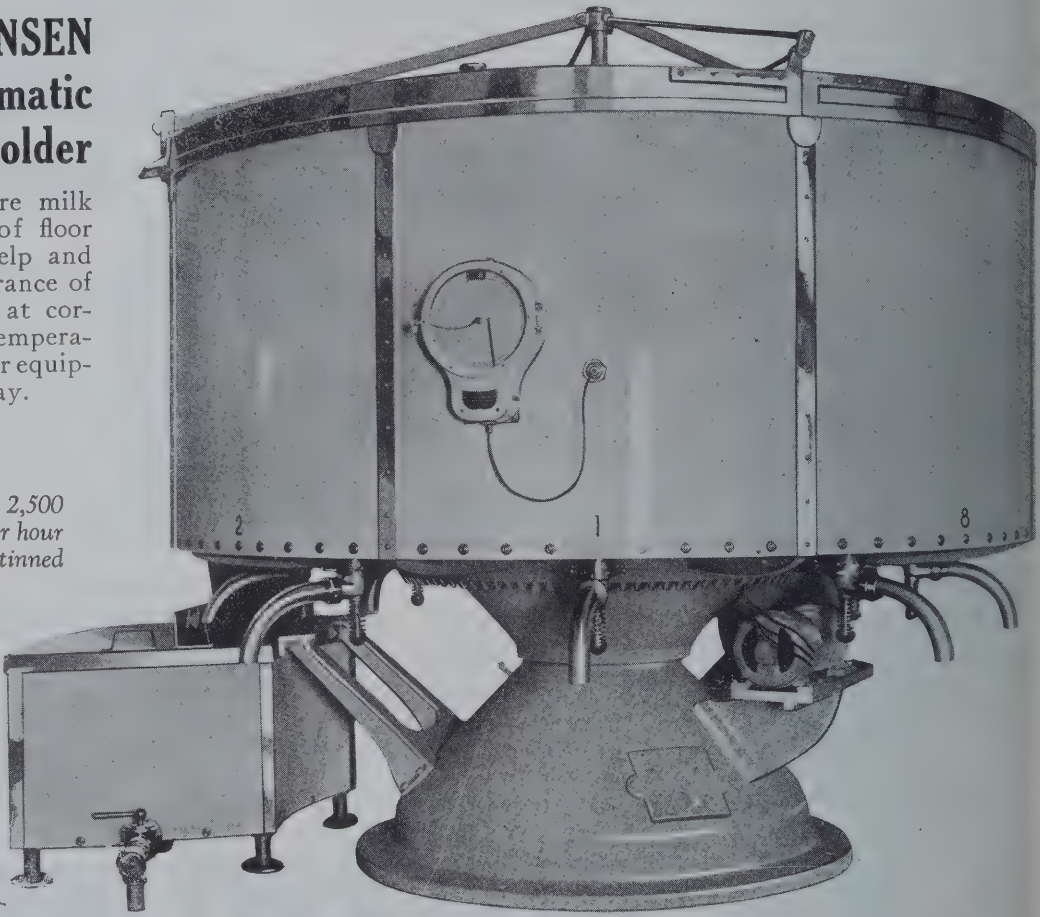
will pasteurize more milk in a given area of floor space with less help and with absolute assurance of positive operation at correct pasteurizing temperatures than any other equipment available today.

◆

Made in sizes from 2,500 to 20,000 pounds per hour in pure nickel or tinned copper.

Our Milk Plant Engineering Services are always under my personal supervision.

C. Mortensen

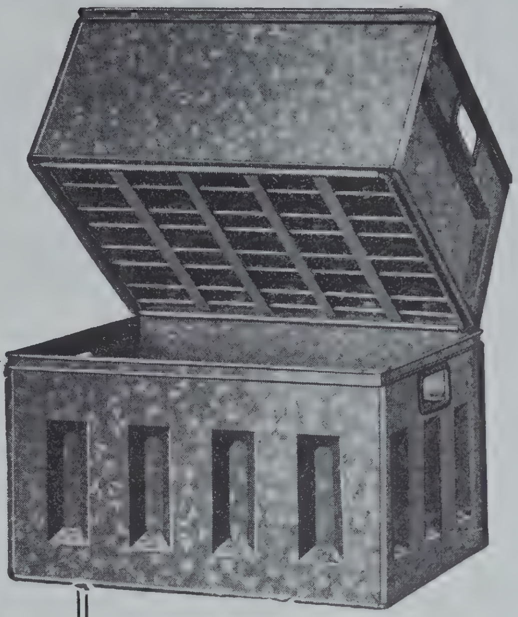


Standard Milk Machinery Co.

INCORPORATED

LOUISVILLE, - - - KENTUCKY

CLIPPER CASES



THEY DO NOT BURN.

THEY DO NOT SPLIT.

THEY DO NOT WARP.

THEY ABSORB NO WATER.

◆

Your Stenciled Name Cannot be Removed.

Heavy Galvanizing After Finishing Prevents Rust.

They Stack Without Protruding Stacking Irons.

They Weigh no More and Cost no More, and Need no Repairs.

For What Other Case Can You Say so Much?

These Jobbers Sell CLIPPER CASES

J. G. Cherry Co	Cedar Rapids, Ia. St. Paul, Minn.
Meyer-Blanke Co	Birmingham, Ala Dallas, Tex. St. Louis, Mo.
Haines-Carpenter Dairymen's Co.,	St. Louis, Mo.
Miller-Lenfesty Supply Co	Jacksonville, Fla Miami, Fla Tampa, Fla
N. A. Kennedy Supply Co	Kansas City, Mo.
Apothecaries Hall Co.	Waterbury, Conn.
Teague Hardware Co	Montgomery, Ala.
Gowing-Dietrich Co., Inc	Syracuse, N. Y.
John W. Ladd Co	Detroit, Mich. Cleveland, Ohio Columbus, Ohio Cincinnati, Ohio
A. L. Davis' Son	Binghamton, N. Y.
Cherry-Bassett Co.	New York, N. Y. Syracuse, N. Y. Baltimore, Md. Philadelphia, Pa. Pittsburgh, Pa
E. K. Owens Hardware Co	Susquehanna, Pa.
National Dairy Equipment Co	Utica, N. Y.
Hagan's Dairy Supply House	Greensboro, N. C.
Chester Dairy Supply Co	Chester, Pa.
M. G. Newell Co	Greensboro, N. C.
Oakes & Burger Co	Cattaraugus, N. Y.
Ft. Wayne Dairy Equipment Co	Ft. Wayne, Ind
Thompson-Bremer & Co	1750 Carroll Ave., Chicago, Ill.
John Pico	New Orleans, La

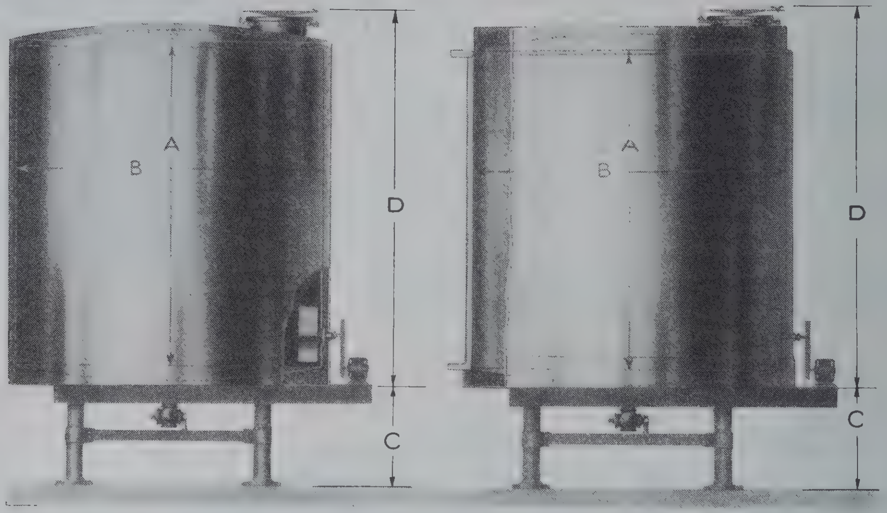
USE CLIPPER CASES AND SAVE MONEY!

The Defiance Pressed Steel Co.

DEFIANCE, OHIO

When writing to THE DEFIANCE PRESSED STEEL CO. *please mention The Milk Dealer.*

Nickel Storage Tanks of Ninety-nine per cent Pure Nickel



Seamless throughout, all joints in the sheets are cast together so that there is only one metal to come in contact with the milk. No soldered seams or riveted joints; dished heads and center outlets assure perfect drainage. Equipped with an impeller agitator made of nickel and running in a nickel bearing. Made in 500, 1000, 1500, 2000 and 3000 gallon sizes.

The tanks are insulated with 2-inch cork board and covered with a welded steel covering that seals the insulation from moisture.

The jacketed type is equipped with a spray system for brine cooling, encased with a Mond "70" shell running the length of the straight side;—heads are insulated with cork board as in the insulated type.

WHAT ARE YOUR REQUIREMENTS?

SALES OFFICES

CHICAGO
718 Crilly Bldg.

NEW YORK CITY
1512 Borden Bldg.

PHILADELPHIA
516 Packard Bldg.

BOSTON
518 Little Bldg.

CANANDAIGUA, N.Y.
113 Park Avenue

NINETY
NINE %
NICKEL

Nickel Fabricating Corporation
Philipsburg, Penna.

p Gets a New Slant on Motor Oiling

TRADITION
PROGRESS

Lad—

I find that the shutdown yesterday
s due to motor trouble. The foreman tells
that this new motor burned out a bearing
d it wasn't overloaded—it didn't get enough
. What are you trying to do—spare the oil
d spoil the motor?"

"No, Pop—

it's your friend the motor maker who is doing it. That trouble is due to that Scotch oil ring that your old crony puts in his motor —a piece of solid brass—just as they did in granny's day. I asked you to buy a Linc-Weld motor because one of twenty-one tradition shooters in that motor is this TROUGH RING. It carries ten times as much oil to the top of the shaft. It can NEVER skimp on oil."

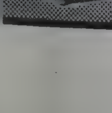
Read Page 10 of the Motor book published by:

The Lincoln Electric Co., Dept. No. 25-1, Cleveland, Ohio

MA-3

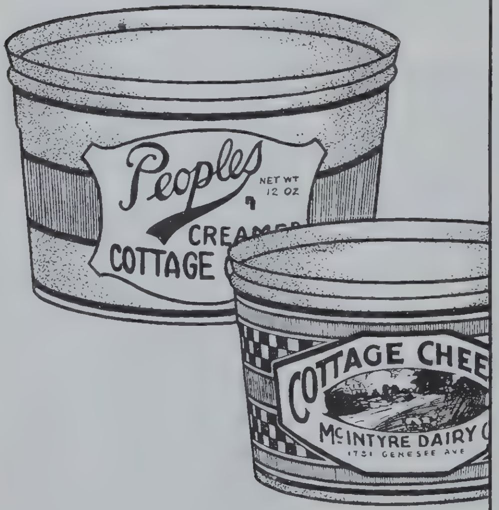
"Linc-Weld"

LINCOLN MOTOR



When writing to THE LINCOLN ELECTRIC COMPANY *please mention The Milk Deal*-r.

Cottage Cheese has been sold successfully in this package for sixteen years.

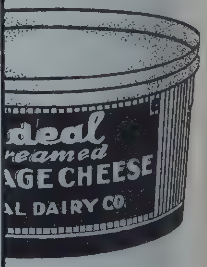

Peoples
NET WT 12 OZ
CREAM
COTTAGE
COTTAGE CHEE
McINTYRE DAIRY C
1731 GENESEE AVE

Successful merchandising of cottage cheese depends largely upon the package in which it is offered for sale. Any package will not answer the purpose. Those enjoying large sales volume and continued repeat orders are those using the

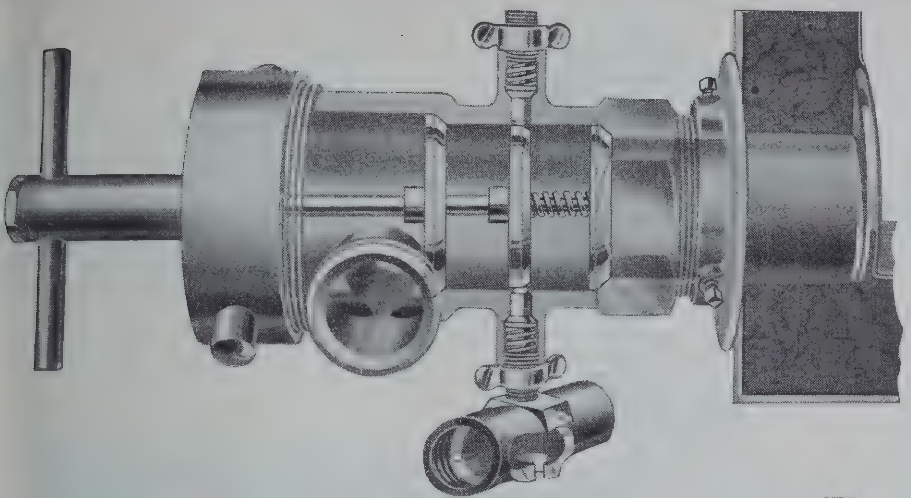
KLEEN KUP

The Package That Sells Its Contents

Used by the leaders in the industry for sixteen years. Acknowledged the best package for Cottage Cheese. Let us submit a sample showing a label for your exclusive use. Our latest lower price quotations will interest you.


deal
reamed
AGE CHEESE
AL DAIRY CO

Mono Service Co.
NEWARK NEW JERSEY



Field Type

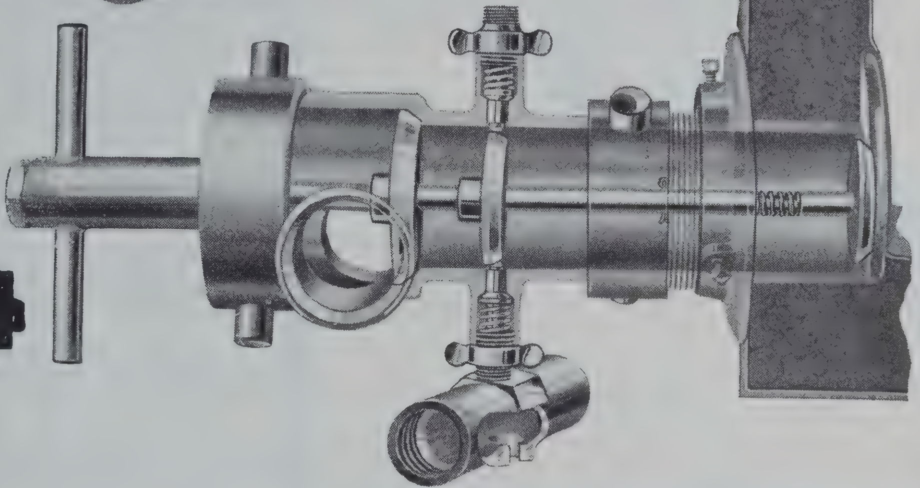
— for Cherry Pasteurizers now in service but not equipped for the standard valve.

1

Standard Type

—for Cherry Pasteurizers of present design.

2



Cherry Flush Valves

WORKING in cooperation with the UNITED STATES PUBLIC HEALTH SERVICE we have perfected an outlet "flush" valve which eliminates "dead ends". The CHERRY FLUSH VALVE absolutely assures the pasteurization of every drop of milk in the pasteurizer. An Automatic Drip Leak Escape allows any milk which may seep past the valve seat to drip away. An Auxiliary Valve prevents milk in the sanitary line from backing up into the valve outlet. An Automatic Steam Sterilization device makes it possible to completely sterilize the outlet chamber. And the bulb of a recording thermometer may be attached direct to the valve outlet chamber to record the sterilization of the drip, seepage and milk smears in the valve body.

The CHERRY FLUSH VALVE *has been approved by the* CHICAGO HEALTH DEPARTMENT.
Send for Bulletin No. 2109.

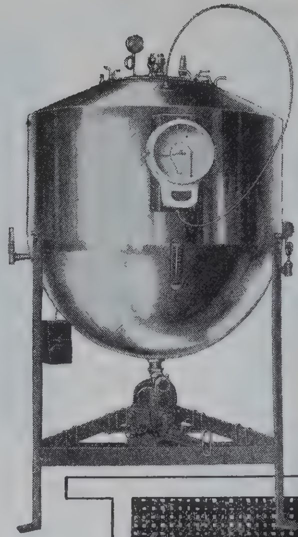
J. G. Cherry Company

Cedar Rapids, Iowa

J. G. CHERRY EST. 1880 JGCo. COMPANY

St. Paul, Minn. Tama, Iowa Peoria, Ill.

A-3726



This metal is free from cobalt and is the purest nickel that can be offered for this use—the one ideal metal.

for

Truck Tanks
Mixing Tanks
Storage Tanks
Receiving Vats
Weigh Cans
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The one ideal pure Metal is

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FREE FROM COBALT

AMERICAN MOND NICKEL COMPANY
CLEARFIELD, PENNSYLVANIA
EXCLUSIVE AMERICAN REPRESENTATIVES OF THE MOND NICKEL COMPANY, LTD.

When writing to AMERICAN MOND NICKEL COMPANY *please mention The Milk Dealer.*

GOLD MEDAL AWARDED TO

Paterson Vegetable Parchment

By

International Jury of Awards at
The Sesquicentennial International Exposition
at
Philadelphia, Pennsylvania

As the most efficient Protective Wrapping Paper for moist food products.

Paterson Vegetable Parchment is manufactured exclusively by The Paterson Parchment Paper Co. with headquarters at Passaic, New Jersey. Three mammoth plants, located at Bristol, Pennsylvania; Modena, Pennsylvania; and Passaic, New Jersey, employing over 700 skilled men and women, are devoted to its production.

Each year Hundreds of Millions of Dollars worth of the Country's most perishable food products are carried to market and into our homes securely wrapped and fully protected by Paterson's Gold Medal Parchment.

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THERE IS NO SUBSTITUTE

The Paterson Parchment Paper Co.
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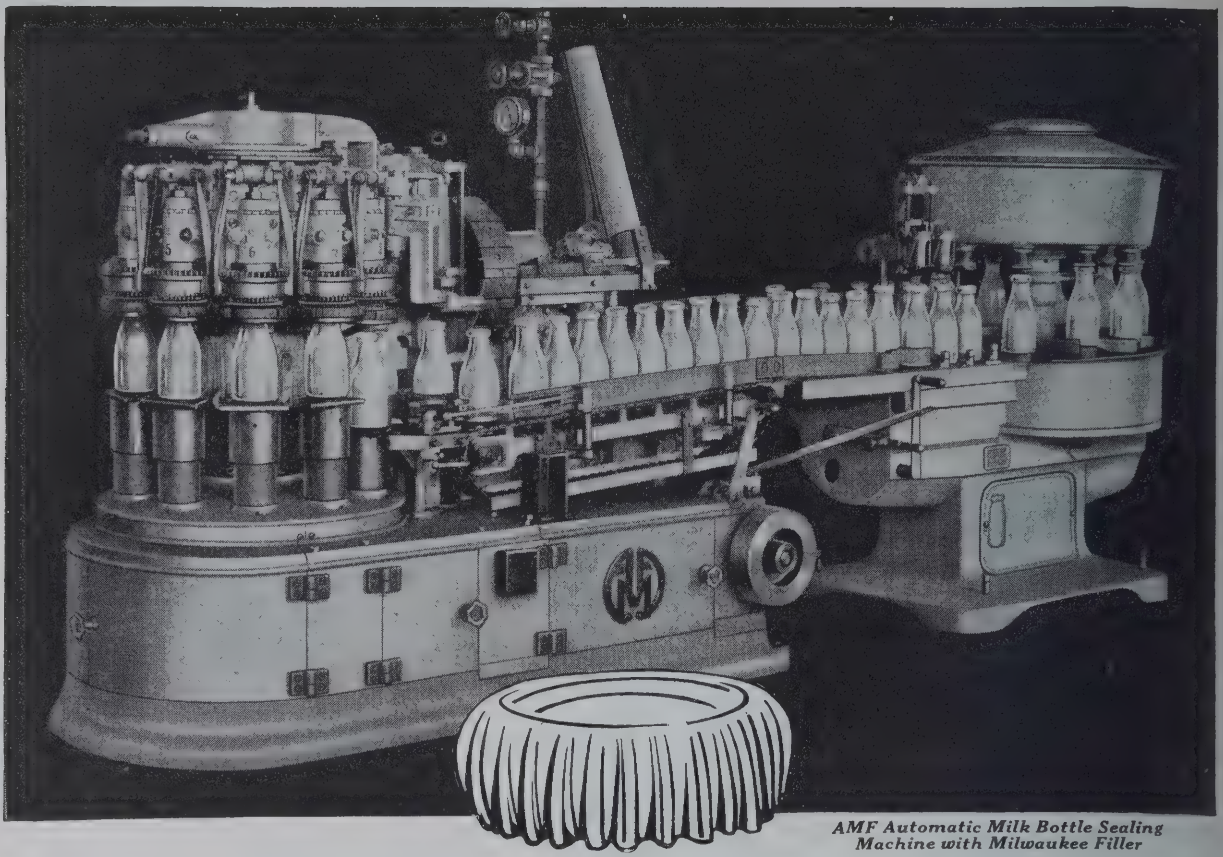


AMF Automatic Milk Bottle Sealing Machine with Milwaukee Filler

The *Sanative* Seal

THE Westlake Sanative Seal for milk bottles is a one-piece, non-resealable cover made of five-ply spruce paper. It affords the most perfect protection ever designed for the contents of the bottle, and it is applied more easily than any device for the purpose now made.

This seal cannot be knocked off in handling or jarred loose, but may be removed easily by hand with a combined turning and lifting motion. When in place it completely protects the milk against contamination from unclean hands, dirty ice or animals. When once removed, it may be replaced loosely as a dust cover, but cannot be retightened and used as a seal again.

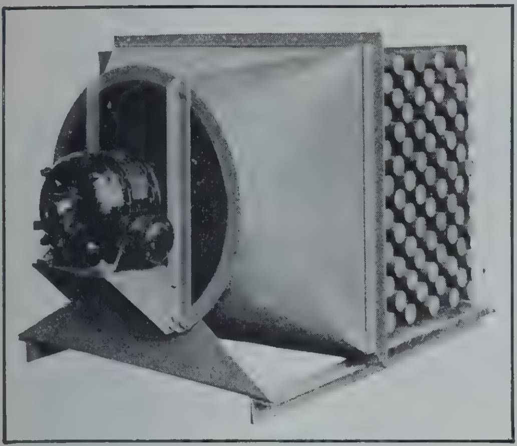
The AMF Automatic Milk Bottle Sealing Machine softens the disks, moulds them, and sets them in place on the bottle. No wires or other equipment of any kind are required to keep this one-piece Sanative seal tightly in place on the bottle.

Write today for complete descriptive literature and prices.

The Lakewest Corporation
Division of
American Machine & Foundry Co.
5502-5524 Second Avenue - - - BROOKLYN, N. Y.

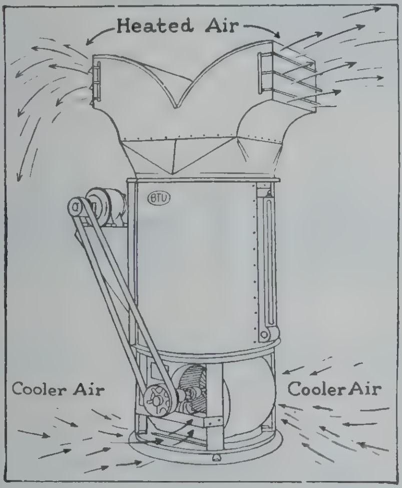
Barber Goodhue

Everything for the Dairy Industry



The Chinook Unit Heater

The Chinook Heater and Ventilator—a recent addition to our line of heaters, has been designed to fill the demand for heating large single rooms by a compact unit. It can be suspended from the ceiling. This popular priced heater is built in three sizes.



The B. T. U. Heater

Diagram shows how air is circulated and warmed. The Bayley is built in 6 sizes—a range suitable for most heating needs.

Get Rid of Fog, Steam, Dampness—Give Your Plant a Dry, Healthy Atmosphere With These Low-Priced, More Efficient Unit Heaters.

NOW—at very reasonable cost—you can quickly and easily install these compact, highly efficient, heating and ventilating units in your plant.

It will pay you in the form of increased production, healthier, better satisfied employees, to provide for them a clean, fresh, dry atmosphere in which to work. Visiting patrons too, will get a much better impression of your efficiency and your product.

You simply can't select more dependable, more easily installed, practical units than the Chinook or the B.T.U.—heaters that will perform and serve you so efficiently day after day for years. No matter what heating and ventilating problems exist in dairies, ice cream and industrial plants, we're equipped to handle them in the most practical, economical way.

A special folder giving descriptions of heating and ventilating equipment is yours for the asking. Send for it today.

A.H.Barber-Goodhue Company

TWIN CITY OFFICE
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216 South
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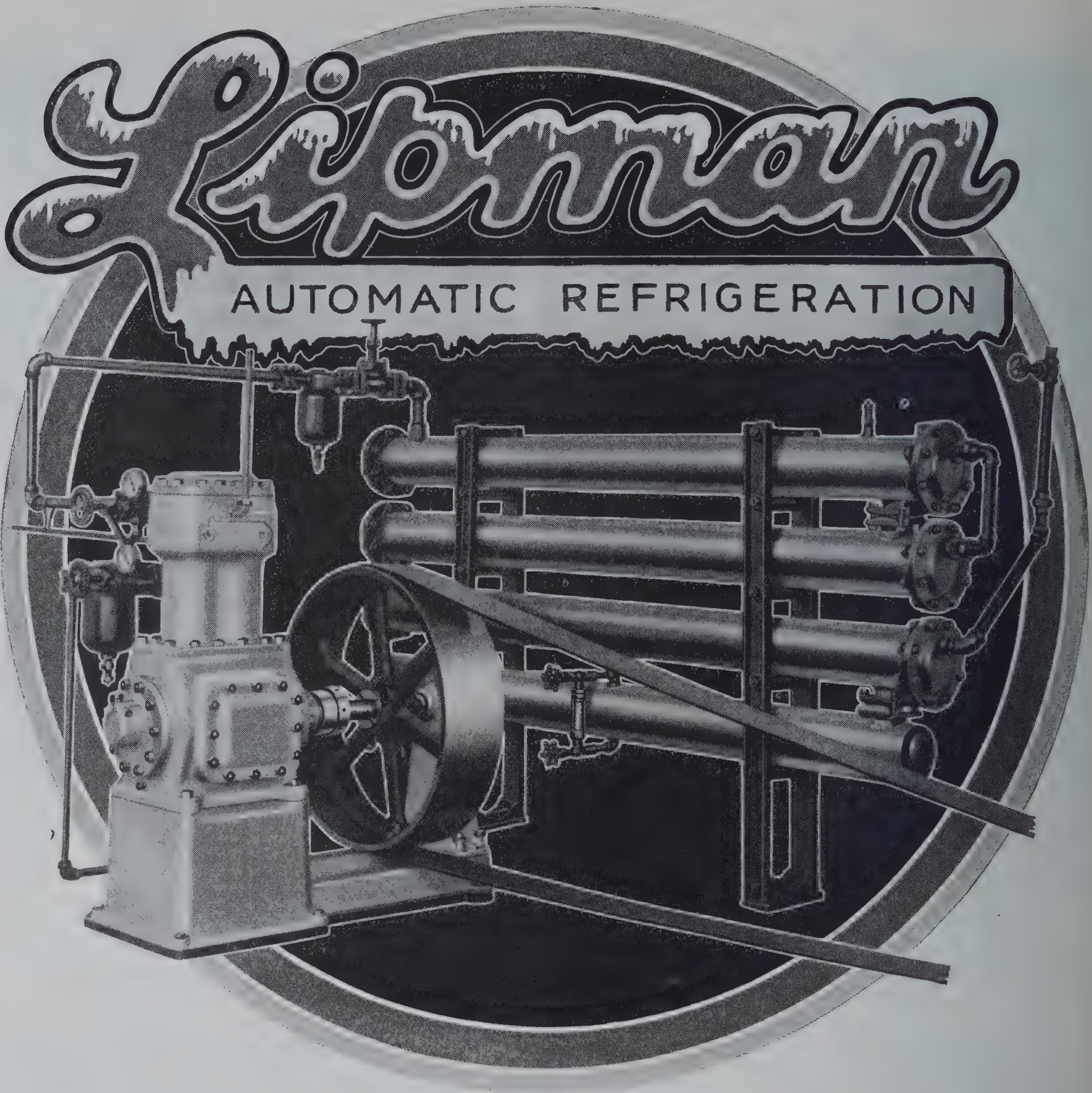
When writing to A. H. BARBER-GOODHUE COMPANY *please mention The Milk Dealer.*



Steady, Dependable Cooling!

That's the kind Lipman Machines give! No time out for repairs that hold up the whole works and cut down profits by increasing running costs!

Only high grade materials are used. Only experienced, skilled labor is employed. And only after the longest, most severe testing-out and the most careful, painstaking inspection are Lipman Full-Automatics sent out into the world.

No wonder they hold up and give steady service! Dependability is built right into them and has to come out in performance.

You really should post yourself on Lipman Refrigeration. All of the larger cities and many of the smaller ones have Lipman Sales and Service Stations. Ask one for a Free Demonstration. And write us to send you our Descriptive Literature giving the facts.

General Refrigeration Company

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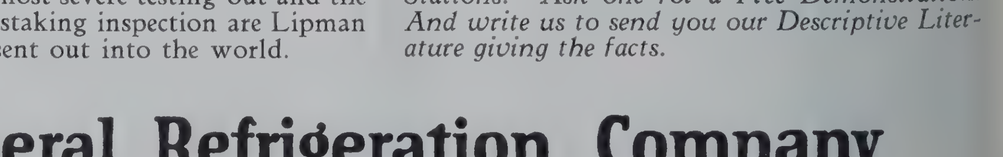

THE DRY, CONSTANT COLD OF THE MOUNTAIN TOP

When writing to GENERAL REFRIGERATION COMPANY *please mention The Milk Dealer.*

Look for

e Seal of Safety

Look for

the Seal of Safety

MARK TWAIN once remarked, "Truth is such a precious article—let us all economize in its use" . . . But to foster truth in selling—where it can, to ***command*** it—is a constant purpose and activity of this national trade association.

Association companies subscribe to a Fair Practices Code, a symbol of which is the seal of membership, known widely as the Seal of Safety.

DAIRY AND ICE CREAM MACHINERY
AND SUPPLIES ASSOCIATION, INC.
1328 Broadway - - - New York City

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th Seal of Safety

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the Seal of Safety

hen writing to the DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION, INC., *please mention The Milk Dealer.*

THE
MILK DEALER
PUBLISHED THE FIFTEENTH OF EACH MONTH BY
THE OLSEN PUBLISHING COMPANY
H. P. OLSEN, President and Manager
LESTER S. OLSEN, Vice-President
E. K. SLATER, Secretary and Editor
Also Publishers of
"BUTTER, CHEESE & EGG JOURNAL" and "THE ICE CREAM REVIEW"
FIFTH AND CHERRY STS. MILWAUKEE, WISCONSIN

We will not accept responsibility for the views or opinions expressed by contributors nor for news sent us for publication, nor for statements made by advertisers in their advertisements.

Entered as second-class matter December 1st, 1911, at the Post Office at Milwaukee, Wis., under the act of March 3rd, 1879

Requests for CHANGE OF ADDRESS must be received not later than the 10th of the month to insure delivery of that particular month's issue at New Address. **Old Address** as well as **New Address** must be given us as all records carried by us are "Geographically arranged" and not "Alphabetically arranged."

Subscription in United States, U. S. Possessions, and Foreign Countries taking U. S. Postage .... $1.00 per annum
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Payable in Advance.

OFFICIAL ORGAN OF
The International Association of Milk Dealers
Dairy Products Association of Kentucky, Inc.

JANUARY, 1927

BULLETIN *of* EVENTS

Michigan Allied Dairy Association—Annual convention and exposition to be held at Jackson on February 7 to 11, 1927. Exhibit will be staged at Fair Grounds, five blocks from Hotel Hayes, which will be convention headquarters. Secretary, D. W. Shiel, Hillsdale, Mich.

Dairy Products Association of Kentucky—Final meeting of the spring and summer season will be held in Cincinnati, O., on Wednesday, April 21, at the Gibson Hotel. Carlton Ball, 206 Republic Bldg., Louisville, is general secretary.

DO YOU dominate your business organization to the extent that you kill initiative in your employees? If so, you probably have some high priced men around you that are poor investments. They can't "deliver" for you if you don't give them a chance to use the brain power that you are paying for. What sense is there in paying an executive's salary to a man and then making an office boy of him? Perhaps it would be a splendid idea to take an inventory, first of yourself and then of your organization.

* * *

A MILWAUKEE housewife recently brought suit against a local milk company for $3,000 damages, claiming that she cut her hand opening a milk bottle. If she collects damages we are going to sue the company that made our automobile. He put windows in the car and the draught gave us a bad cold.

* * *

OUR front cover this month shows how a Dayton, O., dairy company has rigged up a traveling advertisement for milk. This interesting part of an outdoor advertising campaign was photographed by the Gilliams Service Company of New York.

IF WE are to give credence to the opinions expre by some of our leading citizens we must believe we are just nicely started on a wonderful year for ness. Prosperity is to continue and the great majo of our people will have lots of money to spend.

Men in the milk industry will profit in the propor that men in other legitimate lines prosper. True, are dealing in products that are classed as necessities buyers use them more freely when their buying po is increased. The first bottle of milk per day ma classed as a necessity, but the second a luxury if family income is lessened.

How to get the family purchasing agent to look the second or third bottle per day as a necessity is a problem yet to be solved by the men in this industr

The best time to educate the consumer to use milk and milk products is when that consumer has money to pay for them. That is the time to get hi her to form the use-more-milk habit.

Let's make 1927 a red letter year in the histor the bottled milk industry by pushing hard all the gressive things that have been adopted for the guid of the industry. As each man helps to build a b industry he will build a better business for himsel

* * *

YOU like to do business with people you like, you? You may be one of those who think that s ment has no place in business, but you must admit everything else being anywhere near equal, you are ing to trade with the fellow who makes you feel tha is your friend and that you are his friend.

You unconsciously, perhaps, find yourself doing ness whenever possible with him. Other men ma nearer, but life is too short to waste time around who cannot make you glad to see them. Is all of this That's asking too much of us. It doesn't seem fa bit, especially if you are a hard-working cuss tryin split hairs to do the right thing. But we cannot be responsible for natural laws. Men can make laws change them when they get tired of them, but in co into this world we find laws of nature that canno budged. Instead of grumbling with them and tryin change them, it is much easier to change our viewpo

Two men can work side by side every day in week, and if they come in contact with the outside you will see that the man who can smile and be a able will go up much faster than his companion who be ever so much more capable but very deficien humoring folks who cannot see things his way. condition can be cussed and called unfair until you hoarse, but that doesn't change human nature.

Personality counts. Mark that down heavily on day-by-day calendar. You may not know near much about your business as the fellow down at bend of the road, but if you can put your heart in few winning smiles when folks come around yo won't be but a very little while before folks will beg say you are one of the brightest men in the dairy ness. Human beings are just built that way. That'

I CAN'T keep up my volume without taking heavy losses on collections." Thus remarked a certain il dealer while we were talking about collection meths retail and wholesale. He is sincere in his be too.

n other words this man admits that he must give part of his goods in order to maintain a certain ne of business. He is not the only milk man who that way. He has lots of company.

ther men in the milk business will agree with us it isn't necessary to give away milk in order to get ness or hold it. They will agree that all free milk old be accepted as such by the recipient, not by let him get it free by not paying what he owes.

he writer of these lines was for several years con ed with a big creamery concern operating branches any large cities. All butter was sold through the il stores. The collection problem was a serious one. branch manager was more successful than all the in collecting accounts. One year he didn't lose a in doing many thousands of dollars worth of busi Another year he lost but one account, less than His increase in sales from year to year compared favorably with all the rest, ahead of most of them.

he other branch managers couldn't understand how id it, but to him it was no problem at all. When ed for a statement, he said: "My dealers don't that they can buy butter without paying for it. understand that butter is cash and when I extend t to a certain day they must pay on that day. That there is to it."

imple, isn't it? That man collected his accounts held his business. Don't conclude he had easy com tion because he didn't. He had plenty of careless etition, but he gained the confidence and respect e business men in his city by requiring them to pay his money when it became due—not the next day. ained them.

he milk business, either retail or wholesale, can be led in the same way. It is up to the man at the . He can train his customers to pay him the money is due him or he can train them to beat him out of of it.

⚜

HERE is no line of business where outside appear nces count for more than in the milk business, and is connection the appearance of the inside of the comes under the head of "outside appearances." t is the impression that people from the outside get ur plant, both within and without, that counts. If is any place in your plant that needs painting, can't economize by putting off the expense. If wagons or trucks need going over, nothing is to ined by waiting. If your windows need washing, you never should wait for that to happen. Cleanli not only is next to Godliness, but is mighty good ess, especially in the milk business.

SEVERAL weeks ago a friend, who has made a close study of the milk bottling industry for years, made the statement in our hearing that "most milk men are progressive in their plant methods but are woefully weak in their sales methods."

He went on to say that the most of them are satisfied with antiquated methods of selling their products because their business is increasing from year to year. He claimed that their volume of business has increased not because of their selling methods, but in spite of them.

Ever since that interview we have been unable to dismiss it from our mind for very long at a time. We are still wondering just how nearly true is that man's appraisal of the selling methods of "a great majority of our milk dealers."

We all know that the consumption of bottled milk has greatly increased from year to year. What is the reason for it? Is it due to the selling efforts of our milk dealers or is it due to other agencies that have promoted health programs in schools, clubs, etc.? Find the answer to these questions and you will know how much importance to attach to our friend's remarks.

He claims that it is hard for a business man to see that his selling methods are weak so long as his business is growing. He claims that influences other than the selling efforts of our milk dealers are largely responsible for the increased use of bottled milk.

If our friend is right, and we are inclined to believe that he is at least half right, we look upon the situation as highly encouraging. It means that the milk dealer who employs real selling methods is going to win a still bigger increase in business. He will still enjoy the aid of these outside influences that are boosting his business all the time.

But if our friend is only half right it is high time for the men in this business to make a thorough analysis of their selling methods. Don't be content with your way of selling milk just because your business is growing. Perhaps your volume can be increased 20 per cent this year, instead of 10. Why not check up anyway and see if you are doing all you might to earn the increase that is possible? It's worth thinking about, anyway.

⚜

BUY that machine. You have been putting it off long enough. It may be a pasteurizer, homogenizer, bottle washer, but whatever it is you need buy it—by all means buy it. One of the greatest mistakes we make, and one of the most common mistakes, is that of putting off doing something that is going to cost a little money. When we better prepare ourselves to handle business we extend an invitation to new business and it will certainly come. Business begets business. This does not mean that we should spend out of proportion to what the business volume justifies, but that we should have what we need in order to do the business right.

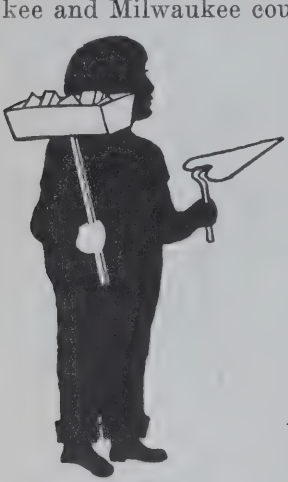
⚜

SHORTAGE of milk and cream supplies in some sections is making itself felt and many in the business believe it will be felt even more keenly before grass time comes again.

More Milk for Everybody

Health Workers Connected with the United States Department of Agriculture and the University of Wisconsin Stress the Food Value of Milk and Milk Products in Intensive Campaign

ABOUT four years ago the University of Wisconsin, co-operating with the United States Department of Agriculture, sent representatives into Milwaukee and Milwaukee county where a definite program on milk and its value as food was put on during one week. This program was planned to reach the school children primarily and, through them, the homes. In addition to reaching the schools, a speaker was sent to each organized club such as the Rotary clubs, the Kiwanis clubs, the Lions clubs, women's clubs, Parent-Teachers' associations, etc. Very many of the schools trained pupils to give milk plays, to recite poems and sing songs about milk and milk products. The burden of all this program was to urge people to use sufficient milk. The results of this work four years ago was an increase in the sales of milk through Milwaukee and Milwaukee county, a very satisfactory increase in the use of milk in the schools and a decided improvement in the health of the school children.

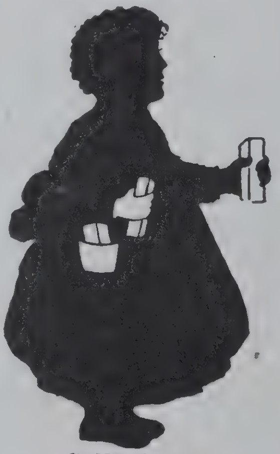

Minnie Minerals

In carrying on this work the officials made good use of a four-page circular entitled "Wisconsin Milk Fairies." We quote from it as follows:

"Do you know that in every glass of milk, bottle of milk, or pan of milk there are five good faries who help boys and girls to become healthy men and women? Let us look at the pictures of these fairies and find out what they do for us.

"Here is the first fairy and her name is Minnie Minerals. What do you see in her hand?

"Yes, it is a trowel.


Sally Sugar

"Minnie Minerals is a builder fairy and uses that trowel in building the frame work of our body house. Our body houses are just like the houses in which we live. Wooden houses must have straight solid framework or they will tumble down. A wooden house can be rebuilt if it wears out. Can your body be built over again? No, we can only build one body house, so that house needs to have the best framework and the very best materials put into it.

I BUILD M SCLE
Polly Protein

"What is the framework or hard part of our body called? Bones. And the hard part in our mouth are called what? Teeth. Minnie Minerals builds our teeth and bones and without her help we would all be ro around like balls of putty without any shape.

"If we had only our bones and teeth, we woul queer looking people. But our second fairy is an builder who builds a covering for our framework. Here she is and her name is Polly Protein. What is the covering of our bones called? Flesh and muscle. The boys particularly will want Polly for a friend as they like to have good solid muscle so they may be good football or baseball players.

Fanny Fat

"Now we have our framework, our teeth and bones built by Minnie Minerals, and our muscles built by Polly Protein. What do you think our third fairy will do for us?

"She is just as sweet as she looks and her name is also sweet—Sally Sugar. Before I tell you what she does, I want you to know her mate, Fanny Fat. They play together as some of you children do, and do the things for you.

"Why do you put wood in a sto coal in a furnace? To give heat and the house warm. Our bodies are jus stoves or furnaces and must have co wood to keep our body house warm.

"Why does anyone put gasoline automobile? To make it go. We must something in our body engine to make Sally Sugar and Fanny Fat are our fairies. They do for our body house the coal and wood does for the stov furnace and what the gasoline does fo automobile. They keep our body house and they make our engine go. We now the framework and covering for our house and fuel to heat the house and e to make it go.

"We still have another fairy to do something for us. She has the hardest of all names, Viola Vitamines. Without her you would never be any taller than you are now and would be ill a great deal of the time. She makes you grow and keeps you well. She and Fanny Fat are different from some of the other fairies for if you let a pan of milk, or a pail of milk, or a bottle of milk stand still for a little while, Viola and Fanny wiggle and twist just like some of you boys and girls until they are on the top of the milk. They stay there until you stir the milk up again. They live then in what part of the milk? The

Viola Vitami

n. They have a special message for you children in they want you to drink whole milk or milk with a cream in it so that you will surely have some of in your milk for Viola is the fairy that helps you to and to keep you well.

These are the five good fairies in milk, and they every day for boys and girls who drink plenty of Some of the foods we eat have one of these fairies, have two, some three, a few four, but no other food ll these five good fairies. Milk has Minnie Minerals ild teeth and bones; Polly Protein to build muscles; Sugar and Fanny Fat to give you heat and energy; Viola Vitamines to help you grow and keep well.

But how much milk will you children have to drink at the fairies can do all these good things for you? pful with every meal and the fourth cup in the food eat is a good rule for every boy and girl that they have good strong bones, firm muscles, plenty of gy to work and play and may have help to grow big, strong, healthy people.

At least three cups of milk every day and four if ble is a good rule."

Because of the results shown during these last four years, Miss Mary Brady, the nutrition specialist in Milwaukee county, assisted by Miss Gladys Stillman, the milk specialist of the home economics extension department of the university, will sometime in February put on a follow-up program in Milwaukee, which they hope will be quite as successful in urging greater use of milk and milk products as was the one put on four years ago. Since the lower grades of school have an entirely new group of pupils, there will be children who have never heard the milk stories. These children will be reached and taught milk songs, as well as helped to learn various milk stories and put on milk plays.

Since Wisconsin produces so much good milk and since Milwaukee sells milk cheaper than does any other large city in the Union, it is a duty as well as a privilege for Wisconsin people to see that every child has sufficient milk to give it not only a good body, but resistance to disease and the ability to work, which always comes from the best kind of food. "Use enough milk for health" will be the Wisconsin motto.

---

dvertising Milk to Five Million American Families

Sunday Papers With Nation-Wide Distribution Carrying Messages of the Purity of Milk and Boosting Entire Industry

OMETHING quite unique in the annals and history of the fluid milk industry is being done by one of the dairy supply manufacturers. This something broadcast the story of the care with which milk is aced and handled, telling the up-to-date, cautious costly processes through which it passes and praishe milk dealer, building good will for him, through ies of full page colored advertisements appearing in American Weekly, the magazine section of the st Sunday papers, which has a circulation of over aillion and which reaches cities from coast to coast, north to south.

resident Coolidge in his speech of October 27 before merican Association of Advertising Agencies stated advertising is the primary factor in American ess growth and is a great educational force. Adsing builds not only sales but good will and good s just another name for confidence. This manufac is paying for this large and forceful advertising aign to help milk distributors sell their better es of milk by establishing confidence in the minds e consumer, believing that in doing so they are helphe whole industry to raise the standard of its merdise which will keep pace with the evident desire e American public to improve its standard of living. nd, while the company is assisting in the sale of own product naturally enough, they are at the same and ungrudgingly, building good will for every dealer who practices approved and sanitary ods.

his publicity campaign will increase the good feeloward milkmen the nation over. It will make ers feel safer about the milk they give their babies. the consumption of milk greater, and enhance the lence which all the milk-consuming public has in erfect food product.

Telling of the "Millions Spent by Dairies."

ne of these advertisements, which appeared in a November issue of these newspapers, carried the heading: "Millions Spent by Dairies to Give Your Children Clean Milk." It pictured a herd of dairy cows grazing contentedly in a wooded pasture, an enchanting stream running through it and a background of pure blue. It pictured a modern dairy barn, inside view, with its steel stanchions, a row of well-groomed dairy matrons and a man milking in a clean, white uniform, including the approved dairy cap. It pictured pasteurizing equipment, within a milk plant, and showed the bottle washing and the filling and capping machines. And it pictured, too, a mother holding a wee baby in her lap, feeding it a bottle of milk. Her facial expression is calm, confident.

Another advertisement, which followed the one just described, tells of the "tremendous efforts these progressive dairies have made to insure you clean milk." It carries illustrations of several of the largest and finest dairies in America.

And here again, we may gain a better idea of the remarkable size of the dairy industry, as it relates to the fluid milk industry. The company carrying the advertising and spending this large sum of money manufactures a milk bottle seal, a product which is not expensive yet which because of the greatness of the fluid milk industry, it is able to advertise in this big way. It is also, in no small way, indicative of the value of advertising, showing the results which can be secured by advertising the truth about milk to the consumer.

Is it not abundantly true that the public does not appreciate, except in a most small manner and in a very tiny degree, the lengths, the expense to which milk dealers and producers of milk go to provide a clean and safe product? And this advertising is telling the story of clean milk and safe milk. It brings direct, profitable results to the company paying for the advertising space, to be sure. But it is valuable to every dairy in America for it is spreading the gospel of milk, telling of its purity and its safeness. The entire industry will benefit by this intelligent advertising campaign being waged directly to the consumer of milk.

Some New Ideas on GARAGE EQUIPMEN

When to Install a Maintenance and Repair Department and When Not to

By PHILIP L. SNIFFEN, *Motor Truck Advisory Engineer*

ARE you doing your own delivery truck repair work, or are you having an outside service station do it for you? Which **should** you do? Which is cheaper?

A great many city milk dealers have asked me this question, and I believe that it is one of the most important questions a user of delivery vehicles in this business has to answer. Several things enter into it besides the cost of one versus the other. The life of the vehicles, the idle equipment time, and the dependability of the service depends a good deal on what service policy is used.

I believe that the milk dealer who is having his repair work done outside because his fleet is of small size or because he has found it hard to get the right kind of help is often justified in doing so. But I believe that same fellow is going to get a terrific licking in the ultimate expense unless he sticks to some real policy of adjustments and lubrication during the in-between times when his trucks are not in the shop. It is the tendency of most concerns who do not have their own shops to do this, and it is a disastrous one.

Avoid Common Mistakes.

A great many milk dealers who operate small fleets of trucks are not doing their own repair work. They take care of minor adjustments and lubrication themselves, but whenever anything serious occurs, the truck is sent to a public garage or to the truck dealer's service station. A glance at the cost records of these concerns shows that this is often satisfactory, but that it is decidedly an unprofitable policy in cases where nothing is available in their own system to take care of the trucks from day to day. And these cases are surprisingly numerous. It is only necessary to examine the policies used by the large department stores, laundries and other concerns who operate large fleets of trucks to understand the importance of this. The trucks owned by these companies are always clean in appearance, thoroughly lubricated, and given a systematic inspection. The reason for this is that these companies have found from experience that any neglect in properly maintaining the vehicles runs up into enormous sums. The man who operates a smaller fleet of trucks is no different from the department store that runs a large fleet. The principle is

the same, even though the numerical side of it is differ

The business man who has five or ten trucks can
tually save money by maintaining them himself,
vided he uses the right shop equipment, and establi
the same good systems for his shop that he has in
rest of his business. He must give sufficient though
this and study the problems of garage lay-out, tool eq
ment, and shop records. If the plan is started in a s
way, he will gain experience as he goes along wit
causing so much time and thought as to disrupt the
of his business.

Accompanying this article there are a number of
gestions on garage and shop layouts that have wo
out successfully for concerns using a varied numbe
trucks. They will give the truck user, regardles
the size of his fleet, suggestions on how his own
ditions can be met.

An Interesting Survey.

A short time ago, a survey was conducted among
cerns in various lines of business to determine the
cies which are now most popular in maintaining t
equipment. This survey tabulated replies from 407
cerns, and the replies came from companies using
where from five to thirty-six and more vehicles.
purpose of the survey was to find out how many
shop equipment and how many do not have it. It
found that 84 per cent of the total are now maintai
their trucks by shop equipment of their own. The
plies were grouped according to sizes of fleets, and
following summary will be interesting to those who
trying to decide whether or not to install their own s

Size of Fleet	Have Own Equipment	Do Not Have Equipment
5-10	127	54
11-15	104	13
16-20	49	4
21-25	27	1
26-35	38	2
36 or more	62	2
Total	407	76

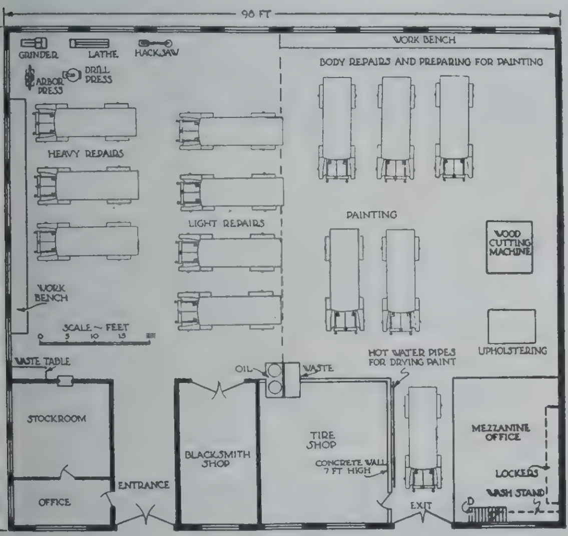
Another investiga
which reached 427 ow
also operating various
fleets and in different lin
business, showed the
lowing:

91 had invested up to
78 had invested $ 500 to
101 had invested 1000 to
52 had invested 2000 to
45 had invested 3000 to
60 had invested over

was found in this particular investigation that it mpossible to say that the amount invested depended the number of trucks used, because it was found in some cases a larger investment was made for er fleets than for fleets of considerably greater size. rally, it is impossible to set down any kind of figure would be accepted as a standard amount for a size of fleet, because individual conditions will greatly, but the above table will help to show the nts which many concerns consider it advisable to nto repair shop equipment.

Ideal Shop Equipment.

he best advice that can be given to a concern that tains its own vehicles is that the owner, or whoever ponsible for the garage, should be open-minded on bject of shop tools. He should be perfectly willing nsider the suggestions of his shop superintendent or mechanic. Modern shop equipment has been so tifically constructed that it actually saves anywhere 20 to 50 per cent of the mechanic's time. Competi- among manufacturers of shop equipment has ght the most modern devices within the reach of all users, so that there is no excuse for poor or inade- tools to work with.


98 FT
WORK BENCH
GRINDER
LATHE
HACKSAW
ARBOR PRESS
DRILL PRESS
BODY REPAIRS AND PREPARING FOR PAINTING
HEAVY REPAIRS
LIGHT REPAIRS
PAINTING
WOOD CUTTING MACHINE
WORK BENCH
SCALE ~ FEET
0 5 10 15
UPHOLSTERING
HOT WATER PIPES FOR DRYING PAINT
WASTE TABLE
OIL
WASTE
STOCKROOM
BLACKSMITH SHOP
TIRE SHOP
CONCRETE WALL 7 FT HIGH
MEZZANINE OFFICE
LOCKERS
WASH STAND
OFFICE
ENTRANCE
EXIT

plete repair shop, including provision for chassis repairs, ody repairs, washing, painting, stockroom, blacksmith shop and tire shop.

he writer's experience has been that truck users, equipping a shop, buy their equipment too hap- azrdly. The result is that the most essential things eft out and many unnecessary things installed. For reason, the following outline is suggested. It is in- ned to list the more important units of shop equip- as they have been found to be most helpful in the l experience of truck users within the writer's ob- ition.

ngine Stand: This eliminates waste motion in per- ng mechanics to work from all angles. One me- ic can work on an engine without requiring an- 's assistance for lifting or turning over.

athe: For all all-utility work. Rigidity is impor- and lathe must have correct "swing" to be suc- ul.

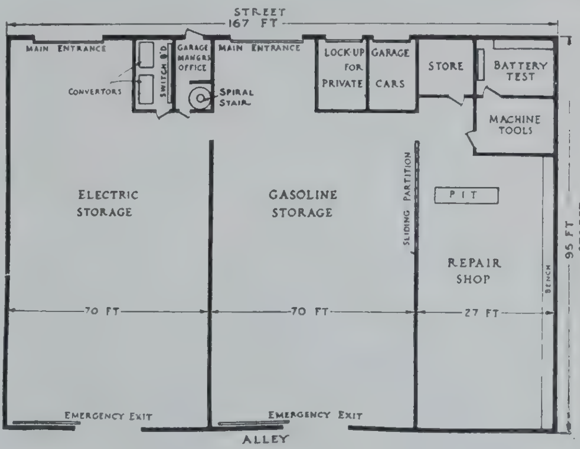
acks: One or more necessary for quick moving of les to working position. Also used for raising rear of truck for inspections and adjustments.

ervice Rails, or Racks: Used in preference to the ." Permits access to all parts under chassis. Better and more working space.

lectric Drill: Replaces many old-fashioned hand . Allows quicker work. Adaptable to limitless jobs. Comes in large and small sizes. Most shops require both sizes.

Axle Stands: For repair work on rear axles this is essential. Should be portable and adjustable as to height.

Tire Changing Equipment: Many designs are available, most of which are practical. Permits quick removal of rims, and saves more than half the time of hand-changing.


STREET
167 FT
MAIN ENTRANCE
SWITCH BD
GARAGE MANGRS OFFICE
MAIN ENTRANCE
LOCK UP FOR PRIVATE
GARAGE CARS
STORE
BATTERY TEST
CONVERTORS
SPIRAL STAIR
MACHINE TOOLS
ELECTRIC STORAGE
GASOLINE STORAGE
SLIDING PARTITION
PIT
REPAIR SHOP
BENCH
95 FT
STREET
70 FT
70 FT
27 FT
EMERGENCY EXIT
EMERGENCY EXIT
ALLEY

Combination garage and repair shop for fleet of both gas and electric trucks. Note gas trucks to repair shop with sliding partition.

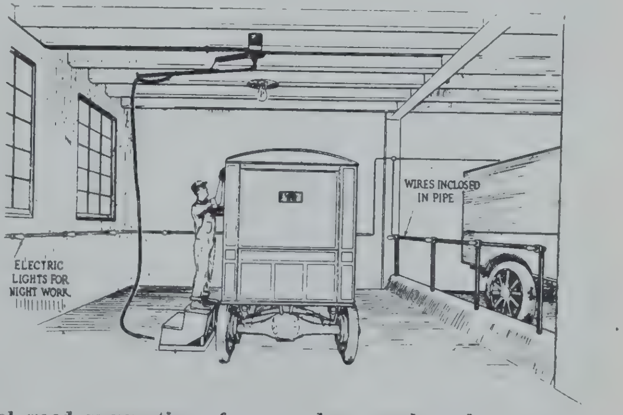
Power Drill Press: An adjunct to the lathe. Soon earns its cost in permitting mechanics to make parts and prevents tying up job when necessary part is not available. Most shops require a drill press of sufficient size to drill holes up to ½ or ¾ of an inch.

Brake Re-lining: Many concerns find they can save several hours time on a re-lining job of either brake bands or clutch facing with this device.

Wheel Aligner: Frequent inspections should be made of wheel alignment and this device enables this to be made very quickly.

Portable Work Bench: Time is saved, providing one of these, each complete with tools and working apparatus is furnished for each mechanic. Tools can be brought alongside the job, saving considerable time.

Grinder: Can be mounted on bench or used with floor stand. Essential in many small operations. Sharpens drills, cuts tools, and provides means for finishing rough work.


WIRES INCLOSED IN PIPE
ELECTRIC LIGHTS FOR NIGHT WORK

Several good suggestions for a modern wash rack are shown in this sketch. Note swinging arm for hose above truck.

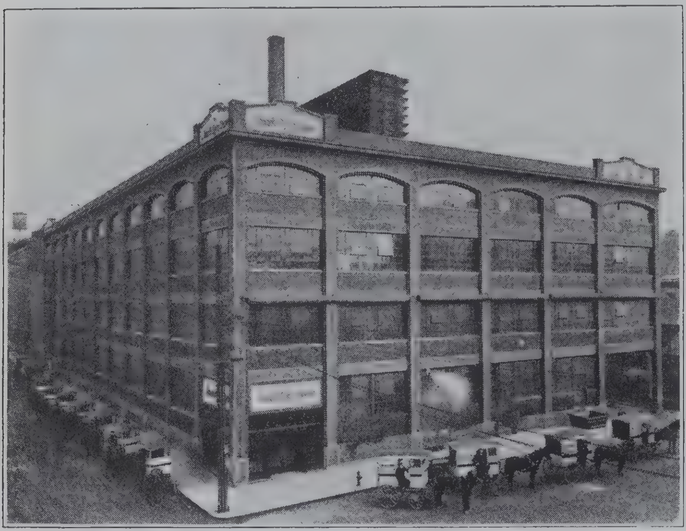
Press: Helps on many miscellaneous jobs and has numerous time and labor saving attachments. Helps to remove and replace bushings, gears and in removing frozen parts.

(Continued on page 106)

Achievement in Dairy Service

What a Cincinnati Dairy Plant Has Accomplished in Building a Business and Serving the Public. French Bros.-Bauer Company Founded in 1842

CITIES rise and fall as the energies of their people wax or wane. Hamlets established in the wilderness of yesterday are today proud municipalities. Energetic pioneers hewed them from the forests, protected them from savage men and beasts by force of arms, and established them in main arteries of commerce by force of brains. All by energy or ambition—and ambition is the quintessence of energy. Whence came this energy of the past? Is it in evidence today? And what about tomorrow?



Main Plant of the French Bros.-Bauer Co., Cincinnati, O.

Consider Cincinnati. The yesterday of the 1800 saw her as a frontier trading post. Today called the "Queen City" by her proud residents wherever they travel—on tomorrow, a generation or a century away, she must either be a greater, better city, or something infinitely worse than today. Nothing stands still—it either improves or deteriorates. Which way shall Cincinnati grow? And where is to be found the source of that energy of yesterday's pioneers and given to the builders of today and tomorrow?

Ask us to name the source of greatest energy, the greatest stimulant to growth of children, the greatest source of nutriment for adults, and the greatest insurance for a ripe old age, and we must reply by showing you a peaceful farm yard, with a splendid herd of cattle—dairy cows—Foster Mothers of a city.

Examine the life stories of America's greatest heroes, of her soldiers and statesmen, of her leaders in business, in professions, and in the arts. Energetic men all—born of energetic, ambitious parents, and—significant to the discerning eye—it is found that they all drew sustenance very largely all of their lives from these "Foster Mothers" of energetic people.

Show us a municipality which has already provided for maintenance of its people's energies by establishing close communications with their Foster Mothers of the rural country, and we prophesy that city shall grow and grow greater. Show us a city with a pure milk system that stands always as one of the country's leaders, and we will prophesy that the city shall continue a leader of the United States.

Eighty years ago the historic company of French
Bros.-Bauer was founded by Thomas French. He g
Cincinnati an organized dairy company only one
after the first thing of its kind in America was organ
in New York City. From this pioneer company g
Thomas French's Sons, Inc., which in turn became
firm of French Brothers shortly after the Civil War.

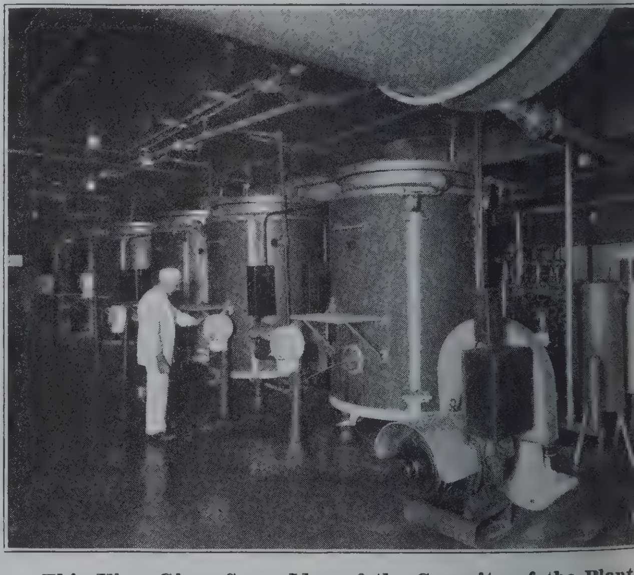
Far-sighted policies in providing for the city's
supply have always characterized the firm of Fr
Brothers, and its successor, The French Bros.-Bauer C
pany. Whenever the advance of science taught
ways to safeguard community health as affected by
supply, the company has always been found in the
of the country's progressive dairymen.

While other organizations have built the city f
brick, stone and concrete, trained the minds and i
enced the character of its people, French-Bauer has
haps done more than any other one organization to b
the energy of these people.

This energy has been made available to four gen
tions. "Service" has always been their slogan an
in the spirit of the word "Achievements in Dairy
vice" goes on in the French Bros.-Bauer Company.

There was a time when the outskirts of Cincin
pastured enough cows to provide the city's milk su
close at hand. In those days Thomas French and
sons had their various dairies successively in what
today the centers of Hyde Park, Oakley, Clifton, O.,
Newport, Ky. But as the frontier trading post expan
from the simple town of 1840 to the city of today,
growth of the city itself forced the dairy supply
farther and farther back into the surrounding rural
tricts.

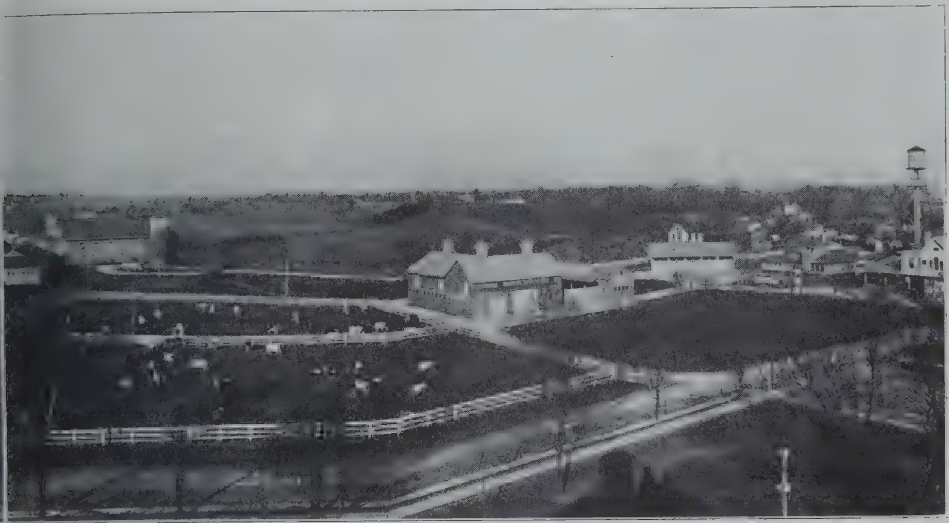
Growth of scattered groups of homes on the
munity outskirts into populous suburbs of the city
a double effect: First, the dairies themselves
crowded back to make room for city homes; and
the speculative value of the land they occupied in t
second positions became so high in anticipation of
further city growth they were forced to retire m
deeper into the country. And so the "Foster Mothe
of the city, once close to the people they served, bec



This View Gives Some Idea of the Capacity of the Plant ed from them by many miles and scattered over a ory within a radius of about 50 miles.

ransportation facilities became the big problem of ilk supply business years ago. It was a problem ving the collection from widely scattered farms and ringing into the city of vast volumes of pure, fresh and distributing it quickly.

orse and wagon milk collection methods of early necessitated the building of scores of country reng plants. At these plants the milk was refriger- to fit it for its long, slow journey to the city by gons, by slow trains, or by uncertain trolley roads.



At the Certified Milk Farm.

ecame the boon of the gasoline motors, and the swift t of trucks quickly swept scores of country plants oblivion leaving in existence today less than a dozen k points for milk collection.

ast capital expenditures for the benefit of the city's k supply have constantly been forced by the city's wth. In addition to the changes in the transporta- n and milk collection systems, a succession of expen- e city distributing plants has been forced upon the ench Bros.-Bauer Company in its race to lead in scien- c achievements and give cinnati the best health in- ance of the times.

Advancement in knowledge community health necessi- s by physicians and scien- s ed to a succession of ar of health regulations, st of which were antici- ted by years through the sightedness of the company cials.

The old tin pail delivery stem called the ''dip and ry'' gave way to the bot- d milk system in 1890. Cer- ed and inspected milk were roduced by the company rly in the present century. nd then French Brothers in- oduced the greatest health surance method of today— steurization.

In the old days of rural np city milk sold in the en in bucket for five cents quart. Innumerable city people still think back to those days and visualize the present milk industry as it was then. They cannot realize the vast increase in expense forced upon the dairymen by modern city conditions. And so they fail to understand that the modest profit possible in the old days when milk sold at five cents per quart has been cut and recut, until today, with milk selling at the present price, a small decimal of a cent profit is possible only to companies selling hugh volumes of milk.

Failure to properly visualize the enormous expense of milk gathering and city distribution under modern conditions is not a peculiarity of the average city dweller alone. Many city distributors who based their expectations of profits on false premises have been forced out of business in the last ten years by inability to raise capital to meet health requirement demands. A decade ago 400 dairymen furnished the city's milk. Today hardly 40 have survived.

But those who today constitute the city's pure milk supply system have achieved a triumph which is fairly comparable with the government's parcel post and rural free delivery of mail combined.

Cincinnati residents may well take pride in these achievements of their historic dairy company. Their business patronage of four generations has made such deeds possible, and all these works are but instruments for their service, present and future.

Achievement of Cincinnati's pure milk supply is not to be credited solely to the city distributors. Without the co-operation of their faithful, intelligent rural dairymen—the men behind the cows—no such accomplishments would have been possible. But the majority has always been willing to progress with the times and adopt the changes in methods and equipment that modern

(Continued on page 102)

Where Sanitary Methods Prevail.

Prevent Lead Poisoning With Milk

Prominent Authority Advises Milk Men of the Country to Further Investigate the Possibilities for Increasing Consumption of Milk by Factory Workers

By DR. CAREY P. McCORD*

MY FRIENDS, downstairs in this hotel right out there by the elevator entrance are four signs or notices. One high up refers to some fireworks company; one on the left and one on the right also refers to fireworks companies and then down at the lower end of that diamond there is a reference to the National Dairy Council. I wondered about the appropriateness of this classification but having been at the meeting this morning, having seen the dynamic qualities, the up and coming qualities of this organization, I know just exactly why the hotel brought about that classification.

DR. CAREY P. McCORD.

I want to talk to you, if it please you, for a little bit about foods and the industrial worker. Every morning out at my house I see, or perhaps I should say I hear a milk wagon drive up to my back door and leave an adequate supply of milk for my family, and I know that that sort of thing goes on at the back doors of all my neighbors. You have done a very good job in that situation.

Later in the day this same milk wagon or another wagon drives up to the schoolhouse in my community and leaves a supply of milk for selected groups of students there for mid-morning or mid-afternoon drinking, and I know that that is done in many hundreds and many thousands of schools and feel that you have done a very good job there.

I do not, however, know or see this milk wagon or any other milk wagon drive up to the receiving department of factories, of industries, and leave there an adequate supply of milk for the workers for their mid-morning or mid-afternoon and in many cases not for their noon consumption. This is true notwithstanding the fact that it is well known that nutritional problems are very prevalent in industry, notwithstanding the fact that within recent years death rates are very much higher among industrial workers than for such a group as this in preferred occupations, and notwithstanding the fact that we know that even as much as 10 or 15 years ago certain federal bureaus recommended that milk be used in industry to combat certain specific diseases.

We have in this country about 41 million wage earners. That figure, of course, takes in more occupations than factory work—mercantile work where people are in groups. Farmers would be included in such a group as that and other occupations where people assemble in any large numbers. However, something like 27½ million people go about their daily work in fairly large groups and accessible for whatever measures might be out in their behalf.

We ordinarily think of the people that make large group, the American workman, as being sturdy, well muscled, ruddy type of person—yo the kind that they put on posters when they wa scribe industry. To the contrary, as an actu least in my experience in the middle west, the i worker is not of that type. Many times he is a physical specimen, a poor human machine, illy to his work, and unless a person is skilled in som when a worker gets to be 45 years or thereabouts wants him except for the lowest type of work, an experience a number of factories give orders, " nobody here for work in this factory who has p years of age."

In any group at all, a group of factory worke out physical examination being made of them, pick out nutritional disturbances. Sometimes e partments in factories show almost in entiret tional disturbances embracing everyone there, bu group you can pick out here and there persons s from nutritional conditions; undereating, over- bad feeding, etc.

I want to give you just one example of the see fairly frequently. I don't know that this sh put forth as anything like average. I know that average, in fact, but I want you to get an idea bad conditions may be, at least at times.

I have in mind a work room about the size room in which there are employed about 20 These workers are mostly Kentucky hill men. T involves the handling of molten metal, galvanizin On one side of the room, were we there, we'd containing acid and from these vats steam arisin here would be, perhaps, a row of vats containing metal and from the molten metal fumes coming

Go into the room. You see a group of workm hardly look as though they were able to work Most of them definitely are underweight, most show signs of fatigue. If you get close enough you see their mouth conditions are almost unsp and all have the general appearance of being s sons.

If you inquire as to what has happened there, ber of things are involved and right at the outse say by no means is it strictly a nutritional prob the acid rises up in this steam from those va know acid ordinarily does not evaporate but whe arises it will carry some acid—these persons ar their whole bodies are bathed in an atmosphere The skin is not very much harmed but their t eroded, gums inflamed and they develop very ba conditions.

As a result, gastritis follows and in some cas follow. Exactly what produces ulcers we don but it may be the zinc. I have so described the At any rate, their entire food situation becon They find out that they cannot eat many foods of the acid condition but they find one or two fo they can eat and they live almost exclusively two or three things, most of which are bad.

(Continued on page 90)

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* At the annual meeting of the National Dairy Council.

Salvaging Bottles in the Nation's Capital

More Than 20 Companies Operate Nonprofit Exchange—Labels Show Many Containers Travel Long Way—300,000 Sometimes Handled in One Week

NO, this does not refer to the sort of bottles that congressmen who vote dry and live wet are accused of "toting" around office building lobbies. story is about milk bottles and what the milk deal- re doing in Washington to keep down bottle costs.

)f course, a modern milk bottle exchange is the ver. A writer in the Christian Science Monitor tells story as follows:

'Looking at an ordinary, everyday milk bottle one ld hardly suppose that it could wander far from the in which its usefulness centered, and yet investiga- reveals that individual bottles take long trips. ndaries of states are no barrier to milk bottles, it ld seem, once they get the wanderlust, and instances ited of travel-stained milk bottles that have crossed inents and oceans.

F. L. Oyster, manager of the Washington Milk Bot- xchange, a co-operative nonprofit organization for vering milk bottles in behalf of the 20 or more milk panies of this city, has found bottles from as far as China in the course of collections made by the

The exchange conducts a business of no consider- magnitude, estimated to produce economies of $50,- a year alone in its work of salvaging milk bottles vn out on ash heaps, dumps and vacant lots, as well iose left in cellars and apartments by careless rs.

In addition to this it is a center to which the par- ating companies bring odd milk bottles which their ery men collect. The exchange sometimes handles any as 300,000 'strays' a week, Mr. Oyster reports.

Salvaging System.

Thirteen men are employed, and three trucks with s devote their whole time to collecting milk bottles have escaped domestic service and find themselves ng a careless life on ash heaps, in cellars, or the By returning such bottles into circulation the ex- ge, which was formed four years ago, is carrying valuable work of conservation, Mr. Oyster says.

the past, the competing companies found one of heaviest expenses the cost of replacing lost and ed bottles, which cost about 5 cents apiece. As a ete instance of how things have now improved, Mr. r said that at the present time in Washington we er 18,000 milk bottles a week alone from the two c dumps.

'The distance that some of these truant milk bot- s tray comes as a second surprise, after learning the proportions of the business. Baltimore is about iles from Washington, yet 800 or 900 bottles are back every week from Washington to the Balti- exchange, which has entered into commercial rela- with the local business.

'Washington uses about 350,000 bottles a day, Mr. r estimates. Assuming that the 20 co-operating nies keep three days' bottle supply on hand, it that well over 1,000,000 are in circulation. One company estimates loss and breakage at 20,000 daily. In the light of such figures the humble milk bottle emerges as an economic problem.

Travels of Milk Bottles.

"Mr. Oyster has bottles that have traveled all the way from Europe, China and South America. The mystery of these bottles will never be explained. Why anyone should carry a milk bottle from Hongkong to America is hard to understand!

"Mr. Oyster produced rarities that his men have recovered, plainly labeled in raised glass letters on the side:

"Quart bottle, marked 'City Creamery, 351 Dundas Street, London.'

"Two bottles, marked 'The Dairy Farm—I. & C. S. Co., Ltd., Hongkong.'

"Bottle, marked 'Un Litro' from 'S. A. La Vascongada, Buenos Aires.'

"Pint bottle, marked 'Vaqueria de Bartolme Alzamora, Miradero, Mayacuez, P. R. Licencia No. 1' (Porto Rico).

"Pint bottle, labeled 'El Indio, N. Pasarell & Co., Rio Piedras, P. R.' (Porto Rico).

"These bottles and others like them have been recovered casually from Washington consumers, or from the place where they were discarded.

"The operation of the Washington Milk Bottle Exchange is simple. For every stray bottle a member-company turns in, it is given a credit of one-half cent. The odd bottles are sorted daily. Each company sends in and takes away its own bottles. For each returned bottle a debit of one cent is entered. If surplus profits accumulate, the money is divided, with the exception of a few thousand dollars a year devoted to advertising, and a city-wide 'Milk Bottle Collection Campaign'."

CALIFORNIA OFFICIAL OBJECTS TO GELATINE IN BUTTERMILK.

Sacramento, Calif., Dec. 4, 1926.

To City Inspecting Departments,

Subject: Use of Gelatine in Buttermilk.

Sirs:—It is rumored that some organizations are using gelatine in the preparation of buttermilk. This is in violation of the provisions of Section 10 of the general dairy law pertaining to adulterants, wherein it is stated:

......"It shall be unlawful for any person to produce, manufacture or prepare for sale, or to sell, or to offer for sale, or to have on hand for sale, any milk or product of milk, to which any coloring matter, except as otherwise provided in this act, has been added by any person or to which any gelatine or any other substance, except as otherwise provided in this act, has been added by any person to increase the consistency of such milk, or product of milk, so as to make it appear richer or of better quality......"

Yours very truly,

J. J. FREY, Chief,
Bureau of Dairy Control.

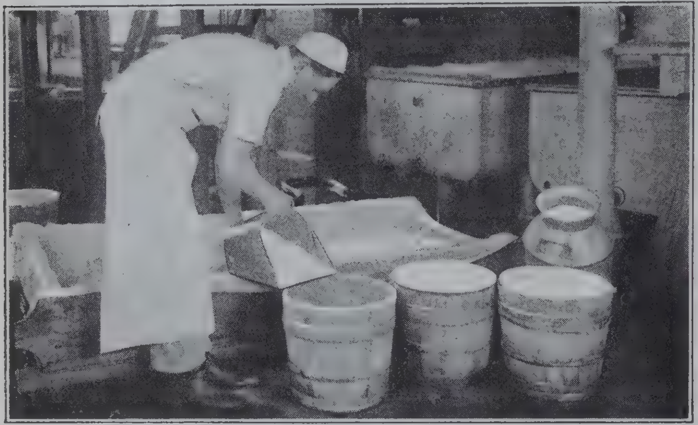
Types of Cheese Important to Milk Deal

Uniformity of Methods in Manufacture of Cottage Cheese Discussed by C. E. Lee, Gridley Dairy Co., Milwaukee. Discussion That Followed Covers Cream Cheese as Well

AT THE annual meeting of the American Dairy Science Association held in Detroit in October Prof. C. E. Lee, of the Gridley Dairy Company, Milwaukee, in discussing the manufacture of cottage cheese said:

"No type of cheese is of greater importance to the milk distributor than cottage cheese. Next in importance is cream cheese.

"Many of us who have watched the development of the cheese industry for more than thirty years, realize that many changes have taken place. There was a gradual change from handling cheese as a farm product, made in a rather crude way, to the present modern factory and equipment.



Whey removed on cheese cloth strainer, completely drained, and ready for bulk packing in standard butter tubs.

"Many investigators have devoted years of study in solving the many complex problems confronting the manufacture, ageing and marketing of the various types of cheese. The work that these men have done is very commendable, but it appears to us that the cottage cheese field has been left practically untouched.

Good Milk Necessary.

"Great care must be exercised in the selection of good clean, flavored milk to be used for cottage cheese making, otherwise the finished product will not prove satisfactory.

"It is a known fact that rennet types of cheese, cheddar, Swiss, etc., to a large extent reflect the quality of the milk used. Off flavors in milk are concentrated in the curd. The Wisconsin curd test was worked out on that principle. Too often milk is used for cottage cheese when it should be returned to the producers. When such milk is used it is reflected in the sales.

"Good milk, free from off flavors, pasteurized and properly refined, will always result in a clean flavored curd.

"In our plant where some 20 thousand pounds of milk is converted into cottage cheese daily, it is found that best results are obtained by adding not over one per cent of starter and setting the milk at a temperature of 70 to 72 degrees for a period of twelve to fourteen hours.

Proper Cook Determines Texture.

"The rapidity of cooking and the temperature reached, determines largely the kind of curd desired. As soon as the milk is cut, water having a temperature of 150 degrees is turned into the vat of milk. S
vats are never filled within six inches of the top
mits adding considerable hot water before allow
of the mixture of the whey and the water to ru
the gate. As the draining continues, additio
water is added until the entire mass of curd, w
water has a temperature of 108 to 110 degrees.

"When the desired firmness of curd has
cured, the warm whey and water is drained off,
water is added to chill the curd. When this is co
the curd is placed in draining racks for a perio
or two hours before packing.

"There is a large demand for cottage cheese
10 pound containers. During the past year our
been that of using a single service tin containe
the same package as is used in selling bulk lard.

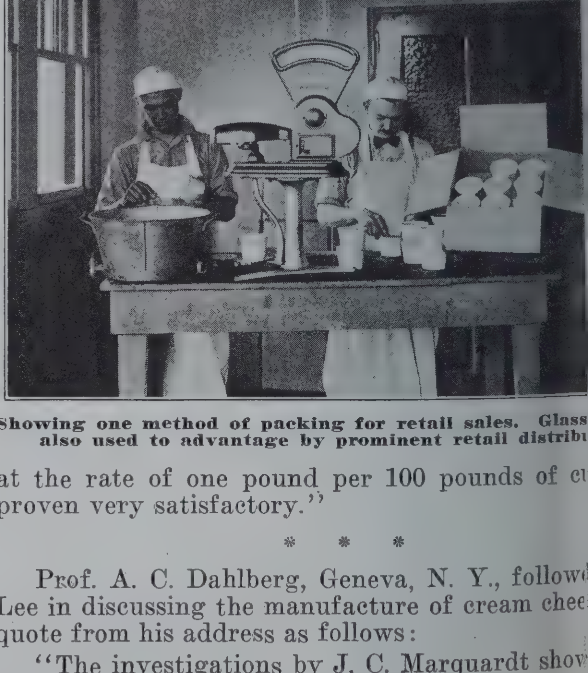
"To our retail trade a 12 ounce glass contain
very good satisfaction. The glass jar or cont
handled in the regular pint milk case. These
easily filled because twenty are filled at one time
being removed from the case. Glass has cert
recognized sanitary advantages beside making
sible to add larger quantities of cream to the cur

Cream Improves Quality.

"Very seldom is it advisable to add cream to
cheese sold in bulk, or to the hotel and baker tr
is also questioned by some whether or not cream
to any great extent be mixed with curd before i
to the family trade.

"Cream adds greatly to cost, besides shorte
time that cheese can be held before taking on t
acidity. To us, cream is very essential in putti
package that is always ready to be served unle
additional seasoning is desired.

"A mixture of five pounds of curd and one p
milk containing 10 to 11 per cent of butterfat
at the rate of one pound per 100 pounds of c
proven very satisfactory."



Showing one method of packing for retail sales. Glass
also used to advantage by prominent retail distrib

* * *

Prof. A. C. Dahlberg, Geneva, N. Y., follow
Lee in discussing the manufacture of cream chee
quote from his address as follows:

"The investigations by J. C. Marquardt show

(Continued on page 96)

DE LAVAL

Will a New Series De Laval pay for itself on whey?

No one questions the ability of any separator to *get* enough fat from whey to pay for itself in a short time. But will a New Series De Laval *save* enough fat over another separator to pay for itself in a reasonable period?

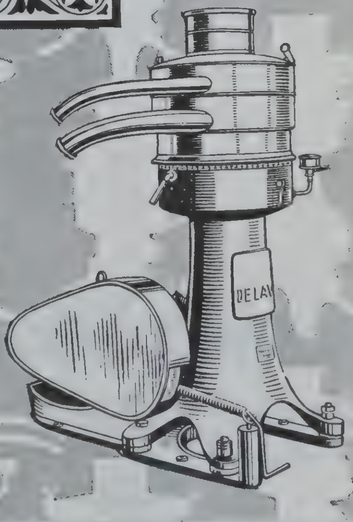
—Well, you might ask Mr. Geo. C. Guelig, proprietor of the Calvary Cheese Factory, Calvary, Wis., who writes:

"We recently installed one of your New Series No. 70 Separators. We had used for 8 years a No. 40 De Laval which we thought was a wonderful machine, but the new 70 is a world beater. We have taken several samples of skimmed whey and couldn't find even a trace of fat. As we get more cream every day the machine will pay for itself. With the new improvements the new machine should run for many years without trouble."

You owe it to yourself to find out how long it will take for a New Series De Laval to pay for itself in your plant.

DE LAVAL

The De Laval Separator Company
NEW YORK CHICAGO SAN FRANCISCO



When writing to THE DE LAVAL SEPARATOR COMPANY *please mention The Milk Dealer.*

A Solution to your Heater Problem

AFTER seventeen years the original patents on the Chester Barrel Heater are just running out.

During this time we have applied our barrel heater to the many heating problems that have confronted the handlers of milk. We have solved with the Chester Barrel Heater, or a modification of it, every heating problem except one that confronts the American dairy industry. Eventually we will solve the one exception.

THE MILK PASTEURIZING PLANT PROBLEM
THE CONDENSERY
THE CHEESE FACTORY
THE POWER PLANT
THE PRE-HEATING FOR SEPARATORS, CLARIFIERS AND FILTERS
FOR SWEET CREAM
FOR SKIM MILK

We can utilize all of your exhaust steam. We can control positively and automatically.

We believe we know the heater problem and that we can solve your problem in an economical and practical manner.

In order to make it convenient for you to put your problem in our hands we have prepared a series of simple questionnaires relating to individual conditions. If you will tell us something about your difficulties we will send you the proper questionnaire. You can fill this in a few minutes and return it to us. From the information you send we will be able to prepare figures and information which are the result of actual experience in solving similar problems in other plants.

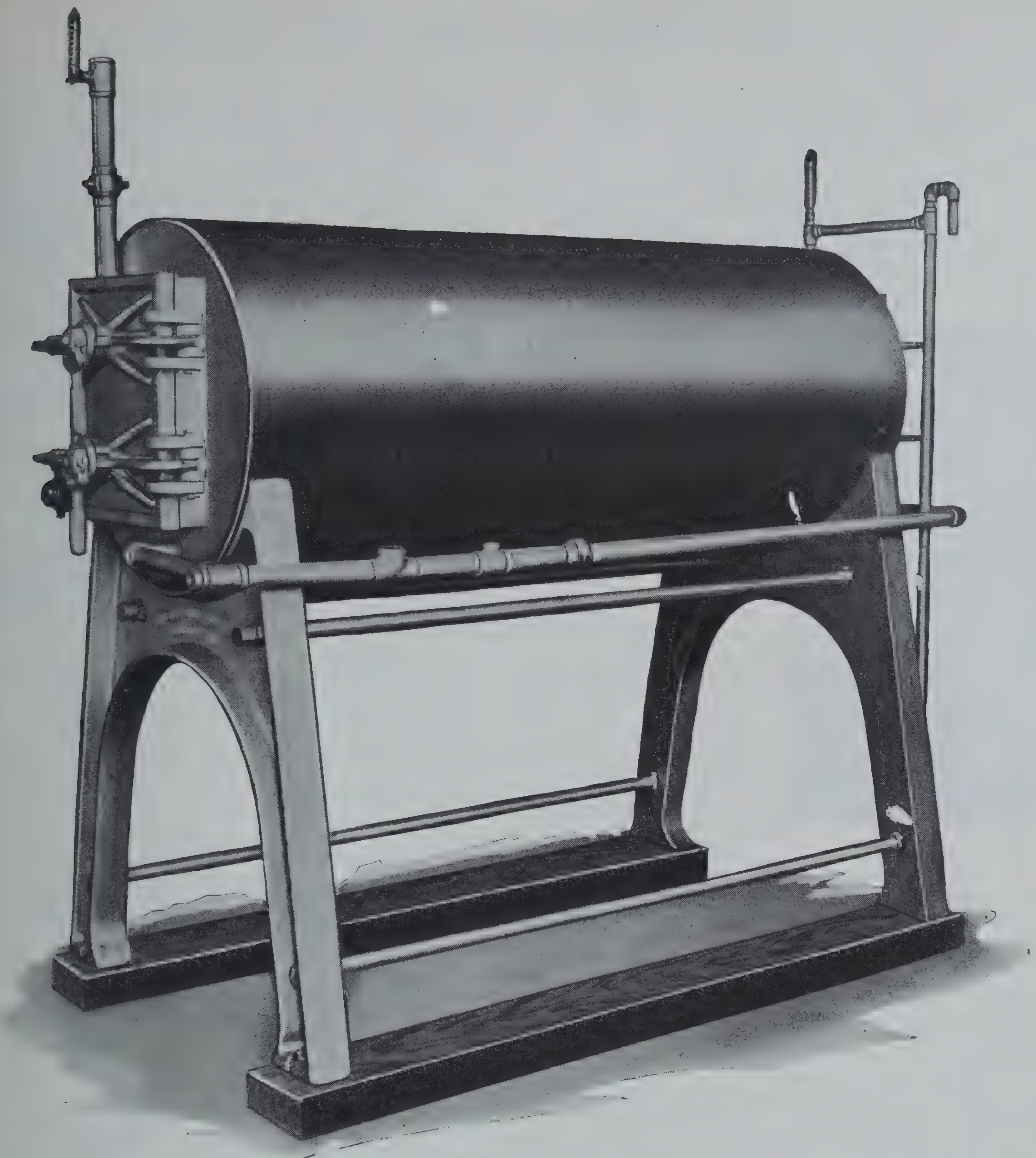
We guarantee that no unfair use will be made of the information you send and that you will not be annoyed by solicitations for business.

Write for the heater questionnaire now.

CHESTER DAIRY SUPPLY CO.
Ninth and Hyatt Streets
CHESTER PA. U. S. A.

The Sign
of Serv

When writing to CHESTER DAIRY SUPPLY CO. *please mention The Milk Dealer.*



CHESTER BARREL HEATERS

HESTER DAIRY SUPPLY CO.
Ninth and Hyatt Streets
CHESTER PA. U. S. A.

The Sign of Service

When writing to CHESTER DAIRY SUPPLY CO. *please mention The Milk Dealer.*

Loton Horton Dies in France

President of Sheffield Farms Company Dies in Nice, France, While Touring With Mrs. Horto An Outstanding Figure Among Men Who Have Been With the Milk Bottling Industry.

HIS friends all over the world were shocked to hear of the death of Loton Horton, which occurred at Nice, France, on December 15. We say all over the world, because wherever dairying and health work is known the name of Loton Horton is revered. He numbered his close friends by the thousands.

LOTON HORTON.

He was stricken by pneumonia while touring France with his wife, and was 72 years of age. The body arrived in New York City on December 30, and the funeral services were held in that city on January 3 Interment was at Middletown, New York, his boyhood home.

We are privileged to reproduce a sketch of his life work which appeared in the New York Times the day following his death. It reads as follows:

Loton Horton, president of the Sheffield Farms Company since its organization in 1902, and for more than fifty years engaged in the business of supplying milk in New York City, died yesterday at Nice, France, according to a cablegram received by his sons last night. Mr. Horton was 72 years old. He had been visiting in Europe with Mrs. Horton and was planning to return to this country when he was stricken with pneumonia. For several years past he had been troubled with a weak heart, and it is believed that this was a contributing factor to his death.

Mr. Horton's city home was at 135 Central Park West. In addition to his widow, who was Miss Tillie Spieker of Zurich, Switzerland, whom he married in 1917, he is survived by four sons, Daniel S., Ralph, Chauncy and Jerome Horton. Mr. Horton was married three times.

Mr. Horton was born on an Orange County (N. Y.) dairy farm in April, 1854. His mother died when he was three years old, and his father died seven years later. Young Loton Horton was bound out to an uncle by marriage, who had agreed to provide a home and educate him in return for the interest on $2,500, Loton's share of his father's estate, which was in a savings bank.

Starts as Milk Wagon Driver.

The young farmer boy knew nothing of the details of this agreement. He spent his time on the farm doing the chores which seemed never-ending, and as he grew he was doing the work of a full fledged hired man. When 16 years of age young Horton became disgusted with his situation.

He had a long talk with his Uncle "Tim," a brother of his father. The upshot was that he left the farm where he had been working and went to Middletown to live, with the understanding that he was to be permitted to attend school in town.

At the end of the school year young Horton came to New York City to drive a milk route for another uncle. The conversation which determined Mr. Horton's future did not seem particularly pregnant with possibilities at the time. His Uncle Chauncy said: "Bub, how'd you like to drive a milk wagon in the city this summer?"

Loton would and did. Mr. Horton used to take delight in telling of his experiences as a raw, gawky country boy on a city milk route. The only way he remembered his way was to count the blocks and houses, and he said that it was several weeks before he realized that his route crossed and recrossed the same streets.

When his first month's collections were checked u found that he had turned in more for one month t preceding drivers had turned in for a three-months Young Horton returned to Middletown for two more of school and at 18 came to the city to take a perma on the milk wagon.

When he received his money at the age of 21 he route which he used as capital for joining the partne the Slawson brothers, who were also his uncles. He c with this concern and in 1901 bought out the busine the death of two of the brothers.

The following year marked the greatest forward Mr. Horton in the matter of handling milk. That year the consolidation of the Slawson Company, the T. W. Company, a business dating back to 1841, the Sheffiel Company and the Tuthill's Sheffield Farms Compan assets of the combination were only $135,000. To company has more plants than it had routes in those

Louis B. Halsey, a lawyer, who had turned to d operated the Sheffield Farm. He was years ahead of petitors and in 1897 brought a German chemist to the first pasteurization machine. Halsey had deve herd of pure Jersey cows and was constantly experi with better methods of handling. He devised a sch freezing blocks of skim milk and putting a large bl each can of rich milk. Thus the milk arrived sweet a

Dr. Royal S. Copeland's Tribute.

It was this farm which gave the name to the vas ization which now distributes milk throughout New Yo Mr. Horton became interested in the pasteurization and employed it for his own milk.

Although he had very little formal education, Mr. was recognized by his associates as a man with an ex nary capacity for study. He knew both men and the of ideas. He had been at the forefront in all meas develop better methods of handling and caring for mi the time it left the farmer until it reached the consume

Dr. Royal S. Copeland paid him high tribute at a in 1922, when Mr. Horton celebrated the anniversar fiftieth year in the business, when he said, "No man York City has done as much to reduce the death children."

Mr. Horton had been under fire several times be charges that he was at the head of a "milk trust" a ficially controlling prices. The mayor's committee co an investigation in 1917, and in 1919 there was a state and city investigation after an increase in pri been announced.

Mr. Horton also had a prominent part in break strike of drivers in 1921. He obtained an injunction interference, which stripped the milkmen of the p harass dealers, and this proved an effective weapon ning the strike for the company.

Mr. Horton had many friends in other lands of these, E. A. Evans of the United Dairies in L upon learning of Mr. Horton's death, wrote us as f

London, England, Dec. 22, 1

"I had the great pleasure and honor of spending t with Mr. Horton in Munich at the end of Novembe thought it would be of interest to your readers to kn at that time he was looking forward, with great plea his return to America with his new Rolls-Royce, in or he might enjoy his leisure and see more of your cou

"We, on this side, have always held him in the ve est esteem, and looked up to him as one of the pione consistently advocated pasteurized milk, and who wa the leaders in the development of the bottled milk ind

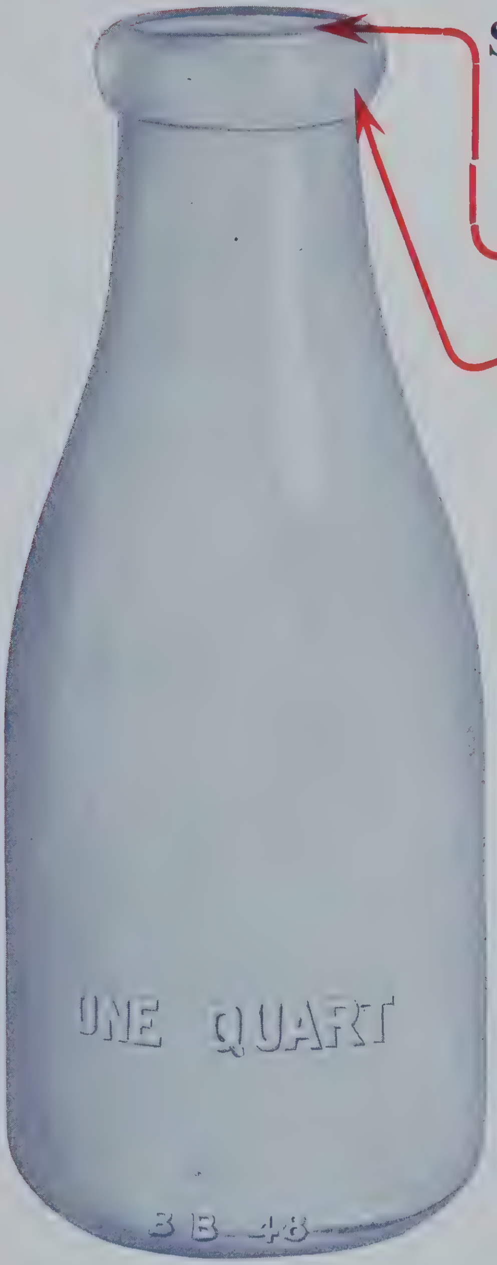
"His opinions have always been placed unreser our disposal, and whenever we have sent any of our men out to the States, he was always the first freely help, and allow them to gain experience in the Sheffie plants.

"I have known him personally for some 20 yea found him one of the most generous-hearted and minded men I have ever met.

"The two days I spent with him as his guest in showed me another side of his character which I shal treasure.

"We grieve with you in the great loss the indu sustained—both on your side and on ours."

Automatically Processed Milk Bottles of Quality



Six Little Details All Big

1. Round cap seats that hold the cap
2. Well formed heads designed to obviate chipping
3. Accuracy in capacity uniformly maintained
4. Glass clear in color
5. Scientifically annealed (tempered) giving maximum strength
6. Grace in design, making a pleasing package

Our Motto:

Quality

Economy

Dependability

You Want Quality Let Us Serve You

BERNEY-BOND GLASS COMPANY

Main Office-Factory: CLARION, PENNA.

HICAGO Representative: A. F. MARTIN, 1654 Cleveland Avenue, Chicago, Ill.
MICHIGAN and OHIO Representative: Lock Box 56, Redford, Mich.
EW YORK, N. Y., Hudson Terminal Bldg., 50 Church St.
BOSTON, MASS., 170 Summer St.
PHILADELPHIA, PA., Abbott Bldg., Broad and Race Sts.

When writing to BERNEY-BOND GLASS COMPANY *please mention The Milk Dealer.*

A SALES Suggestion for 1927

If your sales have fallen short of expectations this year you will find the

PULL-RITE CAPS

REGISTERED U. S. PAT. OFF.

of great assistance in adding new customers and holding old ones.

Because:

Pull-Rite Caps always do the work they are intended to do. Whether the cap is wet or dry the Pull-Rite will work because it cannot strip off. Housewives quickly recognize this feature. They have learned from experience how many ordinary pull caps fail in their purpose.

Try a quantity and notice the difference.

Send for samples

WILLOW BROOK-DAIRY
GRADE
PAT.
B
12-7-20
MILK

Ask for prices

PLYMPTON PAPER PRODUCTS

[illegible]

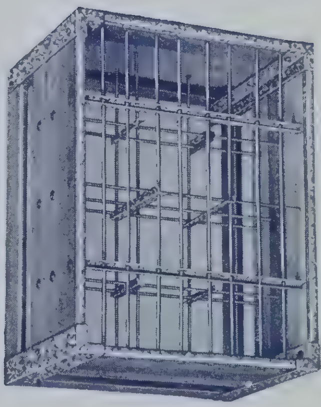
Built for a Battle of Bumps

LIKE warriors of old, Armor Klad Cases are sheathed in iron at every vulnerable spot. Day and night they go through the Battle of Bumps—victors. No jar, crash, kick or tumble can break them.

They're built solid and sturdy for enduring service—re-inforced like skyscrapers. The corners won't weaken; and there is nothing to come loose or apart. Easy to stack, easy to handle; easy to keep clean and sanitary.

Armor Klad Bottle Cases

To get the most out of your bottle case investment, the most service per dollar, standardize on Armor Klad Cases. The Armor Klad Insignia is your guarantee of finest materials and careful manufacture. It means that Armor Klad Cases will out-last and out-wear any other case.



Some excellent territory is still available for reputable Jobbers

G. H. TENNANT CO.
MINNEAPOLIS · MINNESOTA

Before You Buy—Let us send You a Sample Case for Inspection

G.H. TENNANT CO.
EST 1870
ARMOR KLAD
BOTTLE CASES
MINNEAPOLIS MINN.

G. H. Tennant Co.,
Minneapolis, Minn.

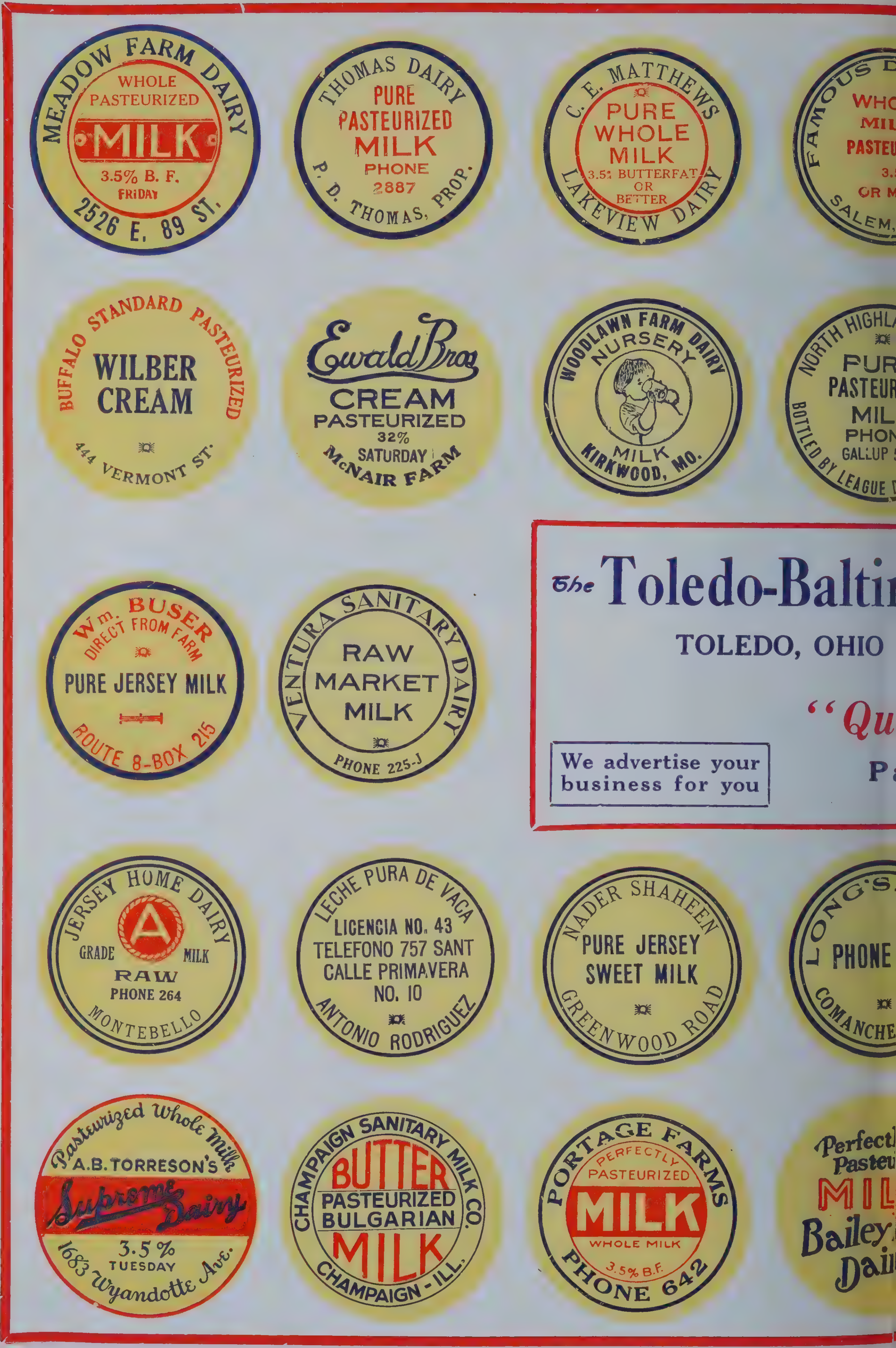
Please send us an Armor Klad Bottle Case for inspection without obligation on our part to buy. We are in the market for about .... cases.

Firm Name ....

Address ....

Buyer .... Position ....

When writing to G. H. TENNANT CO. *please mention The Milk Dealer.*


MEADOW FARM DAIRY
WHOLE PASTEURIZED
MILK
3.5% B. F.
FRIDAY
2526 E. 89 ST.
THOMAS DAIRY
PURE PASTEURIZED MILK
PHONE 2887
P. D. THOMAS, PROP.
C. E. MATTHEWS
PURE WHOLE MILK
3.5% BUTTERFAT OR BETTER
LAKEVIEW DAIRY
FAMOUS D
WHO
MIL
PASTEU
3.
OR M
SALEM,
BUFFALO STANDARD PASTEURIZED
WILBER CREAM
444 VERMONT ST.
Ewald Bros
CREAM
PASTEURIZED
32%
SATURDAY
McNAIR FARM
WOODLAWN FARM DAIRY
NURSERY
MILK
KIRKWOOD, MO.
NORTH HIGHLA
PUR
PASTEUR
MIL
PHON
GALLUP
BOTTLED BY LEAGUE D
Wm. BUSER
DIRECT FROM FARM
PURE JERSEY MILK
ROUTE 8-BOX 215
VENTURA SANITARY DAIRY
RAW MARKET MILK
PHONE 225-J
JERSEY HOME DAIRY
A
GRADE
MILK
RAW
PHONE 264
MONTEBELLO
LECHE PURA DE VACA
LICENCIA NO. 43
TELEFONO 757 SANT
CALLE PRIMAVERA
NO. 10
ANTONIO RODRIGUEZ
NADER SHAHEEN
PURE JERSEY SWEET MILK
GREENWOOD ROAD
LONG'S
PHONE
COMANCHE
Pasteurized Whole Milk
A.B. TORRESON'S
Supreme Dairy
3.5%
TUESDAY
1683 Wyandotte Ave.
CHAMPAIGN SANITARY MILK CO.
BUTTER
PASTEURIZED
BULGARIAN
MILK
CHAMPAIGN-ILL.
PORTAGE FARMS
PERFECTLY PASTEURIZED
MILK
WHOLE MILK
3.5% B.F.
PHONE 642
Perfect
Pasteu
MIL
Bailey
Dai

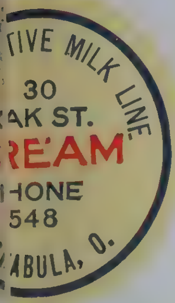
The Toledo-Balti

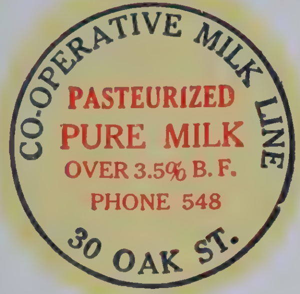
TOLEDO, OHIO

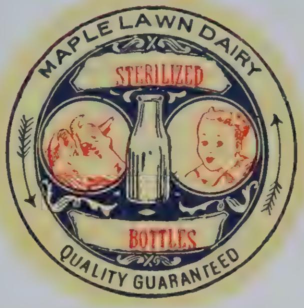
"Qu

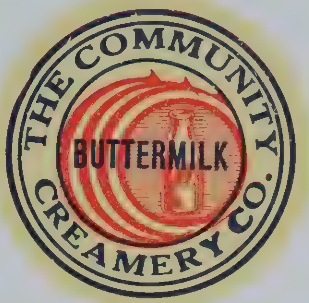
P

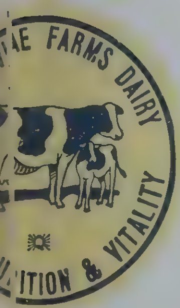
We advertise your
business for you

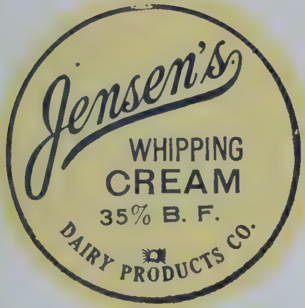

TIVE MILK LINE
30
AK ST.
REAM
HONE
548
ABULA, O.

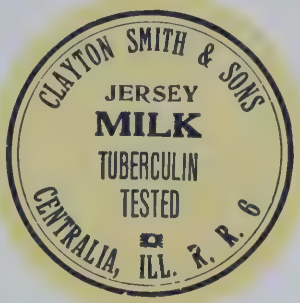

CO-OPERATIVE MILK LINE
PASTEURIZED
PURE MILK
OVER 3.5% B. F.
PHONE 548
30 OAK ST.

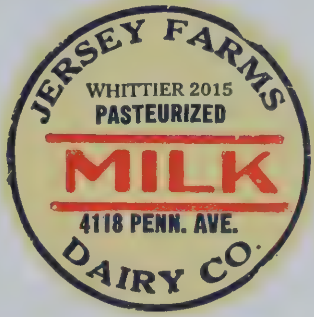

MAPLE LAWN DAIRY
STERILIZED
BOTTLES
QUALITY GUARANTEED


THE COMMUNITY CREAMERY CO.
BUTTERMILK


AE FARMS DAIRY
ITION & VITALITY


Jensen's
WHIPPING
CREAM
35% B. F.
DAIRY PRODUCTS CO.


CLAYTON SMITH & SONS
JERSEY
MILK
TUBERCULIN
TESTED
CENTRALIA, ILL. R. R. 6


JERSEY FARMS
WHITTIER 2015
PASTEURIZED
MILK
4118 PENN. AVE.
DAIRY CO.

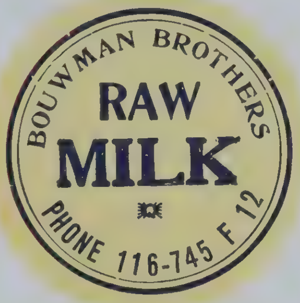
tle Cap Company

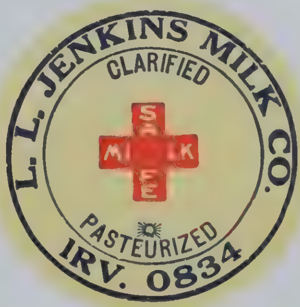
1345 Miami Street

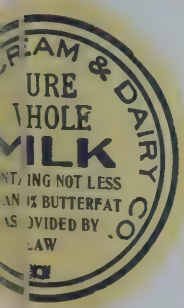
tle Caps"

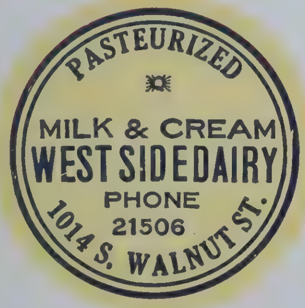
od

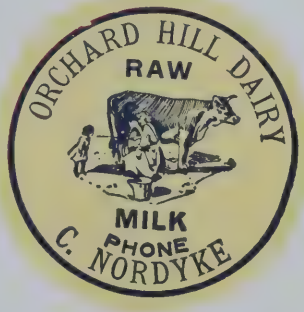
Makers of Bottle Caps
for Progressive Dealers

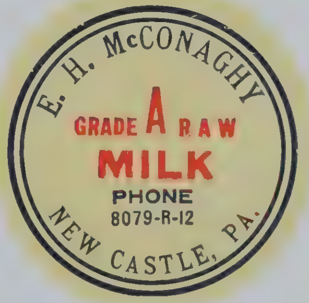

BOUWMAN BROTHERS
RAW
MILK
PHONE 116-745 F 12

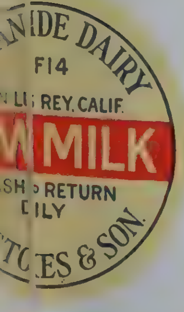

L. L. JENKINS MILK CO.
CLARIFIED
SAFE
MILK
PASTEURIZED
IRV. 0834

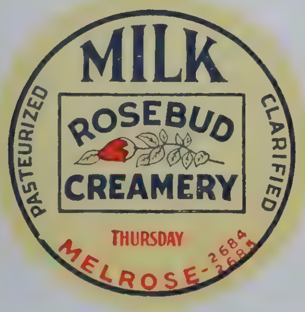

EAM & DAIRY CO.
URE
HOLE
ILK
NT ING NOT LESS
AN % BUTTERFAT
AS OVIDED BY
LAW

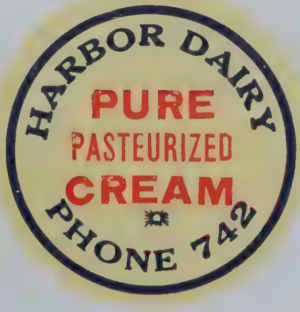

PASTEURIZED
MILK & CREAM
WEST SIDE DAIRY
PHONE
21506
1014 S. WALNUT ST.

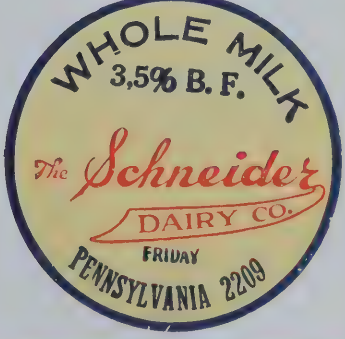

ORCHARD HILL DAIRY
RAW
MILK
PHONE
C. NORDYKE


E. H. McCONAGHY
GRADE A RAW
MILK
PHONE
8079-R-12
NEW CASTLE, PA.


IDE DAIRY
F14
LL REY, CALIF.
MILK
SH RETURN
DILY
ES & SON.


MILK
ROSEBUD
CREAMERY
PASTEURIZED
CLARIFIED
THURSDAY
MELROSE-2684
2685


HARBOR DAIRY
PURE
PASTEURIZED
CREAM
PHONE 742


WHOLE MILK
3,5% B. F.
The Schneider
DAIRY CO.
FRIDAY
PENNSYLVANIA 2209

When writing to THE TOLEDO-BALTIMORE BOTTLE CAP COMPANY *please mention The Milk Dealer.*

Over 500 Dairies are using

KOKO-MALT

It's Making a Big Hit !

for their

Chocolate Malted Milk Drinks

HERE is a new product which is blended from a special Dutch-processed, double milled cocoa and pure barley malt extract with special flavoring to intensify the full chocolate flavor and absorb the bitterness of cocoa.

DAIRIES bottling chocolate milk should be interested in this new preparation. It means a great saving in your syrup purchases. The cost of one gallon of delicious chocolate malted syrup made from KoKo-Malt, which is sufficient to flavor 10 gallons of milk, is 75 cents.

We will be glad to send a sample of KoKo-Malt sufficient to make one gallon of syrup to those interested in this new hit.

THE DAIGGER CORPORATION

Manufacturers

WASHBURN'S PRODUCTS

413-415 Beethoven Place CHICAGO

Cosco

Cosco Bacteria Exterminator

For All Sterilizing, Disinfecting
and Cleansing in
The Dairy, Creamery,
Milk Bottling Plant,
and Ice Cream Factory

Bacteria

A Positive
Germ Destroyer
Leaves No Odor
Is Tasteless

Xterminator

Its Unusual Strength
Requiring Only
Minimum Quantities
Makes It The Most
Economical Cleanser
Offered

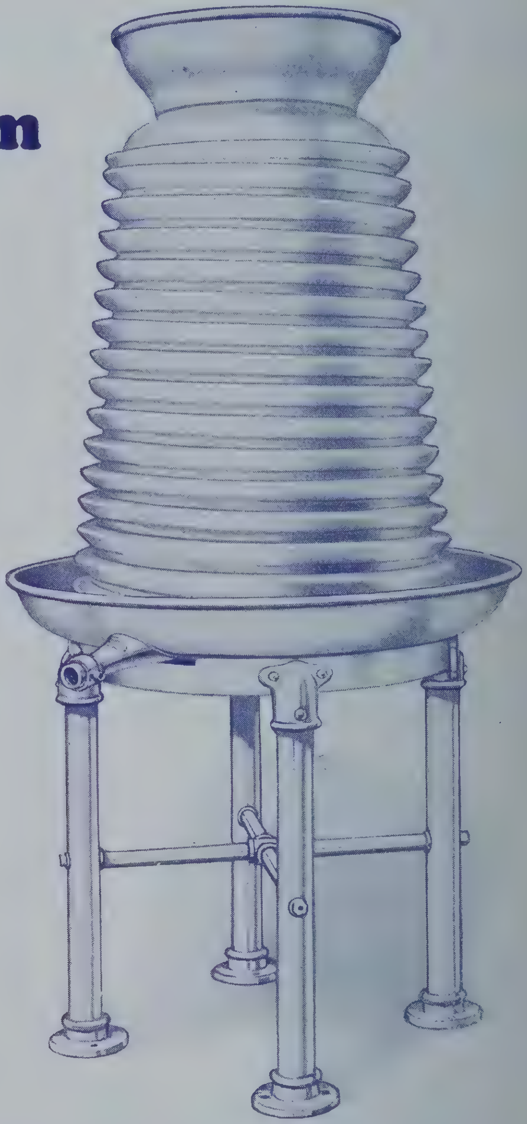
SETHNESS COMPANY
CHICAGO
659 Hobbie St.
NEW YORK
1133 Broadway

Sethness, Chicago.
Send Trial Callon C-B-X ☐
Send Particulars on C-B-X ☐
Name..........
Street..........
Town..........
State.......... M.-D.

THE
H·H·MILLER INDUSTRIES CO.
CANTON, OHIO.

Chilly King Milk and Cream Coolers

Unexcelled for the cooling of Fluid Milk, Heavy Cream and Pasteurized or Homogenized Ice Cream Mix.



Made in sizes
1,000 to 10,000
lbs. per hour.

Also manufacturers of MILLER BRINE ICE CREAM FREEZERS, MILLER PASTEURIZERS, AUTOMATIC MILK HOLDING MACHINES, VATS, TANKS, M&M BOTTLE WASHERS, ETC.

Please Ask for Bulletin and Prices

When writing to THE H. H. MILLER INDUSTRIES CO. *please mention The Milk Dealer.*

IE RELATION OF BUSINESS FAILURES TO ADVERTISING.

ow actually unprogressive is the milk dealer who not use newspaper advertising? How indispens- s newspaper advertising? Investigations of cur- usiness failures in several large cities reveal some sting percentages.

Kansas City, there were 149 business failures in le year. Of these only 9 used newspaper adver-

is gave 94 per cent of the failures as non-adver- At Chicago, 98 per cent were found to be non- tisers. St. Louis concerns failing in business and no newspaper advertising, made up 94 per cent of ty's failures.

can hardly be argued from such statistics that aper advertising contributes to business failure! g the reverse deduction, that newspaper adver- is indispensable to business success, is probably se going somewhat too far. The fallacy can be nstrated in the success of retail stores which do se newspaper advertising. The strong suggestion, er, that newspaper advertising contributes mark- o business success; moreover, is generally used by sful concerns, is sound.

e fact of the matter is that advertising is as es- l a function, nearly, of the business organization selling itself. More and more advertising enters he distribution process. If only to meet competi- business must employ it. To achieve any special apid measure of sales success, advertising is most ensable in modern days.

te, however, we have not limited our remarks to aper advertising. We have used advertising in al. Most investigations put display advertising gh windows, as most primary in nature. News- advertising is next in popularity of use. Other tising, such as direct mail, billboard, handbill, mo- icture, and so on, follow.

orking out a successful advertising scheme, dairy managers frequently use window advertising, aper advertising, and one or more other types of ising, in combination. Two fundamental features mbination are window advertising and newspaper ising—or window advertising and direct mail ad- ng.

asionally the manager makes handbill advertis- ghly important in a combination.

you are not sold on advertising, banish your re- g doubts, and whole heartedly believe in it. The n for you is not whether to use advertising, but w to use it—how to make your appropriation and it up among the different varieties of advertis- w to extend the several divisions most effectively.

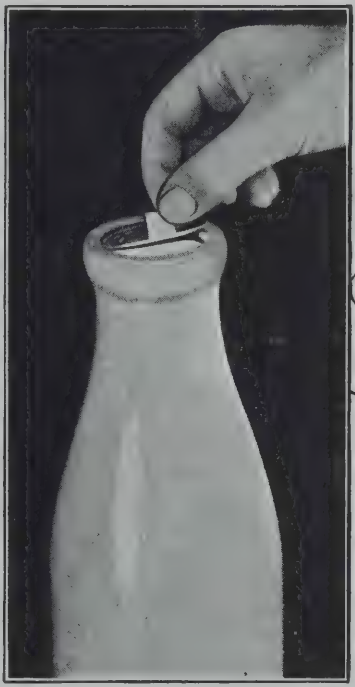
business man who attempts to dispense with ad- ng is as badly disadvantaging himself as though pensed with sales people, thinking to effect an y. Business failures are notoriously non-adver- Business successes are as conclusively adver- s

⁂

OLD MEDAL AWARDED PATERSON.

International Jury of Awards at the Philadelphia entennial awarded a gold medal to the Paterson ent Paper Co., Passaic, New Jersey, according to et announcement.

Better Caps Cost Less



Tea-Kettles have HANDLES

So have CERTIFIED CAPS for Milk Bottles

Certified Caps for Milk Bottles are easy to lift. They have flaps made of tough red fiber — stapled on. They are easy to see, easy to grasp. They do not tear. Customers prefer them.

Hundreds of dairies have found Certified Caps with Red Flaps the best paying investment they ever made for the same cost. They actually save you money and we can prove it. Make us do it.

Certified Caps with Red Flaps are distinctive. They are a mark of better service. They win customers that stick.

Perfect for capping machines or for hand capping.

Write us, or ask your supply house for free samples.

Certified Caps
FOR MILK BOTTLES
THE CAP WITH THE RED FLAP

American Dairy Supply Co.
Dept. B-31 WASHINGTON, D. C.

London Factory, Waxed Papers, Ltd., Nunhead Lane, S. E. 15.
Canadian Factory, Purity Milk Cap Co. Ltd., 76 Stafford St., Toronto

Publicity Essential in Milk Business

Problems of the British Milk Dealer Not Unlike Those of His American Cousin. Milk Authority in England Gives Some Good Advice About Advertising

By R. T. HAHN*

WHEN we check up very carefully, it is really remarkable how familiarity does tend to dull our senses. If we take perhaps the commonest and most essential everyday necessity of our lives, such as milk, we find that the total ignorance displayed by the ordinary man in the street is simply appalling. Apart from the fact that he sees it 365 days in the year on his breakfast table, and probably uses language more forcible than polite on the first morning in three years that the milk has been an hour late due probably to the fact that there has been a breakdown at the dairy, or No. 10—his van—has skidded and overturned at the bottom of the main street, the roadway strewn with broken bottles and milk, or to the hundred and one things which might happen any day, but which, luckily for him, don't. Apart from this fact he knows nothing whatever about where it comes from, how it is handled, treated or distributed, and what is more, he doesn't care either, or try to find out for himself.

The big problem seems to be just this—where on earth is the beginning? Where and how can we educate the general public to the fact that more milk should be drunk? The easiest way out of the difficulty is obviously to tell the public what milk is, and in what way it is good for them. Another way is via the publicity route. This latter we can subdivide into three parts, viz., advertising, propaganda and exemplifying

This is a big job, but a job which the National Milk Publicity Council is tackling manfully, and already, after a comparatively short campaign, their efforts seem to be bearing fruit. The whole crux of the question is this. Can milk advertising and propaganda, etc., be made interesting enough to attract the attention of the passerby? Can a lecturer hold his audience sufficiently well to deliver a lecture which will go right home, covering all the vital points of the subject and yet not be too long to become tedious and wearisome? It is a subject that needs a whole lot of hard thinking out and a subject that has to be attacked very carefully and systematically.

It is all very well for people to agree with you on the point that no one is too old to drink milk and that the nation as a whole should drink more, but what is the good if they don't practice what they preach? They will agree with almost any argument in favor but they have forgotten everything about it five minutes after the discussion is closed.

This is just the thing we don't want. We want the public to get it right back into their heads that they ought to drink more milk and we want them to remember it, too!

The dairyman must take upon himself a lot of this educating business. He must tell his customers that it is good for them and why. It needs telling in a few simple words. If you get twisted up in bacteria, temperatures and the like, your customer is soon going to be a very bored listener and in nine cases out of ten, after you have spoken at great length on the subject, she will know no more about the matter than when you started your rigmarole. Besides, if you have too long a tale to relate, look how it is going to hinder your daily routine, to say nothing of hindering her business. You can't afford to waste muc and a few well-directed and pointed words is al required. You can enlarge upon the subject aft when she begins to get interested and begins to a few questions about it. Once her curiosity is th ly aroused, she will almost move heaven and satisfy it. Just start off by telling her that mil up strong bones and healthy teeth and muscle— what it will do for baby, and she will soon want all about the rest.

Attractive Advertising Essential.

By advertising, I mean good, sound display. good poster or a well dressed window carries weight and both can be made very attractive must be got up attractively enough to make a m twice at them. Are there many people who do n nearly all Kruschen ads and Bovril posters off by It is only because they stand out in the mind public, or are really good ads and well execute want them to know the milk posters off by he The only way to do this is to get out some real attractions and novelties.

The big aim of poster work should be to e and not frighten the public. To show a horri ture of the Grim Reaper gathering in his harve mother grieving over an emaciated, undernourish is nauseating and excites unpleasant sensatio present day people don't like these things. Besid tend to turn away would-be users of more milk. a case of advertising what dirty milk won't do but what good, clean and pure milk WILL do. them the rosy side of life and they appreciate more than the grim aspect.

In press write-ups or circular advertising stress too much on bacteria in milk. It may enough that your competitor sells dirty, bacter milk and that yours is treated and free from pat germs, but if you overdo the bacteria stunt, peo soon begin to think that milk is nothing short of It is, of course, advisable to touch lightly on the of contamination, but don't give it a very pr position in your write-up or letter.

There is no doubt that the reports which h peared in newspapers from time to time aprop demics of poisoning being traced to milk, ice cre dairy products have caused a lot of people t twice before they buy any more of that particul modity. These reports were nearly always quash sufficient publicity had been given to the matter comment from the ever-ready crowd of doubting ases, but, while the original reports often occ very prominent place in the paper, the later re nying the authenticity of the former were, mo than not, tucked away in some obscure corner, proper heading, and consequently escaped not still in the public's mind "the epidemic of pois —— was due to milk or ice cream from ——'s —an opinion which perhaps more often than not ruination of that particular man's business as s affecting the trade of all the other dairymen in istrict.

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* With Storer, Rodgers & Hughes, Ltd., London, England.

Novelty in Advertising.

indow display and dressing is another means of ganda. A good, well-dressed and clean-looking w will attract the passerby. It is by no means an ask to dress a window of dairy produce. The to be sold must be displayed in the most effective er. Don't overcrowd the window. It should ap- when dressed, as you would like to see it, were e man on the street. There is nothing to attract ion like a novelty. The ever-pouring bottle, show- ilk flowing out of a bottle into a glass, is sure to " the public. It is something out of the ordinary, lty, interesting to young and old alike, who, after ing it for a while go away and wonder how it is This sort of thing stimulates public interest.

out two years ago a well known London firm on a good window publicity scheme. In the win- hey had three bonny babies—triplets—and the s this drew and the attraction it presented is well y of note. Not an expensive window display, you gree, but one that was really enterprising and al. There is nothing like getting at the public he real thing. Pictures and photos of babies don't half the weight as the babies themselves. Let the tell their own tale of health. This "child ap- is a big asset in milk and dairy advertising. It o talk of babies in connection with a dairy busi- ow.

ere is yet another method of window advertising , unfortunately, is not within the scope of every nan. And that is a portion of the plant in the w, or in a prominent place in the dairy. One of gest firms in the Midlands hit on the idea of filling apping their bottles in the window, and it kept a man busy to clear the sidewalk, until the novelty off. An ice cream brick moulding and cutting ma- would excite quite a sensation. Originality is a ing now, and this, together with an artistic tem- ent, is the main item in window dressing. It needs hologist to dress a window to meet with every- taste— but as we know, this would be an utter im- ility. The aim, however, should be to make your w look as attractive and original as possible, with- owing a nauseating and crude element to creep in.

A Locomotive Run By Milk as Fuel.

learn by experience that the setting out of ex- will talk a lot more than mere figures. They tual concrete facts and therefore impress them- upon the public mind more. When they brought train driven by milk in America, this did not fail y its appeal direct to the public. They flocked r thousands to see if a locomotive COULD really on milk. They wouldn't believe it until they ac- saw it for themselves—then they went away and about it. Result, this milk business in the states p another notch in the estimation of the public, ey realized that milk had power.

n, again, school clinics are very numerous; a num- children are fed daily with a certain quantity of nd an equal number do not receive this ration. ights are carefully recorded at the beginning of t period, record cards kept and daily progress The results are then published and the difference ght between the children fed on milk and those really remarkable and does not fail to interest ents. If they see that their child is gaining one- und a week because it is fed on milk, they are going to keep it at it, and carry on with the good work started.

These small films shown at picture theatres, if made simple and interesting, cannot fail to carry a big appeal, but they must be of the right sort. If they are made too difficult and uninteresting, then the children will not understand them, and they will soon get bored. If, on the other hand, they are on too simple lines, they will be uninteresting for the parents. A small plot should run through the film, or it will not interest the present day picture-goer. Films showing the production, handling and distribution of the milk should be shown. These will encourage the housewife to obtain the product which she knows is properly handled. This promotes not only the drink MORE milk habit, but also the PURE, CLEAN milk habit!

School children's plays, embodying the milk subject, is another means of propaganda. There is nothing like getting at the parents through the children. They tell the tale of health and happiness. Tell a child, or rather impress a child, and nine times out of ten the appeal is far more productive than if it is made direct to the parent.

The tale of health that is contained in a bottle of milk is one that needs getting right home, and there is no doubt that one of the best mediums is the child itself.

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THE DAIRY SITUATION IN SWITZERLAND.

Under the heading of "We Will Now Drink Milk," the "Gazette de Lausanne," issue of October 15, 1926, published a communication from the Swiss Central Union of Milk Producers of which the following is a resume, transmitted by American Consul James R. Wilkinson in a report made public by the department of commerce.

The Swiss Union of Milk Producers is forced, owing to the crisis existing at present in the butter and cheese market, to pass a resolution reducing the price of milk two centimes per liter effective November 1, 1926. The producers consequently expect a similar reduction in retail prices.

The present butter and cheese crisis is due to various causes, the more important of which are enumerated below:

1. The large imports of foreign slaughterhouse animals have naturally forced the decrease of slaughterhouse consumption of Swiss cattle, which fact has in turn led to a natural reduction in prices quoted for Swiss cattle.
2. Consequently, the number of cows in Switzerland as well as the quantity of milk produced has increased.
3. But the export of cheese and condensed milk from Switzerland has decreased, owing partly to the depreciated currencies and partly to excessive import duties levied by importing countries. It has been estimated that present Swiss exports of cheese and condensed milk represent only two-thirds of pre-war exports.
4. On the other hand, Swiss imports of butter and cooking fats have increased since pre-war days, thus presenting another difficulty to be faced by the producer.

Swiss dairy merchants have expressed a hope that in the future public preference will be given to Swiss rather than to foreign milk, cheese and butter.

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MILWAUKEE FIRM BUYS A COMPETITOR.

The Waukesha Milk Company, Milwaukee, Wis., has purchased the Quality Dairy Company of the same city and is now operating both plants. This increases the business of the Waukesha Milk Company to 130 wagons and makes it one of the leading milk distributing companies in the Northwest.

Dairy Federation Lays Plans

Meeting in Chicago Results in Outline of Activities for the Coming Year. Officers Re-elected

THE activities of the American Dairy Federation were continued for another year by action taken at the annual meeting in Chicago December 1 when all officers were re-elected with two exceptions. The changes are W. A. Wentworth of Columbus, Ohio, who succeeds M. D. Munn as a member of the executive committee, while no one was named in place of John O. Miller either as vice-president or member of the executive committee.

It was very definitely decided by vote at the afternoon session that proposals to broaden the scope of the federation into a general budget raising activity to finance other activities could not be approved at this time. The federation by a unanimous vote, however, approved the emergency budgets submitted by the National Dairy Association and for urgently needed new work by the National Dairy Council, as well as the budget for the federation itself. President Bailey was instructed to appoint a "co-ordinating committee" to consider plans for the equitable distribution of the burden of raising these funds.

This committee was appointed to consist of the presidents of member organizations. President Bailey states than an early meeting of such a committee will be called.

Officers elected for the ensuing year are: E. M. Bailey, Pittsburgh, president; no vice-president; J. A. Walker, Chicago, treasurer; executive committee — producers' group, no election; distributors' group, C. Oscar Ewing, Louisville, Ky.; manufacturers' group, Dr. George L. McKay, Chicago; machinery group, Walter S. Cherry, Cedar Rapids; breed association group, Charles L. Hill, Rosendale, Wis.; educational group, W. A. Wentworth, Columbus, and for the dairy press, A. J. Glover, Ft. Atkinson, Wis.

A. M. Loomis of Washington, D. C., was continued as secretary.

A resolution committee reported five resolutions favorably and the report was approved. The resolutions briefly summarized were: (1) Asking the bureau of agricultural economics to separate dairy and poultry products hereafter in their prices studies and publication of index comparisons; (2) approving the work being done by government agencies for the control and eradication of bovine tuberculosis; (3) asking the bureau of agricultural economics to report farm price of butterfat sold, instead of farm price of farm butter; (4) asking congress to place all competitive imported oils and fats on the dutiable list, and against any reduction in existing rates of duty on oils and fats; (5) urging the industry to oppose false and misleading propaganda directed at decreasing the amount of dairy products used in the diet.

Two nationally known speakers were on the forenoon program, Dr. Carl W. Larson, chief of the bureau of dairy industry, Washington, D. C., and Dr. E. V. McCollum of Johns Hopkins University.

Dr. Larson spoke on "The Dairy Industry and its Opportunities." He said this industry now produced one-quarter of the farm income of the United States, an income greater than that of all other animal industries combined, and greater than the combined production of the cotton, wheat and potato crops.

"Its opportunities," Dr. Larson said, "lie in the fact that progress in increasing the milk and fat production of dairy cows has now shown that the increasing d for dairy products due to population and per ca crease can be met for 40 years to come without i ing the number of cows. Better cows, better ca better feeding," he said, "will do this for the indu

Twenty per cent of the food buyer's dollar no for dairy products. This is wise expenditure fo this 20 cents he gets more than 20 per cent of the food, 38 per cent of the protein food and in additi minerals and accessory or vitamine elements alm yond value.

He quoted Dr. McCollum as saying that the cent now spent could be increased to 30 per cen efficiency, economy and benefit to national health.

Dr. McCollum's address was a resume of hi known analysis of the place of dairy products diet. To this he added a review of the benefits have come to dairying through research, inventi energy—mostly outside of the industry itself. " no industry," he said, "that has profited so great has done so little in and of itself."

His address was a plea for the industry to assu burdens and responsibilities of protecting and a ing itself.

The budgets, presented and considered by a budget committee, reported favorably, and appro the annual meeting, called for $57,000 to carry National Dairy Show by the National Dairy Assoc $52,000 for urgently demanded new work by the al Dairy Council, and $14,600 for committee and ington office expenses by the federation itself. committee which considered these budgets consis President Stanley Ross of the National Associat Ice Cream Manufacturers, Secretary Lewis W. Mo the American Jersey Cattle Club and A. R. Wise Pittsburgh Dairy Council.

A letter of withdrawal from the federation fron D. Miller, president of the National Co-operativ Producers' Federation, was read. This was laid table and the officers instructed to request the mil ducers' federation to reconsider and withdraw letter.

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A. H. HELLER OF ST. PAUL PASSES.

After an illness of ten days, A. H. Heller, Sr., his residence in Minneapolis, Minn., on Decem 1926.

Mr. Heller was born in Philadelphia and ca Minneapolis more than 25 years ago. Eight yea be became president of the Minnesota Milk Co., St

He came to St. Paul eight years ago, and president of the milk company. He was 69 years

Surviving Mr. Heller are his widow, two sons, Heller, Jr., and Leonard H. Heller, brother an sisters.

⚜

A POPULAR PRODUCT.

With the exception of newspapers, milk is sai the largest class of railroad traffic carried by th group railroads of England.

USTROUS ➶ ➶ DURABLE ➶ ➶ WASHABLE ➶

WHITE PAINT

Thousands of industrial plants have found that Barreled Sunlight best combines the qualities they want in interior paint—and at the lowest cost per square foot of surface painted!

UARANTEED to remain white longer

THE CLAIM of lasting whiteness that we make for arreled Sunlight is backed by his definite guarantee:

Barreled Sunlight will remain white longer than any loss paint or enamel, lomestic or foreign, applied nder the same conditions.

Practical proof of this quality ver a period of years is one eason why Barreled Sunlight is he most widely used white aint for industrial interiors.

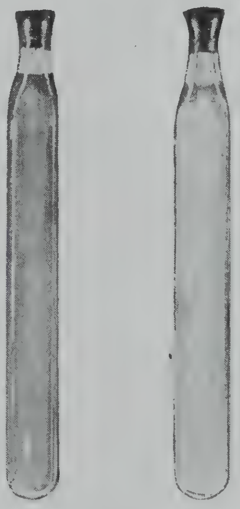
Another reason is *durable leanliness.* The surface of arreled Sunlight is so smooth it an't hold dirt embedded, and ashes like tile. Repeated washg does not wear it away.

And because this lustrous paint reflects light of just the right quality, it greatly improves working conditions.

With all these advantages, Barreled Sunlight *costs less per square foot of surface covered.* Extremely opaque, it covers a larger area with a given quantity of paint; and containing no varnish, it flows so easily with brush or spray that there is a saving in labor hours.

Sold in 55- and 30-gallon churn-equipped steel drums, and in cans. Where more than one coat is required, use Barreled Sunlight Undercoat first. See coupon.

U. S. GUTTA PERCHA PAINT CO.
9 Dudley Street, Providence, R. I.
New York—Chicago—San Francisco
Distributors in all principal cities



THE VIAL at left above contains refined linseed oil as commonly used in white oil paints. It is deep amber color. At right is the same oil after being treated by the "Rice Process." It is almost colorless. This is one of the secrets of the lasting whiteness of Barreled Sunlight. *These are actual photographs.*

Barreled Sunlight

THE RICE PROCESS WHITE

arreled Sunlight

Reg. U. S. Pat. Off.

U. S. GUTTA PERCHA PAINT CO.
9 Dudley Street, Providence, R. I.

Please send us your booklet on Barreled Sunlight for industrial painting; also painted panel.

Name.......................................

Street.......................................

City.......................State...............

When writing to U. S. GUTTA PERCHA PAINT CO. *please mention The Milk Dealer.*

Building a Milk Business on High Qual

New Plant in City of 10,000 People Charges Two Cents Per Quart More for Its Milk and Builds Up Fine Patronage by Selling Better Milk

By ROY D. SNYDER*

IN COMING before this organization of dairy and milk inspectors as a small milk dealer, I am hoping to present to you that phase of my subject which is of mutual interest. There are some dairymen who look upon a visit of a milk inspector or health officer in much the same light as an earthquake or similar catastrophe, and who, through lazy indifference or ignorance, allow anything to slip by as long as they can "get away with it." Then, too, we have inspectors and officers who seem imbued with that same kind of indifference, or who are over enthusiastic, inspectors who allow their enthusiasm, which is usually short lived, to run away with them and in their attempt to accomplish things over night and without careful consideration, usually accomplish nothing. (Of course, present company is excepted in either case.) It is not possible to obtain a pure milk supply throughout the state without proper inspection, but it is still more impossible to obtain this objective without the assistance of the milk dealer who is interested in marketing a high grade product. There is no room, either in the industry or in the realm of health officers and milk inspectors, for any of these types, and their elimination, together with co-operation on the part of those really interested in the matter, is the only way in which an adequate, safe and clean milk supply can be developed.

The larger cities of the state are fairly well controlled by local and state inspection. They are also fairly well equipped with modern milk plants and dairies. If, however, the general health conditions of the state are to be bettered, these smaller communities must enjoy the same control and inspection and must have the same modern equipment. A sketch of our field will make it evident, I believe, that we have the typical small community. We are located in a town of 10,000, midway between two towns of practically the same size. Within a radius of ten miles we have approximately 50,000 people. The milk supply in this district was about 30 per cent pasteurized and the remainder raw—with some very raw. The pasteurized milk was practically the only milk sold in bottles. This we considered to be a most suitable location for the erection of a small, modern milk plant.

The Plant.

It was our aim to offer to the public the best possible product and then to improve it continually. With this in mind we began laying out our plant. Our capacity at the present time is 2,400 quarts but the equipment is such that it can be economically operated at 1,000 quarts. We estimated that this margin of 1,400 quarts would take care of any growth we might enjoy for several years. I shan't waste any time going into the details of the equipment and layout, except to state that the plans were not evolved over night but represent years of cooperation with the Pennsylvania department of health, and much experience in the plant of E. D. Snyder, at Hazelton. We filter the milk cold, heat in a coil vat and cool over a **covered** surface cooler. One thing I should like to mention in regard to design, however, and this I believe to be quite important in plant design, perhaps more so than is really realized today. That is, t milk should be handled as little as possible, a means that the total feet of piping should be at a lute minimum. Our bottle filler stands about t from our receiving tank and in this space the filtered, pasteurized and cooled. In this process it through only about twenty feet of sanitary pipe to this that we attribute the fact that we produce with a most excellent flavor.

After bottling the milk passes directly to a erator, the temperature of which is held at 40 deg automatic refrigeration. Our plant, real estate an equipment represents an investment of about $ which figure gives you an idea of what the a small milk dealer is up against in a financial wa were quite fortunate in securing equipment of reli Our bottle washer is of the pressure type, the cool filter so designed and constructed that they are easy to clean and the refrigerating unit, as men above, is entirely automatic and admirably suited dairy industry.

After our plant was built and ready to oper estimated our operating expenses and realized would be impossible to operate profitably at the p ing price of ten cents a quart. The price paid producer in this locality was five and one-half a cents per quart, and it was quite evident that if w to obtain the quality of milk we desired we shoul to pay the higher price. That would leave us four-cent margin, on which we could not possibly o a clean modern plant and produce a wholesome, ful product. As I said before, we set as our stan product of the highest quality and then a little b ter, and we resolved to stick to it. Twelve cents w lowest figure we could come out on, so here was our osition. We had to sell our milk at two cents a higher than the prevailing price. Furthermore we strangers in town, so you see that here we had a re portunity to determine whether quality meant an at all in a community milk supply. As a start w chased one small route and on July 1 last year be sell our pasteurized milk for two cents a quart mor any other milk was being sold for in the town.

Twenty Per Cent Quit.

Pasteurized milk, we found, meant little or n to most of the people we had as customers, so we su them with pasteurized milk for one week witho nouncing it. We then saw each customer pers told them of the increase in price, explained our and our product to them and tried to hold their p age. The first week we lost about 20 per cent trade. Less than one-half of one per cent stopp cause of any noticed undesirable qualities of the the rest told the truth and said the price was the Then a few folks became interested enough to vi plant and some of them began to notice that th kept longer and had a better flavor, and there uniform cream line, and that the milk was ice c the hottest days in the summer. Our business and in about six months we have enjoyed an in- of 150 per cent.

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* Manager, Snyder Dairy, Bloomsburg, Pa., at meeting of the Pennsylvania Association of Dairy and Milk Inspectors.

e of the first things we did in an attempt to secure usiness was to interest the board of health and the ians. We found these people very much inter- and their support has meant considerable. The was attempting to control the milk supply through se of the advisory board regulations of the Penn- ia department of health, but they received no sup- t all from the milk dealers. The regulation requir- e examination of all milk handlers and the inspec- y the board of health, of all dairies supplying milk community had brought no results at all. We im- tely applied for this examination and inspection, ere the first plant to have the same, but up to this nly one other dealer of the fourteen selling milk, mplied with this regulation. Pursuant with our policy, however, we have complied with every of the regulation and will continue to do so er it is enforced or not.

forts to place in the hands of the public a high product require the securing of the producer's in- , and this we are trying to do. We make inspec- of the farms supplying us and have done consider- vork with the sediment test, which test, I believe one of the best means of increasing the production urer milk. Bacteria counts, reductase gradings, ean little to the average producer but when you him the discs from the sediment test it is something e is bound to understand.

Ran Daily Tests.

veral months ago the Pennsylvania department of 's milk testing laboratory visited us and ran some on our producers. The results were not what we d, but we had been in the business then about four s and previous to our entrance in the field there een no effort at all to have the producer furnish the st milk possible. In order to get some of these to resent state of cleanliness, we ran daily tests for week while the producer attempted to find just the dirt was gaining entrance to the milk. It was for the most part that these men wanted to pro- clean milk but had just grown into practices that this impossible. Our supply now is not up to our rd but we are going to get it there and feel quite raged over our results up to this time.

w then, some of the difficulties that we have en- red. We have a clean plant, modern equipment, e spending considerable time, effort and money in ing the highest grade raw product but we are in tition with a product which, from the health stand- is inferior, but which can be and is marketed at a r price. Some of this cheap milk is pasteurized falls short of standard. There is only one reason his inferior product can be sold at a lower price at is because it is not necessary for these dealers rve the precautions that we do. Generally speak- here has never been any desire on their part to he standard. Their places and product are not ted and so this desire was never thrust upon them.

Legislation Can't Do It.

ase do not misunderstand my motive in this state- I am not complaining because of any apparent on the part of anyone. I merely want to show the general healthfulness of a small community's upply is to be raised, and this is general, then in vay there must be an elimination of this lack of There must be a desire to furnish the people with the most wholesome milk possible. Legislation cannot do it alone. It must come first through a demand for a better milk, and then legislation as a protection that this demand will be satisfied. Perhaps a little encouragement to the dealer to sell milk as it should be sold would not come amiss, encouragement in the form of publicity by the health department or call it an educational program, if you wish. If you are to have a satisfactory milk supply throughout the state, somebody must be interested in placing the same on the market in the smaller as well as in the larger communities, but unless this dealer has some assurance that he is not going to be left standing alone in his efforts to put on sale this higher quality product, then that progressive spirit is likely to lose interest and it is going to be rather hard to obtain that pure milk supply so necessary to a healthy community.

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MILK PRICE SITUATION IN FRANCE.

French agricultural interests take deeply to heart the recent press campaign against an increase in the price of milk, which, in the Paris district, has led to the maintenance of the retail price at 1.50 francs per liter, or approximately 5 cents per quart, and draw the attention of the government to the danger of prohibiting an increase in the price of a staple commodity if such an increase is fully justified by general conditions of production, states George F. Wadley of the American consulate's office in Paris, made public by the department of commerce.

The delegation pointed out that a milk crisis may very shortly arise unless the situation is speedily remedied. This remark is full of common sense, states Mr. Wadley, as has since been shown by events, the milk supply of Paris having decreased very sharply since the warning of the delegation and a serious shortage is now being felt. This is in great part due to the fact that the milk consuming industries are not bound by any price limit and that the cheese and condensed milk factories are absorbing, at much higher prices than are officially permitted for retail consumption sales, the greater part of the milk which normally would find its way to the great centers.

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METHYLENE MILK TEST DESCRIBED.

Purity of milk is now more easily determined than ever before through the use of the methylene blue test, recently perfected, and its adoption is becoming general in Wisconsin cheese factories and creameries, E. G. Hastings, bacteriologist at the Wisconsin Agricultural Experiment station, says. The cost of the entire testing equipment is only a few dollars, and consists of test tubes, pipettes, a water bath, alcohol lamp and thermometer.

Mr. Hastings describes the operation of the test as follows: Ten cubic centimeters of milk as received from the farm is placed in a test tube along with one cubic centimeter of a solution of the common dye, methylene blue. This is kept at body temperature in a kettle of water heated by the lamp.

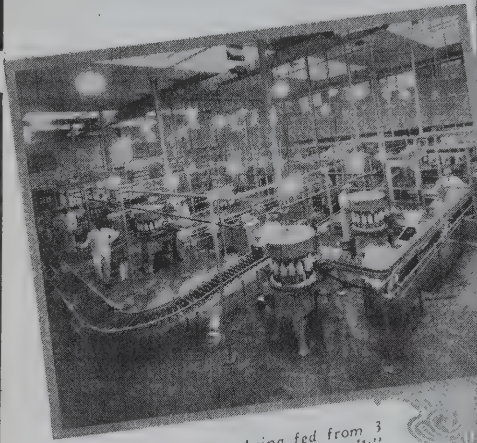
The dye colors the milk and the quality is determined by the length of time required for the color to disappear. The fewer bacteria in the milk, the longer the blue color will remain, and high quality milk will still show the dye after 5½ hours, while many germs in milk will cause it to lose the color in 30 minutes or less.

A TYPICAL MEYER INSTALLATION

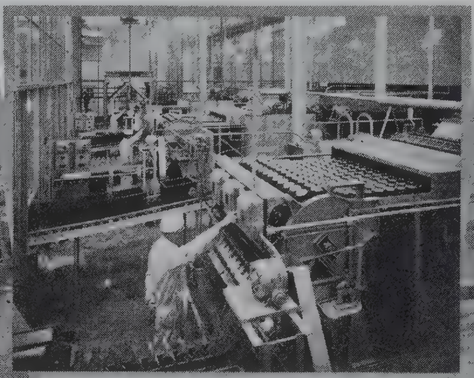
BOWMAN DAIRY COMPANY

Mayfair Plant "For 51 Years the Standard of Quality" **Chicago, Ill.**

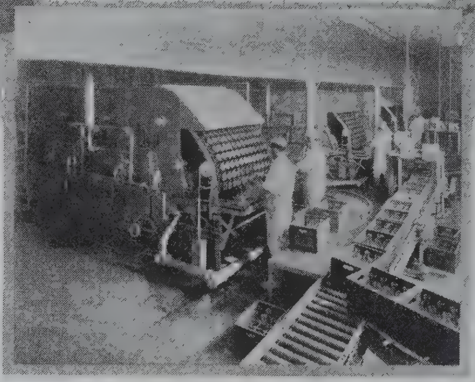
Discharge and inspection requires but one operator delivering 120 bottles per minute on each unit.



Six Type "L" Fillers being fed from 3 No. 312 Dumores with "Meyerbuilt" conveyor.



*Drive section of a Dumore Bottle Cleane
showing a 3 H.P. motor driving entir
machine. A ½ H.P. motor drives
bottle conveyer.*

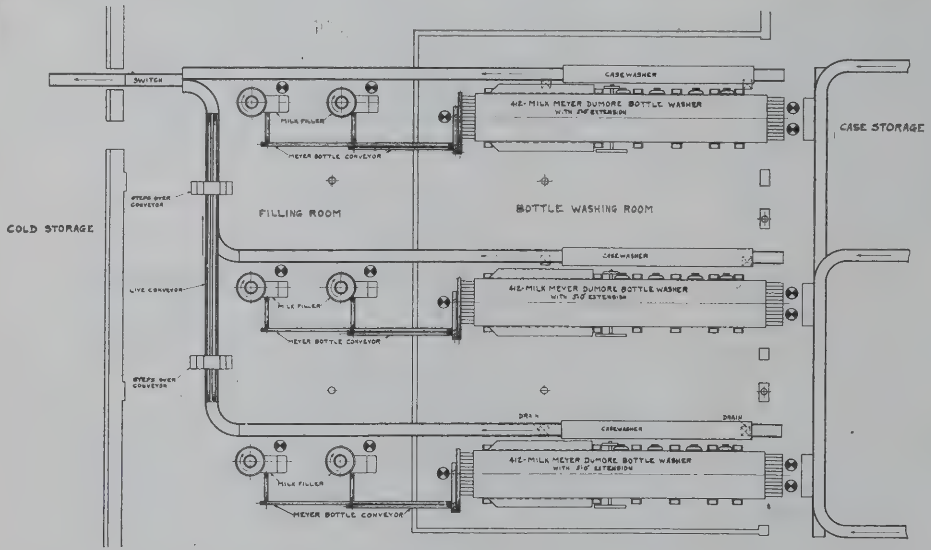


Showing operators loading 3 120-bottle-per-minute Dumores. Each operator also handles cases.

The Mayfair Plant of the Bow
man Dairy Company, Chicag
Ill., is the largest and most mod
ern dairy west of New Yo
City. The three Meyer Dumo
Bottle Cleaners shown above a
the most recent additions to t
battery of *nineteen* Dumor
purchased by the various Bow
man Plants.

The Bowman Dairy Compan
knows, as all other Dumo
users do, that to consistentl
maintain a high quality pro
uct, all equipment must be
the most efficient design.

The freshness, richness and pu
ity of Bowman's Milk is safel
guarded by Dumore - cleane
bottles. In upholding the Bow
man slogan, "For 51 Years th
Standard of Quality," th
Dumore is performing a sple
did and highly satisfactory se
vice in every way. Let us sen
you bulletins regarding th
Dumore and Dumore Juni
Bottle Cleaners—the facts mea
money to you.


SWITCH
CASE WASHER
412-MILK MEYER DUMORE BOTTLE WASHER WITH 5'0" EXTENSION
MILK FILLER
MEYER BOTTLE CONVEYOR
CASE STORAGE
STEPS OVER CONVEYOR
FILLING ROOM
BOTTLE WASHING ROOM
COLD STORAGE
CASE WASHER
LIVE CONVEYOR
412-MILK MEYER DUMORE BOTTLE WASHER WITH 5'0" EXTENSION
MILK FILLER
MEYER BOTTLE CONVEYOR
STEPS OVER CONVEYOR
DRAIN
DRAIN
CASE WASHER
412-MILK MEYER DUMORE BOTTLE WASHER WITH 5'0" EXTENSION
MILK FILLER
MEYER BOTTLE CONVEYOR

Floor Plan of the Bowman Mayfair Plant.

Geo. J. Meyer Manufacturing Co.

Largest Builders of Bottle Cleaning Machinery in the World.

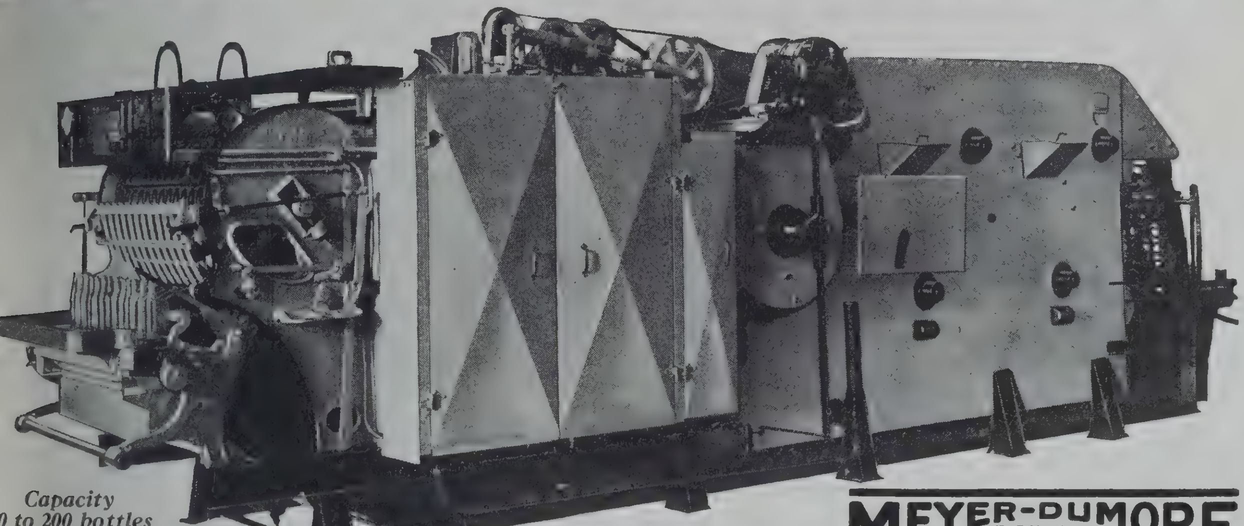
**569 Barclay Street
MILWAUKEE, WIS.**

**Offices:
NEW YORK and CHICAGO**

When writing to GEO. J. MEYER MANUFACTURING CO. *please mention The Milk Dealer.*

35 DUMORES

Sold in November!



Capacity
0 to 200 bottles
per minute

MEYER-DUMORE BOTTLE CLEANER

ules Record

DUMORES
d in September

DUMORES
'd in October

DUMORES
d in November

DUMORES
d in December

RECORD
Aug. 1925 to
Aug. 1926
5 Dumore Bottle
eaners sold in
9 business days.

31 DUMORES

Sold in December!

Join the throng of progressive dairymen who are making the Dumore the world's most popular bottle-cleaner for producing *clean* bottles. Write for bulletins.

Geo. J. Meyer Manufacturing Co.

Largest Builders of Bottle Cleaning Machinery in the World

569 Barclay Street
MILWAUKEE, WIS.

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Catching More Business From Old Accou

Bringing the Lost Customer Back to Life Brings You Profit and Satisfaction. Don't Overlook Him

WHEN a curious little boy poked a sharp stick into a beehive to see if it was occupied, he not only succeeded in satisfying a latent curiosity, but he also achieved extraordinary results.

There are many milk dealers, no doubt, with many names on their books, which need to be stirred into similar action, for there are many reasons why that old account is dormant, and no longer in active everyday use, but it is just as well to find out exactly "why" it is in that unhappy condition.

The reasons are many fold. The customer may have moved out of the city, or simply changed address, or may have taken offense at some untoward incident that took place between the customer and someone on your staff and be unknown to you.

Of course, if the customer has moved out of town or is deceased, the account can be safely scratched off your books as dead timber, but if he has simply changed address and is still among the living, there is no good reason why you should not renew acquaintance and find out what the trouble was. At any rate, it is always a good plan to ascertain why the customer now deals elsewhere.

Perhaps a renewal of acquaintance will turn the trick; possibly some secret misunderstanding can now be straightened out nicely. At the same time, the personal contact thus established will tend to renew friendly relations again, if a strained attitude of mind has existed. Certainly, it is a good thing to find out what has become of that customer and why milk and cream and other dairy products are no longer being delivered at his front door step.

Every name on your books is worth money, and it is just as well not to forget that it costs something to get it there. Once you have a good customer on your ledgers, why not hang on to him?

By poking these old hives for live bees you may, very plausibly, discover some old friend who will willingly resume business relations again. Probably some old entanglement can be ironed out satisfactorily. Or, the customer may have left your fold for no apparent reason whatever, in which event it will be a simple matter to get that name back on your books again. And if you don't go after that particular customer, it may be just that much more difficult to get a new name to place on your ledgers—plus additional advertising costs.

If a similar situation confronts you today, why not solve the problem by whittling a sharp stick of inquiry—it will net the same results that the small boy achieved in satisfying his curiosity—and it is also good sales-management.

Nor is it difficult to accomplish the feat. During odd moments the bookkeeper can get busy with the old ledger accounts and pick out all the driftwood, compiling a complete list of names and addresses, when the account was last used, and how long it had been used before it was finally discontinued; also with a statement of the customer's promptness in paying bills as an indicia of desirability of reopening that particular account.

Such a list serves a useful purpose; it will not only form an excellent nucleus for direct mail advertising afterwards, but its principal use at this time will consist of checking up on the customer's whereabouts and inclination to deal further with you.

The list, when completed, may be classified into "age" and "amount purchased." Those accounts which have not been used for six months may be classed as "A" accounts—nine months as "B" accounts—twelve
"C" and so on down the list. Those more th
years old may be classified as "antiques" and lef
final process of selection and elimination. T
complished, you have the choice of three alterna

1. You may telephone each name on the list
the situation over frankly;

2. You may set a solicitor or the regular coll
the task of making a personal visit to each custo
so achieve the same result;

3. You may send out a series of personal
written letters to each name on the list, or you m
bine all three methods.

If you decide to use the telephone before send
any letters or a solicitor, as the best, most econom
direct means of communication, you can add th
number to each name on the list. Those without
may be checked up later with the city directory.
with telephones may be called up and a series
tions propounded. These questions should, of co
carefully compiled in advance and their use ma
according to the nature of the account and the
knowledge some one has of the customer.

However, certain pertinent questions will be f
elicit a more favorable response than others, an
achieving the best results along this line should
veloped during the interviews which follow, and
ably used thereafter.

If there is a complaint of any kind, every
should be made then and there to straighten it o
to assure the customer that there will be no rec
to warrant any more complaints. If there is no
of any kind, it is easy to re-establish connections.
appreciate your patronage, and "Won't you
again" may be some of the concluding remarks
ordinary telephone conversation, which attempts
to size up the customer's desires and inclination
further with you. If the conversation is friendly
couraging, the customer's attention may be calle
lines you now carry or any special service which
featuring since he last dealt with you, and sug
that he avail himself of them.

As to those without phones, a special solicitor
regular collector may be assigned to achieve the s
sult as a telephone interview, or each customer
appealed to in a series of letters, with return p
the mailing of circulars from time to time, blo
other advertising material, as a method of rehabi
the account. Those not reached by telephone or s
may be appealed to by letter, thus:

> "We've missed your account lately. In fac
> not been used for several months. So we're
> you this little friendly reminder to tell you t
> want to know what happened, and if there is a
> wrong with our service or our dairy products,
> to know it. And we'll appreciate your tellin
> just so many words, straight from the shoulde
>
> "Good friends are rare—and we want to hol
> them. If our service hasn't been just what yo
> —or our dairy products displeasing—or a
> about us does not strike you as just right, w
> to know about it.
>
> Cordially yours,"

If the postcard does not come back, it is
dispatch another letter, thus:

You were a good customer once, and we've missed from the ranks. We appreciated your trade and to see you dealing here again regularly.

If there has been any fault in our efforts to al- s please, pray don't decide against us by one act— n be remedied, and we're eager to do—just that! So if anything is wrong, we will do our best to e it right. Won't you give us another opportunity ailing the enclosed postcard **today**—or call me up t it personally.

Cordially yours,"

This method of rejuvenating old accounts will surprise you with results, and the summer vacation season is just the time to do it to keep your sales at normal and to get the maximum business when everybody is out of town. These personal letters and telephone interviews invariably establish the right kind of personal contact. They are sufficiently intimate to get results which no other method will achieve.

There is always a way of renewing acquaintanceship and of keeping the old customer in a friendly mood and sold to your milk business and dairy products—this is one of them.

Legal Minimum Chemical Requirements for Milk

COMPILATION and study of 247 milk ordinances and regulations in effect in 1925 in cities of the United States show a pronounced variation in the um chemical requirements prescribed for milk. olds true for the percentages of butterfat, solids- and total solids. Table 1 shows the minimum al composition of milk as designated in the vari- linances.

le 1. Minimum Chemical Requirements for Milk in 247 Cities.

e per cent butterfat	3.203
per cent butterfat	3.750
per cent butterfat	3 000
e per cent solids not fat of 99 cities with re- uirements	8.5296
per cent solids not fat of 99 cities with re- uirements	10.0000
per cent solids not fat of 99 cities with re- uirements	8.2500
e per cent total solids of 190 cities with re- uirements	11.8950
per cent total solids of 190 cities with re- uirements	13.0000
per cent total solids of 190 cities with re- uirements	10.5000

will be noted that many of the ordinances have imum requirements for solids not fat or for total Table 2 shows a summary of the various re- ents.

. Number of Cities Grouped According to Minimum Chemical Requirements.

	Number of cities	Per cent solids not fat	Number of cities	Per cent total solids	Number of cities
	81	8.25	4	10.50	1
	2	8.40	1	11.00	1
	112	8.50	85	11.50	50
	24	8.75	4	11.75	13
	2	9.00	4	11.85	5
	23	10.00	1	12.00	108
	2	....	..	12.49	9
	1	....	..	12.50	9
	..	....	..	13.00	2
al	247		99		190

able 3 the average minimum chemical require- re given for the various cities grouped according population as shown by the 1920 census.

Table 3. Average Minimum Chemical Requirements of Cities Grouped According to Population.

Population group	Number of cities[1]	Per cent butterfat	Per cent solids not fat	Per cent total solids
500,001 and over	10	3.185	8.500	11.940
100,001 to 500,000	31	3.209	8.518	11.840
75,001 to 100,000	13	3.240	8.500	11.990
50,001 to 75,000	18	3.125	8.570	11.750
25,001 to 50,000	45	3.177	8.557	11.904
10,001 to 25,000	78	3.223	8.500	11.667
10,000 and less	52	3.220	8.550	11.880
Total	247			

[1] Applies only to butterfat requirements. Several cities do not have solids not fat or total solids requirements.

It will be noted that the averages for the various groups closely approach one another.

When the data were arranged in table 2 for each individual population group, they showed that the larger cities have more nearly uniform minimum chemical requirements than do the smaller cities. As an example, all those cities within the largest population group having minimum solids not fat requirements agree on the figure of 8.5 per cent, in comparison with those cities in the smallest population group, which have five different minimum requirements varying from 8.25 per cent to 10 per cent. This same relative condition also exists with respect to both the minimum butterfat and total solids requirements.

Further studies of these ordinances relative to grades of milk, tuberculin test, pasteurization, sterilization, bottling, and temperature requirements will be presented in future letters.—Bureau of Dairy Industry, U. S. Department of Agriculture.

⁂

FRESH MILK RELATIVE TO VITAMINE CONTENT.

How does buttermilk compare in its vitamine content with whole fresh milk? This question is sometimes asked. The answer of the United States Department of Agriculture is that whole milk contains vitamines A, B, C and D. Vitamines A and D are soluble in fats and vitamines B and C are water-soluble vitamines. Therefore, when the butterfat is removed from milk there remain in the skim milk or buttermilk only such amounts of vitamines A and D as are in proportion to the amount of butterfat which has not been removed. Buttermilk probably contains most of the vitamines B and C originally present in the milk, and some A and D, depending on the amount of butterfat remaining.

Selling Health to the Nation

Noted Investigator Outlines What Milk Dealers and Other Dairy Products Distributors Should Do to Increase the Consumption of Their Goods

By DR. E. V. McCOLLUM*

I AM glad to have the opportunity to talk to you again on this occasion because I find that you still need it. I may have said some things yesterday that you didn't like to hear but Mark Twain once said: "When in doubt, tell the truth." That is what I tried to do.

The fact is that no industry ever had the opportunity that your industry has and you have been slow to see it. I hope that you see the situation in its proper perspective now and take advantage of the opportunity, not because I care in particular whether you make money or somebody else is prosperous but because it is a thing so fundamental from the standpoint of human welfare.

DR. E. V. McCOLLUM

That is where my interest came in and that is where it is today. Nineteen years ago this year I began the study of problems in nutrition and at that time dairy products had nothing to say except those who were selling dairy products, in trying to induce the public to induce the public to invest in their products, said they were good. They sold butter because it tasted better than butter substitutes. Aside from the element of flavor, they didn't have anything to say but what could be said of any other food because milk, like every other food, contains a certain amount of protein, a certain amount of carbohydrates, a certain amount of fat, various inorganic elements and the chemical analysis show you find all these things in the various natural foods.

How did we come to get a clue to the significance of milk as contrasted with other foods? It is a very interesting story. I haven't time to give it to you in detail but I will simply say that we took, at the University of Wisconsin, a new tack in experimental work in which we undertook to feed experimental animals on just one kind of food and we tested out a long list of individual foods which long experience has shown to be wholesome components of a diet, and we were utterly amazed at how many different kinds of wholesome foods we could feed and make a failure of it from the standpoint of nutrition of farm animals and laboratory animals.

Combinations of various kinds of foods that you would suppose to be satisfactory didn't turn out to be satisfactory. It is a strange thing that such type of inquiry waited so long to be done. One time Miss Davis and I fed a group of experimental rats soon after weaning, on 23 different foods and all commonly appear in
the human diet or in the rations of farm animal
there we met with failure because the diet wasn't
factory, wasn't complete in some respects, and ou
mals failed to develop even with 23 ordinary who
foods and components of a diet. There was som
lacking in all of them.

It was a very difficult matter to find out just h
experiment in order to find out what was the
with these things but one of the first things we le
was that there was something unique about certain
and that an outstanding example here was milk
other outstanding example was certain leafy ty
vegetables.

For example, we fed an animal on whole whe
he failed to grow; we fed him on wheat and any
cereals—peas, beans, potatoes and the like—st
failed to grow. It didn't make any difference how
things he had in the food supply if they were se
from a list including cereals, tubers, fruits an
products of cereals, lean meats of the muscle ty
failed to grow.

So simple a mixture as 75 per cent whole whe
25 per cent of a flour made from a leaf of a plan
as clover or alfalfa or turnip tops make a pretty
factory ration. Something is supplied by that lea
stance which isn't supplied by any cereal grain n
tuber nor any fruit nor muscle type of meat.

Again, if we feed a simple mixture of whole
and milk, we get excellent results. Why? Becaus
same something that is supplied by the leaf or lea
is supplied by milk to a type of individual who
gestive apparatus isn't suitable for consuming th
The leaf of the plant is unique and superior to any
part of the plant in its food value and there is no
food that compares with milk as a food in resp
completeness which affects all faculties.

It isn't a satisfactory food throughout life.
first place, it's too bulky. In the second place, w
contains some amounts of everything that is nec
in nutrition, it, like every other food, has its sho
ings. There are certain elements that are present
small amount to produce the best effect. The onl
that you ever succeed in nutrition is by making the
combination of foods. What is lacking in one i
vided by another.

It happens that milk is unique among all the
in that respect. That was the outcome of experi
work over about a decade. During that decade w
pened to bring to light in various laboratories i
country the existence of five substances which nev
been talked about in nutrition discussion before.
are the vitamines. We call them A, B, C, D and E

The first significant advance in modern researc
nutrition, in this country at any rate, was the ob
tion that butterfat was different from other fa
pecially fats of vegetable origin or the body fats
mals, in that it contained something which those
contain. That we now call the vitamine A. Th
increasing evidence as time goes on that a very
siderable number of human beings in various pa
the world run short of that vitamine to some e
In America we get nearer the optimal amount of i
perhaps any other people in the world but a defi

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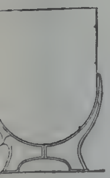
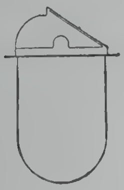
* Address at the annual meeting of the National Dairy Council.

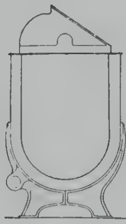
ower Bacteria Counts
eeper Cream Lines



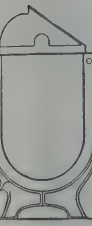
e start with a plain
 jacket, for the
 water. It is sim-
d strong in con-
on, requiring prac-
no attention. It
n a heavy sanitary
iving clearance
y floor washing.



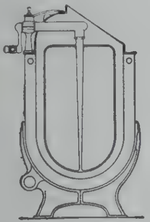
(2) The inner vat, or milk vat proper, has broad, flat surfaces that ensure rapid heating. The hood at the top permits hosing out without sprinkling the room. The smooth surfaces are accessible and easily cleaned.



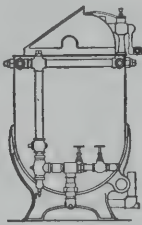
(3) Putting the two together, we have just a plain jacketed vat, very similar to the old-fashioned cream vats, with only broad, easy-to-clean surfaces which make for greater sanitation and lower bacteria counts.



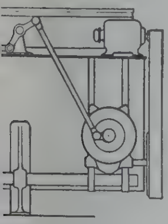
e two little circles
ve been added in
ew represent the
ipe—apparently a
etail, but a vastly
nt factor in the
r performance of
ray Pasteurizer.



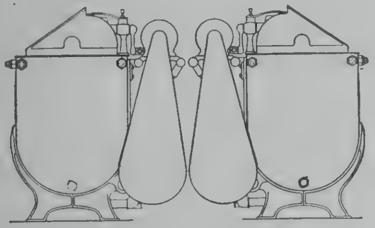
(5) This view shows one of the broad, slow-moving paddles which gently agitate the milk. Nothing else is below milk line—no bearings or stuffing boxes, just *broad, smooth, accessible* surfaces.



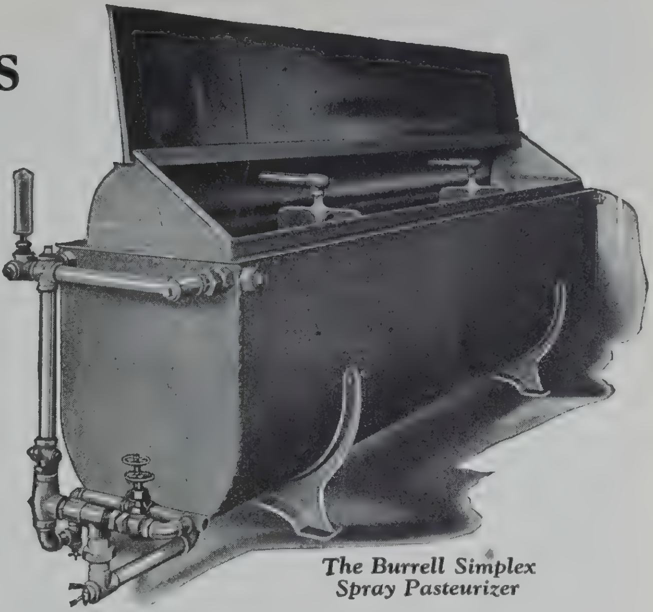
(6) Stepping to one end, you see the simple steam and water piping, which automatically circulates a large volume of low-temperature heating water. Full automatic temperature control is available.



this end is the
gearing, belt or
motor driven.
ntirely enclosed,
orks in oil—a
-running, silent,
supported drive.



(8) To permit the most convenient location in your pasteurizing room, the Burrell Simplex Spray Pasteurizers are made both right and left hand. Milk inlet and outlet, agitator drive and steam piping may be placed at either end, to meet your individual requirements. The Burrell Simplex Spray Pasteurizer is readily adaptable to any milk plant arrangement.



The Burrell Simplex Spray Pasteurizer

Low bacteria counts and deep cream lines—they're what you want! You can have them.

In a large eastern city, the Board of Health reports indicate 75% lower bacteria count for the spray pasteurizer than for any other type of pasteurizer. These low bacteria counts are the direct result of the simple construction of the spray pasteurizer, and the ease with which it is cleaned.

The deep cream line results from the rapidity with which the milk is brought to the *pasteurizing temperature.* This quick heating is accomplished by three factors: (1) Large volume of *low temperature* water sprayed against the inner vat walls; (2) efficient agitation of the milk; and (3) the large proportion of heating surface to the volume of milk.

You will find the Burrell Spray Pasteurizer the answer to your bacteria count and cream line problems. Study carefully the illustrations and explanations at the left. Then consult our engineers in regard to further details—no obligation. Illustrated catalog, fully describing this tremendous improvement in pasteurizers, will be sent gladly upon request.

D. H. BURRELL & CO. INC. **LITTLE FALLS, NEW YORK**

TRADE MARK REG. U. S. PAT. OFF.

BURRELL

SIMPLEX

airy Creamery Cheesery and Milk Plant Apparatus

When writing to D. H. BURRELL & CO., INC., *please mention The Milk Dealer.*

of that vitamine does lead to a peculiar hide disease in human beings in verious parts of the world, especially Japan and Manchuria, India.

What at first appeared to be a laboratory curiosity in the way of a research, when we produced this nutrition disease in experimental rats, turned out to be the production experimentally of a condition which has long been a human problem in certain parts of the world.

There is a second vitamine, the deficiency of which has been a problem of human health and especially in the Orient, some parts of the tropics, for certainly two thousand or more years, and that is the deficiency due to deficiency of vitamine B. It happens that this substance is abundant in milk, as vitamine A is abundnat in the fat.

We also came to learn a little later that there is a third vitamine, which we call vitamine C, and that is of particular significance because for a certain number of years, owing to the fact that we didn't understand about the existence of this substance—in fact, it is easily destroyed by heat—the subjects fed with heated milk developed scurvy. We now know that it is the wise policy to give every infant a certain amount of vegetable and fruit juice, when fed heated milk, to put back that one thing that is lost. We don't discredit bacteriazation because milk in heating loses this one property. We put back the thing which is lost, because pasteurization is necessary to save them.

There is still another vitamine called vitamine D which is so profoundly important in directing processes of bone development that perhaps the discovery of the vitamine D and its relation to rickets four years ago last August was the most important contribution to child health in America of all the nutrition researches that have been brought about for the reason that certainly half of all the children in the northern half of the United States have had at some time in infancy or childhood at least a mild grade of rickets. That will disappear in the course of a few years, or essentially disappear. There will be a few cases, probably. Scurvy has disappeared as a result of educational work in the last six or seven years. They haven't been able to find a case to show the medical students in the city of Baltimore with 800,000 people in the last two or three years.

The fact that there is a special vitamine that is so essential, so indispensable to proper bone formation, and that this substance, while present in milk in small amounts, is not in there in sufficient abundance but what we need one of two things to piece out that shortage—that is, we need either to give the child something which will provide more of the vitamine D than he gets in his milk supply or we must give him what we now know to be a substitute for this vitamine or something which enables him to make it himself; namely, sunlight. That is, we insist now that every baby should be given as a routine measure, not as medicine but to supply a dietary principal which is indispensable, a certain amount of codliver oil. Give it to them as a routine measure in every case because that insures him, if we are reasonably well endowed with physical vitality at birth, nutrition.

Another way in which you can prevent rickets is to expose the child to sunlight, because the ultra-violet rays of the sunshine on the skin forms, we now believe, in the skin this substance, vitamine D, which is found in the milk fat to a certain extent but not sufficient to protect the child against the rickets where it is born in the fall, kept heavily clothed throughout the winter months, very little open air or sunshine. Exercise is not promoted by the habits of life of a young child in winter; under such circumstances he must have mo
mine D than he gets in milk fat.

Many a child with hygienic conditions of liv
gotten through and developed a fine skeleton on v
D contents of milk, especially on that of milk wh
produced by cows on the right kind of food sup
course the best kind of food supply is summer

Sunlight, or the short rays in sunlight, is i
measure an effective substitute for codliver oil,
find no rickets in children who live in the warm
of the world where they have little clothing an
sunlight. I am mentioning this because it is im
to give you a complete picture, to show you we
to get up and talk about one thing and set it a
other things and laud it extensively but we wan
derstand the story, we want to understand the
which modern research and nutrition has bro
light and then tell the truth about it.

More recently we have had another vitamine
as a result of the investigations of Dr. Evans
Bishop at the University of California. Here a
have a substance present in milk fat but i
amounts, in too small amounts in ordinary sam
milk fat, to supply the optimal or favorable am
that substance. It is a great discovery. The who
of knowledge regarding what we must have to
adequate diet and what happens to us when one
other thing which we need is lacking, is presen
sufficient amount.

One of the most significant things to consider
nection with the human diet is the lack of calci
1918 I characterized a typical American diet as
sisting of white bread and meats of the musc
potatoes and sugar, and that is true today in so
less measure than it was five or six or eight ye
but still true to a great extent.

Within a year one of the girls in my laborato
down to the Y. W. C. A. in Baltimore to take n
the trays which the girls purchased there for the
ing meal. These girls were girls employed in b
many of them youthful enough so that they go ou
a good deal, come home late enough so that the
get enough sleep, they are so sleepy they can't
in time to have leisure for breakfast in time to d
get to work. Many a time they cut short their
fast or eat an entirely inadequate breakfast f
standpoint of quality. They go to the city to b

Large numbers of these girls eat an inadequa
—a sandwich and a cup of coffee or something
able to that. The evening meal in most cases
women is the substantial meal of the day. A
number of girls who intend to stay in the city
evening go over to the Y. W. C. A. cafeteria f
best meal of the day and yet, as this young woma
there and audited a hundred trays of the girls w
by, it was the same old story I told about eig
ago: Probably 90 per cent of the food on tho
was derived from a refined cereal flour or mea
muscle type of meat, from potatoes or other tube
vegetable, and from sugar.

You may be interested to know that from
which recently appeared from the Food Researc
tute of Stanford University, Dr. Alsperg, former
chemist of the department of agriculture, one
directors, it is shown that the sugar consumptio
going up. They passed 100 pounds per person
something like seven or eight or nine years ag
around 112 pounds, as I recall from looking at th
a week ago. That is approximately a quarter of

gar per person per day throughout the year and ne in the United States.

gar is a substance that has only an energy value. is nothing in the way of food elements in it except ource of heat and mechanical work, nothing struc- no vitamines, no mineral salts. It constitutes ap- nately a fifth of the total food supply of a great individuals. Because it lacks these substances are indispensable to health, it dilutes the rest of et in an amount corresponding to how much sugar en. As a nation we are eating too much sugar.

a nation we are eating a very large amount of re- ereals. I haven't seen fit to condemn that practice se it is possible to utilize foods that are in them- incomplete in various ways, provided we put with such things as will make good their deficiencies. are only two kinds of food which you can say heartedly and unreservedly meet those require- One of them is milk. That is the most acceptable. her is the leafy type of vegetable.

for years now I save been insisting that those two are our protective foods and should be increased eased beyond even those who are now paying at- n to the planning of the daily menu so as to pro- verything we ought to have, and in the case of a arge portion of population there is especial need nphasizing the inclusion of these two protective in the diet.

, as a nation, never have learned to eat any appre- amounts of leafy vegetables. There are Orientals o so. We are likely to adopt that practice very y, but the consumption of dairy products falls into line with our established dietary practices. e these things and there is nothing radical in mak- increase in the consumption of this class of foods. t we are a nation of enormous agricultural re- s and that means something very definite in the of how the nation is going to be fed. We have h agricultural produce and so little foreign mar- most of it that the problem of salesmanship enters e success in any line of food industry as one of the we must include, and as an industry you take less age of what you have to sell than anybody else selling food products.

k at the magazines and see the expensive space is constantly being utilized to sell the public sub- s for your product, and consider whether they to put this idea over as they are doing. There is systematic effort being made constantly to place the women of the country recipes for preparing ive, palatable dishes, using substitutes for dairy ts where the dairy products have qualities which us to say unqualifiedly that there are no effective utes for them.

at does that mean to you? Are you going to allow uation to develop any further than it has? Ten r 15 years ago there was no room for discrimina- tween one food product and another, as is the present today, but as it became widely known tter and milk and other dairy products of unique alues, and as you began to inherit the results of ntific writings of a number of investigators who ade this story of nutrition in the last 15 years, lic was listening to a certain extent—the intelli- rtion of it listens—and those who had products in the light of modern research, they couldn't talk ecause they had no selling points, have done other have presented half truths, have befogged the view in various ways, have used catchy phrases, l pictures, constantly holding names and expressions before the little educated. They are selling their products.

Dr. Larson told me recently that in per capita consumption (I think I'm right on this) butter has already started down. In recent times it is not even holding its own. Skillful advertising can undermine you completely if you don't so manage your affairs and employ methods which will keep your own product before the public in the most effective way; you will fail to maintain your business on a basis where it belongs.

You have a wonderful opportunity here and I needn't dwell upon it more than to just emphasize the soundness of what Mr. Munn said about talking, not about a single product, but the place of milk products in a health program. The story of what constitutes a satisfactory diet, the story of the elements of strength and shortcomings of this and that food, what combinations make for success and what for failure, education of the public to an appreciation of what they may expect in the matter, for example, of improvement in the quality of the health, and freedom (relatively) from dental disease if we bring up the next generation of children to develop a sound set of teeth instead of developing a defective set of teeth as has been the rule in the past, if you tell them such a story as this, you are presenting something of real educational value.

I have heard a number of prominent educators say in the last few years that we have been teaching children everything except how to live, and they appreciate pretty generally that it is time to begin to tell a child and over and over again, passing from one grade to another, in language that is suited to his stage of progress, how to live so this series of health rules which every child should become familiar with and are becoming more or less familiar with now though never heard of a few years ago.

The unique opportunity of presenting your product which has such outstanding nutritive qualities compared to any other food, in its proper place in a little story about how to live,—why, nothing of the kind ever was the heritage of any industry before!

You have an industry that sold four billion dollars worth of products in a year, and spent $150,000 in some sort of work to promote the industry; it looks as if you hadn't taken advantage of your opportunities. You can depend upon it that your competitors, with products which are inferior to yours, inferior from the standpoint of promoting the health of the nation, are studying their problem very carefully and there are several things which you need to do.

One of them is to extend the type of work done by the Dairy Council. Another is to try to reach, as time goes by, by somewhat different methods, the professional groups, especially the physicians and dentists and nurses, so that these people who are sources of information to others will understand the facts.

There is a great deal of confusion, misunderstanding, misinformation now in the minds of large numbers of people because there are those who are systematically befogging the issue. If you let them do that, not only does your business suffer but the cause which we in the field of nutrition feel is a very important one will fail to have the backing, the promotion which it deserves.

You've got to have leadership in order to manage the situation as it should be managed and there is evidence coming to me constantly that these professional groups have gotten less information, less education in the matter of what constitutes progress in research in the last 15 years than have the children in the public schools. It is not taught in any medical schools or dental school. Nurses' courses give only the slightest attention to this aspect of the subject. It is a nutritional problem. It's a thing still waiting to be done.

It is not to be done in just the same way that you approach the problem of education in the school, and for obvious reasons, but there are ways to do it and these key individuals in society should have not a fragment of information, not a few words extolling what you have to sell, but they should have presented to them in an easily understandable form that doesn't take much time to get, this body of knowledge or the principal results of it, which is the outsome of such a vast amount of research in the last 15 years.

This you should make your business because you are not only selling a product but with that you are selling health to the nation. No other industry has the opportunity that you have. I hope that you can see your situation and get behind a constructive program.

I am not here to undertake at this time to discuss with you the details of such a program. It would be out of place here. That is for a small group of people who have special knowledge in various fields to thresh out in a careful way and present to you as a larger body. But one thing you must accept in principle and that is that if any considerable number of branches of the industry sit back and wait for the other people who are interested in the sale of dairy products to finance the program which ought to be financed, then it will be a weak and relatively fruitless effort.

You should all bear your burden and count upon results and the growth of your business as you carry this education to the public. I have talked about this now so many times it seems to me the story must be familiar to all of you. Yet Mr. Taft said some years ago that the only way to get any idea across was to repeat and repeat and repeat. That appears to be the case. For that reason I am here again today to talk to you much the same sort of thing that I said seven or eight years ago, have been saying so many times.

You have profited a great deal without any systematic and effective effort on your own part, but the time has come now when I think you will slip back unless you understand what the situation is and plan to carry out a program which will accomplish what you want to accomplish, what you have a right to accomplish and what the public has a right to expect from you.

* * *

BREAKAGE OF BOTTLES IN MILK PLANTS.

The following table includes results from studies of bottle breakage at milk plants as shown in the November letter, with some additional data. The following observations have been made from studying the equipment and its arrangement in connection with the breakage of bottles in plants.

The pitch of spiral gravity conveyors is very important. In one plant the spiral conveyor was so steep and the jolting and jamming of the cases so severe that small jars frequently jumped and hung partly out of the cases. The breakage of glass is influenced by the distance the bottles travel and the amount of handling necessary. When bottles must travel a long distance from the checking-in platform to the storage room, a conveyor system, which reduces the amount of handling, will keep the breakage at a lower figure. Conveyors, however, must be kept well lubricated and in good order to prevent excessive jolting and bumping of cases.

When thermometers are allowed to get out of order, bottles are frequently cracked in the washer by being subjected to too great variations in temperature. Chipping of bottles on the routes also presents a problem. In one plant it was found that out of t number of chipped bottles about 90 per cent from the routes and 10 per cent were taken out a ent points in the plant. The total breakage in th (No. 14) was comparatively low, however, becaus well arranged conveyor system.

Wherever the arrangement of the plant re large amount of handling of cases, more than care on the part of employees is necessary to k breakage down. Plants 7 and 12 required a larger of handling of bottles from the time they were in until they reached the washers, and this res the high breakage at the receiving platform an feed end of the washer. Most of the handling plants was done with dolly trucks.

Moving bottles from one story to another breakage. The high breakage in two plants was uted to this cause; in one plant the bottles trav tween three different stories.

One plant using a case washer did not have s space to cool the bottles slowly by air but passe under sprays of water of different temperature breaking of many of the bottles at the fillers in that they had been cracked in the washing or operation.

Worn bearings on gravity conveyors make the uneven and cause the cases to jamb and jolt, c the bottles. This was the condition of the equ found at plant 13. The shape and arrangement storage room were such that considerable handli required to store the cases and to move them o gravity conveyors both in and out of the storag There was also high breakage at the discharge the washer, which suggests attention to that and its operation.

Breakage of Bottles in 14 Milk Plants.

Plant number	Number of bottles filled daily	No. lbs. broken glass per 1,000 bottle At receiving platform (includes route breakage)	At feed end of washers	At discharge end of washers	At fillers	In milk storage room (includes checking out routes)
1	4,802	1.9	...	2.8	5.5	...
2	42,805	...	1.2	.3	4.6	4.4
3	60,968	1.8	3.3	...	3.9[2]	2.3
4	13,536	4.1[3]	2.9	2.7	1.4	.9
5	62,096	2.2	2.8	1.7	3.6	1.9
6	27,719	2.5	.9	...	7.9	1.1
14	110,576	1.7[6] 2.7[7]	1.9[6] 1.8[7]	.8[6] 1.1[7]	2.4[6] .1[7]	.7[6] 1.3[7]
7	44,463	1.5	4.0	1.7	4.7	3.0
8	89,805	3.5[4]	3.2	4.7	3.1	3.2
9	51,197	2.7	3.7	6.0	4.2	1.2
10	160,540	2.0	9.7	2.4	1.9	3.2
11	97,983	4.6[5]	3.0	...	11.3[3]	.5
12	21,246	9.6	3.6	...	4.8	1.7
13	42,227	8.9	1.3	6.1	5.4	5.3

[1] The number of bottles broken is slightly less t number of pounds. On the average the weights of th were 1.6 pounds, 1.0 pounds, and 0.6 pounds for quar and half-pints respectively.

[2] Includes glass at discharge end of washer.

[3] Includes all chipped bottles from routes.

[4] Includes sorting.

[5] Includes 3.5 pounds of bottles too dirty to clean.

[6] Broken in plant.

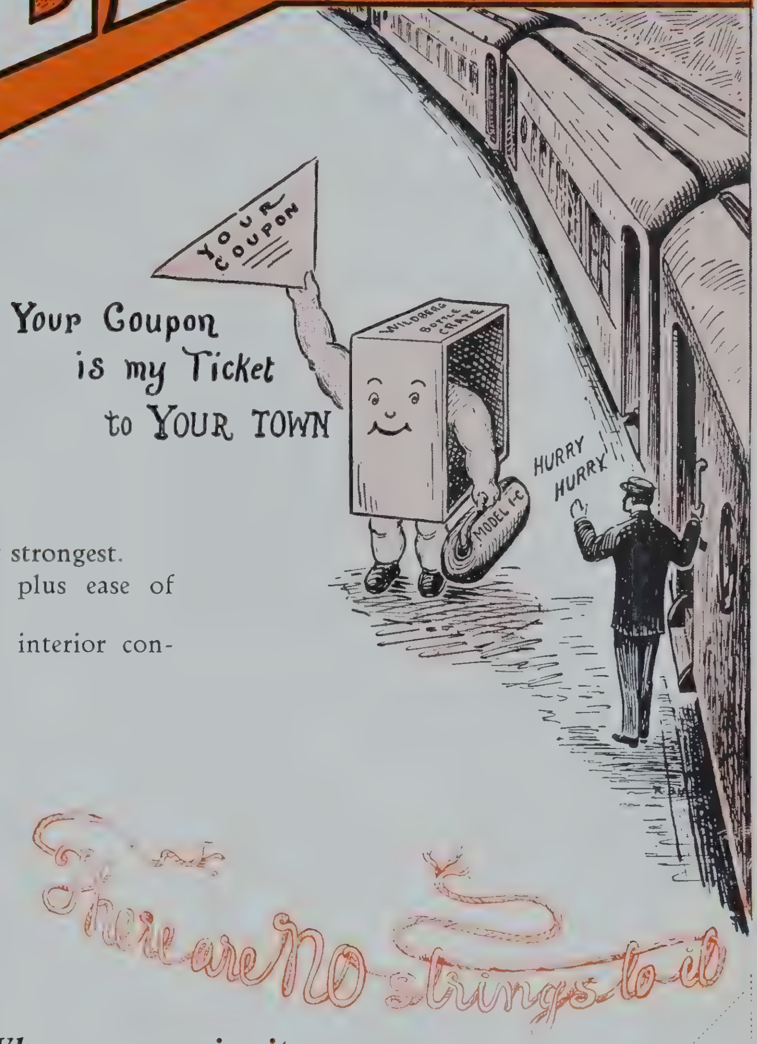
[7] Chipped bottles.

—Milk Plant Letter No. 148 issue
United States Bureau of Dr

A Wildberg Milk Bottle Crate Free

FREE TO YOU

POSITIVELY NO OBLIGATION

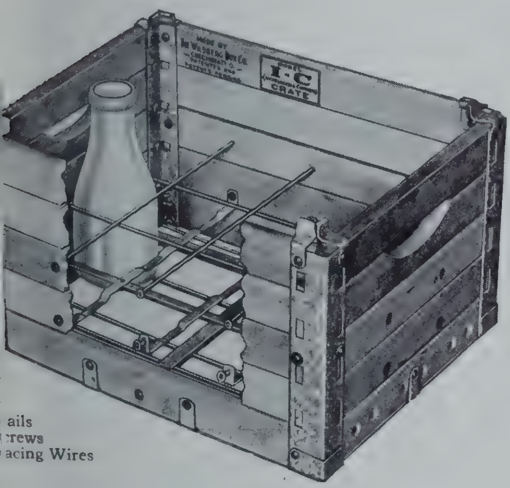

YOUR COUPON
Your Coupon is my Ticket to YOUR TOWN
WILDBERG BOTTLE CRATE
MODEL I-C
HURRY HURRY
There are NO strings to it

MODEL
I-C
(Interlocking Corner)
CRATE

Lightest in weight, yet strongest.

Maximum protection, plus ease of handling.

Flexible frame—Rigid interior construction.


I-C CRATE
ails
crews
acing Wires

When you receive it—

Look this gift horse in the mouth. Kick it around—It is built for hard usage and asks no favors, just a chance to work for you in your business, to show you the good qualities that are built into

Wildberg Milk Bottle Crates.

he Wildberg Box Co.

Cincinnati, Ohio

d's Largest Manufacturers of Milk Bottle Crates.

If you have not already received your Free Sample, fill out and mail this coupon.

. . . . 19

The Wildberg Box Co.,
1041 Evans St., Cincinnati, Ohio.

Dear Sirs:

With no obligation on our part, please send us FREE SAMPLE of the Model I-C Interlocking corner crate, carrying charges prepaid.

We use { Standard / Compact } size and { 2 wire / 3 wire } Quart cases.

Firm Name . . . .

Address . . . .

City . . . .

Per . . . . Purchasing Agent.

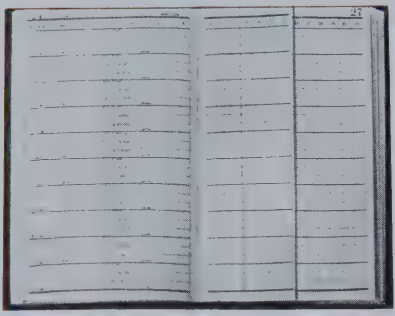
M. D.-1-27

When writing to THE WILDBERG BOX CO. *please mention The Milk Dealer.*

5 Reasons Why . .

FOREMAN Route Books

solve your troubles



Special Features

1—Our books are bound.

2—No accounts misplaced or lost.

3—Can be checked in 5 minutes.

4—No trouble with drivers' shortage.

5—Will increase your efficiency.

Write to-day for samples and prices.

Foreman Route Book Co.

Box 553 **Columbus, Ohio**

PROSPECTS FOR THE DAIRY INDUSTRY IN

By E. W. Chandler.*

To assume the role of prophet successfully on allow himself some latitude for his predictions terialize.

Even the railroad time tables contain a clau ing that the time shown is that at which the tra be expected to arrive or depart, as the case may

The weather bureau, with much scientific equ and a continent-wide organization, is able to pred weather only a few hours in advance—and then ways with certainty. Those of us who live in reg sudden climatic changes cannot, even with the ass of the weather bureau, plan outdoor operations w certainty of having favorable weather.

What we expect will happen in the matter weather—and most other things—is based upon o tions of what has happened in the past. We conf expect that July will be warmer than January it always has been that way. We expect the a temperature at two in the afternoon will be high at two in the morning because it is that way a nine days out of ten.

In the matter of weather there are the short and the long swings. It is the same with busi general and our own industry in particular. Th short swings and little disturbances which, con by themselves, are not as we would like. But a are smoothed out and absorbed in the larger f movement which we call progress.

This new year is one of promise considered by It is a year to live and build. With labor w ployed and purchasing power sustained it sho profitable by itself. But the opportunity that fore the dairy industry is in building for the fut

The work of the National Dairy Council and agencies in extending the new knoweldge of the v dairy products is bearing fruit. From being a milk and its products are now quite generally nized as basic necessities in the diet of civilize Future demand appears assured.

At the same time our population continues i ing. That means more consumers of dairy produ will require greater production to keep pace w requirements.

So all things seem favorable for the dairy in in 1927. We can proceed with confidence beca immediate future looks bright and because we are of the larger forward and upward swings which us to build for permanence.

---

* President of The Creamery Package Manufacturing C

* * *

FINE MILK DEALER ON HEALTH CHAR

Jacob Task, 35, of 9441 Holton Ave., was fin and costs and sentenced to serve 30 days in ja found guilty of violating the health ordinance by C. Meck Wednesday.

Task, who is a wholesale milk dealer, is said sold milk with insufficient butterfat content.

Two retail dealers, Joseph Feiss, 10017 Sophi and Steve Torma, 11910 Buckeye Rd., were fir and costs each on the same charge.—Cleveland News, Dec. 8, 1926.

* * *

If you want a position "The Milk Dealer" c you, as it has helped hundreds of others to secure position.

Like a Chip of Spruce

Here's the Reason for the Toughness of a Sealright Cap —It's the Fulton Board

"TOUGH AS A WEATHERED SPRUCE" tells the story of Fulton Board and explains the rugged toughness of Sealright Caps, which are made of Fulton Board.

Time dried and scientifically waxed by a special process (which assures perfect sterilization), Sealright Caps are absolutely weatherproof. They never become "soggy" or "leathery" under ice or moisture.

Uniform thickness and clean cut edges insure perfect operation in capping machines. They fit the cap seat snugly, giving a perfect, liquid-tight seat in bottles. Printed from clean electros made at the plant, Sealright Caps are clear, bright and attractive. And there is a Sealright for every need. (See illustrations at left.)

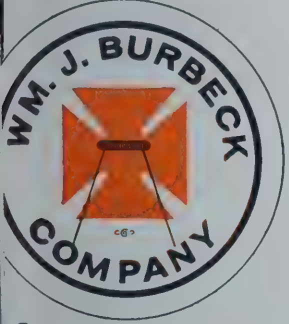
In addition, Sealright Caps are nationally advertised and nationally known. Milk users everywhere prefer them. It pays to use Sealrights and to be identified with a nationally preferred service. Write today for Free samples of the three greatest caps in the dairy industry.

SEALRIGHT COMPANY, Inc., *Dept. MD-1*
FULTON, N. Y.

Write today for Free Samples

HOLSTEIN DAIRY
BUTTE, MONT.

1. *The new Sealright Liftright Cap. Patented groove makes it easy as ABC to insert finger nail under tab and remove cap in a jiffy.*



2. *The Improved Sealright Pouring-Pull Cap. Has same patented groove as new Liftright Cap. Opening in Cap for pouring or inserting straws. Ideal in home, school and restaurant.*

3. *Sealright Regular Standard Cap. The best and biggest selling "regular standard" cap in the world.*

DEARY BROS
B
MILK

"KEEP THE GOODNESS IN AND THE FINGERS OUT"

SEALRIGHT
Milk Bottle Caps

The Truth about Chocolated Mi

WE started it in the South at the Army Camps during the World War and it has now spread over the entire country and is a growing success where the Milk Dealers are using

CHOC-O-LISHUS

[TRADE MARK REG. U. S. PATENT OFFICE]

There is no reason for using imitations.
The original Choc-O-Lishus is just as cheap and it goes further.

It has the true Chocolate Flavor.
It is the best by test.
It deserves your support.

The manufacturers of Choc-O-Lishus are the oldest and largest manufacturers of Chocolate Syrup in the world.

THE CHOC-O-LISHUS CO.

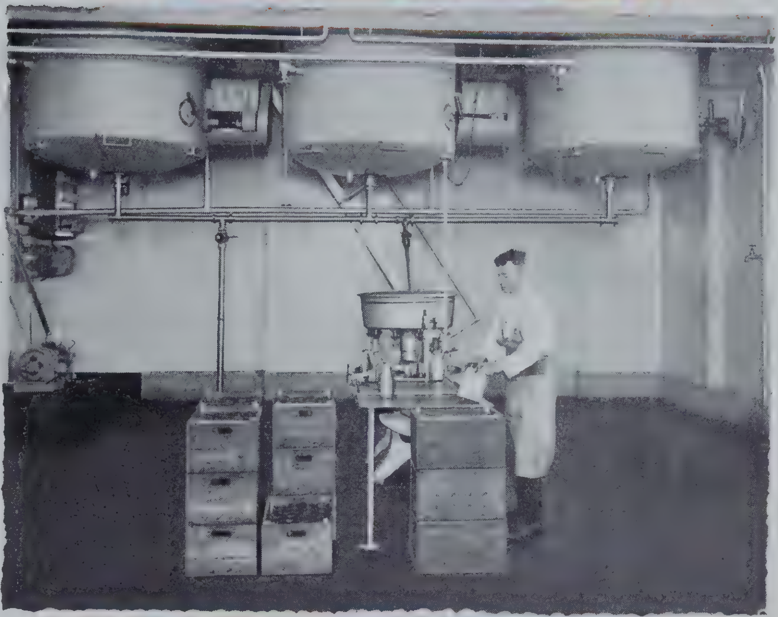
NORFOLK, VIRGINIA

Subsidiary of H. B. HUNTER CO., INC.

When writing to THE CHOC-O-LISHUS CO. *please mention The Milk Dealer.*

MILWAUKEE
Fillers and Cappers

All Around the World-
hey dominate

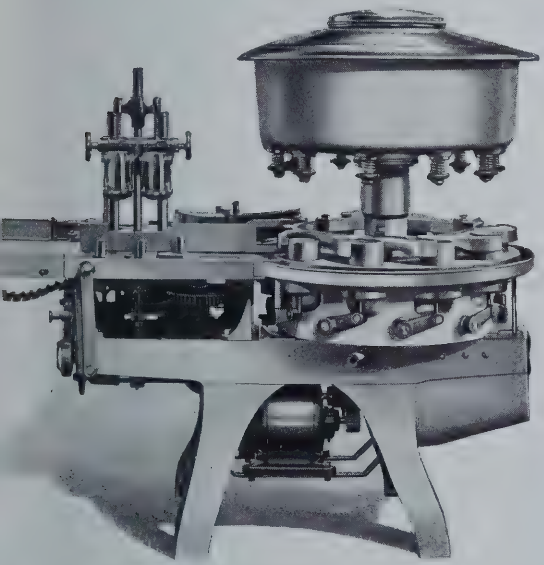


This picture was taken in the plant of Larchers Dairy, Malvern, Victoria, Australia. "Milwaukees" are becoming increasingly the choice of foreign dairymen.

The Type "NH"

10 valves, 2 cappers.
acity 38 Qts. to 48 Pts. per minute.
Tank Capacity: 24 Gallons.

ere's a Size for Every Dairy



Strong
Compact
Simple
Precise
Sanitary

ilwaukee Dairy Supply Mfg. Co.
ILWAUKEE // WISCONSIN

When writing to MILWAUKEE DAIRY SUPPLY MFG. CO. *please mention The Milk Dealer.*

CHEESE JARS

16 oz.

14 oz.

12 oz.

12 oz.

Glass Containers are:

THE MOST SANITARY
MOST SERVICEABLE
MOST ECONOMICAL

We make all standard sizes and shapes.

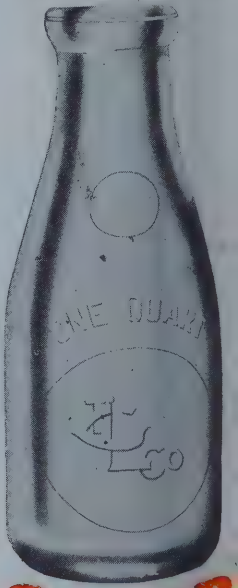
Send for samples and information to ... .. .

The LAMB GLASS CO.

FACTORY AND OFFICES AT..... **Mt. Vernon, Ohio**

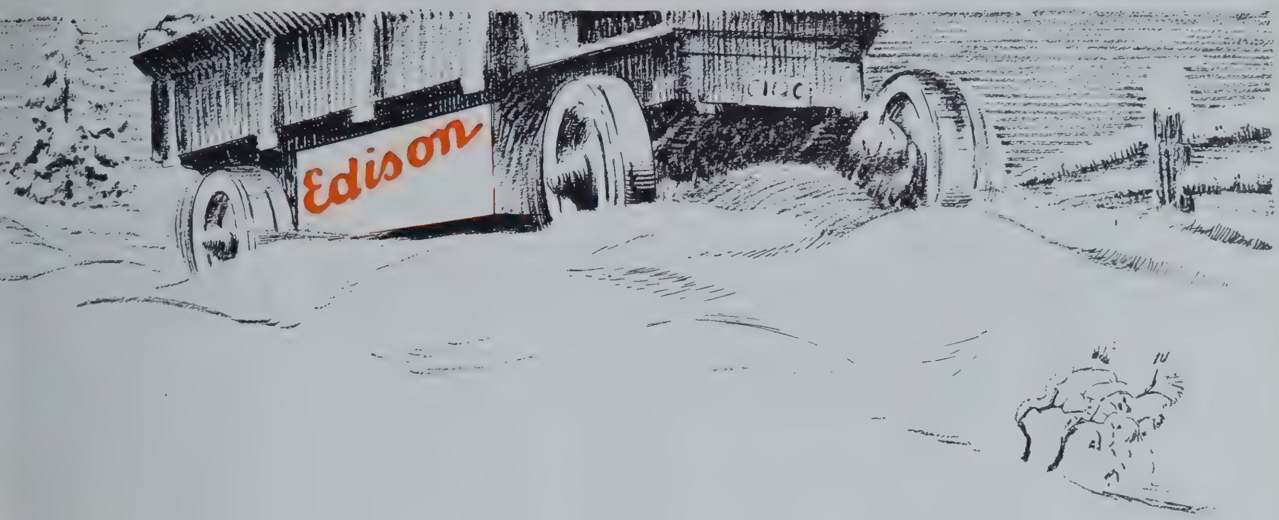
Chicago, Ill., *Chas. E. Ketcham, Mid-West Representative*
New York, N. Y., *W. W. Wallace, Eastern Representative*

The Highest Development in Bottlecraft



SUPER
Milk Bottle

When writing to THE LAMB GLASS CO. *please mention The Milk Dealer.*



THE old idea that heavy snows and badly drifted streets would put an electric truck "on the shelf" as a delivery vehicle is rapidly passing.

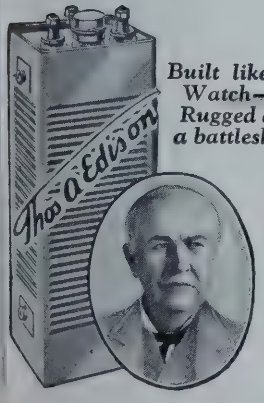
Electric trucks can negotiate the most difficult traffic conditions and will pull through when most other types of vehicle are completely at the mercy of a snow blockade.

This change has been largely due to the Edison Battery. And for this reason: Edison Batteries have the inherent capacity for normal overload and heavy going *without in any way shortening their life.*

The nickel-iron-alkaline principle is entirely responsible. With the Edison Battery, temporary overloading and high discharge rates have no permanent effect on the plates. There can be no buckling, disintegration or dangerous overheating—hence—unimpaired life and entire freedom from winter battery maintenance troubles and rapid depreciation in capacity.

As a result, more and more transportation officials, even in the coldest territories, are turning to Edison Batteries as the answer to winter traffic conditions. Write for some interesting cold weather battery facts.

EDISON STORAGE BATTERY COMPANY, ORANGE, N. J.



Built like a Watch—Rugged as a battleship

Edison

STEEL-ALKALINE*

TRUCK BATTERIES

*There is no iron at all in any battery of commercial importance except the Edison. There is no nickel at all in any battery of commercial importance except the Edison. There is no lead at all in the Edison Battery. There is no acid at all in the Edison Battery.

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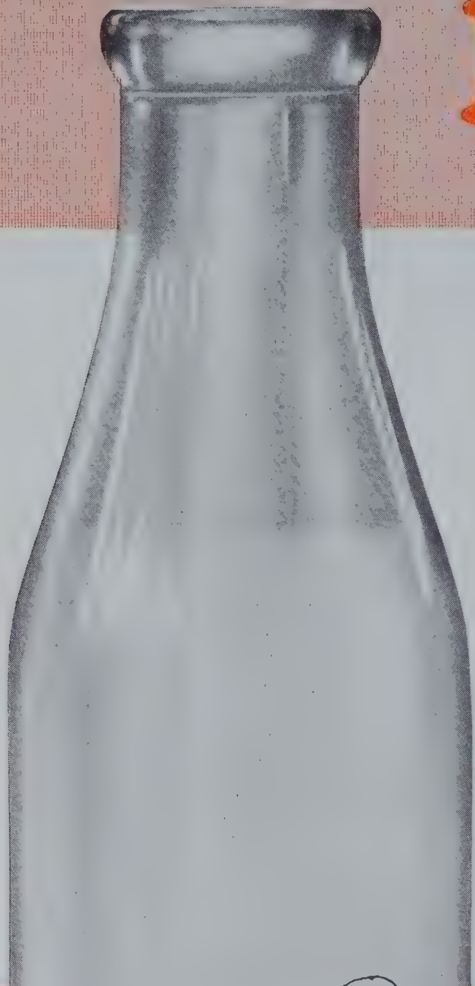
xport: 26 West Broadway, New York *Canadian Distributors: International Equipment Co., Montreal, Quebec*

HAUL MORE FOR LESS MONEY

When writing to EDISON STORAGE BATTERY COMPANY *please mention The Milk Dealer.*

You Can Increase Milk Sales Like Th
Kentuck
Dairy Did



THE Gray-Von Allmen Sanitary Milk Company, Louisville, Ky., uses T
Superior Quality Milk Bottles and Thatcher Posters, tying-up with t
national advertising campaign on "A Bottle of Milk Is A Bottle of
The result of this far-sighted policy was stated as follows:

> *"A substantial increase in sales was noted in 1925 over 1924." Th*
> *alert dairy increased its sales 10% in the last three months of 192*
> *largely through the use of Thatcher Posters.*

From every section of the country, reports show that dairymen using Thatche
and Thatcher advertising, sold more milk in 1925 than in 1924. The average
was 23%! Were you one of them? You should and *can* be!

"MORE TRIPS PER BOTTLE"

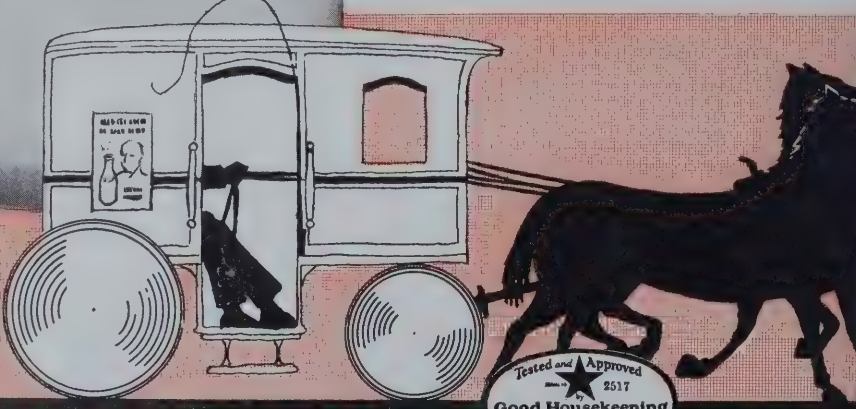
The most important item in buying milk bottles, is the final cost per bottle
The first cost or purchase price means little or nothing to you. From the actual exp
of dairymen and from exhaustive laboratory tests, it has been definitely prov
Thatcher Superior Quality Milk Bottles will give you more trips per bottle. For T
Bottles are tougher, more uniform in quality, have a better distribution of gl
consistently perform better in actual service than any other bottle made.

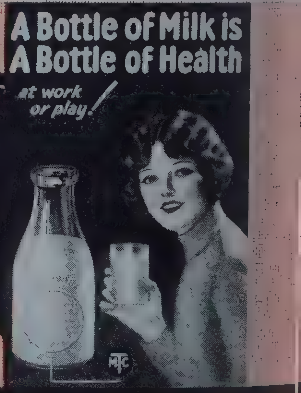
Specially designed lehrs, used exclusively by Thatcher, help to give Thatcher
that superior quality and wear-resisting toughness not found in ordinary bott
Thatcher Trade-mark is blown on every Thatcher Bottle for your protect
guarantee.

Then too, millions of milk users see and read the celebrated "A Bottle of M
Bottle of Health" advertisements of Thatcher Bottles in The Saturday Eveni
and Good Housekeeping Magazine.

If you want to increase your milk sales, fill in and mail the attached coupon
pay you to act at once.

THATCHER MANUFACTURING COMPANY, Elmira, N. Y.
Operating several plants throughout the country, each strategically located and
to making Superior Quality Milk Bottles. Prompt, efficient service—always.





Tested and Approved 2517 by Good Housekeeping Institute Good Housekeeping Magazine

Put This Attractive Poster on Your Wago
and Windows. Get your supply now.

Mail This Today

Thatcher Mfg. Co., Elmira, N. Y.

(1) *Send me prices and further information regarding Thatcher Superior Quality Milk Bottles. We use approximately........... bottles a year.*

(2) *Send me.......... Thatcher Posters. I intend to use these Posters on my wagons..........windows. ....*

Name..............................

Address..............................

City..............State............

THATCHER
Superior Quality
MILK BOTTLES

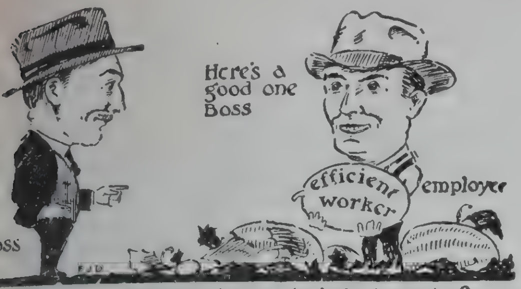
Cost Less Because They Last Lon

When writing to THATCHER MANUFACTURING COMPANY *please mention The Milk Dealer.*

T THE HELP SOLVE THE "NEW MAN" PROBLEM..

By "Old Boss."

noticed that some employers are in a stew every ile over a "new man" needed to be added to the to take the place of a man who has left. Have ced this?



hy not give him a chance to bring one in ?

I've also noticed that an occasional other em- ever has operated short-handed, because, like the ice-water tank, new men always seem "on needed.

ute a little investigation, and you'll often find fortunate employer solves the employment prob- the aid of the present members of his organi- Men and women in the same occupation are usu- degree at least, clannish. Out of working hours together. The goings and comings of their fel- other places of employment become known to s interesting news and business changes in his iness are to the employer.

sionally, too, there is the man and woman worker nusually well posted on personnel happenings her occupation. This character—and he may in your own organization—is as efficient a news as the efficient village gossips used to be back d home town.

eat many employers never take employees into nfidence on a question of employment, but this overlooks one of their best bets. Most employ- to function, gratis, at such times. With a in the offing, ask their assistance in locating candidates. They know things about the qual- of men that the employer would not get at. if they are disposed to "boost" for their em- they will produce applications which might never come in. The last applies especially to workers who are considering a change from sent positions.

ie force help you get the "new man."

* * *

LOWER PRODUCTION IN OHIO.

supplies of cattle feed on the farms has re- volume of milk produced in the state of Ohio, to the Ohio Dairy Producers' Association.

producers in northeastern Ohio receive about cents per hundred more for milk on the farms those in the central or western parts of the igher costs of transportation and other condi- te a generally higher consumer price in north- hio.

lerable anxiety seems to be present among milk nd wholesalers as to how to cope with the situa- k prices may be boosted to the highest mark in a result of a famine facing Loraine and other Ohio communities.

The Sensation of the Exposition
—In Detroit !

ANIMATED
Life-Like Cows
That Move Their Head, Eyes, Mouth and Tail

Messmore & Damon Inc.
407-A

On display at J. L. Hudson's Department Store, Detroit, Mich. Between 6 and 7 P. M. over 3,200 people stopped to view these animals.

At the Exposition we have registered 500 representatives from the largest dairies and ice cream plants in the United States, Canada and Europe, making actual sales to these countries.

These cows will secure good locations for your displays. They will work for you night and day, bringing increased business and reputation.

If interested, write or wire for full particulars.

Messmore & Damon,
INC.
404 West 27th Street New York

What Are Profits and Losses?

A Bank Book Will Not Give an Accurate Report of Costs. Necessity of Cost Accounting System

A PROMINENT advertiser says: "Many men have the eye-sight of a hawk and the vision of a clam."

That was not said of men in the milk business but—

We don't want it said of us, do we, men? Well there isn't much chance, because a genuine movement is on in the milk distributing business, and has been on for several years, to get this business on a real, sound, economic basis.

A good start has been made, but there is still much to be done along the line of keeping a proper record of costs. Knowing costs the milk dealer can outline his selling policies in safety. Without such knowledge he not only risks doing business without profits, but he also runs the risk of losing all that he has invested.

Some milk dealers are pegging along year after year fighting for business and wondering why their balance in the bank doesn't show up better. They just don't know what it costs them to do business, that's all.

Why such men have been loath to install a good cost accounting system is hard to determine. Perhaps it is due to the type of men employed as bookkeepers. Some of these men do not have adequate knowledge of the milk business, or else they are unable to devise a system that will fit their particular plant; for it is agreed that although the fundamentals are alike, and can be applied to all plants, a uniform system that is alike in every detail which will fit every plant, has not been devised—and will not be devised. However, the great reason why such systems do not predominate is perhaps due to the fact that the majority of the milk plants grew up from acorns, so to speak, and the operators of these plants cannot conceive why their methods of keeping records which they installed ten or fifteen years ago, when their plant was small, is not "good enough" for their present needs. They "guess they can get along all right," their business has been successful so far, so why should they change their methods. At the same time they will change their machinery and equipment to keep pace with their competitors, but they will not change a very important part of their business, even though a competitor has just as much chance of "whipping" him by the use of cost account system as he has by using modern equipment.

A workable system of cost accounting marked the good business man ten years ago. Today, it has become important that every business employ such a system if they are to realize the maximum profits and if they intend to remain in business. Margins between costs and selling price are narrowing each year, and in order to determine the profitableness, it is imperative that an accurate check be kept on all costs—costs of raw material, depreciation, labor, manufacturing costs and other items of expense incurred in the operations of preparing the product for the market. If such a practice is not followed, there is but little opportunity to study costs, so that they can be shaved from time to time, and thus meet competition.

Keeping Products Separate.

With the growing practice for many milk dealers to include in their manufacturing operations, in order to
utilize space and labor to the greatest extent,
coming increasingly important in such cases t
system of cost accounting. He should know the
producing each product in order to arrive at hi
price, and such is almost an impossibility if he
use a system that will give him a photograph
production costs. By means of a system of cost
ing he can, at all times, be informed of his p
losses.

It is just as important to the small manufac
to the one operating on a large scale, for the sma
has to operate on approximately the same margi
larger plant, and losses, however small and se
insignificant, are apt to result in his destructic
often, the only record that such a plant has of i
ings is its bank statement, and the only metho
of judging profits is by the balance after the e
that have been paid. If the balance at the en
year is larger than the one for the preceding y
conclusion is reached that their profits were
No account is, seemingly, taken that the quant
value of goods on hand may be greatly reduc
the preceding year, that the uncollected accou
have been reduced or a dozen other factors, that
into account, would not show the profits that ar
by a bank balance.

Contrary to the popular belief among those
not employing a system of cost accounting, a
counting system does not incur a stupendous am
work. Neither is it expensive to install and
when such a system will return a profit, it ca
classed as an expense. It is true, that some syst
too elaborate and do go into much worthless de
this is unnecessary; for if a system will give
figures on costs of materials and labor over a p
a month, if it will show the costs of operations, d
tion, interest, distribution and the other major p
the operation of a milk plant, accurate data ca
tained that will give a close check of the busin
give information to the milk dealer as to whe
earnings are all that are to be desired. Until t
dealer puts his business on such a basis, he is n
ing on a foundation of stability.

* * *

MEMORANDUM OF CONFERENCE HELI
PHILADELPHIA, DEC. 18, 1926.

After carefully considering the market cond
modification of the Philadelphia selling plan wa
upon.

It is understood that until further notice a
erating buyers of milk will, under this agreeme
pare the average basic quantity made by each p
in October, November and December, 1925, with
erage basic quantity of the same producer for
November and December, 1926. The higher of th
quantities shall be considered the established bas
tity of said producer beginning January 1, 19
until further notice.

New producers taken on after January 1, 1
to establish their basic quantities as heretofore a

Twenty-Five Years of Dairy Accounting Experience is behind—

GREENHALGH Accounting *and* Cost System

THE Greenhalgh Accounting and Cost System gives you positive internal check of all operations in commodities as well as cash. This System is individually fitted to your business, regardless of the extent of its activities, and is personally installed. It is *scientifically* correct in arriving at all costs and figures, and does not entail burdensome work or extra clerks. It is simple, thorough and easily understood.

One of the big features of the Greenhalgh Accounting and Cost System is the subsequent service, which includes a monthly bulletin showing comparative costs (without disclosing names) so that you can see just how your costs compare with the costs of other Companies.

Read what The French Bros.-Bauer Company says:

"We have in the past made several attempts through our own efforts and those of different professional accountants to arrive at true cost figures. Since these efforts did not bring out the results desired, we were naturally somewhat skeptical as to the possibility of attaining real costs in our line of business.

"We are satisfied and agreeably surprised with what you have accomplished. Your methods of applying volume and indirect costs such as selling, delivery and administration expense are entirely practical.

"The fact that you have developed all costs in detail on each and every product, without materially adding to our office or clerical expense, is a noteworthy feature of your work."

Write for complete information on how the Greenhalgh Accounting and Cost System will work in your plant, and what it will accomplish for you. Indicate whether you bottle milk, make ice cream, or manufacture butter and cheese.

Official Auditors for
National Dairy Association
National Dairy Council
American Ass'n of Creamery Butter Mfrs.

GREENHALGH SYSTEMS

A mark of distinctive service for over a quarter of a century.

J. H. GREENHALGH & COMPANY

PUBLIC ACCOUNTANTS
Cost Accountants to The Milk Products Industries.

332 South Michigan Ave. **CHICAGO, ILLINOIS**

When writing to J. H. GREENHALGH & CO. *please mention The Milk Dealer.*

Power Transmission Proble
in Creamer
and Dair

By W. F. SCHAPHORST, M. E.
Member A. S. M. E., Member Houghton Research Staff
E. F. HOUGHTON & CO.
Philadelphia, Pa.

A Discussion of One of the Plant Operator's Most Important Questions

THE use of power is on the increase in creameries and dairies. Power is becoming more and more important. The time has therefore arrived when officials of creameries and dairies should give serious consideration to power transmission problems. Thus far such matters have run along in pretty much of a haphazard manner.

Naturally, the thoughts that are uppermost in the minds of producers of dairy products do not relate to power transmission efficiencies, belt selection, shaft pulley alignment, and such things. Nevertheless so much power is now being used in the average creamery and dairy that in many instances it will pay the responsible head to take a week off and devote it entirely to a study of the transmission problems of the establishment.

For instance, one prominent manufacturer of creamery and dairy machinery recently wrote this to me:

> We are always in favor of direct motor drive installations wherever we can sell the customer on the idea of the additional expense involved. We believe the direct motor drive is economical and for creameries and dairies it is by far the more sanitary drive. Wherever belt drive is installed it is invariably due to the first cost and where first cost is given the only consideration.

Few operators realize that electrical efficiency in creameries and dairies is seldom as high as 80 per cent as compared with a possible 95 per cent for belt drive. In fact, in carefully made tests by disinterested engineers belt tests have shown better than 98 per cent efficiency.

Now, in the face of this great advantage of the belt method over the electric method, what has the electric method to offer to make it preferable? It must overcome that 15 per cent handicap.

Besides there is the additional handicap of greater first cost for the electric method. That must be overcome also.

In the above quoted letter its author writes, "We believe the direct motor is economical." Mere "belief," though, is not enough. The creamery and dairy man should demand FACTS. It is true that in some installations direct drive is more economical than belt drive, but such drives are rare in these fields.

More Sanitary.

He also says,—"It is by far the more sanitary drive." Just why electric drive is more sanitary than belt drive I cannot understand. My dictionary says that "sanitary" means: "Designed to promote health." There is nothing unhealthy about belts and pulleys and there is nothing healthy about electric motors. If anything belts and pulleys stir the air and thereby promote better air circulation and better health. I know of one instance where the spokes of pulleys were intentionally shaped to serve like the blades of a fan to agitate the air
is a good plan for rooms that would otherwise
or stuffy.

Appearance.

It is true that electric drive "looks" better th
drive. That point is conceded. But, unfortunate
many users of power are guided by appearances
than by facts. There is nothing beautiful about a
shovel, for example. A man wielding a hand
"looks" much better, and for some purposes IS
but for a large excavating job we don't find eng
insisting on hand shoveling any more. The diff
between belt and electric drive is not so great as
between steam shoveling and human shoveling, bu
an important difference nevertheless.

In General.

Transmission through belts and shafting,
properly installed, is so much more efficient than e
transmission, and is in general so much more satisf
on creamery machinery, that it is worth while t
careful thought to this subject.

Because of the unquestioned improvements br
about in electrical transmission, the statement is
made that belt transmission is doomed in the cre
and dairy and elsewhere. But that statement is fa
the truth. The foremost electrical and mechanical
transmission engineers of today are agreed tha
transmission holds an important place in industr
according to present indications belting will alwa
used. For instance, the General Electric Company
ly wants to sell as many electric motors as possib
F. H. Penney of the industrial engineering depa
of that company made the following statement i
chanical Engineering, September, 1926, issue:

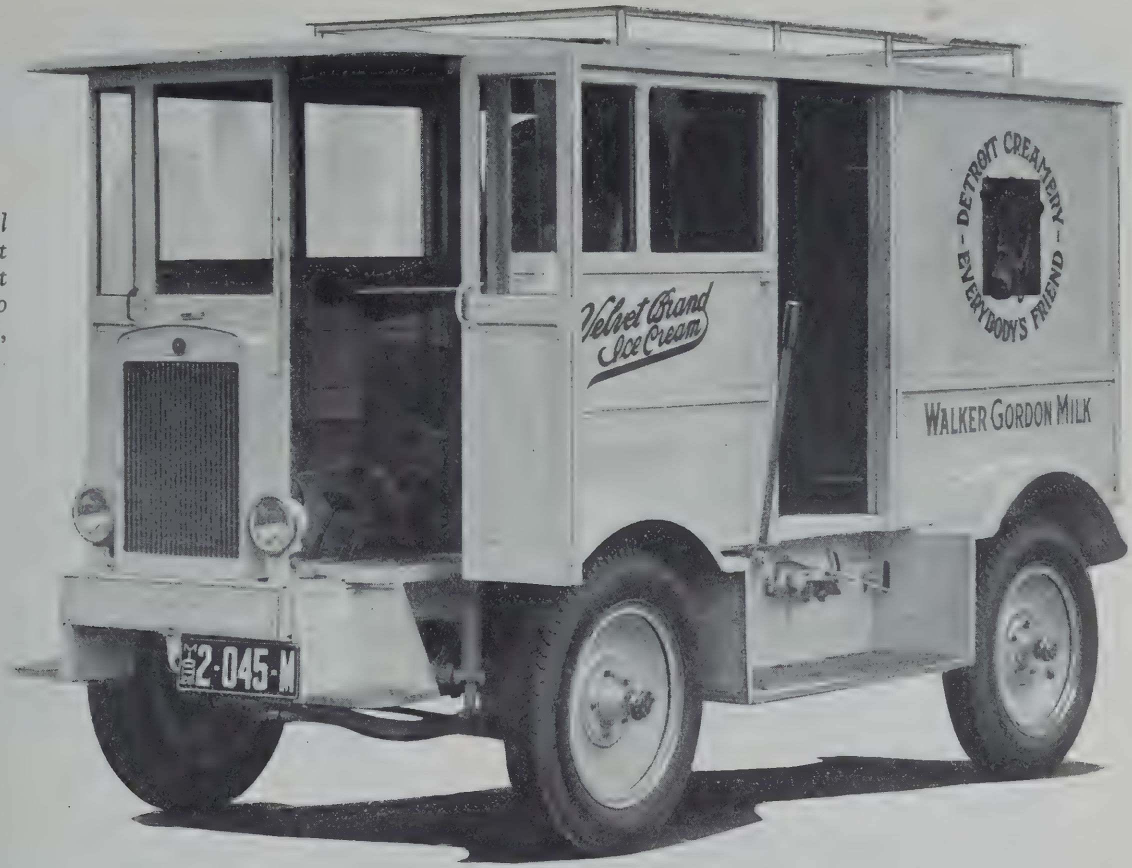
> "It may be said that group driving will
> out of use unless there are very unexpected de
> ments in the motor field. It is not felt that t
> now or likely to be any hard and fast rules
> will prevent the installation of either the indi
> or the group drive."

Overhead Obstructions.

In machine shops and other industries where
head cranes are used to handle the heavy work, ov
belting presents a decided disadvantage. That is
the reasons why the individual motor has mad
rapid headway in shops of that type. But in crea
and dairies where there are no overhead crane
argument against overhead belting does not exis

Motors for Large Machines.

In industries where machines are large, each m
requiring a motor of 50 to 100 h. p. or more, as
cement making industry, the individual motor



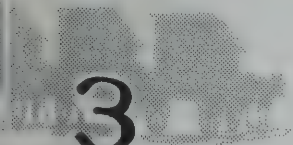
hree point control
ables driver to start
stop from the front
either side. Also
lloads from front,
ar and either side.

ve Time and elivery Costs *with* DIVCO

GASOLINE DRIVEN

2

DIVCO
ASOLINE DRIVEN
TRUCKS
MORE WORK
IN LESS TIME
AT LESS COST
THAN



3

ORSE DRAWN
WAGONS

DIVCO—gasoline driven—is built exclusively for milk delivery from house to house. A three point driving control saves time; and operation is smooth and quiet.

¶ DIVCO will deliver double the average load of a horse drawn vehicle in less time and at a big saving. It makes distributing stations unnecessary because of large carrying capacity.

¶ Write for our booklet "From House to House With Divco". It will give you complete operating costs and delivery savings as compared with horse drawn vehicles.

DETROIT INDUSTRIAL VEHICLE CORP.,
1400 Fort Street, West, DETROIT

MOTOR DIVCO TRUCKS

When writing to DETROIT INDUSTRIAL VEHICLE CORPORATION *please mention The Milk Dealer.*

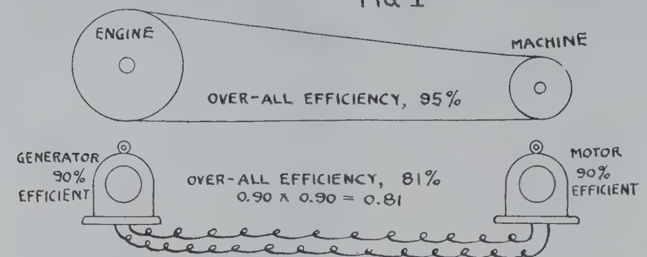
method is giving excellent results, so much so that most modern cement mills are now entirely individual drive. They are even eliminating intermediate mechanical speed reduction and are driving grinding mills by synchronous motors, either of the self-starting type or of the standard type with magnetic clutches.

Belts for Small Machines.

But in creameries and dairies individual motor drive is not always best. Nor may group driving always be best. And the same is true of exclusively mechanical transmission. There IS, always, a most economical method in every plant—often a combination of electric and belt drive. Sometimes individual motor driving will be found most profitable, sometimes all machines should be belt-driven, and sometimes group driving will be found to give best results. Nobody can state definitely which is best. Each special case requires treatment all its own. Prof. Norman, in his recent book "Principles of Machine Design" says:

> "On the whole, electric drive is less efficient than individual belt drive, although the power consumed by idling shafting is a very serious item in many cases."

FIG I



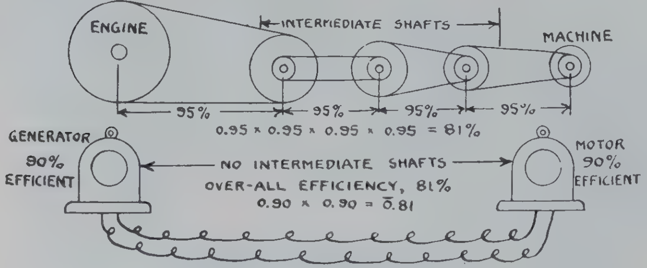
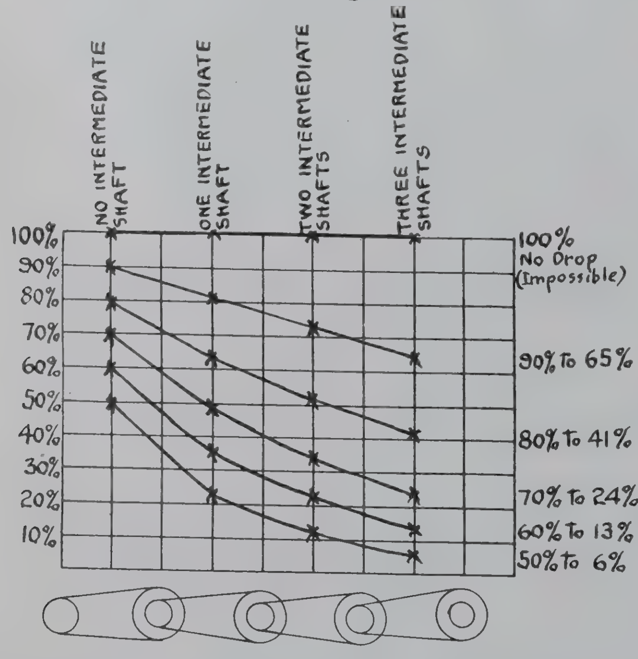


FIG 2

FIG 3



For churns, pasteurizers, separators, washers similar machines that require so little power, grou tric drive is usually preferable from the standpo power economy. Individual electric drive may " better, as already stated, but owing to the compara small amount of power consumed by most machi creameries and dairies and the low efficiencies of motors, it is usually found best to install only one motor on each floor, distributing the power from motor to all of the machines on that floor. The s

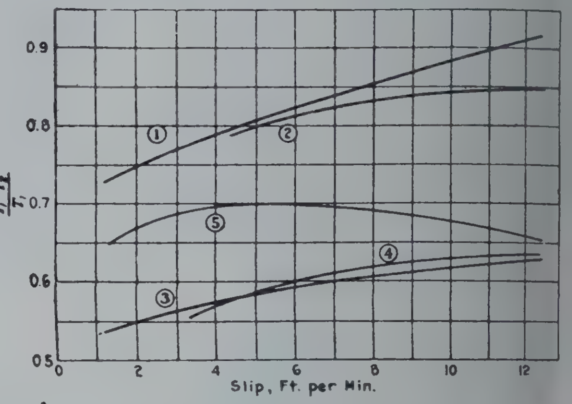


FIG. 4 RELATION OF SLIP TO FRACTION OF MAXIMUM BELT TEN TURNED INTO EFFECTIVE PULL

(Curve 1, Special tanned leather; Curve 2, Balata; Curve 3, Rubber B; Cu Impregnated fabric; Curve 5, Rubber A. For values of $T_1 - T_2 = 50$ lb. per of width.)

the motor should be such that when all machine operating, the motor will be fully loaded. Effi will then be a maximum. From the single moto power to the machines should be distributed by Another method is to put a motor on each line distributing power from that shaft to a group o chines. But where it is likely that all machines w operated continuously, the annual cost of power this arrangement is generally greater than wh single large motor is used for the entire floor. Fo tinuous operation of all machines, individual mot

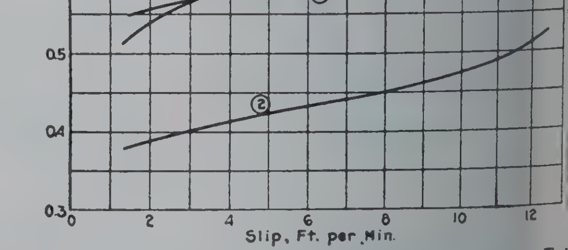


FIG. 5 RELATION OF SLIP TO FRACTION OF MAXIMUM BELT TE TURNED INTO EFFECTIVE PULL

(Curve 1, Special tanned leather; Curve 2, Oak-tanned leather; Curve 3, I Curve 4, Rubber B; Curve 5, Impregnated fabric; Curve 6, Rubber A. For of $T_1 - T_2 = 35$ lb. per inch of width.)

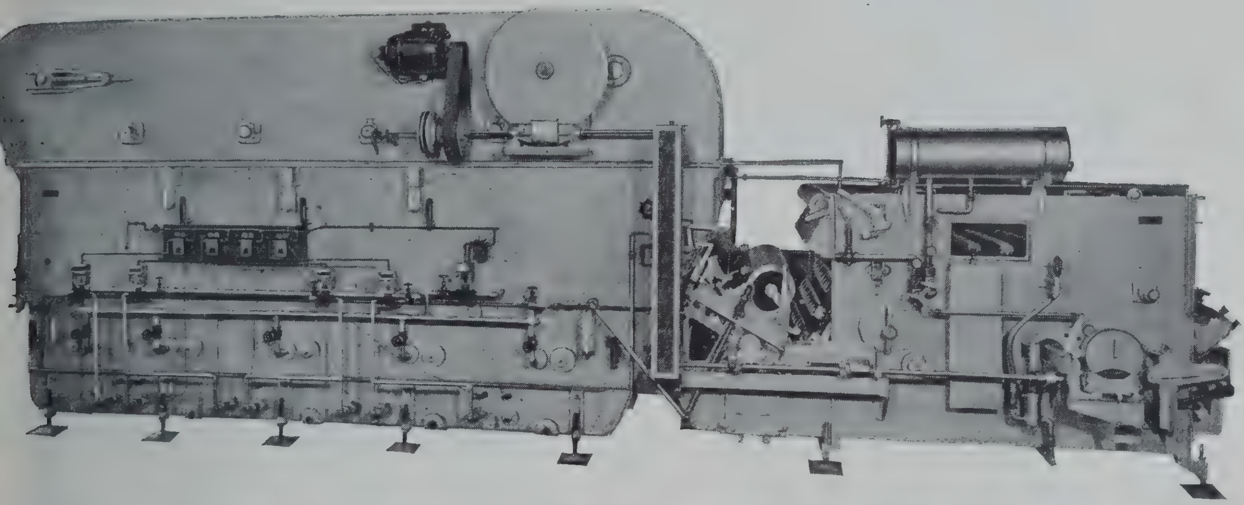
small power on each machine usually results in th est cost per year.

Individual Motors Recommended Here.

In general, individual electric drive is advanta ly applied under the following conditions:

1. On portable machines it is usually a grea venience regardless of the size of the motor or th

Built for a Lifetime

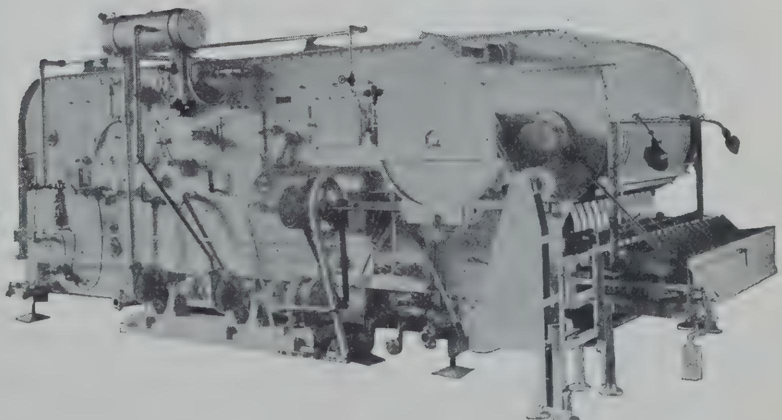


YUNDT MILWAUKEE
Air-Brush
Milk Bottle Washer

CONOMY in operation and dependable performance
day in and day out—these are Yundt Milwaukee Air
Brush Milk Bottle Washer features. Compared point
int, it offers greater value in sturdy materials, and
life in perfected design. Capacity is 30 to 160 bottles
inute. Can be synchronized
any automatic filler. Bottles
out sparkling clean, cold
acteria free.

for descriptive bulletin No. 109
how the Yundt Air Brush Milk
Washer will conserve your dollars
ver your washing costs.

The machine below is a smaller type — capacity 30 and 60 bottles per minute. This Yundt comeback Type Junior Air Brush Milk Bottle Washer is a one man machine. Feed and discharge at same end. Write for Bulletin No. 110.



**the AIR BRUSH — If you
t know about it, ASK US.**

MICHAEL YUNDT COMPANY

ILWAUKEE, WISCONSIN **WAUKESHA, WISCONSIN**

centage of load. It seldom pays to belt machines that are moved frequently.

2. Where the machines operate at full load steadily or most of the time, and where satisfactory belt drive is impossible.

3. Where speeds are too high for efficient or economical belt drive. Five thousand feet per minute is the generally accepted maximum speed for belts.

This is true not only of creameries and dairies but of nearly all industries. The portableness of the electric motor and the ease and safety with which it can be installed at any point in the plant has in numerous instances been the cause of radical changes in design and arrangement. But portableness has not yet altered creameries or dairies, and it is not likely that it will.

Where Machines Are Fixed.

Group drive driven from a common motor or from a line shaft is advantageous where machines are fixed. Most creamery machines are fixed.

Seldom if ever are two creameries or dairies exactly alike. Each individual plant must be analyzed thoroughly before a positive statement can be made as to which arrangement of drive will be most economical. It behooves the designing engineer to be open-minded and give consideration to every promising method, whether or not it is a so-called ''modern'' method. What the plant owner wants is—maximum income per dollar invested. Economical transmission will swell the income while expensive transmission will cause it to diminish. Thus, in some creameries it may be found advantageous to change to electric group drive in the distant portions of the building, but retaining mechanical transmission in those portions that are close to the source of power.

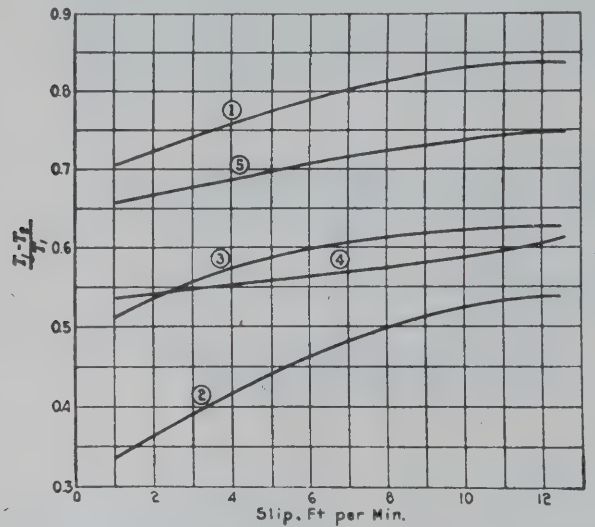


FIG. 6 RELATION OF SLIP TO FRACTION OF MAXIMUM BELT TENSION TURNED INTO EFFECTIVE PULL

(Curve 1, Special tanned leather; Curve 2, Oak-tanned leather; Curve 3, Rubber B; Curve 4, Impregnated fabric; Curve 5, Rubber A. For values of $T_2 - T_1 = 25$ lb. per inch of width.)

Before deciding upon electric motor vs. belt transmission on important drives it is usually worth while to investigate both efficiency and power factor. For instance, the efficiency of a 5 h. p., 3,600 r. p. m. motor is only about 65 per cent when operated at 30 per cent full load. Power factor, also, is low. This makes it expensive to drive a number of small motors. A single electric motor with belt distribution will give much higher efficiency and if properly belted will operate satisfactorily.

The question of fire hazard is shared about equally by the electrical and belt methods. Electric sparks and hot wires have both been causes of fires, but hot boxes
in shaft transmission and static from belts ha
caused fires.

There is no difference in quality or quantity
uct, whether the drive is electric or mechanical.
properly designed and installed, both do thei
well. The point is often made that machines t
individually driven produce more output but t
plies only to faulty drives.

Belt vs. Motor Efficiency.

Fig. 1 shows a comparison of belt drive ar
vidual drive where the belt to the machine i

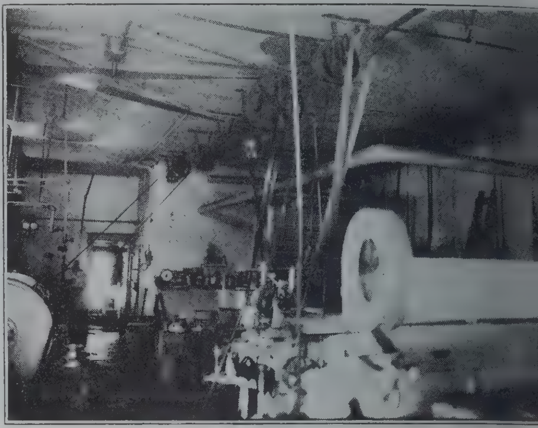


Fig. 7.

Showing the principal belt drives in a Brookings,
creamery. By belting both shafts from the motor, hig
ciency would be obtained. To allow a belt to hang
moving shaft is not good practice.

directly from the engine flywheel—a condition t
ists in some creameries. The overall efficiency
belt drive is shown to be 95 per cent, which is n
done at all; 98 per cent is commonly attained in
tests, and there is no reason why 95 per cent sho
be standard practice in creameries and dairie
efficiency of good common bearings is high, and
roller and ball bearings is still higher. Ther
reason why shaft alignment should be permitted
out of order; and the power loss due to belt cre

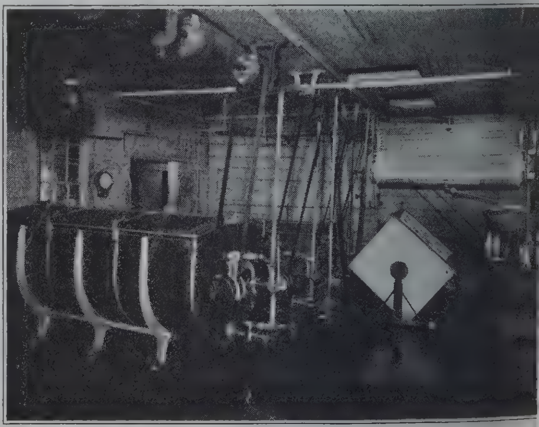


Fig. 8.

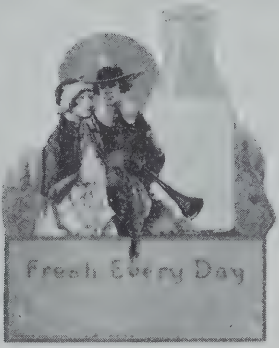
Belt drives in a Califon, N. J., dairy. These mach
too small to make individual electric drive profitable.

windage should always stay below 2 per cent.
why should not belt drive efficiency be mainta
better than 95 per cent?

In the electric transmission line an efficienc
per cent is used for the generator and 90 per c
the motor, which is about the average for lar
chines. As already stated, the efficiency of sma
vidual motors is low. Thus, small motors up to
horse-power do not average more than 70 per

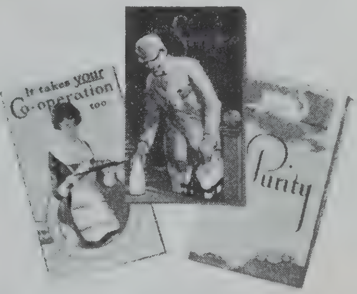
YOUR DAIRY COMPA
DAIRY
DAIRY COMPANY
MILK
DAIRY
MILK

uiving YOUR BUSINESS a Personality —

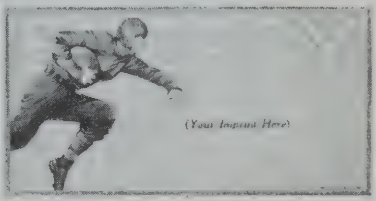

Fresh Every Day

ON the loading platform of your plant it is "*your milk*"—is it still "*your* milk" when it reaches the homes of your customers or is it just "milk"?

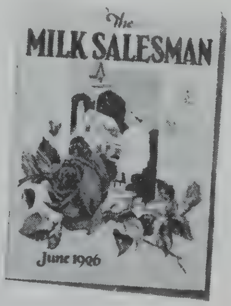
The answer to that question depends entirely on whether you preserve your identity clear through to the homes you serve. And it's a mighty important question because millions of gallons of milk flood the cities of this country every day. And if you're spending money to get good milk and to give good service, you can't afford to submerge the personality of your business in the daily Niagara of milk that pours out over the country.


It takes your Co-operation too
Purity

That's what advertising is for.


(Your Imprint Here)

Never mind now about education. The purpose of advertising isn't to educate—it's to sell goods. And you can use it, if you like, to make *your* milk stand head and shoulders above the common level.


The MILK SALESMAN
June 1926

Let us tell you how we are helping other dealers do this job. We've had a lot of experience in the milk business. We know the milk man's message and the milk man's market. Maybe we can help you. Drop us a card.

HE FARRAR ADVERTISING COMPANY

108 FULTON BUILDING :: :: :: PITTSBURGH, PENNA.

When writing to THE FARRAR ADVERTISING COMPANY *please mention The Milk Dealer* ficiency and in addition there is the line loss. The overall efficiency of such a drive, then, Fig. 1, would be 0.90×0.90=0.81, or 81 per cent. The belt drive is, therefore, 14 per cent more efficient than the best electric drive.

It is true that a special case is used here, but let us go a little farther and carry the belt transmission problem to another extreme, as shown in Fig. 2, where three intermediate shafts lie between the engine and driven machine. This occurs as often in creameries and dairies as does the condition shown in Fig. 1. Assuming a belt efficiency of 95 per cent, as before, we find that the overall transmission efficiency is still just as high as with individual drive, for 0.95×0.95×0.95×0.95=0.81, approximately. Efficiency is now "nip and tuck" and the decision as to which to use would very likely lie with the first cost, convenience, dependability, etc.

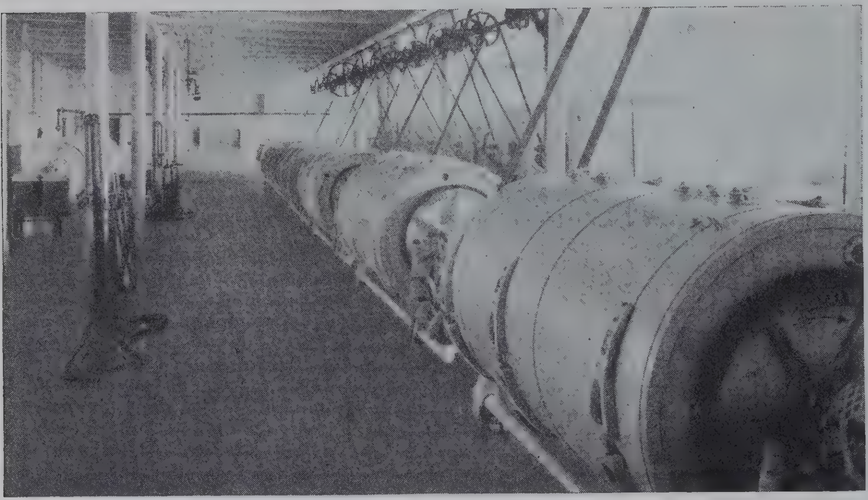


Fig. 9.
Eight churns in the Hanford Produce Co., Sioux City, Ia. Five horsepower is required to drive each churn—so small as to make individual electric drive more costly than belt drive. To be sure, belts must be non-slipping.

Inasmuch as the first cost of electrical apparatus is greater than mechanical, much depends upon whether or not the machinery to be driven is employed continually during the entire year or during only a portion of the year. The problem is very similar to the ball bearing problem—whether or not it will pay to equip certain machines or shafts with ball bearings. Where machines are seldom used, even though the transmission efficiency may be higher with individual drive, such a drive should not be used when first cost is great. This is true for the same reason that in some instances it is found economical in certain localities to burn 4 pounds of coal per hour to produce 1 horse-power instead of 1 pound of coal. It is now possible to produce even more than 1 horse-power per hour from 1 pound of coal, but the first cost of the process is too expensive for small plants. Much depends upon the cost of the coal.

Out of this we can conclude that the efficiency of a drive is not "everything." The thing wanted in the end is "maximum production per dollar invested," and this includes all factors such as labor, insurance, taxes, interest, upkeep, cost of safety appliances, etc.

Electrical Efficiencies.

Average efficiencies of generators and motors a
load are about as folows: Direct-current genera
50-kw. 90 per cent; 100-kw., 91 per cent; 1,000-k
per cent. Motors: ¾-h. p., 64 per cent; 5-h. p., 8
cent; 15-h. p., 84 per cent; 30-h. p., 90 per cent; 150
92 per cent. Alternating generators: 50-kva., 9
cent; 100-kva., 91.5 per cent; 500-kva., 94.5 per
1,000-kva. and over, 95 per cent; m
1-h. p., 76 per cent; 10-h. p., 85 per
100-h. p., 90 per cent; 200-h. p., 9
cent.

Thus, if we have a 50-kw. gen
whose efficiency is 90 per cent, and a
motor with an efficiency of 76 per cen
overall efficiency is 0.90×0.76, or 68.
cent. This efficiency is easily sur
with modern belts and pulleys und
dinary conditions, even without ball
ings.

An important point that should b
phasized is this: Always keep belt
in highly-efficient condition. Let us
pose, for example, that the efficien
each individual belting unit in Fig. 2
per cent instead of 95 per cent. Ordi
we regard even 90 per cent as high.
with such an efficiency, the overall effi
of the entire drive would be only 0.90
×0.90=0.655, or 65.5 per cent, which
tressingly low in comparison with 8
cent. This clearly demonstrates m
matically the importance of keeping belt drives effi

Fig. 3 shows graphically how rapidly efficiency
in belt transmission where there are intermediate s
Thus, where the efficiency of a single drive is 9
cent, the overall efficiency drops to 65.5 per cent
three intermediate shafts. And where the efficien
a single drive is as low as 50 per cent, a single
mediate shaft drops the efficiency to 25 per cent
intermediate shafts drop it to 12 per cent; and thr
termediate shafts drop the overall efficiency way
to 6 per cent, or almost nothing.

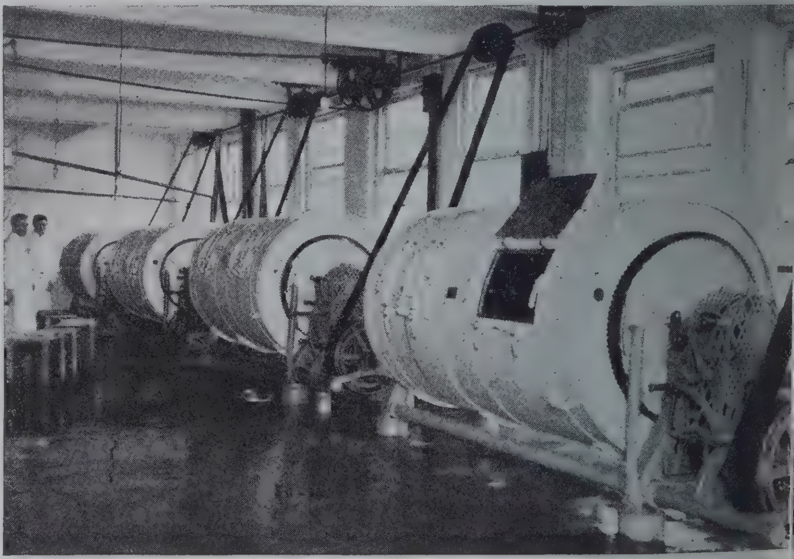
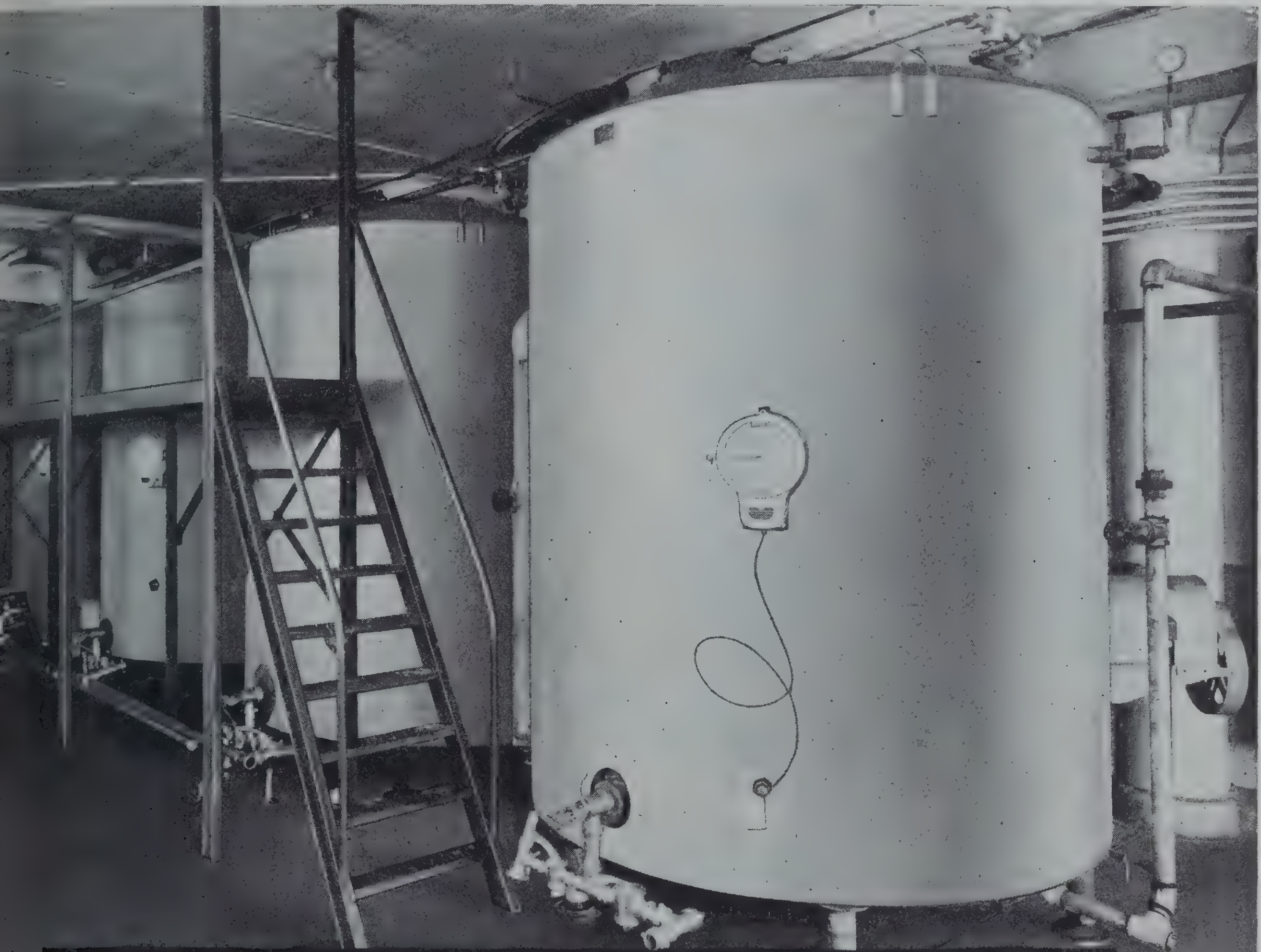


Fig. 10.
Four churns in the Ottawa Dairy, Ltd., Ottawa, Can. High friction, non-slipping belts are most economical for drives like this where small power is required. In general, do not use individual electric drive on machines that require less than 50 horsepower.

(Continued on page 76)

f the Glascote equipment used by The Ohio Farmers Cooperative Milk Association, Cleveland



GLASCOTE

HIGH GLAZE GLASS COATED TANKS

Preferred by Largest Creameries

LLING the roll of Glascote installations
brings in the names of the largest and
progressive Creameries and Ice Cream
ts in every community, including organi-
ns that are nationally known. Glascote
are preferred because of the outstanding
iority of the high glaze lining and the
lence of the mechanical construction.

Glascote Pasteurizers, in addition to their perfect sanitary merits, are unusually efficient in heat conduction, and in accessibility for cleaning. A vital factor in every Creamery is adequate storage capacity. Without it milk is wasted. Glascote Storage Tanks are saving their cost in countless plants, some installations reaching a total of fifty thousand gallons.

The layout of a Creamery or Ice Cream Plant is important. Our Service Department will bring to you ten years of specific experience in this field. There is no obligation if you call upon us for information, estimates or plans—for one unit or a whole plant. Send for new bulletins.

E GLASCOTE COMPANY, EUCLID, OHIO [Cleveland District]

YRK OFFICE
rk Row
a lay 1784

CHICAGO OFFICE
127 North Dearborn St.
Dearborn 9731

DETROIT OFFICE
1217 Book Building
Cadillac 0799

ST. LOUIS OFFICE
905 Carleton Building
Garfield 3561

When writing to THE GLASCOTE COMPANY *please mention The Milk Dealer.*

Cost of Electrical Burnouts.

Where motors are operated at full load continuously, or where they are overloaded, the danger of a burnout is ever present. Just recently some figures came into my possession concerning a factory in which nearly 5,000 electric motors are operated—the total power consumption being slightly over 40,000 h. p. To be exact the average of each motor is figured as 8.92 h. p. The statement shows that they average over 100 burnouts every year. The total cost of rewinding the motors is given, making it possible to figure that each burnout costs $83.80. To this cost of burnouts must be added the cost of holding up production, and the cost of idle labor during the breakdown period. In the average creamery or dairy which is not equipped for rewinding burned out motors the cost per burnout is very likely even greater than $83.80.

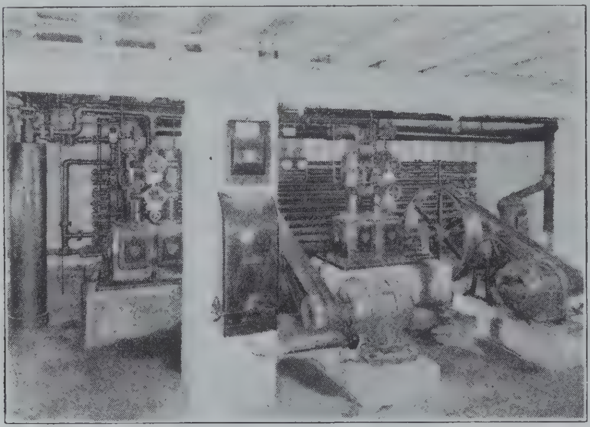


Fig. 11.

Two belt-driven refrigerating machines in the plant of the Purity Ice Cream Co., Newark, N. J. Each drive is equipped with a wrapper pulley. The first cost of units like this is much less, and the efficiency is usually higher than would be the case if direct-connected electric motors were used.

Motors Too Large.

A motor on a churn must be large enough not only to handle the average load but it must be able to handle the maximum or peak load. This is true of any machine, whether it is electrically or belt driven. Belt drives must also be so designed that they are capable of handling starting loads and other high loads as well as the average load. But to install an excessively large motor on each churn is not good engineering practice so long as something better is obtainable.

One can attach a tremendously large motor to almost any machine and it will "make the wheels go." But if the load is only intermittent, of a variable character, with a high peak, the load factor will be low and the cost of operation high. In a similar way it is possible to install needlessly large pulleys and belts, but the pulley and belt has an important advantage in the matter of load factor and power factor. An underloaded belt drive is usually much more efficient than underloaded electric drive.

Lubricants.

An argument often employed against belting is that belts become oil-soaked after which slip troubles occur. The best answer to that is:—employ lubricants that do not splatter. A splattering lubricant is usually more expensive on milk products than on belts and should not be tolerated. There are excellent lubricants on the market known as "absorbed oils," which are two oils in one—a film oil in which is absorbed the lubricating oil. The film prevents metal-to-metal contact and the oil supplies the lubricity or lubrication proper. Th
excellent oils for use in creameries and dairies fo
cating electric motors as well as line shafting.

Friction Clutches.

One of the former disadvantages of belt trans
was that in order to run a portion of a creamery o
it was customary to operate all of the line shaf
the idle portion of the plant as well as over the
that was loaded. This resulted in a serious
power. However, by judicious application of f
clutches, in accordance with modern methods, r
these losses may be eliminated. Electrical power
advantage in this respect. However, where the
is generated in the creamery itself and when th
is operating on light loads, the efficiency of the ge
is low. Clutches assist in avoiding the old f
countershaft drive, cross belts, tight and loose p
and extra bearings. They reduce first cost, reduc
requirements, make transmission still more efficie
reduce belt troubles to the minimum.

Belt Drive Simplicity.

The simplicity of belt driving is, of course,
in its favor. To the average dairy or creamery
there is so much mystery about electric motors th
purchaser is more or less helpless. Belts, pulley
shafts are so much simpler that any user can ma
own computations, write his own specifications,
his own installing.

Most creameries carry a supply of pulleys,
and hangers in stock. The first cost of these ma
being low, it is not expensive to keep them on
Then when a new machine is installed or a power
to be extended, the work can be done by any me
or can be superintended by him, and the new mac
put in operation in a very short time. Likewise
belt needs replacing or lacing it is accomplishe
comparative ease.

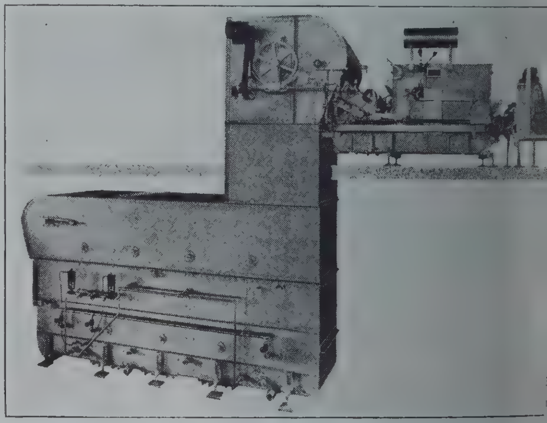


Fig. 12.

**Air brush milk bottle washer used by D. H. Ewing
Inc., Louisville, Ky. Two electric motors are visible
photograph, yet, as will be noted, they are bolted to the m
If the efficiency of the motor is 70 per cent, and of the ge
90 per cent, and of the belt 95 per cent, the overall effic
(0.70 × 0.90 × 0.95) 59.8 per cent. All-belt drive should
least (0.95 × 0.95 × 0.90) 81 per cent efficiency.**

On the other hand with electrical drives, unl
creamery employs an electrical engineer, it is nec
to hire special assistance to install the wiring and
Outside of the large cities electrical motors ar
erally secured with greater difficulty than shafts, p
belting, and hangers.

The flexibility of the electric motor is also o
some extent by its speed range limitations. The l
the speed of a motor the higher its cost and the lo
efficiency and power factor.

In the selection of electric motors we are usu

SOLAR

MILK CANS

ALWAYS DEPENDABLE - - - - -

Each separate part chemically treated and cleaned, evenly and heavily coated with pure tin and then assembled by expert workmen. Quality is guaranteed—workmanship is guaranteed.

REMEMBER — when prompt shipment is imperative, you can rely on us.

SOLAR - STURGES MFG. CO.

MELROSE PARK . . . ILLINOIS

AMERICO" THE PASTEURIZER WITH A PURPOSE

h new "AMERICO" with improved coil control

The "AMERICO" embodies the most advanced principles in design and construction.

It has no stuffing boxes to gather bacteria and contaminate the batch.

The agitation is gentle. This prevents foaming, churning and breaking of fat globules.

Heating is done with water below 160° F. There is no burning on the coils nor scorching of the product.

The flush type outlet valve is standard on all vats.

Thorough cleaning of all parts is accomplished with ease as the coils can be raised out of the vat.

What an "AMERICO" User Says:

"We consider that 'AMERICO' is nearer perfection than any pasteurizer we have ever used."

ERICAN COPPER & BRASS WORKS
Manufacturers of Dairy Equipment

610-616 E. FRONT STREET
CINCINNATI, OHIO

stricted to a definite speed. If we want a different speed we are obliged to use a step-up or step-down belt arrangement. We must give consideration to the load characteristics. Does the machine start easily or with difficulty? The condition of the machinery, lubrication, kind of bearings, alignment, etc., must all be carefully weighed in order that the proper size motor will be selected. The motor must be capable of handling whatever load is required of it—peak load, or valley load, long sustained normal loads, short peak loads and innumerable small loads. If peaks or overloads are of too great duration the motor will heat excessively and may burn out. In some modern installations, to prevent overheating, the motors are artificially cooled.

Where old creameries and dairies are entirely belt operated with ordinary or plain bearings, overall transmission efficiency commonly varies from 60 to 70 per cent. Sixty-five per cent may be taken as the average. Such plants are far from being up-to-date. With the installation of ball or roller bearings on the important drives and with modern well lubricated plain bearings elsewhere, overall transmission efficiency should be no lower than 90 per cent. In other words, with all of the line shafting running and all machines thrown off, only 10 per cent of the engine horse-power should be consumed in operating the transmission machinery with all of the machines cut off.

The Best Belt.

Thus far nothing has been said about the kind or quality of belt that should be used in the dairy or creamery.

There is a vast difference in belts. The difference is greater than most belt users realize, and, owing to the all too common use of poor belts in creameries and dairies and their unsatisfactory performance we now find the electrical manufacturers taking advantage of the situation in an attempt to foist a more expensive type of drive upon the creamery and dairy owner.

The average creamery man does not know how to select the best belt. He looks askance at "belt data" and "belt tests" because he believes them to be biased; and, usually, he is right.

It is well known that tests conducted under the auspices of interested manufacturers for the sole purpose of obtaining favorable selling literature are often unreliable. No manufacturer can be blamed for desiring helpful data, of course. In fact, it is common practice to "buy" test data for such purposes, and to publish results that are obtained in the manufacturer's privately owned testing laboratory.

I do not know of a single instance where an engineer or other person employed solely to test a product has not endeavored to obtain favorable data for the manufacturer. Often the test results are twisted in such a way as to make them appear favorable without being untruthful. This may be done by simply omitting the unfavorable results and publishing the favorable side only. It is a very poor product indeed that does not possess a few commendable points, consequently all selling arguments are made to hinge around those few points.

Unfortunately, in the power transmission field so much of this biased literature is in circulation that creamery and dairy owners have much difficulty in deciding which belt is best without conducting tests of his own, and, of course, the expense of testing anything thoroughly is in most cases so great as to render that method uneconomical.

It is, therefore, refreshing to learn that entirely unbiased tests have recently been made on modern belts, comparing most of them, such as special miner
balata, cotton, combination chrome and oak
rubber, and oak tanned belting.

One of these unbiased tests was conducted
Ohio State University under the supervision o
C. A. Norman, professor of machine design. The
of the tests were presented by Prof. Norman bef
American Society of Mechanical Engineers in De
1925. The title of his paper was, "The Tensio
and Transmissive Power of Belts." In his ackno
ment he says, "All new belts used in these tes
bought from manufacturers without statement
purpose for which they were to be used."

Manufacturers of belting had no knowled
those tests were being conducted. Prof. Nor
ceives his salary from the University of Ohio fo
work of this nature and is not dependent upon
facturers. Manufacturers are generally willi
glad to furnish "free" belts for testing purpo
in this instance the belts were purchased in t
market where all best belts should be purchase
much biased belt information is based on data o
from the best belts that can be made. Data sh
based on "average" results in accordance wit
practice as in steel tests, wood tests, paper tests

Inasmuch as Prof. Norman's paper will be f
Mechanical Engineering, published by the A. S.
I am reproducing only three of the charts which
most interesting in the entire report.

It will be observed that the special mineral
leather belting gave best results in every test.
in Fig. 4 the top curve (curve 1) shows a "pu
ficiency for the special tanned leather belt varyi
73 to 92 per cent. The best that balata belting
is 85 per cent. The maximum for rubber is 70
and for solid woven cotton 63 per cent.

In Fig. 5 special mineral tanned belting is a
top, curve 1, while oak tanned leather shows poo
sults in curve 3. And in Fig. 6 the honors on
go to special mineral tan, rubber, solid woven
and oak respectively.

An important feature of Prof. Norman's test
fact that the belts tested were "new" belts. T
were NOT made on belts that had been carefull
in. It is obvious that a belt should be as able
full load when new as when used a number o
Thus, if 100-h. p. must be transmitted by a c
main drive is it not foolish to buy an extra-w
belt capable of transmitting that amount if a n
old one will do it better? Or, in other words, w
a new belt wide enough to transmit 100 h. p.,
after two weeks or so will transmit 200 h. p.? S
is better engineering to buy a belt that will t
100 h. p. from the beginning. Oak tanned
belting is at a disadvantage in this respect, fo
Norman says:

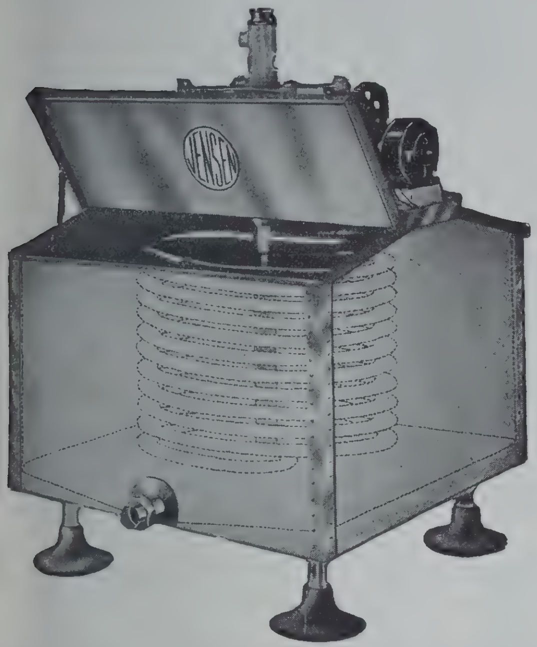
> "New oak-tanned leather belts, not run
> vert into effective pull a smaller fraction
> maximum tension. Rubber belts, balata be
> tain textile belts, and the special-mineral-tan
> give their full service from the very start."

Other unbiased tests were made in France
official scientific institution of world-wide re
and absolute dependability—the Laboratories
chanical, Physical and Chemical Tests for Test
chinery of the French Republic. The complete
known as Official Report No. 41426 of which tra
into the English language are available.

Each test sheet bears the official seal of the
conservatory, together with the personal sign
the director of the laboratories and that of the
tests. The report came from the "Office of the

Dairy Products

Can only be as good as the equipment handling them.



Has Adopted Pure Nickel

THE goal of the dairy industry is the increased consumption of dairy products. Authorities say that this expanded volume of business will come with a better product—a product handled in better equipment.

Realizing that conditions call for a metal that is easily cleaned, yet strong and durable, the Jensen Creamery Machinery Co. has adopted Pure Nickel for the coils and linings of its quality line pasteurizers.

The same properties that make Pure Nickel the SAFE metal also make it the ECONOMICAL metal for dairy equipment; for it combines long life and easy cleanability.

You can now obtain Pure Nickel equipment. Ask us or write us for more detailed information.

Jensen Creamery Machinery Company

BLOOMFIELD, N. J.
OAKLAND, CALIF.

SANS, Meaning *Without!*

Without

Extra Advertising
Extra Salesmen
Extra Manufacturing Expense
Extra Packaging Expense
Or Better Milk

You can secure a 50 per cent increase in your cottage cheese sales. Learn our method of making *flaky, creamy, low-in-acid* cottage cheese.

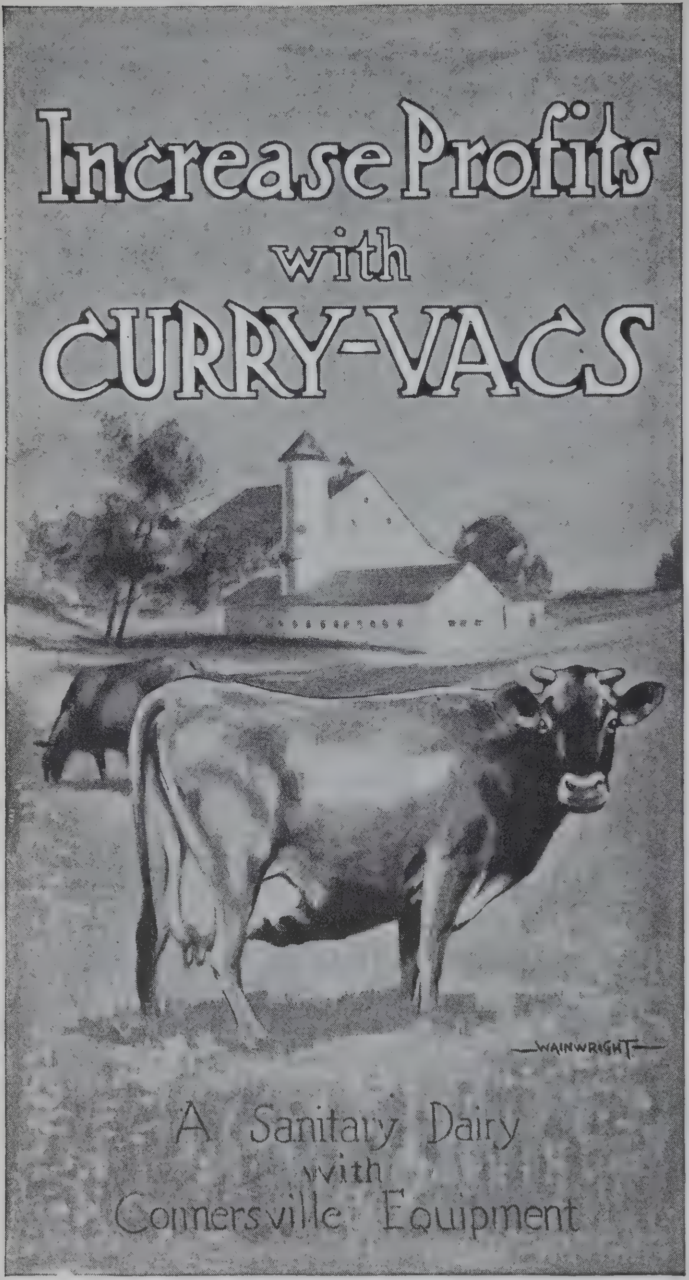
The largest and best dairy companies report a 50 per cent increase after learning our method.

Without obligation to you, we will be glad to send full details.

Write us about it TODAY!

Flake Cream Cottage Cheese Co.

601 MILWAUKEE AVE. CHICAGO, ILLS.



CONNERSVILLE CURRY-VACS reduce the time required for cleaning, reduce the bacterial count of milk, and increase milk production. As a result, they increase profits for the dairy that is kept sanitary with Curry-Vacs.

Machines are made in portable and stationary types, for any sized barn. Curry-Vacs are just as efficient for grooming horses as for cows.

Send the Coupon for Information on these Machines.

AGENTS IN ALL PRINCIPAL CITIES

United Vacuum Appliance Corp.

CONNERSVILLE Dept. M1 INDIANA

Please send information on ( ) Truck ( ) Stationary Type Curry-Vacs for ( ) Horses ( ) Cows.

Name ....

Address ....

City ....

secretary of the State of Technical Instruction,''
is associated with the ''National Conservatory
Arts and Science.'' The tests were made in Par
the report came from the same city.

The purpose of the tests was to determine the
losses of a belt drive transmitting about 30 h.
speed of 4920 ft. per min., with regularly dec
tensions on the shafts.

Three leather belts were tested: First, a pa
belt of oak leather lined with chrome strips, refe
as the ''combination belt;'' second, a special
tanned leather belt; and third, an oak-tanned
belt.

All of the belts were tested on two polished ca
pulleys which were placed on two dynamos eq
with power measuring brakes called, ''electrical
mometers.'' One of the electrical dynamomete
used as a motor and the other as a brake. The
dynamo was placed on a platform which was so ar
that it could pivot about the axis of the shaft
through its iron pulley—similar to a gasoline eng
a brake-test block.

One of the dynamos was mounted on slide
that the belt tension could be increased or decrea
will.

Beginning with high tension and full load the
in the belt was gradually reduced until the belt
completely slip on the pulley.

Throughout the tests the rim velocity of the
pulley was maintained as closely at 4,920 ft. per
possible.

Each observation, or reading, was extended
period of four minutes.

Throughout these tests the special mineral
belt gave best results. At only one point did t
belt show a better result and that was but slightly
than the corresponding result for special mineral
belting.

Summing up, these tests showed that:

1. At a sliding speed of 0.98 ft. per min.
efficient of friction of the special mineral tanned
3.78 times that of oak belting. (0.70÷0.185=3.7

2. At a sliding speed of 59 ft. per min.
efficient of friction of the special mineral tanned
3.59 times that of oak. (1.97÷0.550=3.59).

3. The maximum coefficient of friction fou
oak belting throughout the entire range of expe
is not as great as the minimum coefficient of
found for the special mineral tanned belt. The mi
for mineral tan is given as 0.70 while the maxim
oak is given as 0.608.

4. Even where the mineral tan leather be
operated so loosely and slack that the upper side t
the lower side, the belt still pulled full load, wit
tically no more slip than when the belt tensio
normal.

5. Under the given conditions of the test
perimenters could not make the special mineral
leather belt slip more than 1.55 per cent. The ma
shown in the tables and curves is 1.4 per cent.
other hand the oak belt slipped 8 per cent.

6. The special mineral tanned belt is very
The tests show that when under maximum initi
sion there is no perceptible difference in total
mission losses between the special mineral tan a
In fact, one of the readings gives the oak an adv
of one-fiftieth of one per cent but that is the onl
ing the writer has been able to discover in the en
port that gives the oak any sort of advantage
maximum losses for oak mounted up to 8.8 p
while for special mineral tan they went no highe
very worst than 2.2 per cent.

The BEST BULWARK
CLEARNESS
ACCURACY
STRENGTH
ATLANTIC
Milk
Bottles

CLEARNESS

—that the customer may see the quality of milk you are distributing.

ACCURACY

—that the customer may get the amount that he or she buys.

STRENGTH

—that the bottle may last the dealer as long as possible. Bottle loss is one of the milk distributor's problems. Less breakage, less cost.

ATLANTIC BOTTLE CO.

FACTORY: BRACKENRIDGE, PA.

W. Broadway, New York **327 S. La Salle St., Chicago**

When writing to ATLANTIC BOTTLE CO. *please mention The Milk Dealer.*

The Deleterious Effect of Freezing on the Flavor a
Physical Properties of Milk[*]

By PROF. WM. H. E. REID,
COLUMBIA, MO.

Abstract—The freezing of milk containing flavors
than the desirable milk flavor, causes such flavors
come more pronounced. The cream column of froze
decreases in length in direct relation to the freezin
perature and the length of time frozen. The freezing
milk fat results in clumping of the globules. Many gl
when photographed, appear distorted in shape and ir
in their circumferences.

THE object of this study was to determine the effect of freezing on the flavor and several of the physical properties of milk. The intensification of many of the undesirable flavors and odors which are most prevalent in winter was thought to be caused by the freezing of the milk.

Milk is frequently frozen while on the delivery wagon or subsequent to delivery. The length of time the milk is frozen depends upon the hour of delivery and the time when the milk is received by the consumer. This time commonly varies from one to five hours. The intensity of the freezing is made greater or is lessened depending upon the severity of the weather.

Casein in milk is a nucleo-protein and contains phosphorus. It is insoluble in water when free and uncombined. In milk it is combined with calcium in form of dicalcium caseinate and is in suspension. Casein is responsible for the white color of milk and in part for its opacity. When milk is exposed to a low temperature, the calcium caseinate forms flakes, which, when the temperature is sufficiently low, are visible to the eye.

Fat is present in milk in extremely finely divided condition, i. e., in an emulsion. The evidence is strong that the milk fat is derived from the phosphatid of the blood plasma.

In freezing, milk undergoes profound physical changes which become more pronounced with the length of time frozen, and it may be partially churned, that is, the complete emulsion which previously existed may be partially destroyed. The natural emulsion of the milk fat is never completely restored after thawing and the casein then appears in form of white flakes rather than in the original colloidal condition. The fat content of the upper layers may be three times as high as originally and much higher in the center portion of the milk than at the periphery. The emulsion of fat is destroyed much more rapidly when frozen than is the colloidal condition of the casein. Milk which has been frozen will decompose much more rapidly than unfrozen milk because of the injurious physical changes resulting.

The upper layer of milk after freezing has a lower specific gravity than in the original milk due to the increased fat content, although the total solids may not have changed materially.

The changes which take place in milk when frozen are permanent and the milk when thawed is never exactly the same as the unfrozen milk. The freezing point of milk is below that of water. The lower freezing temperature of milk is due to the presence of solids in suspension and solution.

When milk freezes, the freezing process is not complete as the external evidence may indicate. The water of the milk freezes first and the solids form a highly concentrated solution with a depression of the freezing point. The water freezes first at the outside on the wall of the vessel containing the milk; the solids, i. e., the fat, casein, albumin, milk sugar, etc., are forced toward the center, giving a more concentrated solution, ar
freezes at a lower temperature. As the freezing
milk continues, the fat rises and is forced to the
The central part of the frozen milk has a much
specific gravity than the original milk, because
higher solids, and somewhat less fat.

Milk has a lower surface tension than water l
on account of the proteins. That the individu
globules are surrounded by a very thin film of p
has been proven analytically by the higher ni
content of cream and butter as compared with mil
protein films of the fat globules are not solid, b
cous and they cause a natural gathering of the
raw milk. These accumulations bring about the
gravitation of the fat and give the definite crear

Normal milk has a slight odor resembling t
halations from the cow's skin and a slightly sw
taste. During the colostral period and near the
lactation, cow's milk may have a salty, bitter, or
what rancid, animal-like taste. Milk of the indi
cow many also be salty or bitter in advanced lac
after abortion, in mastitis, and when the anima
gestion is disturbed. Milk with certain degrees o
ity will acquire a bitter, astringent taste in ruste
sels. A fishy taste is sometimes present when mil
sels are rusty or are not rinsed free of soap p
Many aromatic feeds impart a characteristic odo
taste to the milk, for example, ensilage, rape, ca
beets, turnips, rutabagas and carrots. Many undes
odors are readily absorbed by the milk, especia
a medium high temperature.

Many abnormal odors and tastes result fro
growth of bacteria in milk. Activity of pepti
bacteria may product a bitter taste due to prod
of peptone, and later a foul and unpleasant odo
taste, the result of decomposition processes. Bac
the coli-aerogenous group produce an unclean,
nauseating, stable or manure-like odor and taste.
eral organisms have been identified which produ
ter, soapy, oily, and burnt tastes and a stable-lik
and taste.

The literature furnishes few researches treati
this problem.

DuClaux[1] reports frozen milk has a changed
but does not attempt to describe it, and says that
is not less cream in frozen milk. Farrington[2] foun
freezing milk causes it to separate into two d
parts, i. e., first milk crystals largely compress
water, with small admixtures of fat and serum
and second, liquid proteins containing nearly all
milk proper. Heineiman[3] states milk undergoes
ical and physical changes which are more pron
the longer it remains frozen, and that thawed milk
returns to its original state.

The flavors studied are those which are foun
or less frequently in market milk. They are:
water, fly dope, ragweed, silage, alfalfa, molasses,

---

[*] This material will appear in the near future as a Research Bulletin published by the University of Missouri.

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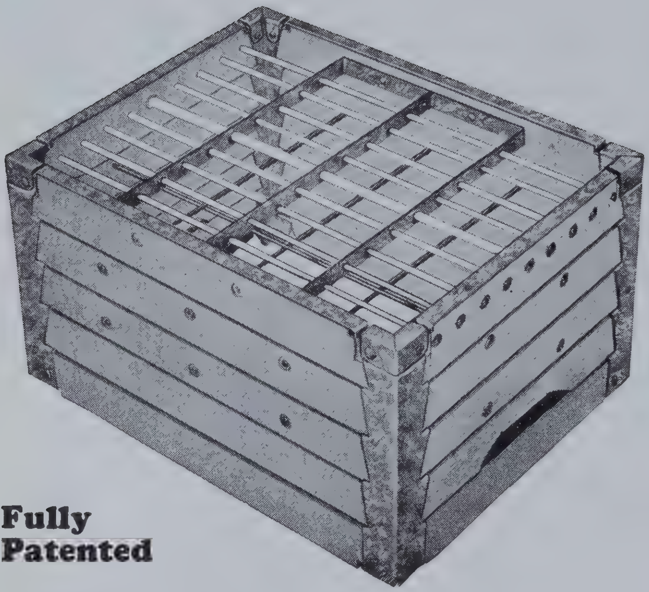

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ld not be so many trying to imitate the Woolsey crate.

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animal heat, woody, oily, gasoline, metallic, and feces. These flavors were prepared in the following way: The wash water was obtained direct from a vat in which milk bottles had been previously washed; the fly dope used was a commercial product; ragweed, ensilage, alfalfa, and onions were obtained from the original plant; and the woody flavor from pine shavings. The metallic solution was obtained by immersing metal shavings. A solution from each was sterilized to destroy all life and to prevent developments in the milk of an off-flavor from some other source. Ordinary oil and gasoline were used as gasoline is sometimes transported in milk cans and the oil may come from the separator, or other sources. The animal heat and feces flavors were readily obtained by exposing the milk in open pails for a brief time in the barn proper.

The procedure followed in determining the relation of freezing to the intensification of these off-flavors was as follows: Fresh whole milk was received and judged to observe that it was free from undesirable flavors. This milk was then standardized to test 3.7 per cent butterfat, to give assurance that no differences in our observations could be attributed to the difference in the butterfat content. A skim milk free from undesirable flavors was used in standardizing the whole milk. The milk when found satisfactory was divided and equal amounts placed in sterilized glass vessels, each having a known capacity. The glass containers were then marked as follows: Check samples of original milk not to be frozen; check samples containing known flavor not to be frozen; samples containing flavor to be frozen and thawed at 45 degrees F. (7.22 degrees C.), 60 degrees F. (15.55 degrees C.), 75 degrees F. (23.89 degrees C.), 90 degrees F. (32.22 degrees C.). All determinations were made in duplicate. The containers were stoppered to prevent the volatilization of any flavors. The various temperatures were used to determine if they might increase or lessen the intensification of the off-flavors due to the variance in the time that might be required to thaw the respective samples.

The amount of each flavor under study added to the measured samples of milk, with the exception of the checks, was just sufficient to give the milk a flavor perceptible to the taste. The samples were then frozen at a constant temperature of 10 degrees F. (—12.22 degrees C.) for a period of three hours, then they were thawed at the respective temperatures noted.

Effect of Freezing on the Cream Line of Milk.

To determine the effect of freezing on the cream line fresh samples of milk, testing 4.5 per cent butterfat, were obtained and cooled to 42 degrees F. (5.55 degrees C.). Ten calibrated 100 ml graduates were filled with milk to the 100 ml mark and allowed to remain quiet for 12 hours at 42 degrees F. (5.55 degrees C.) to permit gravitation of the milk fat. This length of time was required to assure the maximum creaming of the milk. Eight of the graduates containing the milk were then frozen at a constant temperature and for the desired length of time. Two graduates were retained at the cooling room temperature as controls. When the freezing process was complete the graduates were removed and held at a temperature of 60 degrees F. (15.55 degrees C.). Observations were made and the graduates photographed. Observations were again made after one, three and 24 hours respectively. Milk was frozen in the graduates for three and five hours at 0 degrees F. (—17.78 degrees C.), 6 degrees F. (—14.44 degrees C.), 10 degrees F. (—12.22 degrees C.), 15 degrees F. (—9.44 degrees C.), 20 degrees F. (—6.67 degrees C.), 25 degrees F. (—3.89 degrees C.), 30 degrees F. (—1.11 degrees C.). These periods of freezing and temperatures were decided upon as representative of comm ditions.

Table I—Effect of Freezing Milk at Varied Temperatu Different Periods of Time.

Temperature Frozen in Degrees	Frozen 3 hours			Frozen 5 h	
	Pct. loss after thawing			Pct. loss after	
	1 hr.	3 hr.	24 hr.	1 hr.	3 hr.
0°F.(—17.78°C.)	39.00	42.44	45.90	40.75	42.65
6°F.(—14.44°C.)	38.84	41.82	43.16	40.12	42.47
10°F.(—12.22°C.)	31.68	33.33	38.34	39.83	41.24
15°F.(— 9.44°C.)	24.90	29.70	33.20	28.70	33.80
20°F.(— 6.67°C.)	15.78	24.65	28.67	18.00	26.19
25°F.(— 3.39°C.)	8.31	13.98	25.57	15.90	27.90
30°F.(— 1.11°C.)	.58	4.25	12.19	2.21	5.89

Discussion of Results.

When the milk samples to which no flavors h added and those containing the different flavo judged the intensity of the aroma and flavor condition of the body of the cream column w served. The data indicated that in every insta samples of the original milk which were not fro a clean, desirable aroma and flavor. The check of the original milk which had been frozen we from an unclean aroma and flavor, but possessed which was flat, due probably to the watery cond the samples, caused by the freezing and separatio liquid and solids of the milk. Samples contain different flavors, but which had not been frozen, show any perceptible change due to aging. The to which had been added the various flavors and had been frozen, had very pronounced and grea tensified aromas and flavors, common to, or typica particular flavor added. This was true of every frozen and then thawed at 45 degrees F. (7.22 C.), 60 degrees F. (15.55 degrees C.), 75 deg (23.89 degrees C.), 90 degrees F. (32.22 degre The intensity of the aroma and flavor imparted sample diminished with a lowering in the thawi peratures, the most pronounced aroma and flavo prevalent in the samples thawed at 90 degrees F. degrees C.) and the least pronounced in the thawed at 45 degrees F. (7.22 degrees C.).

The samples to which the wash water flavor ha added gave an aroma and flavor which was tallo characteristic of wash water; the samples contai dope caused a biting sensation on the tongue; r gave a flavor that was sickening and nauseating; the samples prepared from animal heat and fe resin flavor was obtained when a woody soluti been added to the milk. The flavor of gasoline, m filings, and oil produced flavors which were pron very undesirable and offensive.

The intensification of the undesirable arom flavors in the frozen milk may be explained by th able volatilization of some slightly volatile fats stances in the milk which had served as a buffer i ing the objectionable flavors not to become a when the milk was in an unfrozen state. This e tion is feasible in that milk having a very desirabl before freezing has a flat taste after having been The change in the flavor may also have been due, at least, to a precipitation of a part of the protei mineral constituents. The question of the solidity milk fat concerns itself in these deductions, inasm a fat in the milk at ordinary cooling room temp is only partially solidified. The partially solidif globules permit a partial volatilization, this be more apparent as the temperature is raised. T plains why milk when thawed at higher tempe imparts the several flavors with greater intensit did the same samples when thawed at lower te tures. The data appears conclusive that freezing

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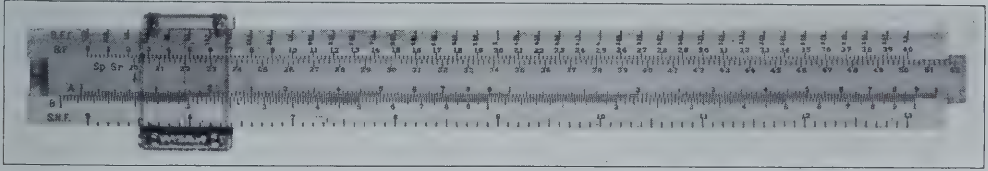

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causes a decided intensification of any flavor which is present in milk at the time of freezing.

When the temperature is sufficiently low to cause freezing a separation of the solids results, the fat is forced to the center and protrudes above the neck of the bottle as the freezing continues. The pressure applied as a result of the freezing process partially destroys the emulsion of the milk fat. When the milk is exposed to a temperature above freezing, thawing occurs, and the ingredients of the milk endeavor to resume their original state. Observations made of the milk after thawing indicate that a physical change has taken place. The serum has changed from its original color to that of a bluish and watery appearance. The detrimental effect on the cream line is even more serious and is very apparent. When milk was frozen for a period of three hours at 0 degree F. (—17.78 degrees C.) and then allowed to thaw at 60 degrees F. (15.55 degrees C.) for one hour, the decrease in the length of the cream line, in comparison with the original, was 39 per cent; after standing at 60 degrees F. (15.55 degrees C.) for three hours the decrease was 42.44 per cent, and after setting twenty-four hours the loss was 45.90 per cent. The same milk frozen at 0 degree F. (—17.78 degrees C.) for five hours and thawed at 60 degrees F. (15.50 degrees C.) for one hour resulted in a diminishing of the cream line of 40.75 per cent; after three hours 42.65 per cent and after twenty-four hours 45.90 per cent.

The data in table one show that as the freezing temperatures were varied from 0 degree F. (—17.78 degrees C.), 6 degrees F. (14.44 degrees C.), 10 degrees F. (—12.22 degrees C.), 15 degrees F. (—9.44 degrees C.), 20 degrees F. (—6.67 degrees C.), 25 degrees F. (—3.89 degrees C.), 30 degrees F. (—1.11 degrees C.) the decrease in the length of the cream line in graduates thawed at 60 degrees F. (15.55 degrees C.) and observations made after one, three and twenty-four hours diminished with definite regularity with respect to the freezing temperatures and the time elapsing between observations. The same was true in the samples frozen for five hours at the same temperatures. The body of the cream of every sample frozen and thawed, when observed after one hour was granular, porous, and decidedly coarse. The upper and lower surface of the cream columns were irregular and ragged. As time elapsed these undesirable characteristics gradually disappeared. When the last observations were made after twenty hours the body in almost every sample was described as being quite smooth, free from the marked granular appearance, and the surfaces of the cream column regular and level except in the milk frozen at the extremely low temperatures, in which instances the effect of the fre
mained slightly apparent.

The decrease in the length of the cream colu
be explained in several ways. When the milk
jected to freezing temperatures, separation
takes place, the fat finding its way to the outer a
strata of the frozen column. The emulsion of t
partially or totally destroyed. Micro-photogra
that the fat has been disturbed and distorted,
result of the partial destruction of the emulsio
ing of the fat globules has taken place. The
of fat globules may also be made possible by
precipitation of the free casein or the precipit
the albumen which is then partially or almost
removed from the column of milk fat.

As a result of the removal of a part of the c
resistance which had been previously offered by
ence of the casein had been removed and the
globules were permitted to come closer togeth
ing them to occupy less space and to rise more
giving a decrease in the length of the cream colu
a lowering of the freezing temperature and inc
the length of freezing time. It seems reasonab
lieve that the precipitation of the casein may be
to be even greater, the groups or clumps of b
larger and more numerous. The clumps or g
butterfat globules may be dispersed in the seru
the fat column or even embedded in the pre
casein which no longer forms a part of the re
cream column.

Conclusions.

The freezing of milk with even a mild flavor
fies that flavor.

The freezing of the milk produced flavors whi
objectionable and oftentimes very offensive.

The intensification of undesirable flavors as
of freezing, is a menace to the market milk indu

The cream column of milk is diminished as
of freezing.

The decrease in the length of the cream col
comes greater as the freezing temperature is lowe
the time of freezing prolonged.

The body of the cream column during the first
hours after thawing is unsatisfactory, because of i
ular and porous appearance.

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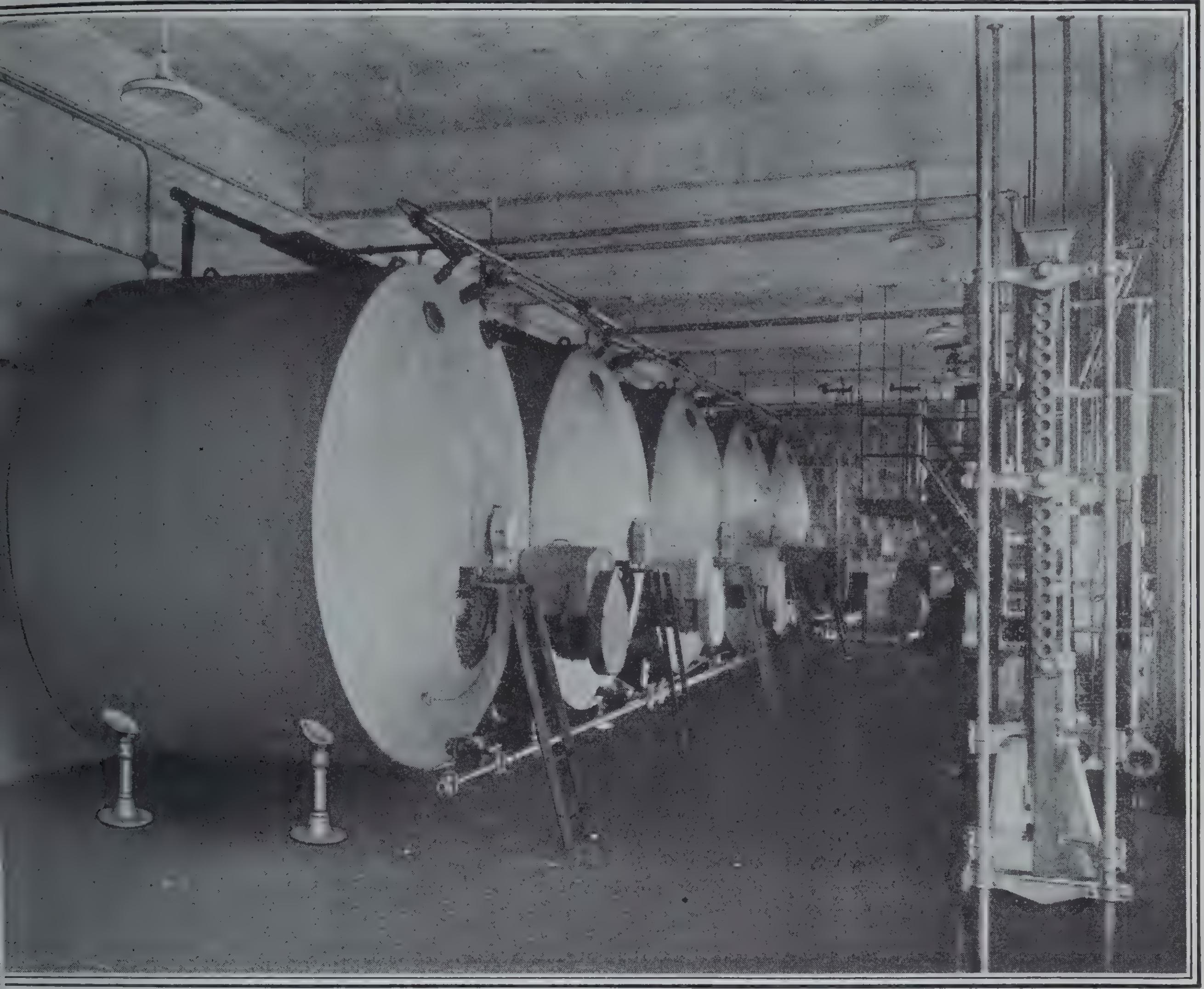

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PREVENT LEAD POISONING WITH MILK.

(Continued from page 26)

I went down to the home of one of these men. I was very much interested in his case and I just wanted to see what he would have for dinner. I did not tell him I was coming. I managed to get there just as he was sitting down for his meal. The situation was pathetic. The home was pathetic. He had for his night meal nothing more than a large quantity of blackberry jam and cornbread, and he told me that was his particular diet during the blackberry season—that he found he could get along on that fairly well.

I am not going to elaborate this situation at all. I might give you perhaps dozens of examples of that sort of thing that is going on in a great variety of industries. Nor will I maintain that nutrition has everything to do with it, but I will maintain that in a great many of these situations there are outstanding nutritional problems.

All of which leads me to ask of you a number of questions. I don't know the answers to these questions nor do I believe that anyone has full information in reply to these questions I am asking myself and asking you.

What is the relation between improper feeding and factory production? Every manufacturer will be interested in an answer to that question. What is the relation between improper feeding and the currents of accidents? What is the relation between improper feeding and absenteeism? The relation between improper feeding and labor turnover? I know of one factory using a great deal of lead where deliberately they bring about a complete labor turnover every three weeks and when I try to figure it up the cost involved in that situation gets almost beyond my available figures.

What is the relation between improper feeding and the length of life of the industrial worker? I pointed out at the beginning that death rates in various decades during the work period show rates three times as high for the industrial worker as for a group such as you.

What is the relation between improper feeding and industrial fatigue? The relation between improper feeding and the production of specific occupational diseases, lead poisoning, mercury poisoning and a great variety of others? The relation between improper feeding and general plant morale? Between improper feeding and development of degenerative diseases? Between improper feeding and this thing we speak of as tiredness which is perhaps a thing apart from true industrial fatigue?

I might go on presenting a number of questions of that sort but it would be unprofitable at this time, although I do not know the answer to many of these questions. I want to say just one thing, to cite one single example of an experience in which the use of milk has been very valuable in controlling or appearing to cont currents of one occupational disease—lead poison

This has come about not through any effort o as far as I know in the proper extension of you ness, but has come about through the work of a ph who is interested in bettering the life of lead-expo dustrial workers.

More and more we are disposed to pay atten old-women notions that have held true for a lon All of us have pooh-poohed and some of us stil pooh the notion of the farmer that if he plants h in the dark of the moon he gets a better crop. Yo heard that all your life, yet just recently— within the last 18 months or 2 years—it has been thoroughly established on a scientific basis that farmer is exactly right, that there are very good for doing what he did; it has been shown that mo is polarized light and that many plants grow bet der the influence of polarized light and by planti crops in such a way that they would reach a certai of growth by the time of the next full moon, they get much better growth.

So I apologize to all of the farmers that have h notion which I have pooh-poohed myself.

The same way, for a long time a few people ha on telling us doctors that if you drink a little swe when you work with lead, you won't have lead ing. I have pooh-poohed that and now I am apol to all of those people who brought that to my at because now we have found that there are ve ceptable evidences showing that not only wi poisoning be prevented or controlled by milk but why and what happens.

Before I go into that, however, and explain s the details that are involved, I want to build up bit better background showing you what an in problem this is, how large it is to you and how it may concern you in your industry.

I have here in my hand a list of over 200 se trades, trade processes and industries that lead to hazard. I am not going to read that list, of cour I just pick out at random here two or three it order that you may reflect in your mind as to th ber of men or women probably involved.

Starting here at the very beginning, I find a flower makers, next come battery makers, down t I find linotypers and somewhere over 100 or 150 find toward the end white lead manufacturers a smelters, etc. Nobody knows, but somewhere neighborhood of three quarters of a million of dustrial workers are potentially exposed to lead ing.

You may come back at me and say, "Well, w it? They are exposed but we never see any lead

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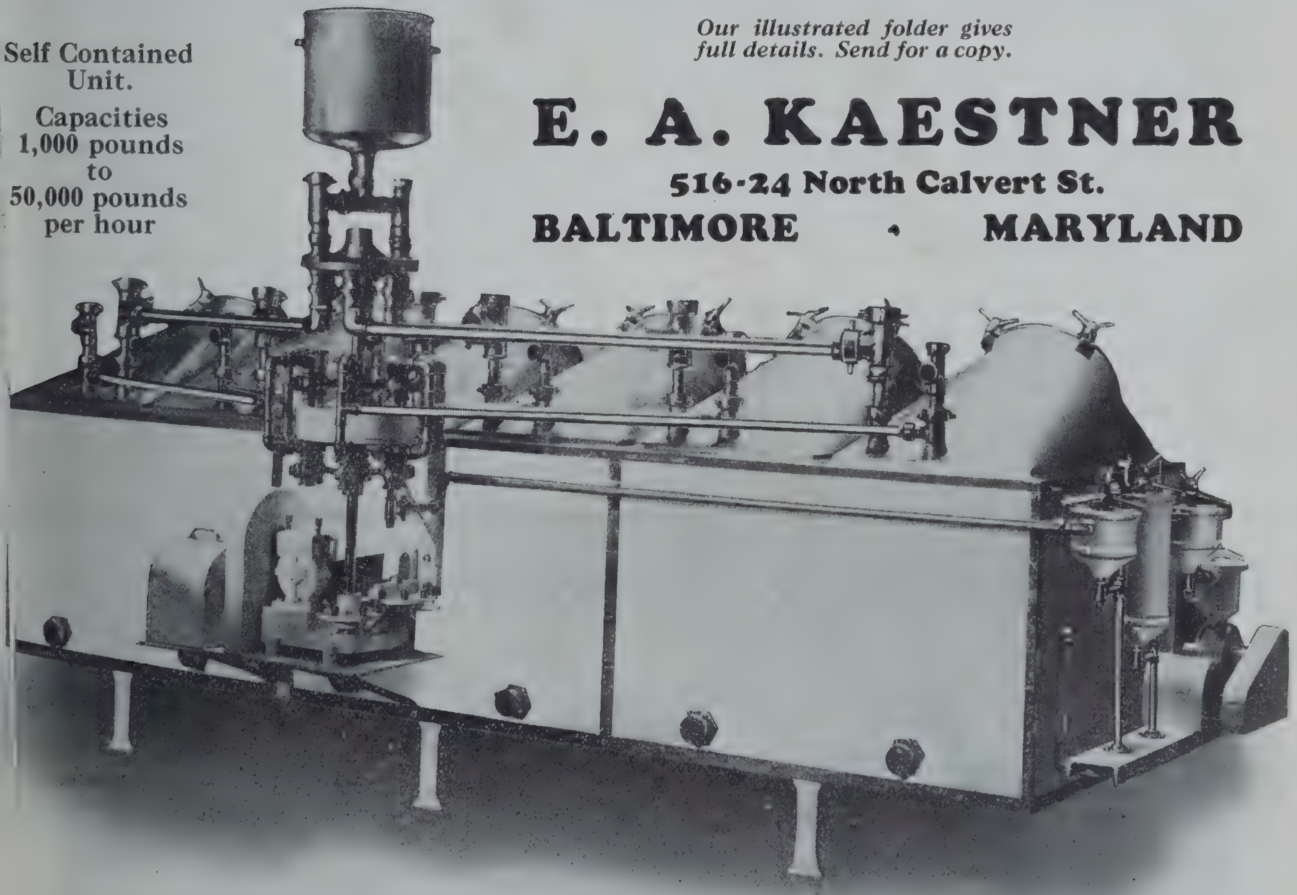


ing. That is one of those rare things you doctors talk about. I've never seen a case and I don't believe anybody has this disease, and it isn't a problem that we need be concerned in."

So I have at hand a few figures that possibly will convince you that lead poisoning is a pretty common disease. These are not my own figures. I have borrowed them from Alice Hamilton, who has made extensive investigations.

First, a group of lead producing places like smelters and that sort of industry, employing in the aggregate about 3,000 workers. I find in one plant every year 18 per cent had lead poisoning; in another 18 per cent and a fraction, in another 27 per cent, in another 28 per cent, and in another 34 per cent and in another 52 per cent. In still another industry I find that on the average every person in the entire factory (this factory has 622 workers) has lead poisoning 2 and a fraction times per year. I myself have had one man who had lead poisoning 7 times in the course of a year and a half.

Without burdening you with too many figures, I still want to give you a few. From a storage battery factory I find an incident of 40 per cent of lead poisoning every year. And I find that in the pottery industry, which is very extensive in certain parts of our country, the rate is 23 per cent per year and among painters something like 40 per cent per year.

In short, the situation is that there are many industries having a lead hazard and in many of these the incident of lead poisoning is indeed high.

I want now to give you some idea of what lead poisoning looks like, the severity of it, with the idea that if anything can be done to prevent this disease, to lessen the severity of it, it will have your support in bringing this about. I am not going to tell you of just one case but a sort of mosaic case—the sort of things that come to my attention.

A man comes in, perhaps telling me that he is a lead worker and he can't eat. That is many times one of the very first manifestations. It usually starts with inability to eat breakfast, and as soon as he is unable to eat then his troubles begin to pile up. Shortly he will tell me that he has a queer taste in his mouth, that as he goes around it is as though he had a penny in his mouth. Then comes, about that time, a headache which bothers him a great deal, constipation becomes very severe, complicating his situation.

Then he begins to get weak in the muscles that he uses most, usually the right hand, and when he goes to shake hands with me or anyone else he has no grip and he tells me he can't any longer work because he can't pick up the tools. About that stage of the game it may be noticed that he is quite pale, he is anaemic, his blood is being destroyed. Those are the minor symptoms.

Then comes the severe pain, the lead colic w
about as severe a pain as I know anything about.
a man with such severe cramps that he rupture
vessels in both eyes. That, however, is an exce
situation. With a well developed case of that
many times comes about that a man loses from w
month, six weeks, two months and many times
seen three months' time absence away from w
cause of lead poisoning.

Now consider that situation and then contra
with what happens and has happened in my own
ence when lead workers are given general supe
in order to improve their condition, the control
lead hazard as much as possible, and then given
of milk per day. I have had a small group under o
tion now for some three years. The first year lead
ing was very high, the incident rate was very hig
it occurred to us from the work that was being
various places that perhaps we'd gain something
ing them milk, so it was arranged that the mana
was to make available every day a quart of m
every person who wanted it, who would take it, a
were encouraged to drink it.

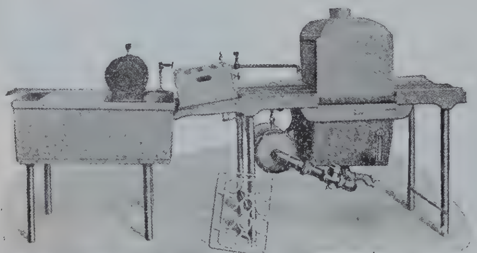
For a period of about two years we had practi
lead poisoning at all. There were a few cases th
seemed suspicious and we treated them but the
no frightful cases in which a person lost a month
months or three months time in the hospital or a
In fact, during a two-year period I do not recall
case in this small group that lost more than four
days time from work, and no single case went
hospital.

Enough of that part of the story.

May I in just a few words now point out to y
happens, why milk is valuable? Why am I anxi
all lead workers be given milk? The situation
simple. In milk, as you know very much better
there is considerable quantity of calcium. It h
pointed out by someone that there is as much as
and a fraction of calcium lactate, but not under
ditions. At any rate, when a person is taking le
their body, the troublesome period is during t
when lead is floating around in the blood, atta
the corpuscles. If the lead is not in the circ
symptoms ordinarily do not arise so that in the
tion and control of lead poisoning it is highly d
to bring about a condition, first, of course, that
get into the person's body but when lead is get
and it seems uncontrollable, to throw out of the
tion that lead as quickly as possible and the th
out of the circulation ordinarily means depositin
lead in the skeleton tissue, in the bones of the b
beyond question I believe it is established that a
calcium balance, excess of calcium in our bodie

R. G. WRIGHT & COMPANY

BUFFALO, N. Y.



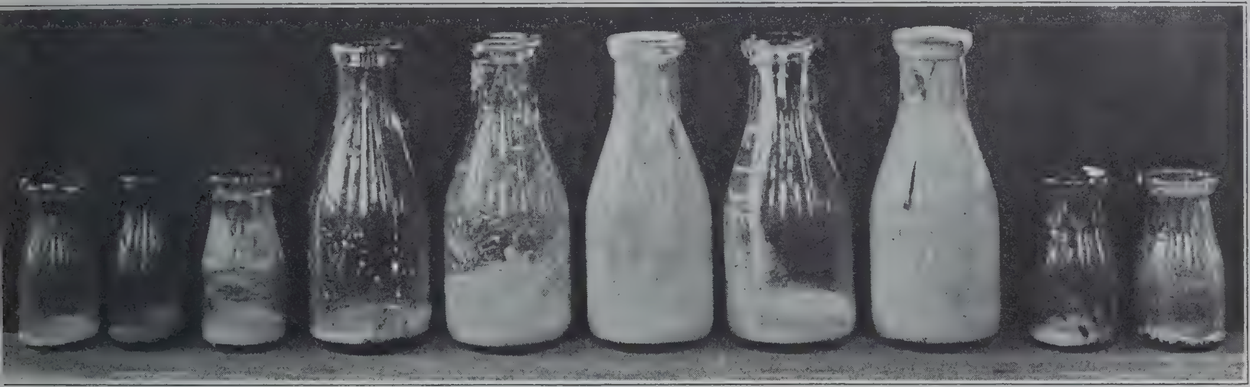
Wash Sink, Rinser and Sterilizer will do better work with less labor on account of its patented automatic features.

3-Brush Belt Washer

Write for Circular

? - ? - ? - ? - ?

Here is a photo of several milk bottles as they came back to the dairy. Thousands of bottles like these, containing sour milk, butterfats, dirts, etc., which will not drain out by gravity, are returned to every dairy daily. A record made for one day's run in a plant where approximately 15,000 bottles are washed per day showed that over 256 pounds of this dirt, refuse, etc., still remained in the bottles when they were fed into the washing machine. Tests also showed that these substances could not be flushed from the bottles by merely giving them a light rinsing with hydrant water.



Do you think that these contaminating and objectionable deposits should be carried into he soaking tanks of the bottle washer and allowed to accumulate for weeks?

Under such conditions can an alkali solution continue to be a clean and sanitary washng medium?

Can such a solution maintain a uniform degree of alkali strength without continually dding large quantities of alkali to it?

Can a bottle containing a quantity of this dirt, butterfat, etc., receive the same chemcal treatment from the alkali solution as one that enters the solution free from these eposits?

We dare say that the unanimous answer to these questions is NO. Then why use bottle washers which operate under these very conditions?

The CLEVELAND BOTTLE WASHERS are the only machines that remove all eposits from the bottles before they enter he soaking compartments.

The CLEVELAND METHOD of treatng bottles not only means sanitary and fficient washing and sterilizing but also means a great savings in alkali, which amounts to hundreds of dollars per year.

The CLEVELAND BOTTLE WASHER insures you of the most modern, efficient, and economical method of washing and sterilizing bottles.

Built in all sizes and to meet every condition. *Write for full particulars.*

THE UNION ENGINEERING CO.

Cuyahoga and W. 4th Street CLEVELAND, OHIO

When writing to THE UNION ENGINEERING CO. *plaese mention The Milk Dealer.*

Making Your Can Investment Go Farther

RETINNING your cans is true economy when done right, because the extra service re-tinned cans will give, pays for the cost of the work many times.

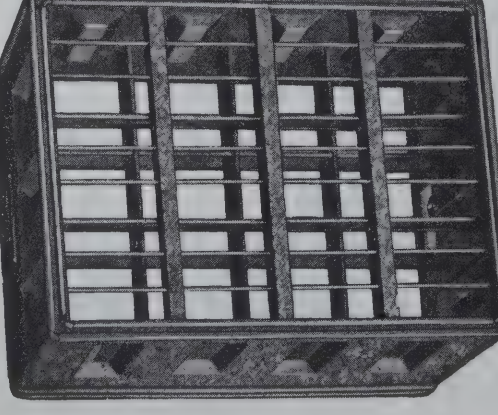
ONE LOT WILL
CONVINCE YOU

Thompson-Bremer & Co.
1750 Carroll Avenue
CHICAGO, ILLINOIS

CLIPPER
All Steel
Bottle Cases will reduce your case "turn over." When you buy a lot — *They Last!*

TRY THEM AND SEE

Made by DEFIANCE PRESSED STEEL CO.



to the rapid deposition of lead in the bone and the tion of clinical manifestations.

That could be made into a rather complicated sion as to calcium metabolism, but I believe that be improper at this time and place. The fact is th calcium of milk is the best form of calcium that I anything about for this purpose.

Calcium lactate may be given in tablet fo powder form but in my experience the calcium i itself brings about the best results.

In order that I may challenge you to some i in this situation, I am reducing this to the ap that if all of our lead workers everywhere may be as much as a quart of milk per day, 75 per cent lead poisoning will disappear. I do not mean to sa that is the only thing that should be done. Every form of protection in the way of wet processes of ing down dust, or promoting general cleanlines keeping lead out of the body of course is essential, in addition to those other things milk is given poisoning will disappear, at least 75 per cent.

Now, just as this one piece of work, an isolate of work, establishes a definite need for the use o in a particular industry or related industries, j there are a variety of other industrial problems in we suspect that foods, including milk, will play siderable part in the prevention and control, but f we lack definite proof and we cannot say a grea about it.

It is believed that the intelligent investigation will so clarify the situation as to bring about exa in procedure. The solution of these industrial problems will first benefit the worker and I real speaking to you today in behalf of these twenty and a half million workers.

Secondly, such investigation will undeniably b the employer of these industrial workers. In the place, if it may be shown that a proper need exis better nutrition of the industrial worker and the sive use of particular food, such as milk, a new fi endeavor is then opened up for the producer of thes ticular foods.

I am commending this field, this unknown, this known, this unexplored field, to you as a place for investigation at your hands.

* * *

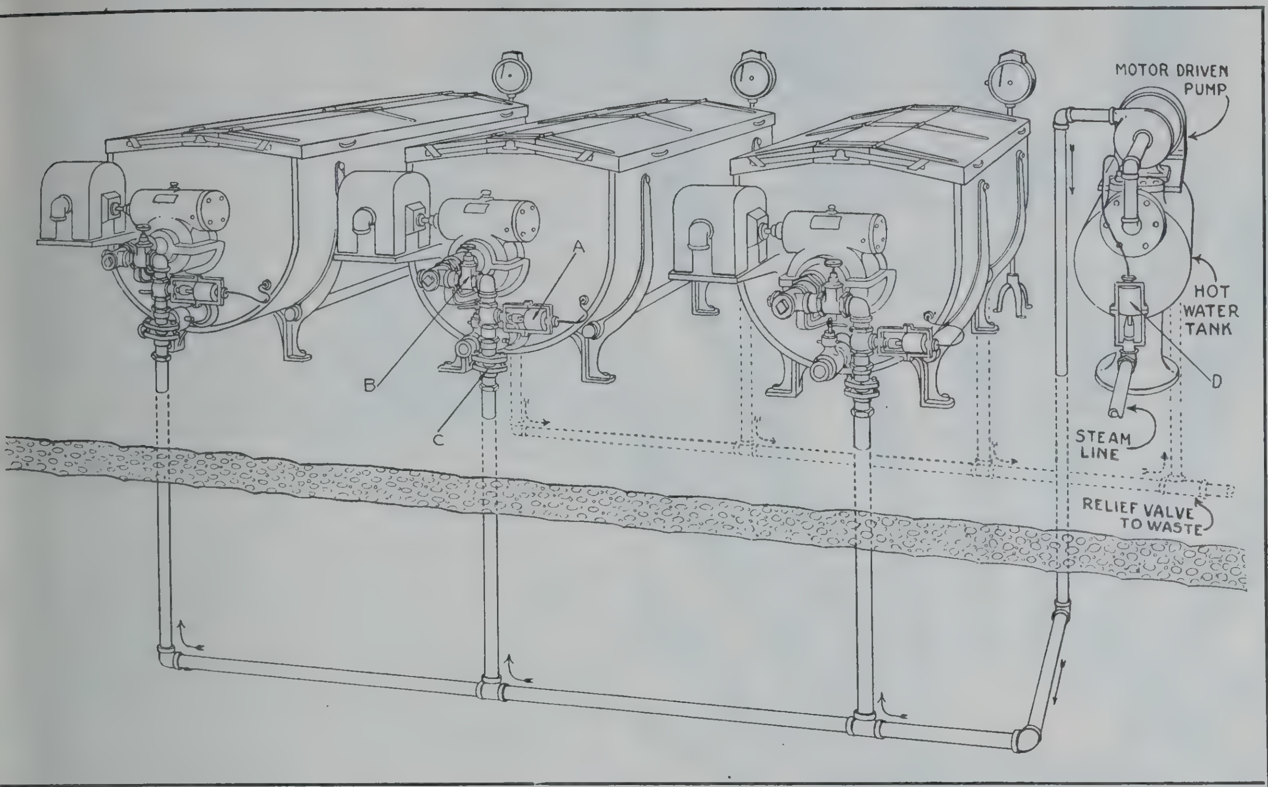
MODERN PLANT FOR BENTON HARBOR

The interior of the plant of the Producers' Cre Benton Harbor, Mich., is being remodeled at a c about $5,000 and plans have been completed for stallation of $20,000 worth of the most modern cre machinery available, according to Chris. Anderson ager. The feature of the new construction wil huge window, probably 16 feet wide by 20 feet facing the street, and making the entire milk pas ing, cooling and bottling process visible to the pas

The new front will be built of white terra cot trimmed with ornamental brick work. The fron dow, a cascade of milk falling across cooling co catch the eye of the pedestrian and autoist, and ma display one of the most interesting and instructive city. No hands will touch milk or bottles from th the milk enters the plant to the moment it leaves, and bottled, officials said.

* * *

If you want a Manager, Superintendent, Chemist, Bacteriologist, Buttermaker, Pasteurize or Ice Cream Maker—**or help of any kind**—"Th Dealer" can help you find the best available man



The New Cherry Automatic Pasteurization System with self-acting temperature regulators (A) which automatically shut off the flow of hot water when the milk reaches the required pasteurizing temperature in the pasteurizers.

Cherry Automatic Pasteurization

Here is the end of "scorched" flavors — shallow cream lines — difficult cleaning — the end of *all* the troubles due to too high temperatures.

The CHERRY AUTOMATIC SYSTEM of MILK PASTEURIZATION, using a *controlled low temperature* heating medium in conjunction with an *automatic regulator*, delivers milk with a deep cream line, low bacteria count, natural taste and perfect keeping qualities.

Find out all about it. Ask for Bulletin No. 2108.

J. G. Cherry Company
Cedar Rapids, Iowa

St. Paul, Minn. Tama, Iowa Peoria, Ill.

A3722

When writing to J. G. CHERRY COMPANY *please mention The Milk Dealer.*

NAPACANS
FOR
COTTAGE CHEESE

Page's
COTTAGE CHEESE
THE PAGE DAIRY CO.
TOLEDO — OHIO

MANUFACTURED BY
W.C.RITCHIE & COMPANY
831 W. VAN BUREN ST.
CHICAGO, ILL.

TYPES OF CHEESE IMPORTANT TO MILK DEALER.

(Continued from page 28)

cream cheese of best flavor can be made by the us fine quality of cream testing about 15 per cent This cream should be pasteurized and commercial s used to develop a mild acid flavor. Excessive fat in the whey during the period of drainage can be g reduced by homogenization of the cream prior to t dition of rennet and starter. A smooth textur usually be obtained if very low quantities of renn used and the curd is drained slowly at relativel temperatures. Some pressure on the curd is need remove sufficient water to have a firm-bodied c The finished cheese should have less than 50 per c water and about 40 per cent of fat.

"The quantity and quality of starter and rennet be carefully controlled to avoid granular or cr cheese by this method. It is also essential to contro peratures carefully to avoid texture and flavor de

"A new method was developed by the speaker attempt to improve the process and the finished c In brief this method consists of standardization of with dry skim milk to the composition desired finished cheese; namely, 40 to 45 per cent of fat, cent of solids not fat, and 45 to 50 per cent of This cream is then pasteurized and after cooling the salt and starter are added. The cream is homogenized to give it the desired body and textur then allowed to ripen. When the desired flavor tained the cheese is cooled and the process is comp By this process the flavor can be controlled to bett vantage, the time of making is lessened, drainage whey and fat losses are eliminated, and a smoother buttery cheese is obtained."

OHIO PRODUCERS GET SIXTY CENTS OF M DOLLAR.

According to figures compiled by the Ohio Producers' Association, 60 cents of the consumer' lar which goes for milk and butter is received b milk and cream producers of Ohio.

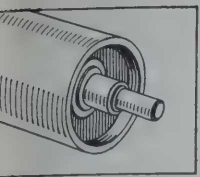
The report further shows that this year cons in Ohio cities will use 860,000,000 quarts of mi which they will pay about $103,000,000. In or provide that farmers of Ohio will produce 17,0 hundred weight of milk which will yield them a of approximately $52,000,000.

It is estimated that Ohio will consume 78,0 pounds of butter for which will be paid approxi $42,000,000. To produce this butter 16,000,000 hu weight of farm produced milk containing 64,0 pounds of butterfat is required. The producers butterfat will receive $30,000,000.

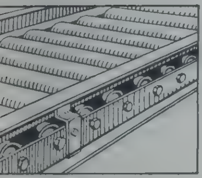
Seventy-two cents of the consumer's dollar is for butter; the farmer receives 51 cents of th sumer's dollar which is spent for milk.

The report further states that for the combine duction of 33 million hundred weight of milk th sumer will pay $145,00,000 and the farmer will r $82,000,000, which is 57 per cent of the consume penditure.

It is stated that the 33,000,000 hundred wei milk is not the total production of Ohio cows bu there are 32,000,000 hundred weight more which i in the production of ice cream, cheese, condense evaporated milk, and also used on the farms whe produced.

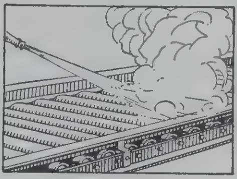


oisture can't get in.
osion comes with
ture. Keep moisture
and you prevent cor-
n. Lamson Rollers,
- heavy throughout,
heads **welded in.** No
through which mois-
can enter. No inside
sion. Remember that.



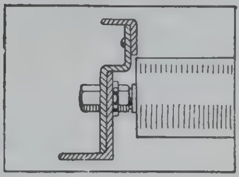
pecial Guard rail over
r ends. This heavy
iron guard rail, set-
in over the ends of
rollers, prevents can-
es from dropping off
blocking the convey-
And this saves wear.
ng cans over rollers
can't turn wears out
rolls and the cans,
The Lamson con-
never stalls or
s.

3

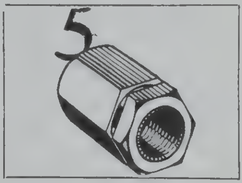


Stands up under flushing and steaming. Turn the hot water on it as often as you please. Steam it often as you want. You can't harm the bearings, you can't force any moisture into any part where it will be harmful. Lamson has designed this conveyor to stand a limitless amount of cleaning.

4



Practical mounting. The frame is so designed that it forms a cup-like protection to keep moisture and milk away from the shafts and bearings. This mounting maintains dryness of the moving parts, even in conditions where a great deal of moisture is present. It adds greatly to the service of Lamson conveyors, and helps to prevent rolls from sticking.



Non-corrosive bearings of special design. The bearings are cast of non-corrosive alloy. They are extremely resistive to all corrosive action. They are hexagonal in shape, so inserted in the frame that they can never turn with the shafts. Consequently, they cannot freeze, and always operate.

5 *superior features*
that make
Lamson Sanitary Conveyors
last longer
Specially designed for dairies

Use the handy coupon at the right. It will bring you further information—interesting to you because it bears upon your profits.

THE LAMSON COMPANY, SYRACUSE, N. Y.

THE LAMSON CO.,
Syracuse, N. Y.
I want to learn more about your conveyors especially designed for dairy and milk plant use.
Name ....
Firm Name ....
Business Address ....

AMSON CONVEYORS

Kentucky Officials Urge Pasteurization

State Board of Health Will Inspect all Pasteurizing Plants and Grade Them According to Methods Employed. State Standard Milk Ordinance to be Used as a Guide

HEALTH officials of Kentucky are busy working out a plan to insure the sale of the highest possible quality of milk and milk products in all of the cities and towns of the state.

Inspectors from the Louisville City Health Department are now making a survey of the conditions of milk and cream production in the Louisville milk shed and are taking note of where these products are marketed. This survey is in final preparation for the enforcement of Louisville's new dairy products ordinance.

An application to ship milk into Louisville and a certificate of the tuberculin test of cattle are compulsory requirements for milk and cream for table consumption. February 12, 1927, is the last day of grace for the milk producers to comply with these regulations. After that date, prosecutions will be in order for non-observers.

In a letter to Secretary Ball of the Dairy Products Association of Kentucky, the directors of the state board of health and the state bureau of foods, drugs and hotels outlined the work to be carried out as follows:

"The state board of health, realizing the necessity of the protection of milk supplies of the public is second only to the necessity of protection of water supplies for communities, is of the opinion that properly pasteurized milk is the safest milk.

"Many towns have taken the position that the water supply is a public utility and therefore have taken steps to own and provide a safe water supply, and, if necessary, a filtration plant and chlorination facilities. The state board of health carefully inspects every public water supply in the state and has adopted the policy, for a number of years, of publishing in the report of the bureau of sanitary engineering, the list of public water supplies in the state with ratings of good, doubtful or bad.

"It is true that no town in Kentucky has yet taken any steps to provide a municipal milk supply but in many towns the greatest percentage of the milk supplied to that community is pasteurized milk, and since the state board of health believes that properly pasteurized milk is the safest milk, we wish to be in position to assist not only the public in knowing which milk is properly pasteurized, but also to assist pasteurizing plants in the very best possible position to produce a properly pasteurized milk.

"It is planned, in co-operation with the bureau of sanitary engineering of the state board of health, through its assistant engineers, to make inspections and publish grades of all pasteurizing plants in the state of Kentucky, including those located in cities which have not passed the standard milk ordinance, as well as those located in cities which have passed this ordinance.

"These inspections and grades will be made at least once during each year, and if possible, once every six months, and grades will be determined in accordance with the regulations and provisions of the United States Public Health Service Standard Milk Ordinance, which are the rules and regulations for the grading and inspection of dairies, passed by the state board of health. The proprietor of each pasteurizing plant will be given a copy of the inspection as it is filed with the state board of health, and a statement will be issued from the board as to the grade given on that inspection, with the date attached, and in case a grade 'A' is given to the pasteurizing plant, permission will be given for tha to make use of a statement that they are sellin pasteurized in a grade 'A' plant. However, per cannot be given for the sale of grade 'A' past milk to any plant unless the dairies supplying that plant conform in all particulars to those of the standard milk ordinance which deals w dairies, requiring at least a grade 'B' for all dair plying milk to a grade 'A' plant for the produc grade 'A' pasteurized milk.

"An inspection and grading shall be good for six months and if at any time inspection durin six months shows a violation of any requiremen grade 'A' pasteurizing plant, the state board of will reserve the right to degrade and notify the of the fact. The grades of all pasteurizing plan the date of grading, will be published in the yea port of the bureau of foods, drugs and hotels, ning with the report for the year 1927.

"The state board of health has assigned two as sanitary engineers for duty with the bureau of s engineering which is co-operating with the bur foods, drugs and hotels in the joint work with which have passed the United States Public Healt ice's Standard Milk Ordinance and in the genera of inspection of pasteurizing plants and surveys supplies of the cities of Kentucky.

"These engineers, Cyrus Layson, Jr., Henderso who will have charge of the inspections and sur the western part of the state, and E. E. Jacobso tioned at Louisville, Ky., will have charge of the tions and surveys in the eastern part of the sta the newly appointed engineers. These assistan neers work directly under F. C. Dugan, director bureau of sanitary engineering of the state bo health, and work in co-operation with L. C. Fran itary engineer in charge of the office of milk inspe the United States Public Health Service, static Montgomery, Ala., and with the bureau of foods and hotels.

"Copies of the standard milk ordinance, con the regulations for the grading of pasteurizing and dairies, will be sent on request to any paste plant by writing to the bureau of foods, drugs an of the state board of health.

"Any request for surveys, either by proprie pasteurizing plants or cities desiring surveys, come direct to the bureau of sanitary engineerin the bureau of foods, drugs and hotels."

⁂

FLORIDA UNDER-NOURISHED CHILDREN EFIT BY NEW PREPARED MILK.

The Pensacola Dairy Company of Pensacola, F providing lactic ferment milk, a body building c ent which is strongly endorsed by Drs. E. L. Re J. H. Fellows, local physicians.

In manufacturing the finished milk product, as lactic ferment milk, a culture is first inject milk in the amount given by the formula, and time forms what is known as cultural buttermilk

This lactic ferment milk is said to be equally cial for adults.

To Sea In a Tub

No sane man needs to be told of the folly of going to sea in a tub. He would turn, drift, and be the helpless victim of every wind and every wave that chanced to come along.

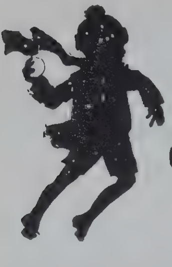
Yet many milk companies are trying to make progress in sales development with either no definite plan, or one that gets them nowhere.

The *Case Plan* is a high powered vehicle, which if properly used will drive any milk company to supremacy in its field.

The *Case Plan* will do the following for you:

(1) It will make a merchandising man of your sales manager;
(2) It will awaken the latent ambition in your delivery salesmen;
(3) It will provide a school for your salesmen;
(4) It will stimulate rivalry between every man in your sales organization:
(5) It will quickly sift the chaff from the wheat in your sales department;
(6) It will give your salesmen information they probably never will get without it;
(7) It will stop leaks and waste in your sales department that cost you many times its price.
(8) It will make you the envy of your competitors;
(9) It will make the year 1927 the happiest year since you have been in business, AND
(10) With the *Case Plan* you will *not* be putting "TO SEA IN A TUB!"

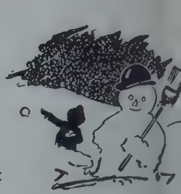
MAXWELL CASE
" " *Milk Sales Promotion* " "
NEW ROCHELLE, NEW YORK



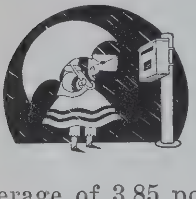
Again MILK Scores a Home R

Experiments on Children Prove the Superior Value of Dairy Products in the Diet.

Extract from Annual Report of National and Regional Dairy Councils by
M. O. MAUGHAN, Secretary.



ONE of the most outstanding experiments on children ever conducted has recently been reported by the Medical Research Council of London, England. This authoritative organization made a prolonged study of a large group of boys (220) with an effort to determine the food value of various articles of the diet including milk and butter.



Sixty-one boys were given the basic diet. This basic diet satisfied the appetite of these growing boys and apparently was all that was needed. During the first year these boys increased in height 1.84 inches and gained an average of 3.85 pounds.

Another group of boys, 41 in number and as nearly like the group of boys fed the basic diet as possible, were fed a pint of milk a day in addition to the basic diet. These boys were carefully studied for a period of one year and their gain in height was 2.63 inches and their gain in weight 6.98 pounds, or in other words their increased gain in height, because of the milk, was 42 per cent and their increased gain in weight, because of the milk, was 81 per cent.

Another group of boys, 26 in number, were given 1.75 ounces of butter daily in addition to the basic diet. They increased in height 2.22 inches and gained an average of 6.30 pounds, or in other words, their increased gain in height, because of the butter, was 20 per cent, and their increased gain in weight, because of the butter was 63 per cent. Still another group consisting of 16 boys were fed vegetable margarine in addition to the basic diet. These boys increased in height 1.84 inches and gained an average of 5.21 pounds per boy during the 12 months, or in other words their increased gain in height because of the margarine was 0.00 per cent, and their increased gain in weight because of the margarine was 35 per cent.

Still another group of boys were fed various other food products, which, however, have no bearing on this particular discussion.

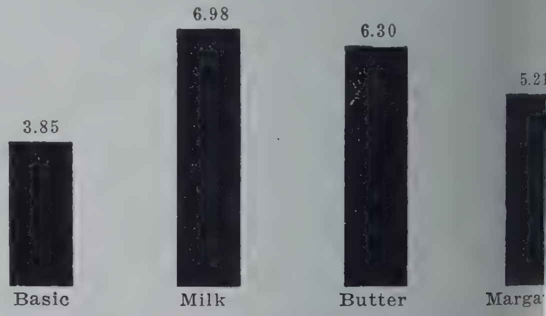
The basic diet consisted of potatoes, bread, beef, pork, herring, sausage, dumplings, cabbage, beets, beans, peas, porridge, lettuce, cheese, cocoa (10 oz. fluid twice daily containing a total of two or four oz. of milk), margarine, jam, raisin suet pudding, and rice pudding.

No preference was shown in selecting the groups, they were as evenly balanced as was possible to make them, all things being considered very carefully by scientific people. The gains which were made were made as a result of the food and nothing else, their activities were the same, housing conditions were the same, the same factors prevailing in all cases, the only difference being the diet.

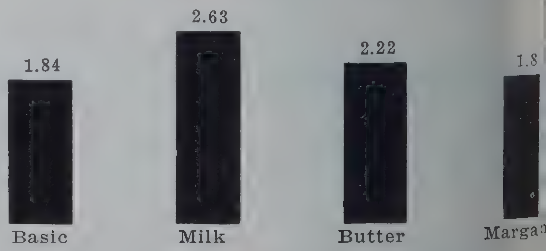
Hundreds of experiments have been conducted on small animals to prove the relative values of various foods but this is one of the most far-reaching experiments ever conducted on a large scale with children. The chart herewith shows very graphically the results of this investigation.

With reference to the addition of milk it i
definitely shown that phenomenal increase in heig
also in weight resulted, furthermore with refere
butter and margarine it is interesting to note tha
the margarine resulted in an increase in weight
not result in stimulating growth in height at al
group receiving margarine gained in height no more than the basic group. This is additional evidence to prove that margarine is rich in fats which result in the user taking on weight. The margarine did not promote growth one bit. It has often been said that margarine lacks vitamine A, which is the growt
moting vitamine, whereas butter is rich in vitam
This is very direct evidence that such is the case.

The report of the Medical Research Council,
of which was furnished me by my friend, P. B.
of England, covers nearly one hundred pages ar
most interesting document. Quoting from this
the following statement is made: "This unmist
betterment in nutrition was proved by trial to b
not to the relatively small increase in the fuel va
the dietary, nor to the extra proteins supplied
milk but rather to more specific qualities of mil
food." Another statement: "After eighteen m
observation a casual visitor entering the dinin
where the boys of nineteen houses sit at table,
never fail to recognize the table of that house whi
alone receiving the extra ration of milk, the boys
house being obviously more fit than those of an
house." Still another statement is as follows: "
was a complete absence of illness during the wi
1923 and 1924 among the boys with the milk rat
though in other houses of the village the sickne



Average Gain in Weight per Boy in One Year.



Average Increase in Height per Boy in One Year

WHAT IS GOOD *Dairying Country*

HISTORY
OF
DAIRYING

WITH THIS

History of the Dairy Industry

you can trace the progress different nations and localities have made in dairying.

You can learn quickly and positively how the industry originated, why it progressed and why it is what it is today.

Back of all these various degrees of success or failure there must be some fundamental reasons.

THEREFORE

reading this book gives you a knowledge that is essential to proper location of a dairy business and its proper development.

Copies sent postpaid on receipt of

$6.25 FOR DELIVERY IN THE U.S. **$6.50** FOR DELIVERY IN ALL OTHER COUNTRIES

The Olsen Publishing Co.

501 Cherry Street " " " Milwaukee, Wis.

Protection *against* Dirt, Dust *and* Frozen Milk

PARKER
STANDARD
MILK BOX
REG. U.S. PAT. OFF.
Applied for

Parker Milk Boxes Improve Your Service *and* Maintain the Purity of Your Milk

More than good-will builders, these boxes are useful the year around. They keep your milk free from contamination and freezing; reduce bottle breakage, discourage theft, and insure return of empty bottles.

Parker Standard Milk Boxes stimulate sales and are the best means for getting new accounts. Vastly more valuable to you than short-lived novelties, and more serviceable.

Write for quantity prices. Quick shipments can be made on short notice.

Parker Standard Milk Box Co.

228 North Warren Ave. SAGINAW, MICH.

has been somewhat higher than usual owing to i and a limited outbreak of measles and scarlatin

This wonderful experiment is additional evide ammunition for the dairy industry to use in it tional work, to more fully convince the America why it is advisable to use milk and dairy pro larger amounts than at present.

⚜

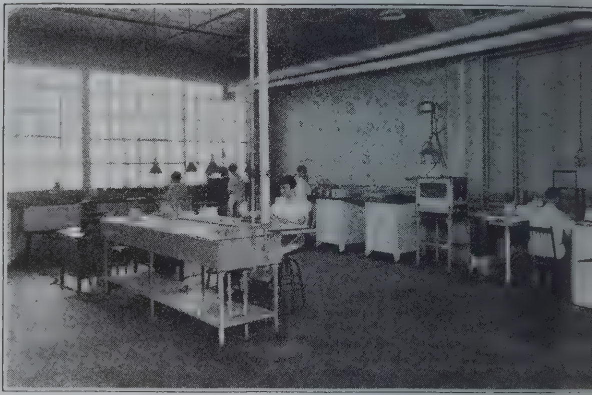
ACHIEVEMENT IN DAIRY SERVICE.

(Continued from page 25)

sanitation and city board of health rulings ha imperative.

Success and prosperity have crowned the ef thousands of Cincinnati district dairymen. M them have been associated with the French Bro Company for a generation—and their fathers them.

The company takes pride, and justly so, in cess of these men because their progress is du



In the Laboratory.

small measure to their education which has alwa fostered by the French Bros.-Bauer Company. Th cation did not cease with teaching sanitary milk tion methods. It went a step farther and so teach most approved methods of making milk pro profitable.

There is still much to do in this respect. Pro frequently hindered by the slowness or conserva the farmers themselves. But those who first prof their educational methods today own thriving h dairy cattle whose average daily milk produc about two to three times the quantity produce herds of similar size owned by less progressive nei

Inasmuch as the greatest drawback to the dair prosperity has been the too frequent lack of high cialized milk producing breeds of cows—the Guernseys and Holsteins—this company is encou in every way, and sometimes financing, their ex purchase and breeding. They hope to make their ing achievement some day the financial success great majority of all their associated dairymen.

Sanitary milking, cooling the milk quickly in ly equipped milk houses on the farms, rapid moto portation to the refrigeration coils of country re plants, are the successive steps followed in hand French Bros.-Bauer milk and cream. Then foll swift transportation of the refrigerated milk to distributing plant. These steps are all vitally im in bringing milk to city tables pure and fresh, days of snowstorms or when the mercury register degrees or more in the shade.

Whenever a customer asks for the French Bauer very best table milk, they are sent inspect A label is on the milk cap stating that it was p under supervision of the Cincinnati Medical Mi

Jsing a cleaner like this?

OES the cleaning material you now use easily and quickly remove every trace ilk film, grease, dirt from your equip- t? Does it loosen up casein deposit so tively that it takes but light brushing to e surfaces spotlessly clean, sweet-smell- sanitary?

t is probably the kind of cleaning you t—*and exactly what you get by using* ITE.

; powerful cleaning material is SAFE to on milk pails, strainers, cans, bottles, rators, pasteurizers, coolers, churns, all dairy equipment. Does not harm oatings. Rinses easily.

other cleaning material you can buy as *much* cleaning, and with so *little* ef- required, as OAKITE.

iore facts about OAKITE! Send for the book- OAKITE IN MILK PLANTS;" or ask for our men to call. No obligation.

OAKITE IS MANUFACTURED BY
PRODUCTS, INC., 30B THAMES ST., NEW YORK, N. Y.
(*formerly* OAKLEY CHEMICAL CO.)

akite Service Men, cleaning specialists, are located at:

Allentown, Pa.; Altoona, Pa.; Atlanta, Ga.; Baltimore, Birming- la.; *Boston, Bridgeport, *Brooklyn, Buffalo, Camden, Charlotte, : *Chicago, *Cincinnati, *Cleveland, *Columbus, O.; *Dallas, enport, *Dayton, *Denver, *Des Moines, *Detroit, Erie, Flint, h.; Fresno, Cal.; *Grand Rapids, Harrisburg, Hartford, *In- napolis, Jacksonville, Fla.; *Kansas City, *Los Angeles, ouisville, Ky.; *Milwaukee, *Minneapolis, *Montreal, Newark, Newburg, N. Y.; New Haven, *New York, *Oakland, Calif.; *Omaha, Neb.; Philadelphia, *Pittsburgh, Portland, Me.; *Portland, Ore.; Providence, Reading, *Rochester, Rockford, Rock Island, *San Francisco, *Seattle, *St. Louis, South Bend, Ind.; Springfield, Ill.; Syracuse, *Toledo, *Toronto, *Tulsa, Okla.; Utica, *Vancouver, B. C.; Williamsport, Pa.; Worcester.

**Stocks of Oakite materials are carried in these cities.*

AKITE

TRADE MARK REG U S PAT OFF

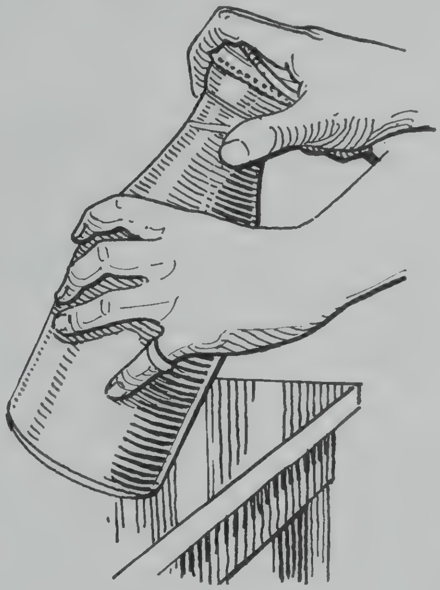
utrial Cleaning Materials and Methods

THE

DACRO

METAL CAP

Here at last is the perfect package of Milk or Cream, pure and sweet pasteurized IN the bottle! Made possible by a mechanically perfect closure.



Pure, sweet MILK—delivered under hermetic seal to the home. Handy openers supplied at small cost.

The Dacro Metal Crown — This remarkable cap is made on exactly the same principle as the famous Crown Cork which revolutionized the bottled beverage industry. The Dacro Crown is a hermetic seal. It automatically locks under the glass rim of the bottle. It is scientifically a perfect closure. Sealed with the Dacro Crown, Milk or Cream can be pasteurized in the bottle, an exclusive advantage of this seal. The Dacro Crown covers and protects the pouring lip. It KEEPS clean milk clean! No danger of contamination or tampering with pure contents. And the Dacro Crown can be replaced for temporary covering and seal after opening bottle.

PASTEURIZE YOUR MILK
IN - THE - BOTTLE

THE
Crown Cork & Seal Co.
BALTIMORE, U. S. A.

Inventors and originators of the famous "Crown Cork"

mission, and the day it is to be sold on, and telling where it was produced, bottled and sealed. It is expensive because it is produced under extraordinary conditions of sanitation requiring spick and span barns, clean and dustless, as well as perfectly groomed cows; none but those cows in the very pink of healthy condition and stamina may produce inspected milk for city tables; sealing of the bottles with the special Academy of Medicine seal is expensive, involving the cost of the seal and also that of extra labor. The inspected milk is produced and bottled on the company's farms at Lebanon, O.

Certified milk naturally has less cream than other kinds of milk. Hence it is recommended for child feeding and for adults in delicate health—but not for a rich table milk.

The French Bros.-Bauer Certified Milk Farm at Lebanon, O., has been authoritatively pronounced to be one of the most wonderful institutions of its kind in America. In fact, it was among the first four certified farms established in the United States.

As the visitor walks through this beautiful farm he is impressed with the immaculate buildings, and particularly by the unusually clean condition of the cows. The white of their coats gleams like satin, and the black is as lustrous as a silk hat. The inquiring visitor learns that the cows are washed, scrubbed and brushed twice daily, and then he understands why certified milk is truly a synonym for cleanliness. It is not hard to understand why certified is an expensive milk.

White uniformed milkers draw the certified milk from the cows. At this time not a fleck of dust or dirt is anywhere visible around the milking areas. Purity is everywhere and so the milk is truly pure. Five minutes after milking it has been refrigerated, bottled and sealed with the special seal of the Academy of Medicine. This milk is so free from organisms usually derived from barn dust, that the formation of lactic acid (which usually sours all milk) is greatly delayed. For this reason certified milk keeps in a city refrigerator a long time before souring.

Pasteurized Milk.

The start of good pasteurized milk is to produce it under sanitary conditions. Perhaps many people wonder why pasteurization is necessary, and the answer is this: If one were absolutely sure that the dust from the hay, from the grain, and from the straw bedding was the worst contamination that could be blown by gusts of wind into the milk, there would be little to fear. Such dust usually bears only innocuous organisms, or harmless bacteria, which merely sour the milk at the end of time periods of various lengths depending on how cool the milk is kept. But suppose some of these kindly, conscientious farmers are taken sick and try to keep on working for several days before being forced to their beds? This would be possible to spread disease through milk. And so the boards of health in all the communities comprising commercial Cincinnati have very wisely ruled that all milk sold therein must be pasteurized unless it is produced under the heads of inspected or certified milk.

Scientific research has demonstrated that the heating of milk to 145 degrees Fahrenheit and holding it at that temperature for thirty minutes destroys all harmful bacteria. It follows that this process, called pasteurization, makes the milk absolutely safe. There is no record of any milk borne epidemic having been traced to properly pasteurized milk.

Pasteurization does not cook the milk; it only kills any harmful bacteria which might possibly contaminate the milk, but the process also kills some harmless bacteria whose multiplication ultimately results in sour
milk. And so pasteurization not only makes a sa
and gives the customer a continuous health in
but it makes a sweet milk which does not readi
if properly refrigerated in the homes. But th
not mean that the milk will not eventually sour
normal way as it grows old.

What effect has pasteurization upon milk itse
answer is this: Pasteurization leaves the milk wi
nearly the same flavor and all of the food valu
sessed by the raw milk.

The public is always cordially invited to vi
inspect the great milk plant of the French Bros
Company and the visitors are shown what hap
milk in its progress through the plant.

A sample of the patron's milk is dipped from
and put in a bottle, it then goes into the adjac
oratory to be tested. This process assures the
that his high quality milk is recognized by this
testing, and that he will be paid for his milk upo
scale graduated according to the milk's richness
terfat. The farmer is not only paid for his mil
weight, so much per hundredweight, but also ac
to its butterfat test shown by the laboratory resu

There is a great room in the plant which is
maintained in the acme of perfection as regards
ness of equipment and surroundings. It is the ro
taining the great refrigeration coils over which t
passes to lower the degree to 40, when it is the
for bottling process. In this room the floors shin
maculately that they perfectly mirror the equ
as do the waters of a mountain lake.

And the home of the golden butter that the
Bros.-Bauer Company sends to Cincinnati tables
as interesting in inspection as the milk departm
is churned fresh in large quantities every day a
dled with scrupulous care by white uniformed
ants, then cut and wrapped and branded "Clov
som" brand.

Seventy-seven varieties and flavors in ice crea
ices, sherbets, frozen punches, frozen puddin
mousses are made for Cincinnati's delectation. T
all be delivered either sliced and wrapped, moul
delicate or whimsical forms, or in bulk.

Their ice cream freezing machine battery ca
over 1,000 gallons of ice cream per hour. Splen
chanisms made of polished "German silver" an
senting a huge cash investment, turn out this
dous amount of ice cream.

And French Bros.-Bauer Company has not f
the children for the crowning achievement f
point of view of their juvenile friends, is the m
of Eskimo pies. Pure, high grade ice cream slic
matically coated with rich, sweet chocolate, g
public a delicacy all for a nickel!

This company maintains that their dairy
have to be good for they are served on their ow
in the large 5th St. restaurant in Cincinnati
Main St. restaurant operated by the French Bro
Company. The 5th St. restaurant is an attractiv
with a department having waitress service.
the first of all Cincinnati's establishments to i
and popularize cafenet self-service, and its succe
another of their various achievements.

And to this great monument dedicated to t
uct of sanitary dairy products the public is
invited at all times to inspect the sanitary, scient
ner in which the products are manufactured.
Bros.-Bauer Company can well be proud of it
zation and the development of the business du
80 years of the company history which has enab
to bring about so many "achievements in dairy

Announcing—

an interesting and helpful series of advertisements, for those interested in efficient and dependable refrigeration—to appear in the subsequent issues of this publication.

In this series, comparative conclusions will show the superiority and general adaptability of Victor Products—Cooler doors—ice chutes—ice passing doors—walls and other "Standard" Victor Products.

Substantial evidence will be presented in both illustration and text of the sanitation, durability, economy and refrigerating qualities of Victor doors, chutes, windows, walls and hardware.

* * *

VICTOR COOLER DOOR COMPANY, INC
Home Office and Plant, HAGERSTOWN, MD.

BRANCH OFFICES:
NEW YORK, N. Y.
CHICAGO, ILL.

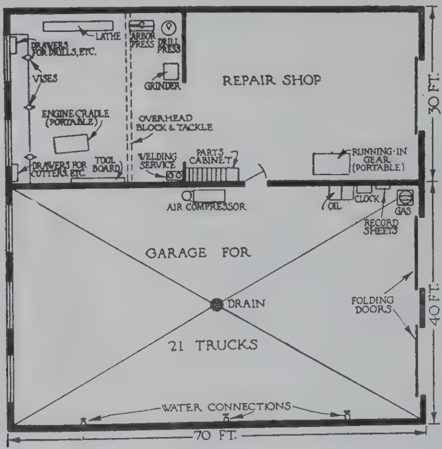
When writing to VICTOR COOLER DOOR COMPANY, INC., *please mention The Milk Dealer.*

SOME NEW IDEAS ON GARAGE EQUIPMENT.

(Continued from page 23)

Machine Aligner: Necessary for exactness of work on wrist pins, bushings, rods, pistons, etc. These are testing devices necessary for prevision.

Hoist: This is a rather large device. Although it requires space, it enables complete motor to be removed from vehicle when necessary, and holds it clear from ground, permitting quick work. Also enables much other heavy lifting and carrying of heavy units.



Garage and repair shop combined. A practical layout for the average business. Shown here for 21 trucks.

Measuring Devices: For accurate work, many jobs will need any or all of the following devices, depending on the amount of work done and the character of the work:

- Micrometers.
- Calipers.
- Miscellaneous aligners.
- Scales.
- Pressure and dial gauges.
- Electric testers.

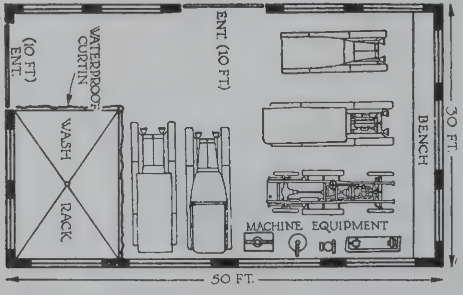
Bench Tools: Every shop needs a completely fitted work bench with commonly used tools too numerous to mention here, such as vise, bench lathe, belt lacer, valve grinder, etc.

Battery Charger: This is an inexpensive and money saving device which should be in every repair shop.

Air Pump.

Washing and Polishing Equipment.

Welding Outfit: Some concerns find it more profitable to install welding equipment than to have this done outside. Its value depends on the amount of work required of it.



A very practical arrangement for small repair shop combining wash rack.

Floor Crane: This apparatus is designed to be portable permitting engine to be lifted from chassis. Especially helpful where overhead trolley is used.

Grinding Equipment: Grinders are available for various purposes, usually power-operated, for cylinders, valves, crank shaft, etc.

Burning-In Machine: A process to free tight services. Practical for the Ford and other splas cated motors.

What Survey Showed.

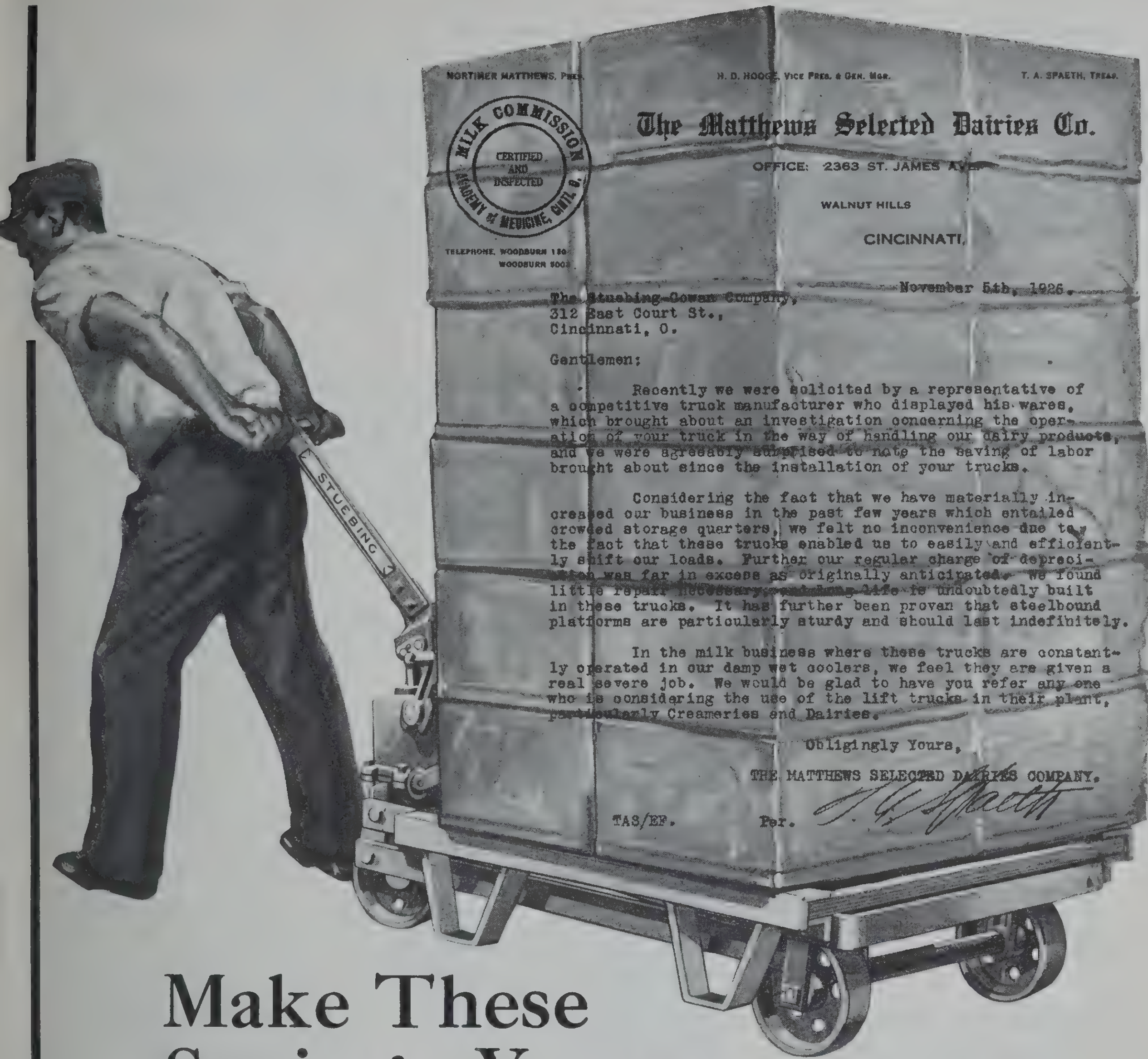
In the investigation referred to above, certain tions were made to show the actual units of eq most used by the concerns interviewed. The fo table shows the same groups given earlier in this according to fleet sizes.

In this list the total number of devices used concerns interviewed is included. In other words first column under Garage Jacks, 96 jacks are 127 fleet owners. In the fifth column, 45 jacks ar used by 38 fleet owners. The reader may wond there are more jacks than the number of co listed. The reason for this is that some statio more than one jack because it is cheaper to bu than have men waiting until one which is being available.

Fleet sizes (vehicles)	5 to 10	11 to 15	16 to 20	21 to 25
Total No. each group	127	104	49	27
Air Compressors	52	63	39	18
Burning-in Machine	10	16	6	2
Chain Block	104	87	46	25
Floor Crane	21	22	11	7
Lathes	28	25	20	4
Power Drill Press	56	51	36	11
Portable Electric Drills	112	98	60	34
Engine Repair Stand	37	40	32	13
Forge	61	55	32	15
Power Grinder	57	54	35	13
Garage Jacks	96	81	44	24
Arbor Press	23	18	13	11
Cylinder Reboring Machine	1	4	4	2
Cylinder Regrinder	4	7	3	2
Cylinder Hone	7	8	8	3
Welding Outfit	45	47	30	14
Battery Chargers	51	53	25	16
Electric Test Stand	4	12	6	5
Brake Relining Machine	10	9	4	6
Valve Refacing Machine	41	37	17	7
Car Washing System	34	29	12	7
Spray Painting	17	21	15	5
Electric Valve Grinder	21	15	8	2
Crankshaft Grinder	1	4	3	2

Tool equipment should not be purchased sarily with the idea of price foremost in Neither should tools be purchased alone from th point of constant usage. Especially does this h of smaller tools. A few hundred dollars investe small fleet owner in special wrenches, micromet bon and valve grinding apparatus would quickl paid by the reduction in help required to take the maintenance and repair work of the fleet. asi the fact that more accurate work would be assur

The writer has heard of numerous instance the mechanics in repair shops throw up their horror and in some cases refuse to work on cert owners' trucks when they come into the shop, be the terrible condition into which the vehicles hav on account of a fleet owner's utter indifference that are to be repaired are found to be in a fro dition, all because of the fact the owner has pa tention whatever to maintenance but thinks onl subject when a repair bill comes to his desk. It truck owner particularly that we advocate the tion of a small maintenance department. Th would be more than repaid by the saving in tim sending the truck to the shop, a better check i the driver, and an actual saving of dollars and c be realized by the owner on repair work.



MORTIMER MATTHEWS, PRES. H. D. HOOGE, VICE PRES. & GEN. MGR. T. A. SPAETH, TREAS.

MILK COMMISSION
CERTIFIED AND INSPECTED
ACADEMY of MEDICINE, CIN'TI, O.

The Matthews Selected Dairies Co.

OFFICE: 2363 ST. JAMES AVE.
WALNUT HILLS
CINCINNATI,

TELEPHONE, WOODBURN 180
WOODBURN 500

November 5th, 1926.

The Stuebing-Cowan Company,
312 East Court St.,
Cincinnati, O.

Gentlemen:

Recently we were solicited by a representative of a competitive truck manufacturer who displayed his wares, which brought about an investigation concerning the operation of your truck in the way of handling our dairy products, and we were agreeably surprised to note the saving of labor brought about since the installation of your trucks.

Considering the fact that we have materially increased our business in the past few years which entailed crowded storage quarters, we felt no inconvenience due to the fact that these trucks enabled us to easily and efficiently shift our loads. Further our regular charge of depreciation was far in excess as originally anticipated. We found little repair necessary, [illegible] long life is undoubtedly built in these trucks. It has further been proven that steelbound platforms are particularly sturdy and should last indefinitely.

In the milk business where these trucks are constantly operated in our damp wet coolers, we feel they are given a real severe job. We would be glad to have you refer any one who is considering the use of the lift trucks in their plant, particularly Creameries and Dairies.

Obligingly Yours,

THE MATTHEWS SELECTED DAIRIES COMPANY.

TAS/EF. Per. T. A. Spaeth

Make These Savings Yours

Read the letter above. Again read the second paragraph. As a matter of fact, this method repays its original cost every 120 days.

Here's how it works. Instead of lifting and re-piling cases from six to ten times, they are handled **only twice**. Piled on a platform as they come off the wagon, they are not touched until ready for the wash rack. Same with milk, into and out of the cooler. Placed on platforms in cases, they are moved as platform units. The trucker simply backs the truck beneath, elevates the load, moves the loaded platform to destination, touches a lever that lowers the load, and frees the truck for other jobs.

It is this saving in time—in labor—in re-handling—that you need just as much as Matthews or Telling Belle Vernon, who just placed another ten truck order.

WRITE US TODAY FOR FULL DETAILS

The Stuebing-Cowan Company
317 East Court St. - - Cincinnati, Ohio

StueBing
COWAN

When writing to THE STUEBING-COWAN CO. *please mention The Milk Dealer.*

g Steel-Bound
nt Bound —
ns match the
g Lift Truck
gth of build
aptability of
c. They won't
wn or wabble

Dots From the Sunny South

Dairy interests at Memphis and other cities in the tri-states report the new year opening propitiously. Nashville tradesmen were somewhat handicapped for a week in their local deliveries because of the floods from the Cumberland river, overlapping the lower sections of the city. The highest stage of the Cumberland since January, 1882, was reached in 1927, the stage going above 56 feet. About 250 blocks in East Nashville, North Nashville and Black bottom south of Broadway near the river were affected. About 3,000 people in the city were rendered homeless for the time being and it is said 15,000 in the entire flood area including many counties of middle Tennessee east and west of Nashville. Now the waters have fallen several feet in the river and the backwaters are receding rapidly. Both street car and steam traffic were much handicapped and had to move in circuitous routes. Nashville promptly raised a $50,000 fund for the flood sufferers. Hartsville in Thousdale County, Rome, Tenn., sections along the Louisville and Nashville R. R. south of Clarksville around Sailors Rest and Cumberland City and in the territory around Savannah on the Tennessee river were much affected for several days. Memphis and west Tennessee reported no overflows outside of the bottoms and none at all in the city, which is amply equipped with pumping stations for both the city and county.

In Nashville the city plants of the dairies are far removed from the river and the only inconvenience they had was to their wagons and trucks, some of the streets and bridges being closed for awhile. The ice cream factories were also outside the flood zone except the Delicia Ice Cream Co. on Monroe and First Street which is in the northeast section of Nashville proper and was somewhat cut off in the approaches for several days.

* * *

The gratifying announcement comes that the properties of C. C. Hanson, civic leader at Memphis and head of the well known Hansonhurst Dairies and Farms in Shelby county, have been discharged from the receivership in the Federal Court at Memphis when it was shown that the assets totaled $237,545.25 in excess of all liabilities. Hansonhurst is a model town near Brunswick, Tenn., and has supplied much of the dairy products for Memphis and other localities for years. It is equipped with parks, store, and covers a wide acreage.

* * *

There was a large dairy meeting held at the City Hall, Greenville, Miss., on January 6, called by N. N. Isenberg, manager of the Greenville Creamery, and others. The purpose of the meeting was to get more cows in the vicinity of Greenville. Plans were worked out for securing the best grade of cattle, the growing of feedstuffs and the manner of feeding also were topics of discussion. Prof. L. A. Higgins of the A. and M. College and department of agriculture addressed the meeting.

* * *

It is reported as probable that a new cheese factory will be built at Wesley Chapel, in Weakley county, Tenn., near Dresden. This will be the second cheese factory for Weakley county, which is one of the fine stock and agricultural counties of West Tennessee traversed by the Illinois Central and the Nashville, Chattanooga and St. Louis R. R. systems. It was decided at a meeting held that 100 cows were sufficient to start the f and nearly that number were pledged. A com composed of J. P. Bowlin, R. R. Wright and other appointed on organization.

* * *

The Pikeville Co-operative Creamery, at Pik Bledsoe county, East Tennessee, has just purcha head more of Jersey cows and most of them have a been placed with the new patrons of the creamery. makes about 100 cows that this creamery has im from outside dairy regions. This creamery start a year ago to make the Squartchie Valley one of t dairy sections in East Tennessee and they seem succeeding.

* * *

O. P. Hurd, prominent Memphis lumberman or ly from Cairo, Ill., has been elected president of t State Fair at Memphis to succeed Charles Gerbe has been at the head of this institution at Me Tenn., for the past fifteen years. Each Septemb fair stages a week's exhibit along the livestock, products, horticultural, agricultural, merchant an ufacturing that is very largely attended from t state section, Mississippi, Arkansas and Tenness well as more distant points. The extensive fair gr originally the Montgomery Park race course, is nently equipped with many commodious buildings

* * *

The Morning Glory Creameries at 325 East C Avenue, Memphis Tenn., that lately made their de Memphis, are shipping creamery products exten and are taking select cream from shippers in local tory. They also have plants at Nashville, Tenn Houston, Texas.

* * *

Very good progress is being made in Memphis, on a two-story brick and concrete warehouse and structure on South Front St., corner Pontoc Ave., occupied in a few weeks by Bessire and Co., whol in dairy, ice cream, bakery and confectionery su They started in Memphis about two years ago on and Front, their present location, and their trade section has developed so that they needed quarters. They have several men on the road a corporation has other branches in leading souther south of the Ohio and to the southeast.

* * *

Reed Bros. on North Pauline St., Memphis, have made some additions to equipment and thei is enjoying a very good trade, with new routes an shipping business.

* * *

The Forrest Hill Dairies, at Memphis, are quite and have increased their holdings somewhat in months with a view to enlargements later.

* * *

The Clover Farm Dairy on Walnut St., Memp made some improvements in concrete on their yar the dairy business is showing a steady growth w passing years. It is one of the largest concerns entire Memphis territory. The ice cream unit two or three years ago has also developed a larg ness. Messrs. Learned, Zook and Love are activ tors of the corporation which is constituted of the brain and brawn of Memphis. The Clove operates one of the largest fleets of trucks and drawn vehicles of all concerns in the Memphis tra

"Very Convenient to Assemble, Operate and Clean"

ORANGE DAIRY COMPANY, Orange, N. J.

Gentlemen:

With reference to yours on reverse side regarding the Bestov Filter will say we have had no trouble whatever with it.

Our man finds it very convenient to assemble, operate and clean even during severest conditions.

I have been making close check up on all apparatus in our plant and have always found a nice clear response from the sediment test which I believe is due largely to the Bestov Filter.

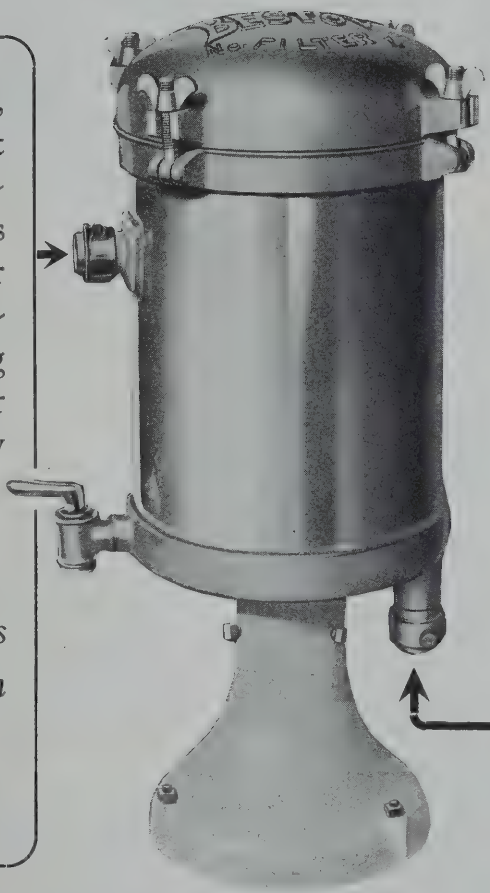
Yours in haste,

ORANGE DAIRY CO., *R. C. Stacey*

SEND FOR BULLETIN 2408-R **COMPLETE DESCRIPTION, 4 SIZES**

Clean, filtered milk, free from sediment comes from this OUTLET. Every drop is filtered and ready for the bottles—a dependable product, insuring the good-will of your customers every day in the year.

This connection is not disturbed when filter cloths are changed.



Milk just as received from the farms is pumped into this INTAKE and floods around a displacement drum, then filters through a cloth tube, held in position over a perforated cylinder surrounding the drum. Sediment collected on cloth works to the bottom permitting the cloth to filter efficiently always.

This connection not disturbed changing filter cloths.

CHERRY-BASSETT COMPANY TRADE MARK BESTOV MILK PRODUCTS EQUIPMENT

Cherry-Bassett Company

PHILADELPHIA
PITTSBURGH
BALTIMORE
SYRACUSE
NEW YORK

Prof. Burke's Inquiry -:- Department -:-

Correspondence Covering a Variety of
jects of Interest to Milk Distributors

Dear Sir:—I will be much obliged to you if you let me know the equivalency, as feeds, between cottage cheese and beef, eggs, mutton, fish and chicken and some other foods pound per pound.

I want to advertise this equivalency here to make our people eat cottage cheese.

Reply: I just received your letter requesting information relating to the comparative food value of cottage cheese. I believe the following data is exactly what you desire. It is taken from U. S. Department of Agriculture, Bureau of Animal Industry leaflet A. I. 24 and from the University of Illinois Circular 235.

For furnishing protein one pound of cottage cheese equals:

1.27 pounds sirloin steak.
1.09 pounds round steak.
1.37 pounds chuck rib beef.
1.52 pounds fowl.
1.46 pounds fresh ham.
1.44 pounds smoked ham.
1.58 pounds loin pork chop.
1.31 pounds hind leg of lamb.
1.37 pounds breast of veal.
14 eggs.
1.7 pounds mutton, fore quarter.
1.53 pounds mutton, hind quarter.
1.36 pounds halibut steak.
1.50 pounds salmon.
1.28 pounds mackerel.
1.96 pounds whitefish.
3.06 pounds baked beans, canned.

For supplying energy one pound of cottage cheese equals:

8.33 ounces sirloin steak.
11.25 ounces round steak.
11.25 ounces chock rib beef.
10.75 ounces fowl.
5.50 ounces fresh ham.
5 ounces smoked ham.
6 ounces loin pork chop.
7.33 ounces hind leg of lamb.
12.75 ounces breast of veal.
6.7 eggs.
6.5 ounces mutton, fore quarter.
6.6 ounces mutton, hind quarter.
1.08 ounces halibut steak.
1.37 ounces salmon.
7.9 ounces mackerel.
1.52 ounces whitefish.
13.7 ounces baked beans, canned.

I would suggest that you write the University of Illinois, Urbana, for a copy of Circular 235 as this is a very handy publication in that it relates to the food value of various dairy products compared with other materials.

* * *

Dear Sir:—We are having lots of trouble to get the overrun up in the manufacture of butter. At present we run from 12 to 14 per cent. We have been running it through a viscolizer with no pressure on it. We pasteurize it in one vat and let it stand thirty minutes and pump over to the other one and cool with brine down to about 48 degrees. We have been letting it stand about three hours and then churning begins in about five or ten minutes. Do you think to lower the churning
perature would help it? The butter is lumpy and
hard to get the moisture down; working it make
butter soft and oily.

The cream we have been getting is a pretty
grade. It runs about .60 in acidity, and neutralizes
to .25, then pasteurize on up to 150 degrees F.

Reply: Your letter just received, and I believ
difficulty which you are having in obtaining over
caused by too much pumping for one thing an
cooling low enough for another.

In your letter you state you are using a visc
without pressure, as a pump and then after paste
tion you pump it into a second vat. This would te
break the fat particles into very find globules and
them unite in a more compact mass, allowing less
for the incorporation of moisture.

You state you are having difficulty in getting
12 to 14 per cent overrun, and yet you mention th
that you are also having difficulty in keeping the
ture content down. As you undoubtedly know, the
ture content influences the overrun directly as doe
the amount of salt and curd which the butter con
and I am wondering if the system which you use in
ing may not be somewhat at fault. It should not be
difficult at this season of the year to control the
ture and overrun. It is true that in the spring p
when the cows get out on pasture the moisture co
tends to be somewhat high because the butterfat glo
in the cream are soft and the rapid churning o
product prevents the moisture from being beaten o
the product in the churn. I suggest you try drop
the temperature down to about 46 degrees F., b
very careful as this is a mighty low temperature
might result in partial whipping instead of chur
The cream for churning should test about 33 per
fat and the churning period should take from
45 to 50 minutes.

I suggest you try one or all of the following reme

1. Hold the cream over night at a temperatu
45 degrees F. and warm up to the churning temper
three hours before churning or cool to two or thre
grees lower than your present churning temperatur
hold three hours before churning.

2. Standardize the fat to 33 per cent, using
milk.

3. Avoid double pumping of the cream, espe
through the viscolizer.

* * *

Reply to G. J. C.: There are many causes for a
tion in the churning time, two of which, probabl
most prevalent, are improper temperature and fu
of the churn. The correct temperature for churnin
pends on several factors, such as the richness o
cream, acidity of the cream, type of churn and tem
ture of the atmosphere. Very rich cream churns
quickly than thin cream and the temperature ca
somewhat lower. It is also necessary to have the
perature a little lower for the churning of sweet
than sour cream in order that less fat may be l
the buttermilk. Again, if you happen to be churn
a warm room, in a metal type of churn the crean

GLASCOTE

took my time while I was working it."

* * *

Shipping Milk 1,800 Miles to Market

A FINE achievement of unusual note was the transportation of milk, in perfect condition, from point of shipment to point of unloading, over a distance of 1,800 miles, from Marshfield, Wisconsin, to Miami, Florida.

In Florida, the milk problem has been a vitally real one. Cows do not thrive there. Fresh milk is costly—35 cents a quart. The supply is limited.

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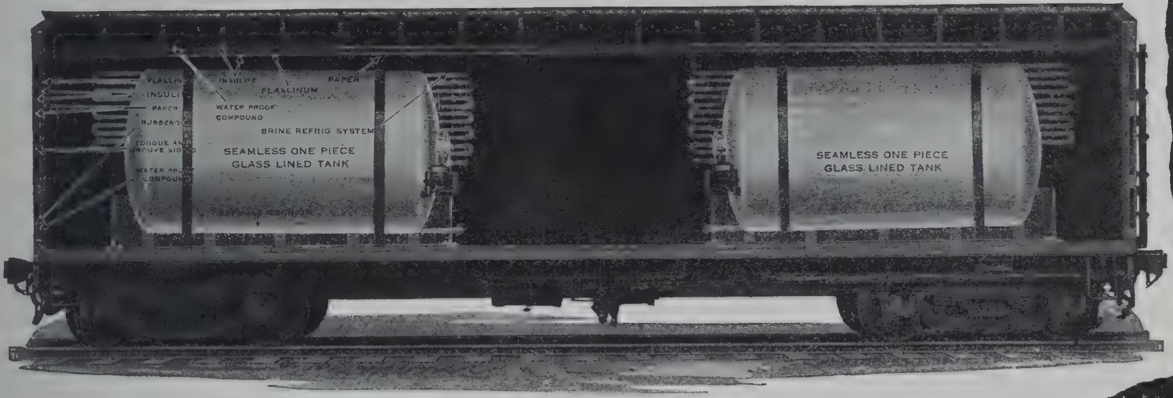
plugs.

After several years ot researc
technicians were rewarded with a new

Before the
Scientific American
printed the news-
GLASCOTE
made the Tanks.



The insulated car containing a refrigerating system and a large glass-lined tank in which milk was shipped safely 1,800 miles

At Marshfield, Wisconsin, a glass-lined milk tank-car was loaded with tuberculin-tested milk. Dr. Franklin Leiter, City Physician of Marshfield, inspected the content and equipment of the car. It contained six thousand gallons of milk, 40 ten-gallon cans of 40 percent cream. The content was cooled to 35 degrees, the car was locked and sealed, and with the temperature outdoors at 26 degrees, it was sent on its way from Marshfield at 1 P.M., Tuesday, February 16, 1926.

The car reached Miami, Florida, four days and five hours later. Its contents are said to have arrived in perfect condition, the temperature of the milk being 36 degrees, with an outdoor temperature of 92 degrees. The milk was shipped 1,800 miles with an outside temperature change of 66 degrees. Under these conditions the temperature of the contents remained within only one degree of its original.

What the effect of this unusual trial test on the future of milk shipment will be, it is hard to predict. If it proves practicable, and economical, to ship milk over distances as great as 1,800 miles, a great shift in American dairying industry may take place. Almost certain it is that the old-fashioned method of shipping milk in cans, that is, in broken bulk, is inefficient and costly.

* * *

Gold in Sea Water Not Payi Quantity

ceramic possessing m
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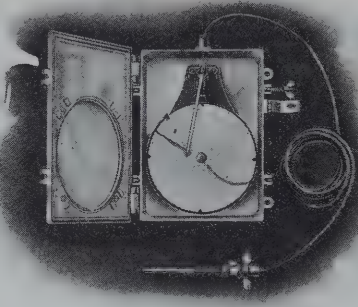
GLASCOTE also makes Pasteurizers, Mixing,- Aging and Storage Tanks required by Creameries, Ice Cream Plants and- Condenseries, all lined with High Glaze Sanitary Blue GLASCOTE.
The largest companies in the Dairy Industries specify, use and profit from Glascote Equipment.

The GLASCOTE *Co.*
EUCLID, OHIO (Cleveland District)
New York Office: 15 Park Row
St. Louis Office: 905 Carleton Bldg.
Detroit Office: 1217 Book Bldg.

GLASCOTE

When writing to THE GLASCOTE COMPANY *please mention The Milk Dealer.*



Standardization

— of —

Dairy Equipment

The enviable high degree of efficiency attained by many plants is due largely to the standardization of dairy equipment.

Approved sensitive bulbs and standard sanitary vat fittings for all makes of pasteurizers are included among the many features that recommend

BRISTOL'S
Recording
(Dairy) Thermometers

Other characteristic features of Bristol's Recording Thermometers are the trouble free working mechanism of simple construction, and the direct attachment of penarm to pressure element, insuring an accurate record at all times.

If you did not receive a copy of our latest bulletin at the Dairy Show write us for it now.

The Bristol Company Waterbury, Connecticut
FOR 36 YEARS MAKERS OF
Ask Any Technical Engineer
BRISTOL'S RECORDING INSTRUMENTS

BRISTOL'S—The most extensive line of recording instruments, including — Pressure, Liquid Level, Temperature, Electricity, Motion, Speed, Humidity, etc. Ask for our catalogs.

soon become warmed because the metal is a **poo**
lator and the cream may churn more quickly th
sired.

I think from this you can readily see that the
temperature for all cream cannot be given. If the
churned in seven or eight minutes and the next
takes thirty, at the same temperature, then the fi
too rich or too warm and the temperature may
ered two or three degrees for the next batch, pro
of course, it tests the same at each churning.

Now as regards the fullness of the churn.
churn is over half full it may take a considerable
of time to churn. If not quite half full, the churni
be much more rapid, but here again we find the r
of the cream, acidity and temperature to be closel
ciated. The churn for best results should be just
below half full.

In order to give you some definite idea with
to the various points of churning, I will say that
should contain about 30 to 35 per cent fat. The te
ture for summer churning should be 48 to 58 deg
and for winter churning 54 to 62 degrees F. The
of the cream is developed to about 45 degrees for
which is to be sold immediately, whereas butter
to be held for any length of time before selling,
be made from cream of low acidity, possibly .25 p
to .3 per cent acidity.

You ask regarding ways to determine whether
is sweet or sour. There are several methods of
for acidity. The most desirable method for farm
undoubtedly the use of Farrington's alkali table
tion. The alkali tablets come in a small can and
solved in water—a certain number of tablets pe
volume of water and this material added to a
quantity of cream until the product turns pink, s
that all acidity has been neutralized. The per
acidity is then read directly from the cylinder con
the alkali tablet solution.

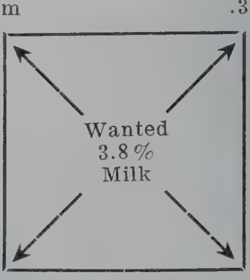
* * *

Dear Sir:—We would like it if you could gi
formula on building up milk. I mean if we ha
quarts of 3.5 per cent milk and would like to
up to 3.8 per cent fat and want to use either 2
per cent cream how much of each should we use

Reply: I am glad to describe the following
which will enable you to standardize milk. This
was devised by Dr. R. A. Pearson, formerly of
University.

First draw a square and in the center place t
centage of fat desired in the finished product.
left hand corners of the square write the percent
fat in the substances which you have on hand
in standardizing. Now subtract diagonally acr
square, always subtracting the smaller figure fr
larger, thus:

On hand
20% cream .3 parts of 20% cream t



On hand 16.2 parts of 3.5% mil
3.5% milk

The results show the ratios of each substance
For example: Three-tenths parts of 20 per cent cr

Where Will You Buy Your 1927 Crates ? ?

The choosing of the best merchandise for its cost puts a big responsibility on the man holding a buyer's job. In the purchase of crates for this year we are making the buyer's task an easy one. We have combined the two really important features of crate construction—i. e.:

Durability of Crate
Its Protection to Bottles

This is such an outstanding case that no Central Western milk dealer can afford to ignore it. A request will bring a free sample.

MILK BOTTLE CRATE CO.

Milk Bottle Crate Co.

1543-45
Kingsbury St.,
Chicago

When writing to MILK BOTTLE CRATE COMPANY *please mention The Milk Dealer.*

used with every 16.2 parts of 3.5 per cent milk. Note that the parts to use of each substance are in the corner of the square directly opposite the particular product used in standardizing.

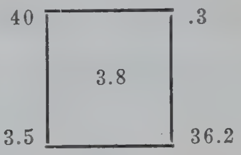
Therefore 16.2 parts is equivalent to 1200 pounds

$$\text{and one part is equivalent to } \frac{1200}{16.2} = 74.07$$

Then .3 parts, which is equivalent to the cream to add is 74.07×.3=22.2 pounds of 20 per cent cream to add.

The total amount of milk which you will have when you finish standardization will, therefore, be 1222.22 (1200+22.22).

Figure the amount of 40 per cent cream to add, in the following way:



36.2 parts are equivalent to....1200

$$\text{One part is equivalent to......} \frac{1200}{36.2} = 33.14$$

.3 part is equivalent to 33.149×.3=9.95 lbs. of 40% cream to add.

To prove it, proceed as follows:

Proof for Use of 20% Cream.

1200 lbs. of 3.5% milk contains (1200×.035)=42.00 lbs. fat.
We figured that 22.22 lbs. of 20% cream must
be added. Hence it contains (22.22×.20 = 4.44 lbs. fat.

Total fat in 1222.22 lbs. of 3.8% milk.......=46.44

Proof for the Use of 40% Cream.

1200 lbs. of 3.5 milk contains (1200×.035)=42.00 lbs. fat.
We figured that 9.95 lbs. of 40% cream must
be added. Hence it contains (9.95×.40)..= 3.98 lbs. fat.

Total fat in 1209.95 lbs. of 3.8% milk......=45.98

* * *

Reply to E. H. M.: I am glad to give you the following information relative to the calories found in the products which you mention. I am also showing you how I have computed this data, as it might be necessary for you to make some rapid computations in the future.

First: Determine the weight in grams of one pint or whatever voume is desired. To do this two factors are required:

1. The voume of a pint liquid which happens to be 473.2 cubic centimeters.
2. The specific gravity of the liquids for which we desire to determine the caloric value.

The approximate specific gravities for the various products which you list may be given as follows:

Product	Specific Gravity	Weight of a pint in grams
3.5 per cent milk....	1.032 taken for normal milk.	488
4.0 per cent milk....		488
4.2 per cent milk....		488
20% sour cream....	1.008	477
22% cream		477
32% cream	.990	468
40% cream	.966	457
2% buttermilk	1.034	489
Acidophilus milk from skimmilk	1.036	490

You will note from the above that the weight of a pint in grams is obtained in each case by multiplying the cubic centimeters per pint by the specific gravity. Thus: 473.2×1032=488+.

Second: Obtain the calories furnished by fat, protein and carbohydrates. This has already been worked out by Sherman who assigns the following approximate energy values:

Proteins, four calories per gram.
Corbohydrates, four calories per gram.
Fat, nine calories per gram.

Third: Determine the per cent solids-not-fat
product in question.

For milk this is obtained either from tables o
formulas figured on the basis of the fat per ce
lactometer reading.

For cream you may figure as follows: Subtra
fat per cent from 100 and multiply the remainder,
is equivalent to skim milk, by 8.9 per cent.
100—20=80 and 80×.089=7.12 per cent solids-not

Fourth: The solids-not-fat are made up of case
albumin which is the protein; milk sugar which
carbohydrates and also ash. Ash is therefore not
considered. Luckily it runs fairly constant in mi
ing about .7 per cent. Hence to obtain total prote
carbohydrates, it is but necessary to subtract .7 pe
from the per cent of solids-not-fat. In cream I f
the solids-not-fat per cent as mentioned above an
tracted .5 per cent (representing the ash) from t
cent solids-not-fat in case of 20 and 22 per cent
and .4 per cent in the case of 32 and 40 per cent cr

Fifth: To find the calories furnished by the fa
tiply the weight per pint in grams (488— for mi
the per cent of fat and then by the calories fur
per gram of fat, which is 9. Thus: 488×3.5×9=

To determine the calories furnished by the p
and carbohydrates first subtract the per cent of ash
the per cent solids-not-fat. Then multiply 488 b
result and by 4. Thus: 8.70—.7=8 and 488×8×4=

The figured results are tabulated in the foll
table:

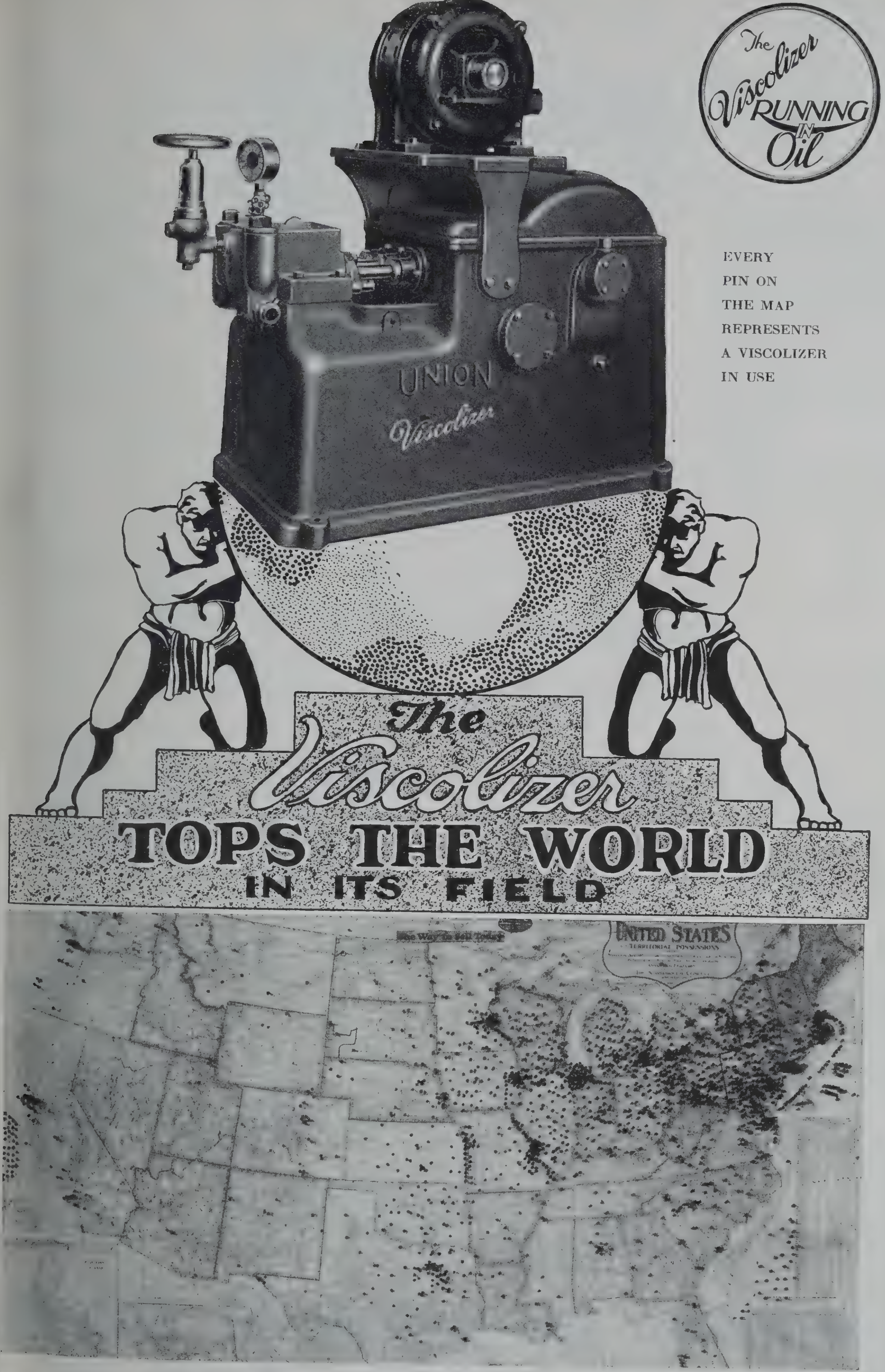
Per cent Fat	% carbohydrates and proteins or % S. N. F. minus % ash (minus .7%)	Calories furnished by fat per pint	Calories furnished by carbohydrates and proteins per pint
3.5	8.00	153.72	156.04
4.0	8.11	175.68	158.28
4.2	8.15	184.46	159.08
	(minus .5%)		
20 sour cream	6.63	858.60	126.50
22	6.40	944.46	122.11
	(minus .4%)		
32	5.60	1347.84	104.83
40	4.95	1645.20	90.48
	(minus .7%)		
2 buttermilk	7.70	88.02	150.60
Acidophilus milk (skimmed)	7.30	Depends on fat test	142.68

In regard to the acidophilus milk I am uncer
to the per cent of fat which the product contai
you are making acidophilus milk from skim m
calories would be about what I have shown in th
For specific information as to the calories contai
the product I suggest you write direct to the ma
turer who should be able to furnish this. If h
you the percentage of fat in the product you may
it out for yourself from the data which I have giv
or you may advise me and I will be glad to do
uring for you.

⚜

WOODLAWN DAIRY SOLD.

The Sievert Dairy Co., Milwaukee, has purcha
Woodlawn Dairy, West Allis (a suburb of Milw
Wisconsin, and will discontinue the operating
plant. The business will be handled from the mai
in the city.


The Viscolizer RUNNING IN Oil
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Viscolizer
The Viscolizer
TOPS THE WORLD
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TERRITORIAL POSSESSIONS

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PIN ON
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A VISCOLIZER
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DISTRIBUTION DIRECTED BY

JOHN W. LADD CO. **CHERRY-BASSETT CO.**

AND SOLD BY LEADING DAIRY SUPPLY HOUSES EVERYWHERE

When writing to JOHN W. LADD CO. *please mention The Milk Dealer.*

Fluid Milk Market Report for United States for Dec.,

By Bureau of Agricultural Economics, Market News Service, United States Department of Agricult

Table I—Producers' Prices for Standard Grade Milk Testing 3.5% Butterfat, Delivered F. O. B. Local Sh Point or Country Plant.

Prices which appear in this report are secured through the co-operaton of milk distributors, producers' asso and municipal officers. Dealers' buying prices unless otherwise indicated, represent prices applying to all milk de by producers. For cities where a "surplus plan" is in effect, the prices reported in table III are for "basic" qua All per cwt. buying prices have been converted to a 3.5% butterfat basis for comparative purposes.

Sections	Range of December Prices		Prices Compared for Same Markets		
	Number Local Markets	Prices per Hundredweight	Number Local Markets	1926 Average for December	1926 Average for November
New England	9	$3.00–$3.82	9	$3.48	$3.45
Middle Atlantic	15	2.35– 3.15	15	2.86	2.85
E. North Central	22	2.05– 3.23	22	2.61	2.57
W. North Central	20	1.75– 2.75	18	2.35	2.28
South Atlantic	14	2.80– 5.90	14	3.85	3.82
E. South Central	5	2.35– 3.40	5	2.70	2.66
W. South Central	6	1.90– 3.04	5	2.68	2.78
Mountain	5	1.93– 3.20	5	2.45	2.44
Pacific	9	1.95– 3.03	8	2.66	2.67
United States	105	1.75– 5.90	101	2.85	2.79

Above prices include "basic" prices where a surplus plan or pooling plan is in effect. Cities where prices ar upon current butter quotations not included.

Table II—Prices for Special Grades of Milk and Certain Milk Products.

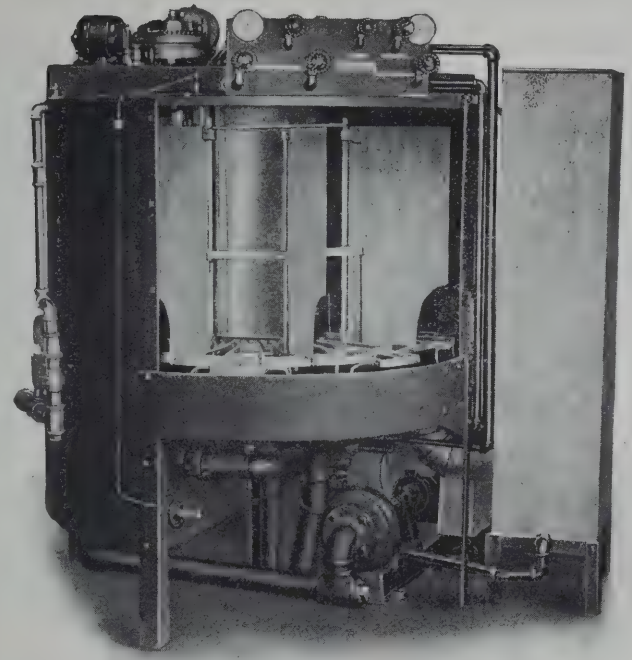
The following table shows the wholesale and retail prices reported for "special" and "certified" milk and certai products delivered at wholesale buyers' places of business and at the home of retail customers.

Cities	Special Milk	Certified Milk	Cultured Buttermilk		Cottage Cheese		Light Cre 18-25% B.
	Retail Price per Quart	Retail Price per Quart	Wholesale Price per Gal.	Retail Price per Quart	Wholesale Price per Lb.	Retail Price per Lb.	Wholesale Price per Gal.
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	$
Akron	16–18	20	20	8	8	10	1.30–1.50
Albany	18	..	32	10	..	..	1.60
Albuquerque	..	..	..	..	18	..	1.75
Allentown	18	..	36	13	..	14	2.00
Asheville	19	25	..	..	12*	15*	2.00
Baltimore	..	30	44	14	10–12	15*	1.70
Birmingham	20	25	25	10	..	..	1.60
Boston	18½	26	..	10	..	..	1.17–1.79
Buffalo	14	26	24	10	10*	12*	1.50–1.60
Chicago	17	25	..	10–20	..	15*	1.30–1.80
Cleveland	19–20	25	..	12–13	12–14	15	1.26–2.00
Colorado Springs	17	..	15	6	..	..	1.20
Columbus	..	..	35	12	10	10*	1.45
Dallas	24	..	20	8–9	..	..	1.40–1.50
Denver	14	..	15	7–8	15*	20*	1.30
Des Moines	14–25	..	20	9–11	10	14	1.45
Detroit	..	25	..	35	..	..	..
Duluth	14	25	13	8	10*	15*	1.40
El Paso	17	..	20–25	10	15*	20*	1.40–1.50
Evansville	15	..	25	9	..	..	1.60
Harrisburg	..	..	35	12	..	..	1.50
Hartford	18–25	25–35	..	..	..	..	1.40
Indianapolis	16	..	25–32	10–12	12–16	20	1.10–1.20
Jacksonville	25	..	35	12	20	30	1.60–2.50
Kansas City	..	25	..	10	..	..	1.80
Lincoln	14	20	20	10	12	15	1.25
Long Beach	20	..	..	..	10	..	1.60
Los Angeles	..	28–30	25	10	..	..	1.60
Louisville	17	24	..	13	..	..	1.00–1.63
Memphis	..	30	15–20	6–7	15	20	1.10–1.40
Miami	30–35	35	60	20	..	..	2.25–2.50
Milwaukee	14–18	25	18	6	5–8	10	1.30–1.65
Minneapolis	..	22	..	7–13	10*	12*	1.35–1.40
Nashville	18	..	22	10	17	20	1.50
New Orleans	18	31	40	14	..	..	1.20
New York	30	28	28	11	..	..	1.96
Omaha	15	20	20	10	10	..	1.30
Philadelphia	16	30	..	13	..	..	1.56
Pittsburgh	..	25	20–25	10	..	..	1.40–1.60
Portland	15–18	..	..	..	..	..	1.40–1.50
Richmond	18	..	25	8	10*	15*	1.20–1.30
Rockford	..	..	..	..	..	..	1.40
Salt Lake City	15	..	15	7	10	12½	1.35
San Francisco	..	25	..	14	..	20	1.70–2.50
Scranton	18	25	20	8	..	..	..
Sioux City	..	25	15	6	10	10*	1.20
Spokane	15–18½	18½	20	10	15	20	1.55
St. Louis	18	25	25	10–18	13	15	1.26–2.00
Trenton	17	30	40	13	20	25	1.76
Trinidad	20	25	..	10	..	..	1.25–1.60
Washington	18–20	30	52	15	13–15	15–20	2.00
Wheeling	16	..	30	10	..	..	1.30
Wilmington	20	..	..	10	..	13*	..

* 12 oz. package

R & A LOW DUTY ROTARY CAN WASHER

The machine illustrated is our Style No. 96. Thoroughly washes, rinses, sterilizes and dries three cans per minute.



R & A MEDIUM DUTY ROTARY CAN WASHER

This washer — Style No. 93 — is the larger of the R & A Rotaries, easily handling six cans per minute.

This R & A Rotary *welcomes comparisons!*

IF you are buying a Rotary Can Washer, and are considering one of the R & A Rotaries, not only would we welcome comparison of this washer with other can washers — but we urge you to compare all the important construction and operating details of the R & A Rotaries with those of other machines.

Compare the R & A Intermittent Power drive. Simple, perfectly controlled and perfectly timed. On top of machine, and equipped with a sensitive safety-friction-clutch. Keeps cans over jets 75% of time — 50% increased efficiency.

Compare the valve mechanism on top of the machine, its positive operation, and the accessibility of every part.

Compare the compact, solid arrangement of pumps, motor and fan. Note particularly the new pumps. Double the volume of water without increased motor size.

Compare the automatic jet operation — the position of the jets — the non-clogging nozzles.

Compare the tremendously strong construction of the machine — its tanks and hood of heavy Armco Ingot Iron.

Compare its low operating cost, and the ease of maintaining the R & A Rotary.

Then see the washer in operation. Note how smoothly and efficiently it works — how every can comes out perfectly clean, dry and sterile.

After you've made these comparisons, you'll know which can washer gives you greatest dollar per dollar value — which can washer will give you the utmost in efficient, economical, enduring service!

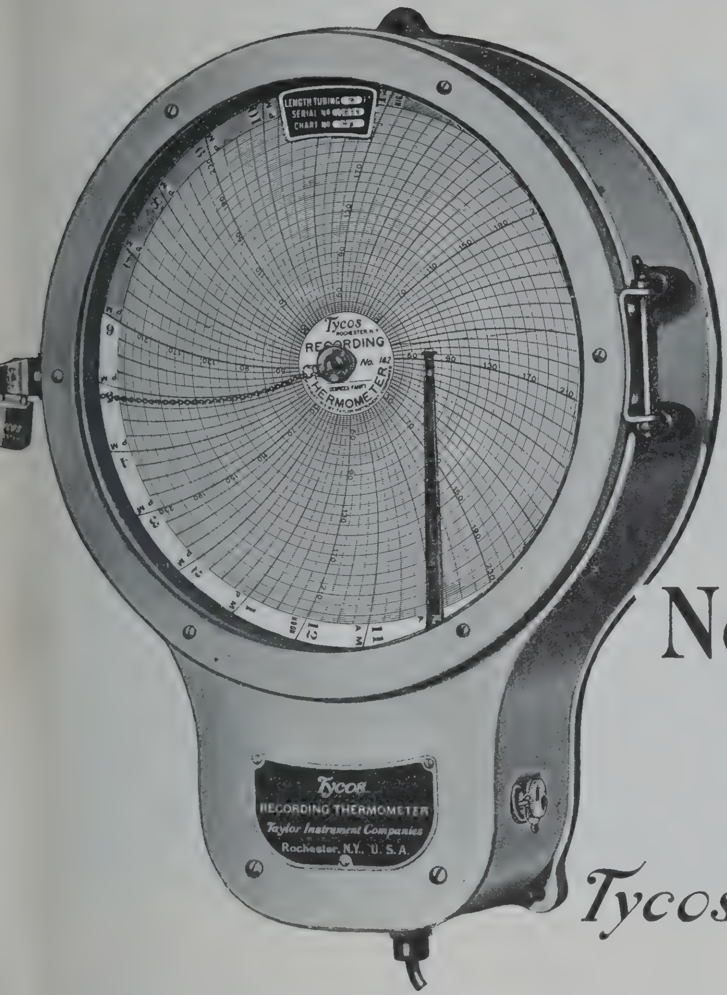
Let us send you complete literature and prices.

RICE & ADAMS CORP.

1144 Military Road, Buffalo, N. Y.

Table III—December Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices			
			Wholesale Trade		Retail Trade	
			Per Gal. in Lots of 5-20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled
	$	Cts.	Cts.	Cts.	Cts.	Cts.
ALABAMA—						
Birmingham	3.42–3.91	Flat to 4.2%	45–50	14	18	14–18
Mobile	..	..	50	15	18	16
ARIZONA—						
Phoenix	....	..	32	9	10–12½	10–11
CALIFORNIA—						
Fresno	Butter Market Basis		35	11	13	12–13
Long Beach	3.15	9	43	13	15	15
Los Angeles	3.15–3.33	9–9.5	43.33	13	15	..
Oakland	2.82	2.9+	32–35	9	12	10
San Francisco	3.11–3.21	2.9+	41.3–41.6	11.2–12	14	13–14
Santa Barbara	3.33	9.5	40–45	..	15–16	15–16
COLORADO—						
Colorado Springs	2.45	6	30	9	11	11
Denver	2.19–2.35	6.25–6.7	35	10	12	12
Trinidad	....	..	35	10	10–13	10–12
CONNECTICUT—						
Bridgeport	4.22*(a)	4	..	..	16	..
Hartford	4.22*	4	46	14	16	14–16
New Haven	4.22*	4	50	14	16	16
DELAWARE—						
Wilmington	3.23*	4	44	..	13	13
DIST. OF COLUMBIA—						
Washington	3.60*	7	44–48	12–15	15	13–15
FLORIDA—						
Jacksonville	4.53	10 to 4.2%	55–60	18	20–21	19–21
Miami	6.75–6.90	Flat	80	22	25	23
Tampa	5.81	Flat	60	..	18–25	25
ILLINOIS—						
Chicago	See Table II		32–38	13	14	14
Quincy	....	..	30	8	10	10
Rockford	2.55	6	28	9	11	11
Springfield	2.63	5	36	12	14.28	14–15
INDIANA—						
Evansville	2.45	3	34	11	12½	12½
Fort Wayne	2.40	5	40	11	13	12–13
Indianapolis	2.10 1st ½ mo. 2.27 2nd ½ mo.	6 6.5	28–32	10	12	11–12
South Bend	2.40–2.65	4	32–35	10	12	12
IOWA—						
Clinton	Butter Market Basis		32	9	11	..
Des Moines	2.65*	5	32	9	12	10–12
Fort Dodge	2.75*	5	38	10½	12	12
Iowa City	2.45	7	30	9	12	12
Mason City	2.25	5	..	10	12	12
Ottumwa	2.25	5	35	10	12	12
Sioux City	2.30	5	30	8	10	10
KANSAS—						
Kansas City	....	..	35	10	12	12
Topeka	2.10–2.25	4	30–35	8	10–12½	8–10
KENTUCKY—						
Lexington	3.00	Flat	40	12	15	12–15
Louisville	2.54–2.59	4–5	32	11	13	13
LOUISIANA—						
Alexandria	2.91	Flat	40	10	15	12
New Orleans	3.04	4	35	12	14	14
MARYLAND—						
Baltimore	3.55*	5.8	44	14	14	15–16
Cumberland	4.15	5	40	13	15	15
MASSACHUSETTS—						
Boston	4.08*(b)	B. M. Basis	43	12½	15	13
Fall River	....	..	..	13	15	14–15
Lawrence	4.09	4.65	48	12½	15	..
Lynn	4.19	Flat	..	12½	15	..
Springfield	3.49	Flat	40	12–13	15	11–15
MICHIGAN—						
Battle Creek	2.80	4	36–40	10	12	12
Detroit	3.00*	5	..	..	14	14
Grand Rapids	2.48*	4	30	8–9	9–12	9–12
Kalamazoo	3.00*–3.20*	4 to 4%	38	11	13	13
Lansing	2.25	Flat	30	8	10	10



A Non-Debatable Record

is furnished by the

***Tycos* Recording Thermometer**

There can be no argument about temperature or time when a *Tycos* Recording Thermometer Chart is in evidence. Questions such as, when the heat was turned on, how long it ran, how hot it got, and when it was shut off, are all answered by the Tell-Tale line.

When you have a *Tycos* you get the facts.

All *Tycos* Recording Thermometers are equipped with dust proof case, patent pen arm sealing device to prevent adjustment by unauthorized persons; high grade, specially designed clock movement, riveted pen arm, to insure correct time readings and bearing pressure of pen point on chart; and are under lock and key to eliminate willful or malicious interference with the record.

Send for Milk Plant Catalog Part 500-A

Taylor Instrument Companies
ROCHESTER, N. Y., U. S. A.

Canadian Plant
***Tycos* Building**
Toronto

Manufacturing Distributors
in Great Britain
Short & Mason, Ltd., London

Tycos Temperature Instruments

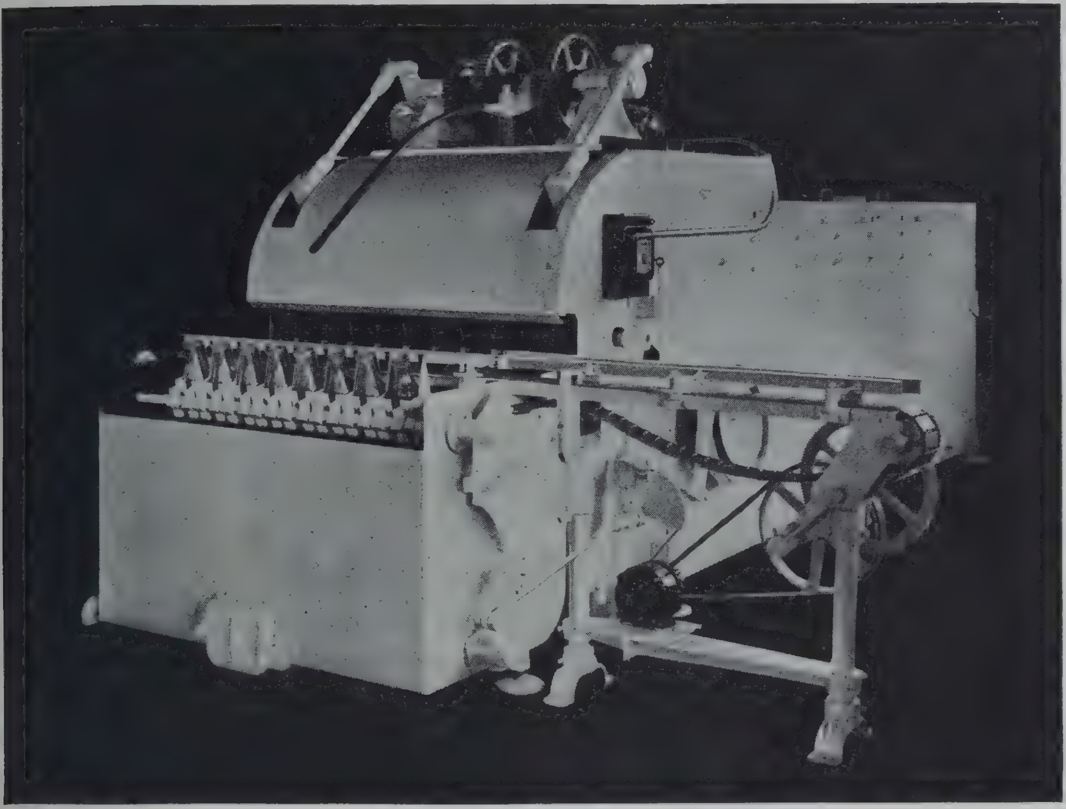
INDICATING - RECORDING - CONTROLLING

Table III—December Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5-20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	
MINNESOTA—							
Duluth	2.77*	5	30	10	12	12	3
Minneapolis	2.70*	5	34	9½	11	10–11	3.5-
Northfield	2.37	5	32	9	10	10	3.
St. Paul	2.70*	5	34	9½	11	..	3
MISSOURI—							
Kansas City	2.73	3.5	40	10	13	10–11	3
St. Louis	2.95	3	35–38	11	13	13	3.5-
MONTANA—							
Butte	2.60	10	30–35	11	13	13	3.4-
Lewistown	....	..	30	10	12½	12½	3
NEBRASKA—							
Lincoln	2.10	6	28	8½	10	10	3
Omaha	2.35	5	28	9	11	11	3.4-
NEW HAMPSHIRE—							
Concord	....	..	37½	..	11–14	11–14	3.6-
NEW JERSEY—							
Atlantic City	....	..	48	..	15	..	
Camden	....	..	..	..	13	..	.
Hoboken	....	..	34	10.6	15	15	3
Trenton	3.41*	4	40	11	13	14	3.7-
NEW MEXICO—							
Albuquerque	3.20	5.8	40	12–12½	15	15	4.0-
NEW YORK—							
Albany	3.17*	4	38	15	15–17	16–19	3
Buffalo	2.85*–2.90*	4	36–40	11–11½	13	13	3.5
New York	See Table II		40	14	15	15	3
Rochester	2.83*–2.85*	4	40	11	12½	13	3.
Utica	2.92*	4	36	10	12	12	3
NO. CAROLINA—							
Asheville	3.80	4	48	14	17	17	4
Biltmore	3.80	4	..	..	..	..	
Greensboro	3.70*	6	50	14	17	20	4
Winston-Salem	3.30*	4	45–50	13	16	17–18	4.3
NO. DAKOTA—							
Bismarck	2.75	4	35	9½	12	11	4
Jamestown	2.30	4	33	9	11	11	3.6
Mandan	2.75	4	35	8	..	10	3.6
OHIO—							
Akron	3.50*	5	40	11	13	13	3
Cincinnati	Not Determined		38	12½	14	12	3
Cleveland	3.50*	5	35–44	11–12	14–15	11–15	3.5
Columbus	....	..	38	11	12	12–13	3
Toledo	2.55	3	36	10½	12	..	3
OKLAHOMA—							
Tulsa	2.45–2.80	7–8	40	11	15–20	10–20	4.0
OREGON—							
Portland	2.25–2.35	5	25–35	9	12–13	10–11	3.5
PENNSYLVANIA—							
Allentown	3.16*	4	36	11	13	13	3
Altoona	3.05–3.16	4	42	11	13	13	3.6
Harrisburg	2.60	4	36	11	12	..	3
Philadelphia	3.49*–3.52*	4	38–40	..	13	..	
Pittsburgh	3.90*	5	40–44	14½	15	..	3.6
Scranton	3.20	4	40	13	13	13	
RHODE ISLAND—							
Newport	....	..	..	..	15	15	
Providence	4.08*(b)	B. M. Basis	..	..	15–15½	..	
SOUTH DAKOTA—							
Sioux Falls	2.75*	5	30	10	12	12	
TENNESSEE—							
Chattanooga	2.80	8	45	12	20	18	
Memphis	2.58–2.73	4.5	32–40	10–11	15	12–13	4.
Nashville	Butter Market Basis		38	12	14	14	
TEXAS—							
Dallas	2.60	4	35	10–11	13	10–13	
El Paso	3.00–3.10	5	35	11	14	13–14	3.
Houston	3.15	9	..	..	16	..	
UTAH—							
Salt Lake City	2.45	7	28–30	9½	10–11	11–12	
VIRGINIA—							
Newport News	4.20	6	50	15	17	18	
Richmond	3.93–4.05	5	44	..	14	..	3.

* Basic prices for fluid milk.

The Milk Dealer Is a Monthly Market Place for New Ideas.



Announcing

—an entirely New

Bottle Washer

y Ladewig-Soelch

TWENTY-TWO years of outstanding success in designing and building bottle washers have produced this latest and most perfect of all machines — the Ladewig-Soelch, built by A. E. Ladewig and G. F. Soelch.

It is truly a masterpiece of mechanical engineering. It has everything you would want a bottle washer to have. And no matter what you demand by way of service from this Ladewig-Soelch, you will get it in speed, capacity, accessibility, adaptability and trouble-proof operation.

Complete information containing the remarkable story of this new and advanced Ladewig-Soelch Bottle Washer will be sent to you on request.

Manufactured by
ADEWIG-SOELCH CO.
3th & Lapham Sts., Milwaukee, Wis.

Distributed by
A. H. ARNOLD & CO.
718 W. Randolph St., Chicago, Ill.

When writing to LADEWIG-SOELCH CO. *please mention The Milk Dealer.*

Table III—December Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices — Wholesale Trade — Per Gal. in Lots of 5-20 Gal. in Bulk	Dealers' Selling Prices — Wholesale Trade — Per Qt. Bottled (Cases of 12)	Dealers' Selling Prices — Retail Trade — Per Qt. Bottled to Family Trade	Dealers' Selling Prices — Retail Trade — Store Prices per Qt. Bottled
	$	Cts.	Cts.	Cts.	Cts.	Cts.
WASHINGTON—						
Everett	....	..	28	7	9	9
Seattle	2.60*	6.71	..	..	Unsettled	
Spokane	2.35–2.50	5	34	10	12	12
Tacoma	2.70	5	35	10	12½	11–12
WEST VIRGINIA—						
Clarksburg	3.25	5	..	..	15	16
Wheeling	....	..	40	12	14	..
WISCONSIN—						
Beloit	2.50*	5	30	8	10	10
Kenosha	3.00	4	40	11	12	12–13
Madison	Butter Market Basis		36	9	10	10
Milwaukee	2.90*	4	30	9½	11	10–11
Oshkosh	Butter & Cheese Market Basis		..	9	10	10
Racine	2.75	4	38	10	11	11
Sheboygan Falls	Cheese Market Basis		..	10	11	11
Superior	2.77–2.86	5	32	10	12	12
Wausau	2.35	3	..	9½	11	11

(a) Announced price of $4.68 for November was reduced to $4.22 on the 15th.
(b) Price advanced ½c quart (23c cwt.) on November 16.
* Basic prices for fluid milk.

Table IV—December Cost Prices of "Standard Grade Milk" 3.5% B. F. for Cities Where Part of the Supp Purchased Through Country Stations.

Cities	Prices Paid Producers per cwt. raw Milk (Flat prices of 3.5% B.F. basis) — F. O. B. City	Prices Paid Producers per cwt. raw Milk (Flat prices of 3.5% B.F. basis) — At Country Stations	Freight Zones to Which Country Statio Prices Apply
New Haven, Conn	$4.22*	$3.70*	28c rate.
Washington, D. C	3.60*	3.02*	35c 10-gal. can.
Chicago, Ill.	Unavailable	2.50	All.
Baltimore, Md.	3.55*	2.97*	35c rate.
Boston, Mass.	4.08*	3.35*(a)	181-200 mile zone.
St. Louis, Mo	2.95	2.20–2.35	34c rate.
Trenton, N. J.	3.41*	2.85*	41-50 mile zone.
Buffalo, N. Y.	2.85*–2.90*	2.57*–2.62*	28c rate.
New York, N. Y.	Unavailable	3.10*–3.15*	201-210 mile zone (53c rate).
Cleveland, O.	3.50*	3.12*–3.19*	All.
Philadelphia, Pa.	3.49*–3.52*	2.91*–2.95*	51-60 mile zone.
Pittsburgh, Pa.	3.90*	3.15*	All.
Scranton, Pa.	3.20	2.90	30c rate.
Dallas, Tex.	2.60	1.90–2.20	All.

* Basic prices for fluid milk.
(a) Price advanced ½c quart (23c cwt.) on November 16.
NOTE: At all places in the above tables where prices are not shown, the information was either not reported not available.

INSISTS UPON ACCURATE PASTEURIZATION HOLDERS.

Since 1923 representatives of the New Jersey State Health Department have been testing all forms of continuous flow and pocket type pasteurizer-holders. The test used was that devised by the U. S. Bureau of Dairying and known as the "prodigiosus method." Where the results of these tests have shown a holding period of less than 30 minutes as required by the department, the owners of the plants were notified and advised to remedy the defects as soon as possible.

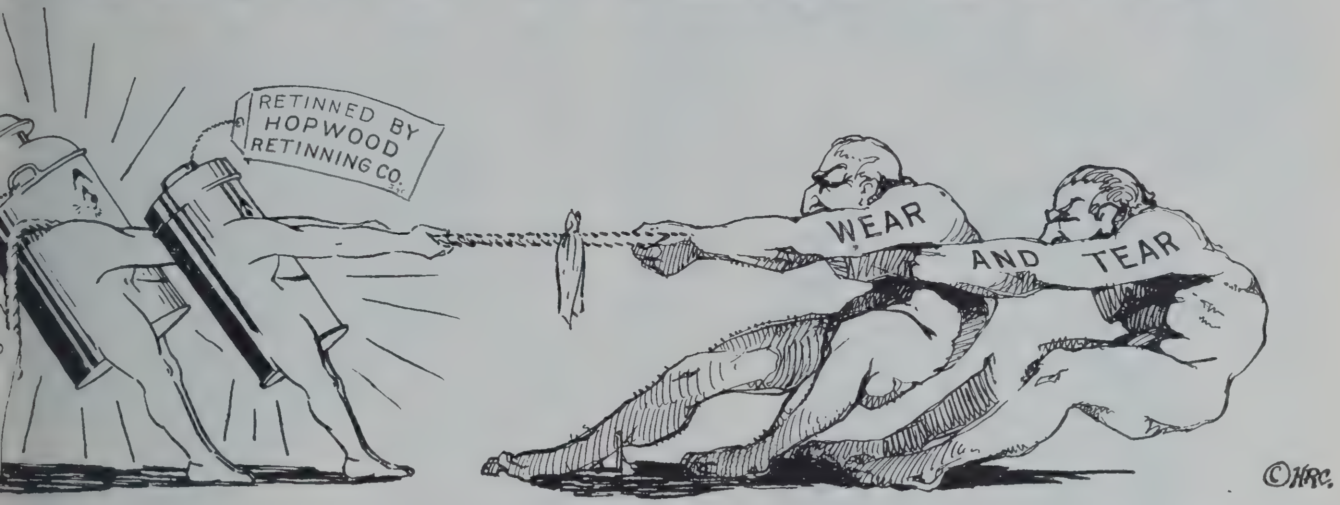
In 37 of the 55 plants tested the inaccurate holding method has given way to a more positive holding system. Believing that the operators of the remaining 18 plants have had sufficient time to make the necessary changes in their equipment, the department recently
issued an ultimatum, expiring June 30, 1927, in
all plants must have a pasteurizing system that w
itively hold the milk at least 30 consecutive minut

* * *

In addressing a meeting of the Northern Ohio
Inspectors' Assn. at Cleveland, O., in December,
Bailey of Pittsburgh, president of the American
Federation, took the opportunity to give the res
the use of milk in lead poisoning. Mr. Bailey
that it is the first lead poisoning control found
how it works has not been discovered, he said,
reduced temporary disability among Cincinnati
makers from 8 to 1½ per cent and abolished per
disabled cases from lead poisoning altogether.

Lead poisoning continues to decrease with
tended use of milk, Cincinnati experiments prove.

OLDING THEIR OWN


RETINNED BY HOPWOOD RETINNING CO.
WEAR
AND TEAR
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Ship your rusty or leaky cans to us for re-tinning. We are a Reliable, Experienced Concern.

High Quality, Quick Service at Right Prices.

We have been connected with the manufacture and re-manufacture of Milk Cans and Ice Cream Cans since **1898**

HOPWOOD RETINNING CO., Inc.

fice 56 Commercial Street Brooklyn, N. Y.

E 64

UNCLEANLINESS

a destroyer of milk quality, and is almost invariably caused by apparently small and unimportant ctors of production.

Real sanitary cleanliness is the only cure. Sanitary cleanliness goes beyond the cleanliness that tisfies merely the eye. It includes the emulsification of all butter fat deposits as well as the thorgh dissolving of casein. It strips all unseen greasy and harmful films down to the natural clean rface of dairy equipment so that harmful bacteria cannot propagate.

This is the service which for over twenty years has characterized the use of

Wyandotte
Cleans Clean
Sanitary Cleaner and Cleanser

It means the purifying and deodorizing of all surfaces with which milk foods come in contact. Real sanitary cleanliness is the dairyman's positive insurance against loss of quality in milk products and the consequent loss in profits.

ndian in Circle
Every Package

Ask your supply man for "WYANDOTTE"

Are you using Wyandotte C. A. S. [cream acidity standardizer] for standardizing the acidity of your cream?

he J. B. Ford Company *Sole Manufacturers* Wyandotte, Michigan

Improved
Extra Large Capacity
Large Volume Insures Hydrostatic Pressure Filtering Quickly
Splash Disc Checks fall of Milk, Prevents Breaking Cotton

Special Gopher Features

An aid to clean milk campaigns. Get your patrons to use them.

This 18 quart strainer filters milk in most scientific and sanitary method.

Gopher Spring Wire Clamp, Only two removable parts.

SIMPLE—SANITARY

Large capacity allows several milkers to pour at one time

Long funnel shaped neck of strainer keeps it rigid when placed in can, allowing pail to be rested on edge without tipping. Keeps out flies and dust from filtered milk.

Splash disc checks fall of milk, preventing breaking of cotton disc. Permits filling neck securing necessary hydrostatic pressure, increasing speed of filtration.

Made from one piece heavy milk can steel, tinned after it is manufactured leaving no crack or crevice for dirt to collect.

SUPERIOR METAL PRODUCTS Co

311 CHESTNUT ST. ST. PAUL, MINN.

OHIO DAIRY PRODUCTS MANUFACTURER MEET IN CINCINNATI.

The annual meeting of the Ohio Milk Distri
will be held in connection with the fourth annu
vention of the Ohio Dairy Products Association a
cinnati, January 25 and 26. Early indicatio
that the strong program arranged and the ex
entertainment which will be provided by the Cin
dairy products industry will draw ice cream ma
turers, creamerymen and milk dealers from all
surrounding states.

The early arrivals will be made welcome at a s
given by the Cincinnati crowd on Monday evenin
24th, at the Gibson Hotel, convention headquarter
program will open at 10:00 a. m. Tuesday, Janua
in a joint meeting with milk dealers and creame

A get-together luncheon will be held at no
Tuesday when the whole crowd of men will sit do
food, friendship, and fun. The balance of the tw
will be spent on questions of concern to the indust
cepting the time at the joint banquet in the Sinton
on the evening of the 25th.

A good program of special interest to milk d
has been prepared.

On Wednesday evening the Cincinnati host
spread a real party at Heidelburg, across the river
invitation to this reads "come early and stay lat
by all means leave your reserve, grouch, or any
unsociable attributes behind."

Thursday the crowd will travel to Lexington
for a meeting of the Dairy Products Association o
tucky, where the colonels will put on the show
day.

The ladies are invited and a full program ha
arranged for them from time of arrival to departu

Cincinnati knows how to entertain and invit
industry of surrounding states to gather there o
uary 25 and 26.

* * *

A-SMILING THROUGH.

By Vernon Varney.

The rain in sheets poured down the streets,
But he'd a task to do,
So on he slipped his slicker sleek,
And went a-smiling through!

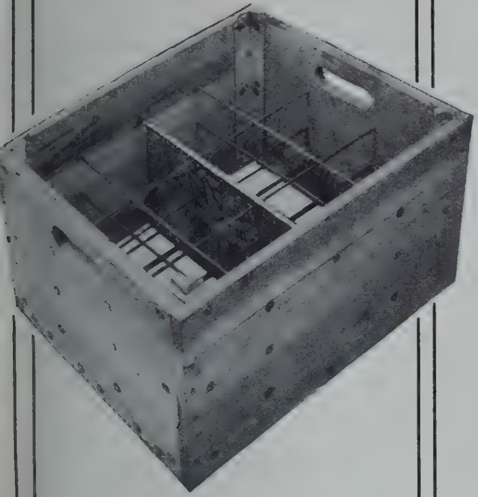
The Boss was cross, and all the force
Did growl instead of coo,
But he forgot to see the lot,
And went a-smiling through!

His head did ache, his heart did quake,
His arms and legs hurt, too,
But for his ills, he took DOC'S PILLS,
And went a-smiling through!

His work was hard; his grouchy pard
Quit cold at half past two,
But he kept on, despite the storm,
And went a-smiling through!

Amid the roar, his part he bore,
And other fellows', too,
He kept the men together, when
He went a-smiling through!

And when some day, faint voices say,
"There's no more work to do,"
I'll bet my pay, St. Peter'll say,
"JUST GO A-SMILING THROUGH!"



"As strong as the Republic"

REPUBLIC BOTTLE CRATES

Carefully built of the finest materials and designed to stand gruelling, everyday use and abuse, Republic Bottle Crates work on the route — not in the repair shop.

Longer Service at Less Cost

An unusual feature found only in Republic Bottle Crates is the high, one-piece galvanized iron center spacer which keeps the rods permanently in line and prevents sagging. Corners are heavily re-inforced with galvanized metal which also forms stacking irons and bottom corner protection.

Before you buy, get our prices.

The Republic Box Company
1693-1711 Merwin St. CLEVELAND, OHIO

You'll Like Our Barrels

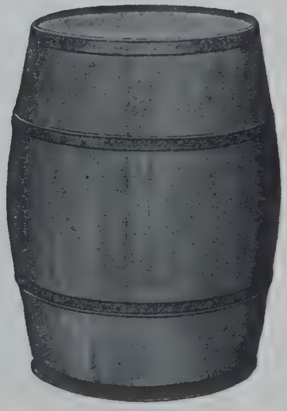
A 100% Barrel made with
tongued and grooved staves.

for
Powdered
Milk

We make both

FIR and ELM
BARRELS

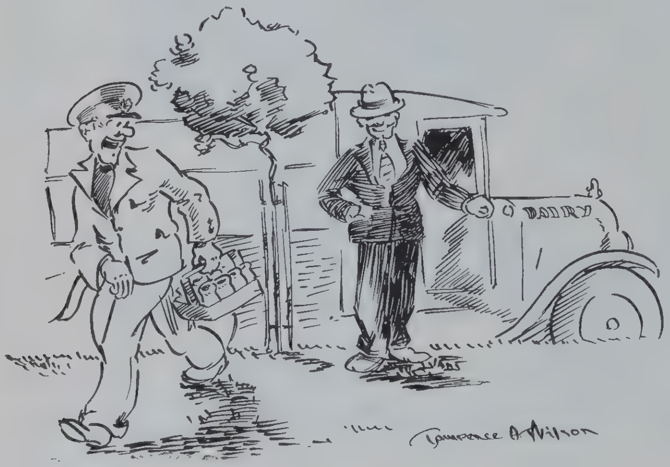
K. W. Jacobs Cooperage Co.
1907 ST. PAUL AVE. MILWAUKEE, WIS.



MIKE THE MILKMAN

THE BOSS GOES WITH ME

My boss is a dandy, right up on the bit, with no fancy notions mixed up with his wit; he knows that the heart of his business, by gee, is out on the wagons with fellows like me, so yesterday climbing right up at my side, said, "Step on it, Mike, I am out for a ride; I'll help you deliver, and sell, if you please till the sun goes to bed with a pain in his knees!" He went along with me, from wagon to door, to apartments as high as the seventeenth floor; he carried a rack full of bottles at times and went on high gear in the most of his climbs. He heard my suggestions and listened to learn, and offered suggestions when it was his turn. "Why this?" and "Why that?" were his queries to me, "That's bully boy, Mike, you're a winner, I see!" One woman came out with a tiny complaint, and hinted the milkman was far from a saint; I smoothed out the trouble, the boss looking on, and he smiled to himself when the storm clouds were gone. The lady, in fact, was so pleased, that she took another full quart as she softened her look. "I'm learning a lesson," the boss said to me, "And now, more than ever, I'm sure that I see the heart of this business is out on the cart, the fellows like you are in charge of the heart. I'm learning and seeing that you are the man who stands at the center and root of the plan; when you are a failure then I'm on the blink; when you're a success, I'm in clover, I think! I've preached this for years in a second hand way, but never have felt it as I do today! Next Monday I'll ride on your wagon again, keep up the good work on your wagon till then!"



IMPORTATION OF MILK AND CREAM.

Eastern shippers and dealers in milk and crea particularly interested in a bill now before co which seeks to regulate importation of milk and from Canada. It is House Bill No. 11,768, and has favorably reported from the senate committee on culture.

The senate committee has inserted an amend which would exempt certain classes of milk fro requirement that imported milk must be from tube tested herds and that its temperature at the time portation must not exceed 50 degrees F.

The amendment was agreed upon at a confere spokesmen for interested parties during the hea before the senate committee.

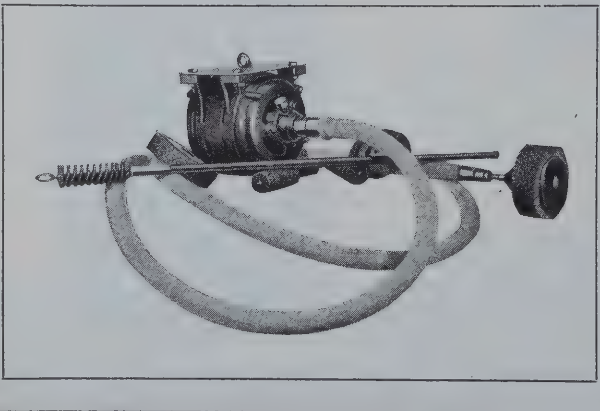
The amendment is as follows: "The secreta agriculture is directed to waive the requirements of graphs 2 and 5 of section 2 of this act insofar a same relate to milk, when issuing permits to ope of or producers for delivery to creameries and co ing plants in the United States within 20 miles point of production of the milk and who import n milk except for pasteurization or condensing.

"Providing, that if milk imported when the re ments of paragraphs 2 and 5 of Section 2 have be waived, is sold or used or disposed of in its raw or otherwise than as pasteurized, condensed or e rated milk by any person the permit shall be re and the importer shall be subjected to fine, impriso or other penalty prescribed by this act."

Representative John Taber of Auburn, N. Y., a of the bill, Senator Lenroot, Wis., who introduce counterpart in the senate, attended the conferen which the amendment was agreed upon and Repres tive Taber later reported this agreement to the mittee.

Before this agreement had been reached, Se Copeland of New York had appeared before the co tee to ask that the bill be modified to make the re ments it would impose upon Canadian milk the sa those now imposed by New York City. The senator into the record a letter from the health commissio New York in which the latter asserted that to c the supply of Canadian milk and cream would cre serious shortage in the metropolis and undoub would lead to a substantial increase in price.

Other witnesses heard by the committee, all of asked for favorable report on the bill, were: Charl Holman, secretary of the National Co-operative Producers Federation; Chester Gray, representin American Farm Bureau Federation; and A. M. Lo who appeared on behalf of the National Grange.



The King Cleaner *vs.* Steel Wool and Harsh Brushes

RESULTS—Both will keep Sanitary Piping and tubular pasteurizing equipment perfectly clean,—but—the King Cleaner will not ruin the tubing, and requires far less time and effort for the work.

Send us diameters and lengths of tubing in your equipment and we will advise you size and price of Cleaner needed.

King Sanitary Pipe Cleaner Co., Inc.
SANDY HOOK, CONN.

MUCKLE BOTTLE CRATE

(PATENTS ALLOWED)

UCKLE'S [Scotch] CORNER DON'T GIVE

Keeps Crates Square
No Bottle Breakage

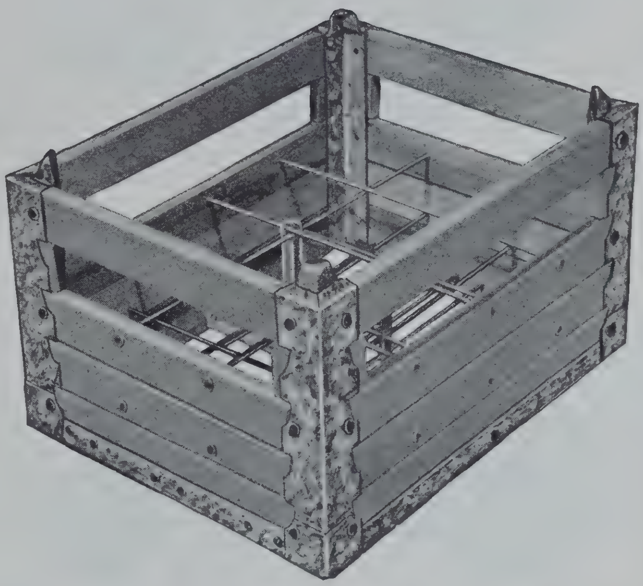
Weak Points, they will wear out (Uniformly). No Repairs Necessary.

tandardize on Muckle Crates and Eliminate Repairs

ASK YOUR JOBBER OR WRITE US DIRECT

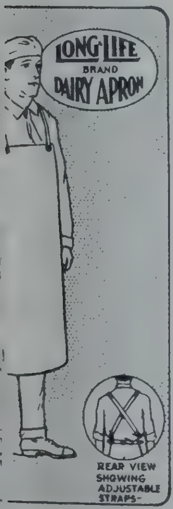
MANUFACTURED BY

JCKLE MANUFACTURING CO.
ATONNA, - - MINNESOTA



CTUAL USAGE

Proves this IS
A
Long-Life
Dairy Apron


LONG LIFE
BRAND
DAIRY APRON
REAR VIEW SHOWING ADJUSTABLE STRAPS

Special fabric, scientifically treated to resist the disintegrating effects of fats and acids about dairy plants, gives the Long-Life dairy apron an ability to render continued useful service long after other aprons have been discarded

A TRIAL ORDER WILL PROVE IT!

You Will Learn a New Item on Which to Save Money.

he M. F. Murdock Company
RUBBERIZED FABRICS
So. Main Street AKRON, OHIO

Place Your Wagon Orders *Now*

For Spring Delivery

Users will gladly tell you of their worth

THE POLK SANITARY MILK CO.

Send for Prices and Illustrations of Styles

GOOD IN LOOKS.
STRONG IN CONSTRUCTION.
LIGHT IN DRAFT.
HANDY FOR DRIVER.
SPEEDS UP LOADING.
AMPLE STORAGE FOR LARGE ROUTES.

John Guedelhoefer Wagon Co.
202 Kentucky Avenue INDIANAPOLIS, IND.

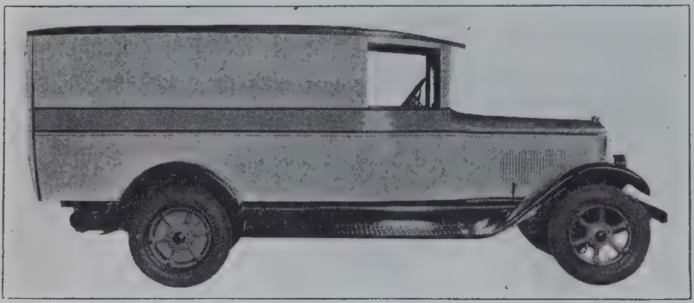
NOTES OF THE TRADE

News of Interest Concerning What Our Readers and Advertisers are Doing
to Develop the Industry. We Invite Correspondence Relative
to New Products and New Equipment.

NEW ONE AND TWO-TON TRUCKS.

Official announcement has been made by John Hertz, chairman of the Yellow Truck and Coach Manufacturing Company, that early in 1927 they will market trucks of one and two-ton capacity equipped with the over-head valve, six cylinder Buick engines. A complete line of these trucks were exhibited for the first time at the New York National Automobile Show. This news is the logical outcome of the amalgamation of the Yellow Truck interests with the General Motors.

These new one and two-ton trucks have had the most grueling tests at the General Motors proving ground, under the supervision of General Motors engineers.



Model T-20 Yellocab Express, one ton truck, with vestibule type driver's compartment.

They are built to meet present-day needs, according to Mr. Hertz, the six cylinder power plant insures maximum acceleration and flexibility. They are capable of operating at unusually high speeds and the braking equipment insures quick stops. The two-ton trucks are equipped with four-wheel brakes.

The new one-ton Yellocab Express and two-ton Yellocab Merchantman, which will be manufactured at the General Motors Truck Company, Pontiac, Mich., make their bow with a number of advanced features. All will be equipped with the Buick power plant, self-starters, extra heavy truck type of axles, and on the two-ton models four-wheel Bendix brakes.

The engineers had in mind in the construction of the new models these essentials—simplicity, ruggedness and economy of operation. At the same time every consideration was given to provide the driver with the utmost comfort. Care and attention was also given to the matter of appearance in both chassis and body—the lines are pleasing and one gets an impression of rugged simplicity. The new chassis will be sold with or without bodies. A full line of bodies is announced with the line.

The one-ton model T-20, with a chassis road weight of 2,750 pounds, will have a wheelbase of 132 inches. The two-ton model T-40, with a spiral bevel axle and pneumatic tire equipment, has a chassis road weight of 4,325 pounds and will be furnished in three wheelbases, 136, 150 and 162 inches. The two-ton model T-50, with a worm axle and solid tires, will have a chassis road weight of 4,630 pounds and will have the same wheelbases as the model T-40.

These three new models give this company a range of trucks from one to fifteen tons capacity.

* * *

SHIP REFRIGERATOR DOORS TO JAPAN.

A large shipment of refrigerator doors was sent to Japan by the H. Ehrlich & Sons Manufacturing Company of St. Joseph, Mo., according to a letter received by Albert H. Ehrlich, treasurer. The doors are to be used in a cold storage plant and were equipped with the Ehrlich patent self-closing hinges and automatic door fastener.

HUGE CORK SHIPMENT.

We are in receipt of an interesting letter from L. M
& Son, Inc., Hillside, N. J., together with a photogra
the steamship Amarante, which we are re-producing
They state that, so far as they know, during May, 1926
ship carried the world's largest cork shipment. They
regarding this incident as follows:

"This steamship Amarante was our regular monthly
ter boat. On arrival from Portugal during the last we
May, 1926, it carried what we believe was the largest
load of cork or cork products that ever came to Am
This boat contained 38,000 bales of cork waste for the

side plant of L. Mundet & Son. The deckload alone
8,000 bales.

"In spite of this tremendous volume of cork, it wa
teresting to note that the boat rode very high in the
Cork weighs only 15 pounds per cubic foot, whereas cas
weighs 450 pounds per cubic foot. In other words, cas
weighs thirty times as much as cork. It is obvious th
order to load down any ship to the water line, with
most of the cargo's volume would be above the wate
and the ship would be rendered unstable.

"Owing to the many remarkable physical characte
of cork—its lightness; the multitude of microscopic air
its natural waterproofness; its strength; its durabilit
elasticity, and its adaptability to being ground and bak
to pure cork slabs—cork is the best insulating ma
known to science, particularly for cold storage insulatio
cold pipe lines. The cork that we import into the U
States on the Amarante, and on other ships, is converte
pure high-grade cork board in slab form and into mo
fitting form for pipes."

* * *

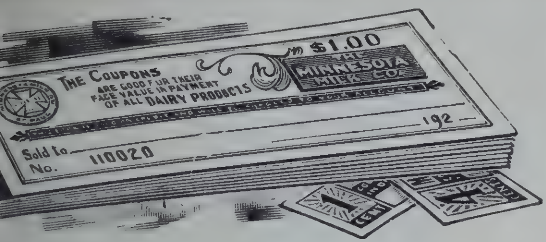
IDEAS OF A RAIL MECHANIC LEAD TO A LARG FACTORY.

An idea born while he was working at a machinist's
at the Green Bay shops of the Milwaukee road founde
largest plant in America producing mechanical marvel
automatic bottle washing, important in the dairy and
erage trades.

George J. Meyer, head of the George J. Meyer Mar
turing Co., 576 Clinton St., merely had an idea 20 years
During the time he was working with his hands at the
chine bench he was evolving the plan of a machine that
wash bottles.

Coming to Milwaukee in 1904, Mr. Meyer started wo
a small machine shop but his capital was more limited
his energy and for a time he had to abandon the idea of
ing the machine automatic. Then came patents on conv
and washers and then perfection of a machine elimin
hand washing.

The machine is built to wash 60 to 200 bottles a m
feeding itself and discharging the bottles cleansed and s
ling dry. There are eight separate processes, including
through a tank of caustic solution. Revolving brushes


THE COUPONS ARE GOOD FOR THEIR FACE VALUE IN PAYMENT OF ALL DAIRY PRODUCTS
$1.00
THE MINNESOTA MILK CO.
192
Sold to No. 110020

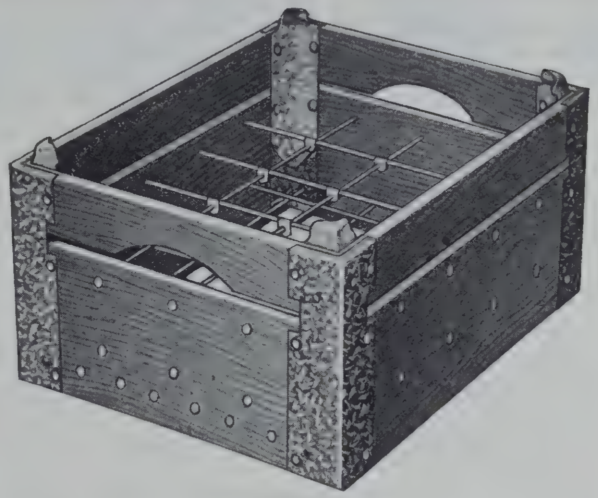
his Year do a Cash Business

ational Dairy oupons

THE LOSS thru unpaid accounts, the struggle to supply working capital to carry "charge" accounts can all be eliminated by the use of National Dairy Coupons. They are a flexible, practical, successful means of handling milk dealers' accounts.

Let us send you some samples and explain to you how other milk dealers use them.

ational Checking Co.
St. Paul, Minn.



(PATENTED)

"The STANLEY"

Heavy galv. corner irons overlapped at top and bottom.
Long galv. stacking irons riveted through corner irons.
Strong — Durable — Yet light in weight.
Bottom runners if desired.
Will stack on any standard size cases.
Simplest and strongest construction — lowest in price.

WRITE FOR PRICES BEFORE YOU BUY AND REMEMBER ***STANLEY'S*** SATISFY.

THE STANLEY MILK CASE CO.
Front, Second and Lawrence Sts. CINCINNATI, OHIO

Clean Product

Calls for Filtration

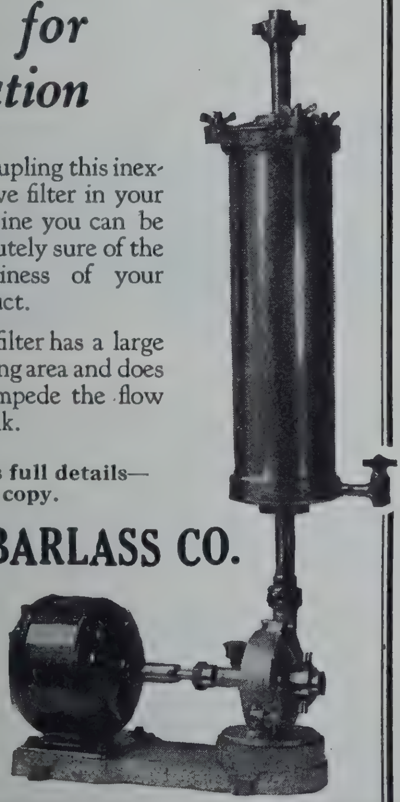
he
ago
ier

By coupling this inexpensive filter in your milk line you can be absolutely sure of the cleanliness of your product.

This filter has a large filtering area and does not impede the flow of milk.

Or circular shows full details— send for a copy.

'HUR T. BARLASS CO.
2V. AUSTIN
VENUE
CHICAGO,
ILL.



Preferred Corkboard

for
COLD STORAGE ROOMS
installed complete by
"UNITED"

Crescent
100% Pure
Corkboard

We will gladly submit an estimate on any kind of insulation work, of course without obligating you in any way.

United Cork Companies
LYNDHURST, N. J.
Branch Offices in Principal Cities.

COUPONS

Facilitate the delivery of milk
and collections.

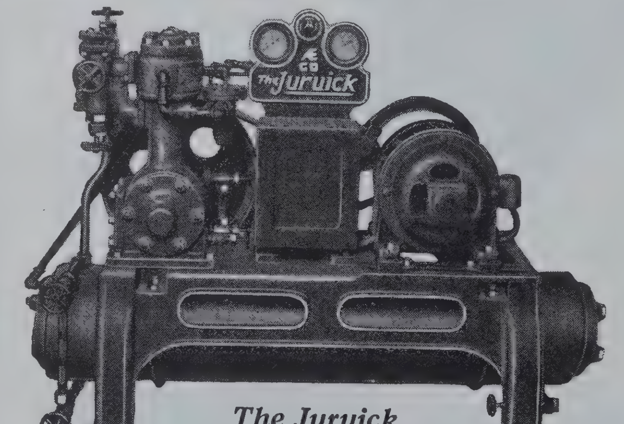
Coupon Books of Our Manufacture are

LOW IN PRICE
ACCURATE IN COUNT
SHIPPED ON TIME

Write for Prices and Samples.

Kansas Bank Note Co.
"The Best in the West"
Fredonia - - - Kansas

Juruick
REFRIGERATION



The Juruick Refrigerating Unit

The Juruick Refrigerating Unit provides the simplest, surest, most economical means of cooling milk and keeping it fresh. It gives absolute control of temperature automatically. Just turn the switch and the Juruick will operate without further attention, running only when necessary to keep down the temperature. This makes it economical of power and water. A range of sizes provides for various needs.

Send for Juruick folder today.

American Engineering Company
2417 Aramingo Ave., Philadelphia, Pa.

a steady spray of hot water clean the bottom, out inside of the bottles, and finally it passes over electr for inspection.

Once fed into a machine the bottle must emerge c sanitary. Costs of the machines range from $7,500 500 for the larger types, such as recently installed Bowman Co., Chicago milk dealers, in Illinois and W receiving plants.

The Milwaukee plant employs more than 400 and foundries for bronze, iron and pattern shops and depa for the complete construction of the novel machine used on a world wide basis. One of the most import tors in the sale of the Milwaukee made machines, re cers, is the demand of consumers for thorough sanit containers used in marketing of food products.

* * *

A HANDYCAP FOR HANDICAPS.

MILK BOTTLE OPENER
AND
COVER
HANDYCAP
NEWARK, N.J.

The handicap of the old way of opening milk bott pick, fork, knife, fingers or any other thing which to be at hand, and which often causes splashing, messing and damage to clothes and temper, can be overcome with the new Handycap being offered by the Handycap Company of Irvington, N. J.

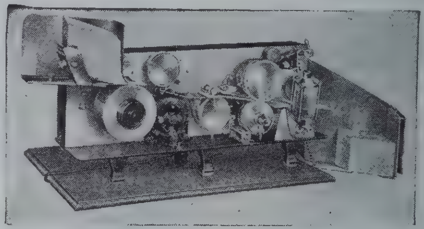
This is a special aluminum opener and cover and has nickelized steel teeth which are rustproof and sanitary; this device grips the cap as it is turned, and also serves as a cover, guarding milk and cream against dust and gern prevents spiling.

Housewives of the nation are the people who will by this handy contrivance, and they would be real ap tive of this article, it is claimed.

* * *

STANDARD MAILING MACHINE.

A machine manufactured by the Standard Mailing M Co. of Everett, Mass., will undoubtedly prove very p as well as profitable, among those plants sending out a as 300 pieces of mail every day. The machine is so de that it will seal imprint and mark, stamp and canc mark, and the of labor quite readily p the machine w short time. M users also po that it make rapid postal inasmuch as ters go direct sorting rooms as reaching the postoffice, which is especially valuable rush seasons in the postoffices.



Another advantage of the machine is that letters a very pleasing appearance after such a machine h used, rather than the marred letters which are so usu they are postmarked at the postoffice.

The same company also manufactures envelope and a machine for affixing stamps.

* * *

NATIONAL EQUIPMENT COMPANY WILL MAN TURE COLONY HOMOGENIZER.

The National Equipment Company of Springfield manufacturers of confectionery and chocolate machin absorbed the business of the Colony Manufacturing C and will manufacture the Colony homogenizer. J. M. will have charge personally.

The National Equipment Company is known thr the world, having an extensive line of high grade ca

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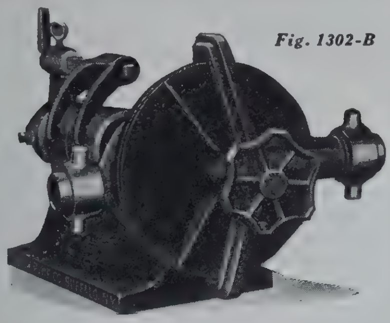


Fig. 1302-B

Intake and Discharge Connections are Adjustable to any Pipe Conditions.

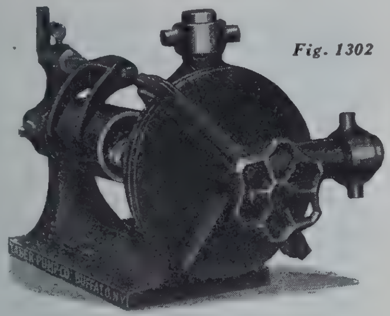


Fig. 1302

VE are over-
stocked. We
to move a
per of high
lity milk
ps of our own
facture. Non-
ing, sanitary,
to clean open
ller type. An
anding pump
n unusual
. Truly a
" at this time.

: are your pumping requirements? Tell us.

Write for Bulletin 20-2 Now!

BER PUMP CO. - BUFFALO, N.Y.
DERS OF REGULAR AND SPECIAL PUMPS - SINCE 1859

BOILERS

FOR CREAMERY REQUIREMENTS

Back in the early Fifties when Lincoln was still a country lawyer John Brownell built the first Brownell Riveted Steel Boiler. Seventy-two years later — the good year 1927 — the Brownell Riveted Steel Boiler is doing power and heating duty in every state—in perhaps every civilized land on the face of the globe.

You who operate creameries will find Brownells dependable, long-lived, easy to fire and above all economical to operate.

We invite consideration of various Brownell Numbers especially suitable for creamery requirements.

THE BROWNELL COMPANY
The World Over
SINCE 1855
DAYTON, OHIO. U.S.A.

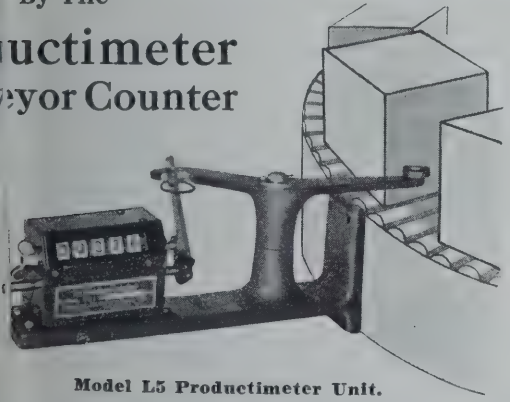
Brownells comply with ASME and all State Codes

Representatives near—ready to serve.
Bulletin B3 ready to mail.

The Brownell Company
Dayton, Ohio

BROWNELL

nted As They Pass
By The
uctimeter
eyor Counter



Model L5 Productimeter Unit.

ctimeter Model L5 Conveyor Counter provides a
, and accurate means of getting the count of boxes,
ackages as they pass along the conveyor. Assures
ally accurate count and saves a man's time and
nit consists of a standard 5B1 Productimeter
ith a special mounting bracket and counting arm,
complete for attachment to any conveyor. Counts
id is easily reset to zero by a turn of the wing nut.

d for special bulletin, giving details on this
t, and catalog describing 57 standard models
Productimeters for various applications, such
bottle counters, can counters, filling and seal-
machine counters, etc.

URANT MFG. CO.
St.
Milwaukee, Wis.

Do your problems include "High Bacteria Count"

- —Or Sour Milk
- —Low Score Butter or Mold
- —Or Stinky Cheese or Ropy Milk
- —Or Plant Odors

Let us tell you what B-K could do in helping you solve these problems.

Write us a letter. Tell us your particular troubles—and we'll give you expert advice and suggestions without charge.

GENERAL LABORATORIES
Dept. 13A MADISON, WIS.

B-K
Bacili-Kil
Trade Mark

Purity Drinking Straws

500
PURITY
STRAWS
PURITY STRAWS
CLEAN AND SWEET
PURITY
STRAWS
PURITY STRAWS

THE strongest, cleanest artificial Straw ever made for half pint milk bottle service. May be bent to any angle without injury. Will not soften or dissolve after longest exposure. Sterilized by heat, untouched by hand, Purity Straws are absolutely perfect.

Milk dealers must be prepared to furnish Straws with half pint bottles of milk. Schools, offices, factories, cafeterias and restaurants serve milk with Straw inserted through bottle cap. No washing or breakage of glasses. Economy of time and cleanliness of service. Purity Straws are made for this purpose and will give best of satisfaction. Warehouse stock in all principal cities. Free sample box on request.

Coe Manufacturing Co.
SOLE AGENTS
35 Warren Street :: New York

The ContamoTester
(Patented July, 1925)

Uses three practical tests,

The
Methylene Blue Reductase
Fermentation or Curd
Instant Acidity

to rapidly determine the Quality of the RAW MILK SUPPLY.

Dairies in 28 states are using it with excellent results.

Send for illustrated circular which gives complete information.

LACTEAL ANALYTICAL LABORATORIES Inc.
176 Franklin St.
BUFFALO, N.Y.

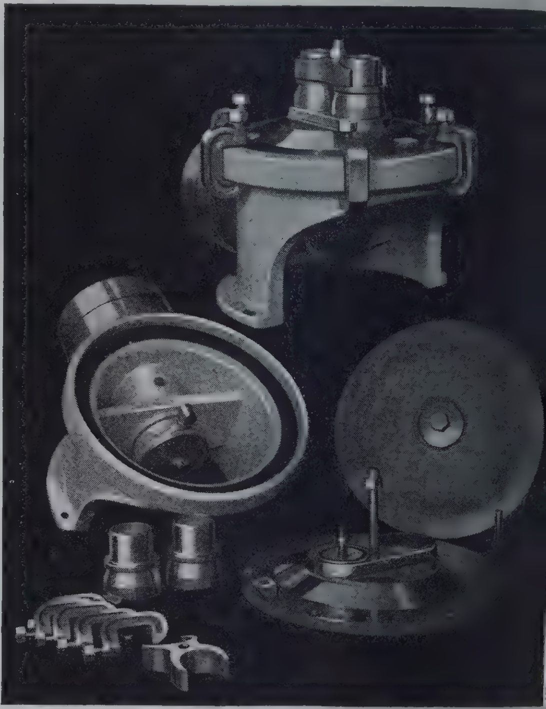
chocolate machinery. They have branch offices in Ne London, Paris and Lausanne. This connection insure cial stability and the production of a high grade n The two stage valve will be used exclusively.

* * *

A NEW PUMP.

An English inventor has perfected a new pu signed for pumping water, milk, oil, beer, in fact all The patent for the pump is based on the use of diaphragm and any desired capacity can be obtaine multiple diaphragm principle.

A pump, the working parts of which are shown accompanying cut, was exhibited at the recent Londo Show, and the inventor was awarded a gold medal f the "best new invention." The pump on exhibit is ca



pumping 1,000 gallons per hour to a 50-foot head, a been demonstrated to suck from a depth of 28 to 30 f has no glands, no working parts being in contact w fluid to be pumped.

The inventor says that the pump can be taken a 30 seconds and assembled in 60 seconds. Less than one-half horsepower is required for its operation.

The inventor is looking for a suitable business con for the introduction of his pump into the United Sta other countries. If any of our readers are interest may get further details by addressing the Olsen Puls Co., Milwaukee, Wis.

* * *

EIGHTEEN MILES TO THE GALLON.

A novel demonstration idea is being carried out Detroit Industrial Vehicle Corporation of Detroit, M with its milk delivery truck, "DIVCO."

Robert L. Turner is touring Eastern cities in th and has to date visited Toledo, Cleveland, Akron, Pitt Tyrone, Harrisburg, York, Frederick and Washington demonstrations of the truck have been arranged f dealers.

The company say that its trucks are proving all th claimed for them in Detroit, Cleveland, Akron, Tyr Plainfield, N. J., where Divcos are in regular use routes, and that 18 miles to the gallon of gasoline a aged with a ¾-ton load.

* * *

DAIRYMEN'S REPAIR OUTFIT.

The Prest-O-Lite Company, Inc., of Indianapol New York City, San Francisco and Toronto, is offerir thing of interest to all creameries, cheese factori plants and ice cream plants. It is a Prest-O-Lite g for repairs in the plant and it can be easily carrie soldering, brazing or heating job. Its intense and re

effel CREAMERY BOILERS

Save Time Labor Fuel

A thorough knowledge of creameryplant
nditions enables Leffel engineers to produce
ideal boiler for any size plant.
y a boiler built especially for the creamery
de could give such perfect satisfaction as the
fel Creamery Boiler.
ese boilers are quick steady steamers—that
uire the minimum amount of fuel to operate
ciently.
e time, labor and fuel. Need but little space
havegreaterpower
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equalityandwork-
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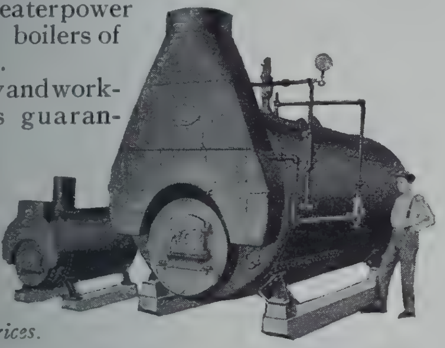


rite for
og and Prices.

e James Leffel & Co. BOX 330
SPRINGFIELD,
OHIO, U. S. A.

ARCUS COUPON BOOKS

For More Profits in 1927

Use these books, and push their sale, not only to families but to factories, large offices and schools. Big fields there, only partially developed.

Send for samples and prices.

The Arcus Ticket Company
348 N. Ashland Avenue CHICAGO, ILL.

---

crease Your Sales

BY USING A

ream Line" Pasteurizer

Every user of a "Cream Line" Pasteur-
zer has increased his sales at least fifty
er cent in less than a year after in-
tallation of our equipment. Many
ave changed from raw to pasteurized
nilk without their customers knowing
of the change.

There must be Good Reason for this. It will pay you to investigate.

BUILT IN SIZES
From 50 Gallon Up

r Wayne Dairy Equipment Co.
1600 Winter Street
ORT WAYNE INDIANA

Nutting Milk Case Truck

Rolls 8 at once

Why lose time and wear out case bottoms dragging milk cases across the floor? The Nutting Milk Case Truck gives you the quick easy way to handle them.

An adjustable hook slips into the hand hole of the lowest case in a stack. The rack supports and balances the load. Fits any case made. Thousands in use. Ask your jobber or write us..

NUTTING TRUCK CO. 1285 Division St., FARIBAULT, MINN.
Floor Truck Specialists Since 1891

Mundet Jointite Cork Board
TRADE MARK

used
here

Proctor & Gamble are known throughout the world as manufacturers of products of highest quality. Naturally, therefore, they select their equipment with care. This is their new building A, at Port Ivory, Staten Island, N. Y.

We are proud to say that Mundet Jointite Cork Board was used exclusively in this building—for partitions; on ceilings; and for column lagging. Mundet Mastic Coated Jointite Cork Board was used on the ceilings. Also, Mundet Jointite Pure Cork Covering and Mundet Cork Fittings were used on all cold lines.

Whether your volume requirements are larger or smaller than Proctor & Gamble's, our organization of trained engineers covering the entire United States will gladly help with your insulation problems. No obligation whatsoever.

L. MUNDET & SON, Inc.
Hillside - New Jersey
Established 1865
New York Office: 461 Eighth Ave.

Also Manufacturers of Jointite Pure Cork Sectional Pipe Covering and Moulded Fitting Covers.

makes it possible to do a quick and permanent rep
without soot and odor.

It is claimed to be economical in operation in tha
Prest-O-Lite gas. Empty tanks can be exchanged
ones at any of the thousands of Prest-O-Lite gas ser
tions which are located all over the country.

Such prominent plants as the Belle Isle Creamer
Detroit; Hanford Produce Co., Sioux City, Ia.; and t
mount Creamery Co. of Detroit, have found this equip
have paid for itself many times over and have given
testimonials in its behalf.

* * *

JOHN P. McKINLEY NEW PRESIDENT RICE & A CORPORATION.

Announcement has been made by the Rice & Ada
poration, Buffalo, N. Y., of the election of John P. M
to the presidency of the company, succeeding the la
S. Adams. Mr. McKinley, who has been actively as
wih the company for the past twelve years, wit
quarters at Chicago, has now moved to Buffalo to ass
tive management of this large and well known organization.

JOHN P. McKINLE

The Rice & Adams Corporation is to be congratulated on their choice of the man who is to direct its future destinies. In addition to his unusually wide acquaintance among dairymen and the foremost figures of the dairy machinery field, Mr. McKinley has had a great deal of practical experience in the dairy and creamery business. His father was one of the pioneers in the cheese industry of New York State, and Mr. McKinley, therefore, has done everything from washing cans to managing plants in the handling of milk, butter, cheese and various other milk products.

This close association
with all phases of the dairy business has given him
perception of the mechanical needs of the industry.
equipped him to render authoritative advice in the s
and installation of dairy equipment for all purposes.

The Milk Dealer asked Mr. McKinley whether h
to make any statement to the dairy field as to his p
the future. His reply was brief, emphatic, typical
energy of the man.

He said: "Rice & Adams has one of the finest p
the country for the manufacture of dairy machinery.
built to give the dairy industry the best equipme
money, engineering skill, modern machinery and trai
chanics can produce. We are going right ahead doin

* * *

MOJONNIER'S NEW CATALOG.

Mojonnier Bros. Co. have just issued a new 3
catalog C, 1927 edition. It is a new and enlarged
being divided into three sections: (1) for operating m
for ice cream and milk plants, (2) laboratory and te
paratus and (3) supplies.

The catalog is very copiously illustrated, show
only product views of the various pieces of equipme
they have brought out but also installations and zinc
giving technical descriptions and engineering data.

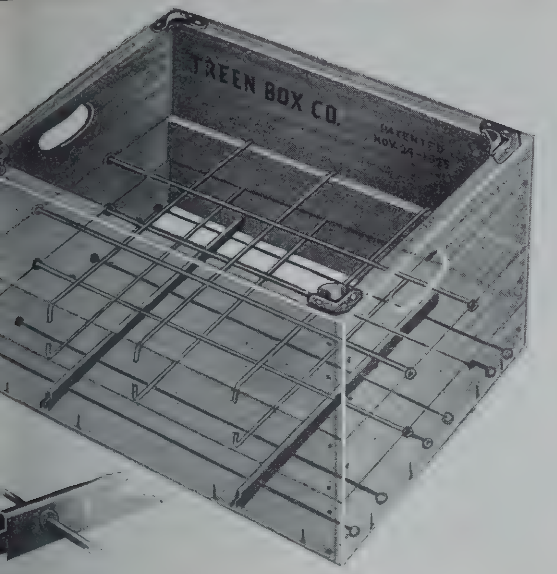
It is printed on fine white enamelled paper and t
trations are very clear and the text is comprehensiv

They state that they will be glad to send the cata
request.

* * *

TAGLIABUE'S NEW CATALOG.

The C. J. Tagliabue Mfg. Co., "temperature engi
18 to 88 Thirty-third St., Brooklyn, N. Y., has issue
104-page catalog, which will be sent on request
owners, managers and superintendents. The boo
"Tag" mercury, vapor tension and gas-filled record



Made in 2 and 3 Grid styles for
12 Quarts—20 Pints

oderately Priced Milk Box

s wires inserted in sides with angle ends support both ways.
anized Channel cross braces.
Breakable Steel stacking corner irons.
gly constructed in every detail.
of Selected Maple.

A TRIAL ORDER IS THE BEST SAMPLE. WRITE FOR PRICES.

TREEN BOX COMPANY
and Memphis Streets : PHILADELPHIA, PA.

The Famous Flueless — Boiler —

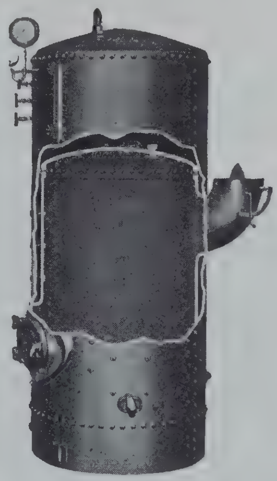
Famous as a Quick Steam Producer.
Famous as a Fuel and Repair Economizer.

BOILER is regularly constructed with extension to form ash pit, but can be furnished with cast iron base, in all sizes up to and including 48 in. diameter, without extra charge. Boiler comes complete with fire door and frame, ash door, grates, elbow and damper, hand hole plates complete. Steam trimmings include safety valve, steam gauge and syphon, water gauge, gauge cocks, blow-off valve, injector complete with check and feed valve. All constructed to comply with the A. S. M. E. code for 100 lbs. working pressure and tested to 150 lbs. hydrostatic pressure.

Boilers carried in stock at all times.

See your nearest jobber for further particulars.

Schwab Boiler & Machine Company
16th & Canal Streets
MILWAUKEE, WIS.



est Milk, Cream, Whey and Ice Cream Mix
with the
fis Automatic Acidity Test
Accurate—Rapid—Economical

Automatic bu-
s graduated to
direct in per-
e of acidity.

s Neutralizer
accurate re-

Stirring Rod
correct color
mple in com-
test.

y **Nafis Glass-**
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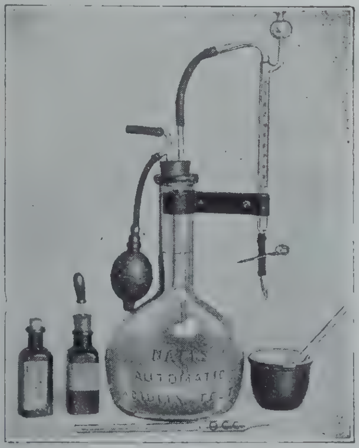
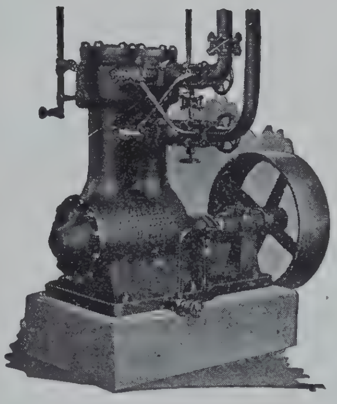


LOUIS F. NAFIS, Inc.,
cturers of Scientific Glassware for Testing Milk and Its Products
17-23 N. Desplaines St. Chicago, Ill.
ASK THE MEN WHO USE IT

Vilter
Enclosed Type
Ammonia Compressor



An ideal ice machine for the moderate size plant. Modern in design, made of high grade materials and thoroughly inspected and tested. Let us send a copy of our Bulletin No. 29R to you. It tells of the force feed lubrication to the piston pins, the easily operated Vilter plate valves, the oil sealed stuffing box and gives other information of value.

Let us Submit quotations on your requirements —no obligations to you.

The
Vilter Manufacturing Company
ESTABLISHED 1867
875 Clinton Street Milwaukee, Wis.

mometers, recording hygrometers and psychrometers, time operation recorders, vacuum and pressure recorders, recording controllers, etc.

* * *

DE LAVAL SHORT COURSE IN FACTORY-SIZE SEPARATOR OPERATION.

Fifteen or twenty years ago the creamery or milk plant owner almost invariably operated his cream separator himself, realizing that it could be either the most profitable or most costly machine in his plant. The large milk plant or chain of milk plants of today precludes any thought of such operation and as a consequence the separator is all too often put under the care of a man who knows next to nothing about it. Even the manager himself has forgotten what he once knew about the machine and is sometimes only dimly aware that there is one in the plant until something goes wrong. All this is very flattering so far as the reliability of the modern centrifugal separator is concerned, but it is really not good business from the user's standpoint.

To help the separator user remedy this condition, the De Laval Separator Company a couple of years ago inaugurated the plan of inviting groups of creamery and milk plant managers and superintendents to the De Laval works at Poughkeepsie for a short course in the operation of factory-size separators, which, of course, includes also an inspection of the works. Several of the meetings have since been held, each lasting for three or four days, and each attended by some 20 to 30 milk plant representatives. The plan has proven to be of real benefit to the plant managers, as will be seen from the following program of a meeting just closed.

Creamery and milk plant representatives who attended the recent short course in separator operation at the De Laval Works, together with the De Laval men who acted as instructors.

The first day was devoted to an inspection of the works, and the succeeding ones were devoted to real work, the men donning work aprons and assembling and disassembling power machines and listening to instructive talks like so many engineering students. The evenings were filled with talks of what had happened during the day and swapping experiences of various kinds between the men in attendance.

This particular meeting was busier and perhaps of greater interest than those of the past for the men had the New Series power machines to work on and there was much to be learned about new forms of construction and new standards of skimming efficiency.

Following is a list of the companies and their representatives who attended:

Breyer Ice Cream Company: Wm. Keown.
H. P. Hood & Sons: G. E. Morse, M. R. Rexford, A. Loukes.
Chestnut Farms Dairy: W. R. Coppage.

Brown & Bailey Condensed Milk Co.: Jay Sargent.

Daniel Franklin: A. E. Jones.

Dairymen's League Co-operative Association: Messrs. W. W. Lewis, O. M. Lutes, R. E. Russell, E. R. MacLaury and H. S. Smith.

Waddington Condensed Milk Co.: J. M. Doyle.

Sheffield Farms Co., Inc.: Messrs. D. S. Roberts, E. L. Adams, C. J. Hilsdon.

Western Maryland Dairy: Messrs. O. B. Schier, John Parcell.

Merrell-Soule Co.: Messrs. E. A. Norton, Jas. H. Johnson.
Mitchell Dairy Co.: Arthur Mitchell.

Hershey Company: Messrs. N. J. Mohler, Wolf and Shertzer of Harrisburg, Pa.

LARGE OUTSIDE INTERESTS SECURE STO THE AINES FARM DAIRY.

The Charles F. Schwager Sales and Servic
concluded an interesting work in connection wi
industrial and management service, whereby a v
isfactory deal was consummated late in No
through the sale of a large block of stock in Th
Farm Dairy, Kansas City, Mo., to W. F. Labh
brother of Chicago.

Two new faces will be found in the future
ings of the milk industry. Both brothers will
active part in an official capacity.

The management, however, will remain in th
of Mr. Blain, who has been managing this dairy
the last few years.

The Labhart brothers have been very succe
their many undertakings not alone in the milk i
but other ventures. This should not only strengt
Aines Farm Dairy, but be a beneficial factor in
eral milk situation of Kansas City and the West.

⚜

THE CITY MILK STATION.

Dr. Lee Thomas, a supervisor in the Brookly
department, is quoted as having recently said:

"Babies who have come out of their early peri
healthy bodies need training under competent
tors," he declared. "Nursery schools solve thi
lem. At present there are two in New York whe
kiddies, too young for the kindergarten, learn to
their hands, teeth and take care of their bodies.

"When they reach the kindergarten age t
exceptional children. They have passed the
period of their lives under qualified guidance a
not frittered away time."

Dr. Thomas pointed out that baby milk stati
cut infant mortality in half since 1915. "Babi
because we did not know how to cope with diar
he said. "But now we know how to arrange
diets.

"Milk stations are a means of educating
rather than strictly feeding stations," he said.
ordinary doctor knows little about the correct
babies, and often does more harm than good. Th
department has two functions—police and educ

"The first is becoming less and less importa
soon the department will become exclusively an
tional institution, to see that babies are cared fo
erly and grow to be healthy adults."

⚜

MILK-FED WORLD'S CHAMPION.

Gene Tunney upset all training precedents
refused to eat big, juicy steaks and drank milk
tities daily. Fight fans of the old school scoffe
"milk-fed" youth; they still believed in the sup
of the meat-eating athlete. Then Tunney ente
ring with Jack Dempsey and emerged the winn
"milk-fiend" had triumphed; he was a living,
proof of the efficacy of milk as a strength-produ

⚜

JACKSON TO BE MEETING PLACE FO MICHIGAN MANUFACTURERS.

Milk men, ice cream men and butter men in
verine State will gather in Jackson on Februa
10-11 for the big show and convention put on u
auspices of the Michigan Allied Dairy Associa
W. Shiel, Hillsdale, Mich., is secretary.

ETINNING
e Cream and Milk Cans

GALVANIZING
Ice Cream Lids Galvanized Outlast Lids Retinned

nitary Tinning Co.
3-63 E. 93rd St. Cleveland, Ohio

owerful — Economical

Dairies, milk plants, creameries, ice cream factories, etc., find "Hoover's 45" an ideal cleansing agent, disinfectant and deodorant. One 10-oz. bottle makes 475 gallons of powerful solution for flushing out milking machines, cleansing milk cans, vats, ice cream cans, etc.

A non-poisonous white powder. Readily soluble in water. **Quantity production places us in a position to offer very attractive prices.**

Write for literature and quotations.

UNIVERSAL MILKING MACHINE CO.
Dept. M Waukesha, Wis.

For our specialties:
ennet Extract, Rennet Powder,
ennet Tablets, Cheese Colour
and Butter Colour

REQUIRE A
GENERAL REPRESENTATIVE

ing to push none but our products in this special line and to up the *exclusive sale* for United States of America.

ur brand has for decades, been considered the Standard in milk-producing countries; we are indeed the largest manu- rers of dairy preparations in Continental Europe.

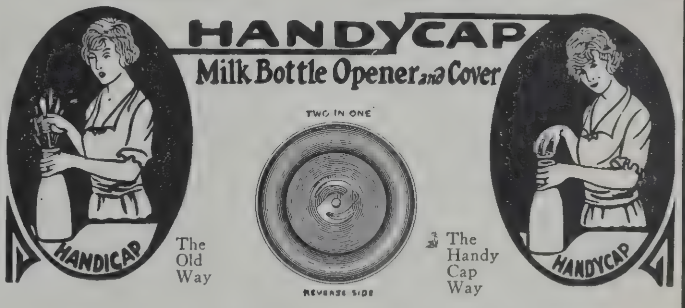
BRÜDER BAYER, Augsburg (Germany)

Gaulin
OGENIZER
Guaranteed to Stand the Test of Years
FOR 15 YEARS
Gaulin
Manufacturing Exclusively Emulsifying Machinery
"Gaulin Can Build a Gaulin"
TON-GAULIN MANUFACTURING CO.
BOSTON MASS., U.S.A.

FREE Booklets

"Soft Cheese Manufacture"
Tells how to make SWEET COTTAGE CHEESE using
HANSEN'S CHEESE RENNET
as a coagulant and
HANSEN'S LACTIC FERMENT CULTURE
to give the Finest Flavor.
Don't pay high prices for a coagulant with a secret formula.
"Starters and Cultured Milk"
gives directions for making Starters and Commercial Buttermilk.

CHR. HANSEN'S LABORATORY, INC.
Milwaukee, Wis. LITTLE FALLS, N. Y. Toronto, Can.



Good Housekeeping has approved the Handycap. It's a real convenience to the housewife and an excellent means of advertising for the milk dealer.

Ask Your Advertising Specialty Dealer to Show You Samples.

THE HANDYCAP CO. *Sales Office* Irvington, N. J.

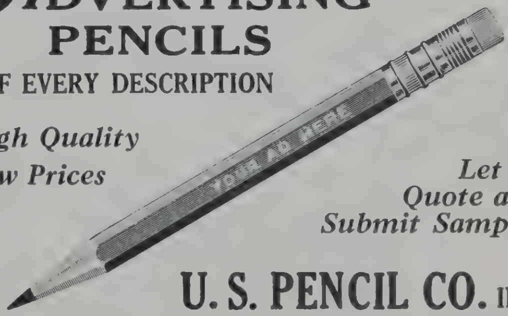
READY NOW!
Kunsman Milk Talks
Series No. 2

53 Educational Talks upon the food value of Milk. Planned to cover a year's advertising and to promote an increased consumption of milk in your locality.

Only one dealer in a town can buy these talks. Order promptly and BE THAT ONE.

Price Only $5

Make Checks Payable to
KUNSMAN AD SERVICE
29 Reed St. Reading, Pa.



ADVERTISING PENCILS
OF EVERY DESCRIPTION

High Quality
Low Prices

Let Us Quote and Submit Samples

U. S. PENCIL CO. INC.
487 BROADWAY, NEW YORK, N. Y.

WASHINGTON — MAINE

Notes From Far and Near

CALIFORNIA — FLORIDA

Gravette, Ark.—H. P. Topping of the Topping Holstein Farm is arranging for the opening of a milk condensery here.

Wilmington, Del.—The Consolidated Dairy Products Co. here has increased its capital stock from $30,000,000 to $40,000,000.

Orlando, Fla.—John S. Wilkinson has been appointed sales manager of the Carnation Milk Products Company, according to announcement by W. H. Stuart, vice-president of the organization.

Waycross, Ga.—The Georgia Milk Company has begun operations here. The owner and manager is A. Palmer.

Abingdon, Ill.—The Bond Dairy Co. has been incorporated here with a capital of $15,000. The incorporators are George C. Bond, V. B. Stockdale and A. F. Smitho.

Chicago, Ill.—Plans are being completed for a new milk distribution station to be erected at 1663-89 Sixty-second St., for the M. H. Rouken Dairy Co., at present located at 131 Emerson Place.

Chicago, Ill.—The Dean Evaporated Milk Co., 9 South Clinton St., has been capitalized at $250,000. The incorporators are Thomas A. O'Connor, Robert E. Perry and Samuel E. Dean.

Decatur, Ill.—Work has been started on the Union Dairy building at the corner of South Main and Washington Sts.

Indianapolis, Ind.—Four large milk companies here plan to merge. The companies involved in the negotiations for the merger are the Mutual Milk Company, Keystone and Bethel Avenues: The East End Milk Company, 1016 North Kealing Ave.; the Weber Milk Company, 1131 Cruft St., and
Schaefer Cros., Inc., Thirty-sixth St. and Orchard Ave.
capitalization will amount to about $500,000. Lowel H
son, vice-president and general manager of the Indiana
densed Milk Company, 729 North Pennsylvania Street,
charge of organization of the new company.

Lawrenceburg, Ind.—The Townsend Bros. Milk Co
been purchased by the French Bros.-Bauer Company, a
ing to announcement by Roy Townsend, office-manager
concern.

Mayfield, Ky.—The Golden Key Milk Products Co
is constructing a new milk products plant here. The
Key Milk Products Company furnishes goods to who
trade only. A great deal of their material is shipped a
for foreign consumption.

Detroit, Mich.—The Arctic Dairy Products Co. has
over the Fleming Ice Cream Co. of Bay City, Mich.

Gladstone, Mich.—The Rapid River Dairy has starte
erations. Norman E. Hall is the manager.

Grand Rapids, Mich.—An additional inspector is sc
be added to the staff of M. H. Sheffield, milk, meat and
inspector, according to the announcement of City Ma
Locke, due to the increase of its milk supply.

Jackson, Miss.—C. D., L. E., and O. J. Spears have
chased the Jackson Pure Milk Company on Monument S
and the firm will hereafter be known as the Spears Crea
Company.

Virginia, Minn.—F. N. Russell of Bridgeman-Russe
announces the establishment of a branch plant here
will cost approximately $25,000, and which will be de
to a milk pasteurizing plant, ice cream factory, butte
cheese works.

East St. Louis, Mo.—Martin Jensen has purchased
the property of the Illmo Dairy Company located at 116
souri Ave., according to the announcement of Donald
patrick.

Kansas City, Mo.—The Sweet Springs Dairy Co. ha
cently been incorporated here. The incorporators are
H. Sweet and F. J. Small.

Paterson, N. J.—The Avolio Sanitary Dairy Co. has
incorporated with a capital stock of $25,000. Louis A
Rose Dibiaso and Frank Dibiaso are the incorporators.

Brooklyn, N. Y.—The S. & K. Milk and Cream Co
recently incorporated at $25,000. The incorporators a
Kriegg and J. Settlow.

Cuba, N. Y.—O. S. Karn has announced that he has
chased the milk business heretofore conducted by L. J. R

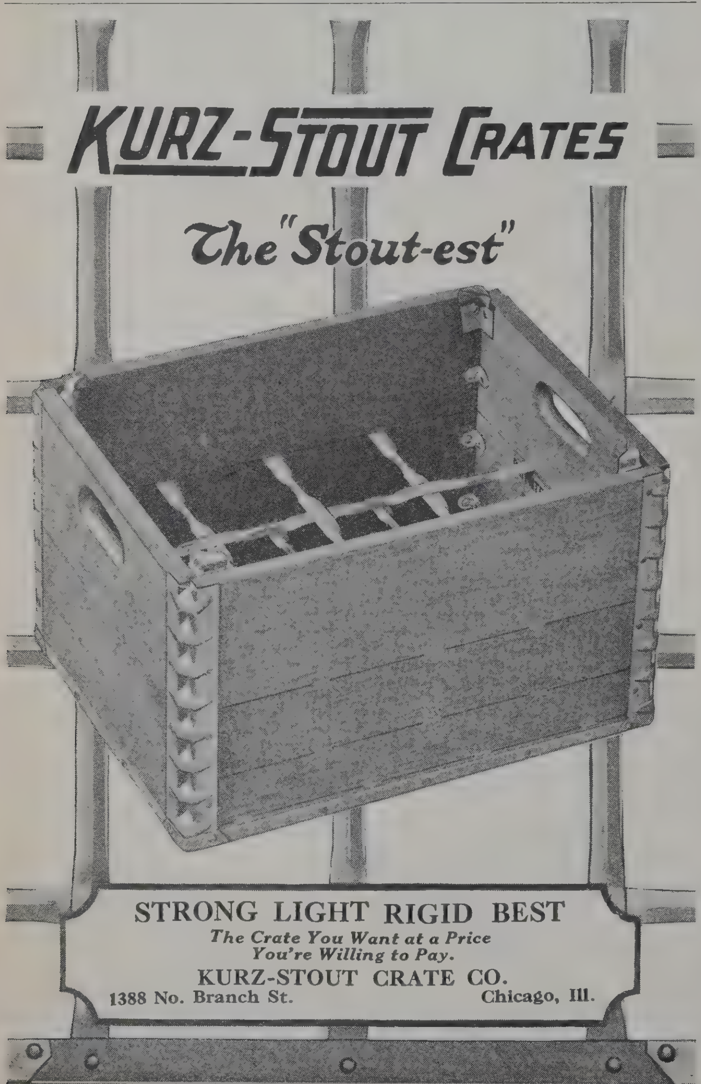
Manhattan, N. Y.—The Beaks Dairy Co. has increase
capital stock from 1,000 to 10,000 shares, of which 5,00
$100 each and 5,000 are common, with no par value.

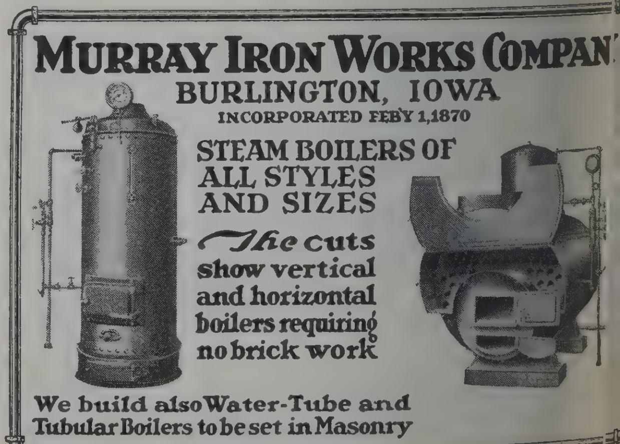
New York, N. Y.—Two plots, one located at the nort
corner of Orange and Nesbit streets, and the other pl
adjoining plot on Orange street, have been purchased by
den's Farm Products Company. The Borden Company
the erection of an up-to-date pasteurizing plant.

New York, N. Y.—A three story brick milk distrib
plant will soon be erected on the southeast corner of
street and Alexander Avenue for the Borden's Farm Pro
110 Hudson St., according to announcement of the arc
Albert Ullrich of Brooklyn, N. Y.

Port Chester, N. Y.—The Davis Milk and Cream C
been incorporated here. The incorporators are T. S.
A. J. Mercurio and L. Brown.

Boone, N. C.—The retail trade of the Brushy Fork
one of the largest and best equipped dairies of western
Carolina, has been purchased by Tracy Councill, acco


KURZ-STOUT CRATES
The "Stout-est"
STRONG LIGHT RIGID BEST
The Crate You Want at a Price You're Willing to Pay.
KURZ-STOUT CRATE CO.
1388 No. Branch St. Chicago, Ill.


MURRAY IRON WORKS COMPAN
BURLINGTON, IOWA
INCORPORATED FEBY 1, 1870
STEAM BOILERS OF ALL STYLES AND SIZES
The cuts show vertical and horizontal boilers requiring no brick work
We build also Water-Tube and Tubular Boilers to be set in Masonry

announcement of Floyd C. Ward, manager of the Fork Dairy.

ndan, N. D.—The Mandan Creamery and Produce Co., Iain St., was destroyed by fire. The loss is estimated veen $25,000 and $35,000.

yton, O.—F. A. Maharg, 110 Central Ave., plans a two-40 by 120-foot reinforced concrete and brick plant to cted at a cost of about $40,000.

tsmouth, O.—Plans have been completed for the erec a creamery, consisting of a two-story and basement, k and concrete, by the Leichner-Jordan Co. The cost building is approximately $65,000.

tsmouth, O.—Leichner & Gordon Co. have let a con-o W. H. St. Clair of Huntington, W. Va., to build an am and milk plant and offices at 1641-43 10th St. It nated that the plant will cost $75,000.

mbersburg, Pa.—The Chambersburg Dairy Products as recently incorporated with a capitalization of 0. C. M. Deputy is treasurer of the newly organized ny.

letown Road, Titusville, Pa.—The Moore Brothers Co. City and Meadeville, have purchased the property of usville Butter and Ice Cream Company which was re-destroyed by fire, according to announcement of Frank re. The Moore Brothers Company plans to deal exten-in milk and milk products. It is possible that the com-nay establish glass-lined tank trucks for transporting o Cleveland and other large centers where there is a demand for milk.

iladelphia, Pa.—A new company has been incorporated ith a capital of $170,000, under the name of Interna-Milk Company, Inc.

iladelphia, Pa.—Scott-Powell Dairy Co. is the owner of w dairy building being erected in Stenton Park. The ire is of brick and steel construction, two stories and ent, on a site 145 by 84 feet.

usville, Pa.—The Titusville Dairy Products Co. has over the retail milk route in this city, which has been cted for many years by J. M. Shriver of Homestead Diamond, Pa.

ens, Tenn.—T. B. Mayfield is planning to build a mod-ilding for the Union Ice Cream Company here at Park een Sts. Mr. Mayfield is the proprietor.

uston, Tex.—Penn Rettig, president of Rettig, Inc., ouisiana St., reports that a $135,000 ice cream factory erected by his company at Calhoun Ave. and Milan St. ructure will be two stories high, 125 by 150 feet, re-d concrete, brick and hollow tile.

nessee.—The H. K. Ferguson Company of Cleveland, has been awarded contracts for the construction of ,000 milk condensing plant, to be the central unit in Tennessee of the Borden Company of New York City.

efield, W. Va.—A new creamery has been started here ng to announcement of the chamber of commerce.

ukesha, Wis.—Plans have been completed for the erec-a powdered milk plant here by the Thompson Malted o. The building is to be of one story, 62 by 200 feet, brick and steel addition. The cost of the building cted to exceed $15,000.

nomowoc, Wis.—E. H. Stuart, vice-president of the ion Milk Products Co., announces the appointment n S. Wilkinson as sales manager. Mr. Wilkinson has ssistant to Stewart Westover, former sales manager, cently resigned.

⁂

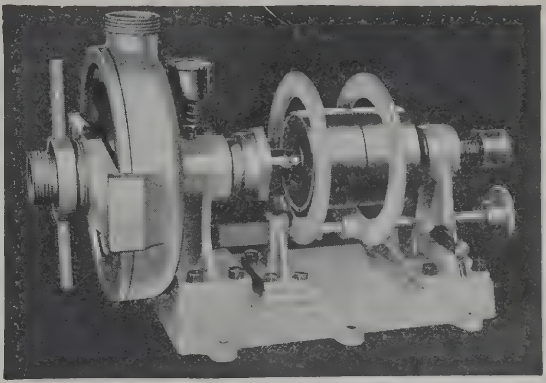
PACIFIC SLOPE ASSOCIATION MEETS.

T e annual meeting of the Pacific Slope Dairy Asso-i will be held at the Hotel Whitcomb, San Fran-on Tuesday, January 25, 1927, at 2 P. M. This ncement was recently made by Robert E. Jones, ry-manager of the association. Mr. Jones will t a complete report at the annual meeting on the annual show, and it is also proposed to outline or the seventh annual show at that time.

⁂

IT NEEDS A HUSBAND.

T Scientific American recently carried a story he Barry-Wehmiller Machinery Co. of St. Louis. to the attention of a local writer of serio-comics id "a machine has been built in St. Louis that 250,000 milk bottles every day. What the ma-ow needs is a good husband to stand by and wipe n



Nofome

The Pump that Gives Greater Satisfaction!

NO CHURNING—NO FOAM.

Send for Descriptive Circulars

SPECIALTY BRASS CO.
KENOSHA, WIS. ALBION, N. Y.

The Importance of Proper Coolers

The cooler is the governor on your milk line. It either speeds up or retards the whole process of running the milk through your equipment.

The necessity of an efficient cooler designed to facilitate the passage of milk is of utmost importance.

Unless you are informed on the latest

U. K. Coolers

their construction, capacity and the successful concerns using them, you may be hampering your plant efficiency.

Why not send for our illustrated folders and comparative prices?

Uhlmann-Kinsey Co.
Incorporated
PHILADELPHIA, PENNA.

MARYLAND DAIRY PRODUCTS MANUFACTURERS MEET.

A meeting to encourage better dairy products merchandising methods will be held by the dairy products manufacturers of Maryland on January 26, 1927. The meeting is scheduled at the Frederick High School building, Frederick, Md., and will be called promptly at 10 A. M. A good dinner at a nominal fee will be served at the building, and arrangements will be made to adjourn the meeting in time to permit the visitors to catch trains for an early return.

R. C. Munkwitz, assistant professor in dairying, University of Maryland, advises that this is the first meeting of its kind to be held in that state, the purpose of which is to "lay the foundation for the manufacturing and the merchandising of better dairy products in Maryland."

General discussion of plans will be the prime object of the meeting, although a small program has been arranged to form the basis for discussion. W. Horace Harper, secretary of the Baltimore Dairy Council, will discuss the "Activities of a Dairy Council." This will be followed by "Standardization of Plant Practices," to be delivered by DeVoe Meade, head of the department of dairy husbandry at the University of Maryland. "Merchandising Better Dairy Products" will be the subject of a talk by R. C. Munkwitz.

IMPROVED METHOD OF MILK DISTRIBUTION IN NAPLES, ITALY.

Consul H. D. Finley states in a report made public by the department of commerce that the city of Naples, Italy, is gradually forcing the owners of cow stables within the city to remove them to the suburbs. Hitherto cow stables have been permitted in the busiest as well as in the best residential districts of the town. The problem has never before been susceptible of solution because the populace have from time immemorial been accustomed to purchase their milk milked into their own receptacles at their front door. The people could not or would not trust the milk peddlers not to water or otherwise adulterate their products. Within the past two years two central milk distribution companies have been formed which deliver pasteurized milk, in sanitary containers, to homes, and this business is increasing at the expense of the trade of the former cowherds and goatherds who kept their flocks in the immediate vicinity of their customers' houses.

VITAMINES IN MILK ARE NOT DESTROYED BY PASTEURIZATION.

Pasteurization does not kill the vitamines in milk, states the Oberlin College physician, according to the Oberlin, Ohio, Tribune.

According to good authorities, milk contains all three of the most necessary food elements: Proteins—the tissue builder; carbohydrates—the energy builder; and a good supply of butterfat. The minerals necessary for nutrition are also present. In addition to these components milk, according to most investigators, is well supplied with the necessary food factors, the three well known vitamines, A, B and C. Pasteurization has no effect on vitamines A and B and does not completely destroy C. The latter is contained in large quantities in orange and other fruit juices.

Doctors state that the supply of vitamines A and B remain fairly constant in cow's milk throughout the year while vitamine C varies with the season. In the winter this accessory factor is reduced or entirely absent, but in the summer when the animal is enjoying fresh pasturage, vitamine C is abundant in the milk.

PASTEURIZED MILK SOLD IN CANS MUST B PROPERLY TAGGED IN NEW JERSEY.

The New Jersey State Department of Health has called to the attention of milk dealers a violation o pasteurizing regulation No. 20. This regulation sta "Containers in which pasteurized milk or crean shipped or delivered shall be plainly capped, tagge labeled 'pasteurized' and the said caps, tags or la shall show the location of the pasteurizing plant, name of the proprietor and the day on which the was pasteurized."

As far as bottled milk is concerned, the regula has been strictly adhered to, but in the case of past ized milk sold in large or small cans, tags comply with rule 20 have frequently been missing. Proprie of restaurants, ice cream factories, hotels and even i tutions have often not known whether they were rec ing pasteurized milk or raw milk, due to the absenc identifying tags.

KENTUCKY MERGER ANNOUNCED.

Announcement has been made by George S. Bel the consolidation of the George S. Bell Dairy and Dixie Dairy, both of Lexington, Ky., under the n "Dixie-Bell Dairy, Incorporated." Mr. Bell will manager of the new concern.

Preparations are being completed for the erectio a new dairy building in the city which will cost betw $50,000 and $75,000. For the present the dairies operate in their respective businesses. At the pre time the two dairies are handling 1,500 gallons of but it is hoped that as a result of the merger 3,000 lons of milk will be handled.

Following the filing of the articles of incorporat election of officers will be held.

GEORGIA TO HAVE MODERN DAIRY PLANT

Clarence E. Jones, architect, has just submitted p to the Arrowhead Dairy Farms of Chickamauga, for the erection of the largest and most modern d plant south of Baltimore. The plans as submitted i cate that the new unit will contain its own ice plant refrigerating rooms, cooling plants, separators, a matic bottle washing machines and sterilizers, all of latest and most modern design.

Frank Henderson, manager of the Arrowhead Fa has spent a great deal of time visiting the large eas dairies and the leading universities in search of ideas and the most recent developments concerning scientific handling of dairy products which are to b corporated in the new dairy. The new dairy is expe to be completed in the early spring.

OPEN TWENTY-FIFTH PLANT.

Beauty, sanitation and cleanliness seem to be dominant factors in the erection of a new buildin Cameron, Wis., by Abbotts-Alderney Dairies.

The new building will be 184 by 86 feet and ere in ornamental style, with the grounds beautifully l scaped and made to resemble a park. The grounds rounding the creamery and dairy plant occupy acres. This plant will make the twenty-fifth one w the Abbotts-Alderney Dairies are operating. Guy S is manager of the Cameron plant.

WANT DEPARTMENT

HELP WANTED

(Rate: 2c per word)

P WANTED—Manager to operate a ant in New York state. Qualifica- ust be proven by reference. Ad-)-773, The Milk Dealer. 1-27tf

:SMAN WANTED—An unusual op- ty awaits an experienced salesman thoroughly familiar with the dairy y. We want a salesman with ability to introduce our products dairy trade. Our products are by our large national organization, ıas a world-wide reputation. Re- h full details. All replies will be confidentially. Address: D-6, The :aler. 2-27

TED—Buttermaker. Man capable g as foreman of small dairy in ad- o making butter. Must be clean, ve some executive ability. State ssary information, including age, ıce, qualifications and salary ex- n your first letter. Address: D-747, k Dealer. 1-27

OSITION WANTED

(Rate: 2c per word)

ANTED — A job with a small distributor or ice cream manu- rer. Must be in a town large gh to permit expansion. I this business from all angles, have also handled butter, al- gh I prefer milk and ice cream. make an investment. Have a school education and took a r course in dairy manufactur- t Purdue. First class refer- as to character, ability, etc. eplies answered. If interested, ss: D-732, The Milk Dealer. 1-27

ION WANTED—By college grad- dairy manufacturing. Good com- experience in butter, ice cream, nilk and plain condensed. If you ing for a man to grow into the esponsibilities of your business ear from you. Please state what pay to start and the general pos- of the job. Address: D-721, The ıler. 1-27

ION WANTED—As superintendent ıan in milk or butter plant, by a o has 18 years of experience in d butter business. Understands ng from washing cans and bottles ng first grade butter, and put on ket the best grade of milk. Un- s how to operate a plant and get ılts, and understands how to han- I am not looking for a position vork, lots of it, harder the better. years of age and married. Can the best of references. Fred C. n, 2113 Stofford Ave., S. W., Grand Aich. 1-27

ION WANTED — As manager or ndent of milk plant in the city ry or field manager. Have had e in all localities. Experienced sanitation and low bacteria Also in separating, pasteurizing, testing and machinery, as well ıdling of help. Have had 15 years experience. Best of references oility. State full particulars in er. Address: D-3, The Milk Deal- 1-27

RATES

2c per word for ads placed under headings "Help Wanted" or "Position Wanted."

5c per word for ads placed under all other headings — "Wanted to Buy," "For Sale or Exchange," etc.

In computing amount of remittance, add six (6) extra words if wanted published under Blind Address.

Bold Type—Double regular rates.

Minimum Charge—50c.

Blind Address — EXTRA — 25c in U. S. only; 65c Foreign — To cover postage in sending out replies from this office.

REMITTANCE MUST ACCOMPANY ORDER.

IT PAYS TO ADVERTISE

NOTE: Names and addresses of advertisers using blind addresses cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of this paper.

NOTICE

The publisher disclaims any responsibility for the reliability of parties advertising in the Want Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting suspicious dealings.

We reserve the right to refuse to accept advertisements which we believe are detrimental to the dairy industries.

Want Ads are accepted up to 7th of month preceding date of issue. Forms close on that date.

POSITION WANTED—Salesman with 12 years experience in sales work and practical operation of dairy products plants wishes to represent reliable dairy or ice cream equipment and supply house in sales work. Write D-1, The Milk Dealer. 1-27

POSITION WANTED—As sales manager. Twelve years experience in dairy business as salesman, route foreman and solicitor. Sales manager three years at present place of employment. Can give best of references as to past success. Want permanent location. Please state salary and full particulars in first letter. Address: D-769, The Milk Dealer. 1-27

POSITION WANTED—By married man, college training. Life experience, practical and technical, with ice cream, cheese, condensed milk, market milk. etc. Production foreman 5 years with one company. Reference upon request. Will work in any state in U. S. Address: D-767, The Milk Dealer. 1-27

POSITION WANTED—After having had five years experience in the construction and operation of the Western Maryland Dairy, Baltimore, as assistant plant manager and dairy engineer, I now seek a position as plant manager or dairy engineer. Norman B. Gardiner, Riderwood, Md. 1-27

POSITION WANTED—Production manager for large milk or ice cream plant. Thoroughly familiar with costs of machinery and supplies. Experienced in laying out plants for most economical operation. Can select men who will bear training and then train them. South or Southwest preferred. Address: D-746, The Milk Dealer. 1-27

WANTED—Experienced man wants to take over retail and wholesale routes in a good city with some reliable dairy company. Give full particulars. Address: D-766, The Milk Dealer. 1-27

POSITION WANTED — Sales manager with live, progressive milk organization in the East or South. A-1 references in this position for large metropolitan concern. that recently merged, and the present position is undesirable. Auditor's report will furnish previous record as a producing, well managed sales department. Create up-to-date sales promotion, and a bear on collections. Install checking system that brings in bottles and boxes without friction. Capable of installing a daily system of accounting for entire sales department that is simplified for office and drivers. Thoroughly familiar with milk advertising in all branches. Middle age and 22 years practical experience in milk distribution. Address: D-775, The Milk Dealer. 1-27

POSITION WANTED—Ambitious young man with five years experience in dairy work, including farm dairy helper, dairy plant helper, short course at Penn State College, some laboratory experience, and foreman in a small milk plant, desires position as assistant foreman in a medium sized milk plant that gives quality first consideration. Available at once. Give salary and possibilities. Address: D-755, The Milk Dealer. 1-27

WANTED—Firm of high class refrigerating engineers in England wishes to take up sole agency for a well known and sound make of automatic milk bottler. Only firms not represented in England to apply to D-768, The Milk Dealer. 1-27

To give up one job before you have another is poor business. Advertise under a blind address in The Milk Dealer want ad columns; somebody may be looking for a man just like you.

FOR SALE or EXCHANGE

(Rate: 5c per word)

BUSINESSES

FOR SALE—Milk receiving and shipping plant in northern Illinois, on direct railroad line, 110 miles from Chicago. T.B. tested territory, good location, property excellent condition. Cheap for cash. Address: D-704, The Milk Dealer. 2-27

FOR SALE—Condensing plant completely equipped, in northwestern Ohio. Town of 2,500 on two main railroads and electric line. Has Cleveland permit. Only $1,500 down, balance one year. Address: D-17, The Milk Dealer. 1-27

FOR SALE—Dairy business, 20 miles from Pittsburgh, Pa., handling 1,700 gals. of fluid milk daily. Real estate worth $65,000. In a community of 125,000 people. Owners wishing to enter another line of business will sacrifice everything for $130,000. The only business over 350 gals. in this county. Address: D-750, The Milk Dealer. 1-27

FOR SALE — Combined market milk plant and creamery, fully equipped. Milk sales $165,000; butter sales $95,000; all sold in the vicinity of a 35,000 Michigan city. Address: D-771, The Milk Dealer. 1-27

MACHINERY AND SUPPLIES

FOR SALE — Refrigeration Machines — Used—We have several used and new machines of nationally known make, which we can sell at a big saving to you. Will erect and guarantee the plants fully. Address: Erecting Engineers Company, 4725 West Lake St., Chicago, Ill. 1-27tf

FOR SALE—Write us for bargain prices on our stock of used coil vats, coolers, brine freezers, homogenizers, etc., which have been rebuilt and are in A-1 condition. B. Riley Hauk & Son Co., 201 S. First St., St. Louis, Mo. 1-27

(Want Department continued on next page)

FOR SALE—200-gal. Oakes & Burger receiving vat with agitator. Brand new, but priced special to remove at once. Address: D-753, The Milk Dealer. 1-27

FOR SALE—One 2,000-lb. Dual C. P. churn, used only one year, $250. One 300-gal. C. P. 2½-in. coil, piano hinged covers, tinned copper on the outside, $350. One 300-gal. Cherry pasteurizer, $250. Three 1,000-gal. enclosed type Pfaudler glass lined tank pasteurizers, equipped for brine circulation, 220 volt, 60 cycle motor; these tanks are also insulated with 2-in. corkboard, covered with steel jacket; cost $2,200 each, f. o. b. factory; sale price, $850 each, f. o. b. destination. R. J. Wade & Co., 5424 W. Chicago Ave., Chicago, Ill. 1-27

FOR SALE—Ice making and refrigerating machinery. New and rebuilt. Our prices on new Waynesboro refrigerating equipment, delivered and installed very low. Buy direct from the manufacturer. All sizes. Get our prices on your requirements. Geiser Manufacturing Company, "Department B," Waynesboro, Pa. 1-27

FOR SALE—30-ton Baker ice machine, size 9x16; also one 20-ton horizontal ice machine. These machines have just been taken out of service because we moved into new and larger location. Will make price right. Machines now located in Detroit, Mich. If interested, write Fairmont Creamery, Purchasing Dept., Omaha, Neb. 1-27

Many a dollar can be saved by su
ing your needs through Milk Dealer
Ads. Others have done it, why sho
you?

Send news items and personal no
the "Milk Dealer" and see how well
look in print.

WANTED TO BUY

(Rate: 5c per word)

WANTED TO BUY—Second hand tu
cooler, capacity from 5,000 to 8,000 lb
hour. Wisconsin Milk Products Co.,
Mills, Wis.

DEFINITION FOR CULTURED SKIM MILK PROPOSED BY THE FOOD STANDARDS COMMITTEE.

The food standards committee has proposed a definition and standard for cultured skim milk, "cultured buttermilk," according to Dr. W. W. Skinner, chairman of the committee.

Criticisms and suggestions regarding the proposed definition and standard are invited from food officials, consumers, the trade, and all interested parties. Communications should be addressed to the Secretary of the Food Standards Committee, Bureau of Chemistry, Washington, D. C., and reach him not later than February 15, 1927.

The proposed definition and standard for cultured skim milk, "cultured buttermilk," is as follows:

CULTURED SKIM MILK, "CULTURED BUTTERMILK," is the product obtained by souring skimmed milk, or partially skimmed milk, by means of special cultures of the streptococcus lacticus type. It contains not less than eight and five-tenths (8.5) per cent of milk solids not fat.

⁂

VIRGINIA MILK PLANT TO OPEN.

A milk pasteurizing plant will be installed in Norton, Va., by H. F. Hube and Ed Fraley, according to plans now under way. The plant will have a capacity of 200 gallons of milk daily. Machinery is now being installed in the Dotson building on Seventh St.

The milk will be received from all sections of the county, pasteurized at the Norton plant, bottled and retailed in town by means of a delivery service.

Mr. Hube, who operates a dairy near Wise, will be manager of the new concern.

⁂

You cannot afford to miss a single copy of "The Milk Dealer." If you have not done so, be sure and send in your renewal today.

SCHOOL MILK SERVICE GROWING.

Mrs. Mabel Keef, representative of California
Council, who is in charge of milk service in the
Angeles city schools, has so organized and systema
the work that no deficit has been reported during
past two and one-half years. Mrs. Keef co-operates
the health and corrective physical education depart
of the schools, and with the nutrition department o
Parent-Teacher Federation.

Three years ago 80 Los Angeles schools held
classes. Today 239 schools have well established se
and, as a result, the children show improvement
mentally and physically. Realizing the need of mi
the diet, the P. T. F. has made itself financially re
sible for service to indigent children in 93 schools.

⁂

DECATUR UNION DAIRY EXPANDING.

A modern, two-story structure of brick, 68 b
feet, will be erected by the Union Dairy Co., Dec
Ill., at a cost of $35,000.

Increase in business made it necessary for the
pany to have larger quarters, and it was decided to
a new and modern building rather than attempt t
pand in its old location. It will be a modern, up-to
pasteurizing plant, with the best approved mach
and equipment. Twenty-six persons will be employ
the new plant, the same as at present.

⁂

WISCONSIN MILK TO BE PUT TO NEW US

John Le Feber, president of the Gridley Dairy
Milwaukee, has suggested a new idea for the use of
When the new car ferry "Madison" is christen
Manitowoc on January 19 by Miss Marion
daughter of one of the railway's directors for the
Trunk Railway, she will christen the new car ferry
a bottle of milk containing some milk from each
many breeds of cows raised for Wisconsin dairying

The vessel is being built by the Manitowoc
Building Corporation.

DON'T lose any more money on the Manufacturing of Chees

My new processes give you absolute control of TEMPERATURE, QUALITY, FLAVOR and TEXTURE. Complete any product inside of 6 hours.

We teach your men at your own plants the new processes for the manufacturing of 5 lb. loaf of Cream Cheese, Farmers Cheese, Home-made Pot Cheese, Hoop Cheese, Bakers Cheese and all soft cheeses. Light Sour Cream and Butter Milk with SOLID BODY.

You Have Plant Problems—Let Us Solve Them.

Personal Service
Practical Demonstration

M. MESSCHER'S

Telephone: Whitehall 7654
1 HUDSON STREE
NEW YORK

SCIENTIFIC INSTITUTE FOR THE CREAMERY AND ICE CREAM INDUSTRY

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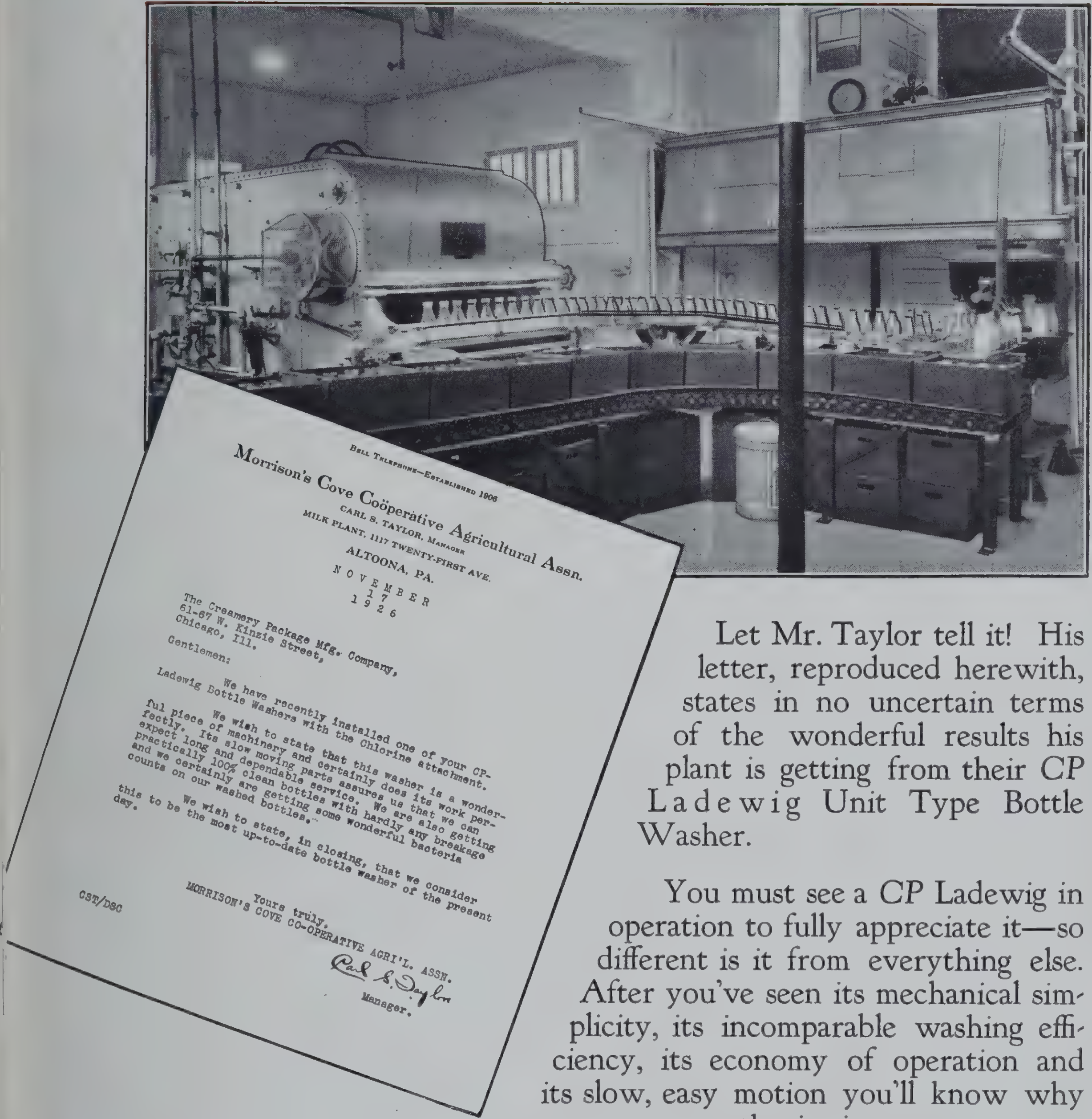
. . . . . the CP Ladewig is the most up-to-date ottle washer of the present day.'' —CARL S. TAYLOR



BELL TELEPHONE—ESTABLISHED 1906

Morrison's Cove Coöperative Agricultural Assn.
CARL S. TAYLOR, MANAGER
MILK PLANT, 1117 TWENTY-FIRST AVE.
ALTOONA, PA.

NOVEMBER
17
1926

The Creamery Package Mfg. Company,
61-67 W. Kinzie Street,
Chicago, Ill.

Gentlemen:

We have recently installed one of your CP-Ladewig Bottle Washers with the Chlorine attachment.

We wish to state that this washer is a wonderful piece of machinery and certainly does its work perfectly. Its slow moving parts assures us that we can expect long and dependable service. We are also getting practically 100% clean bottles with hardly any breakage and we certainly are getting some wonderful bacteria counts on our washed bottles.

We wish to state, in closing, that we consider this to be the most up-to-date bottle washer of the present day.

Yours truly.
MORRISON'S COVE CO-OPERATIVE AGRI'L. ASSN.
Carl S. Taylor
Manager.

CST/DSC

The hook-up between washer and filler as used in this plant effects great savings in labor costs as well as speeding up the work materially.

Let Mr. Taylor tell it! His letter, reproduced herewith, states in no uncertain terms of the wonderful results his plant is getting from their *CP* Ladewig Unit Type Bottle Washer.

You must see a *CP* Ladewig in operation to fully appreciate it—so different is it from everything else. After you've seen its mechanical simplicity, its incomparable washing efficiency, its economy of operation and its slow, easy motion you'll know why users are so enthusiastic.

Write for a copy of Bulletin 1131 which gives full details.

HE CREAMERY PACKAGE MFG. COMPANY

SALES BRANCH OFFICES (Write Nearest One)

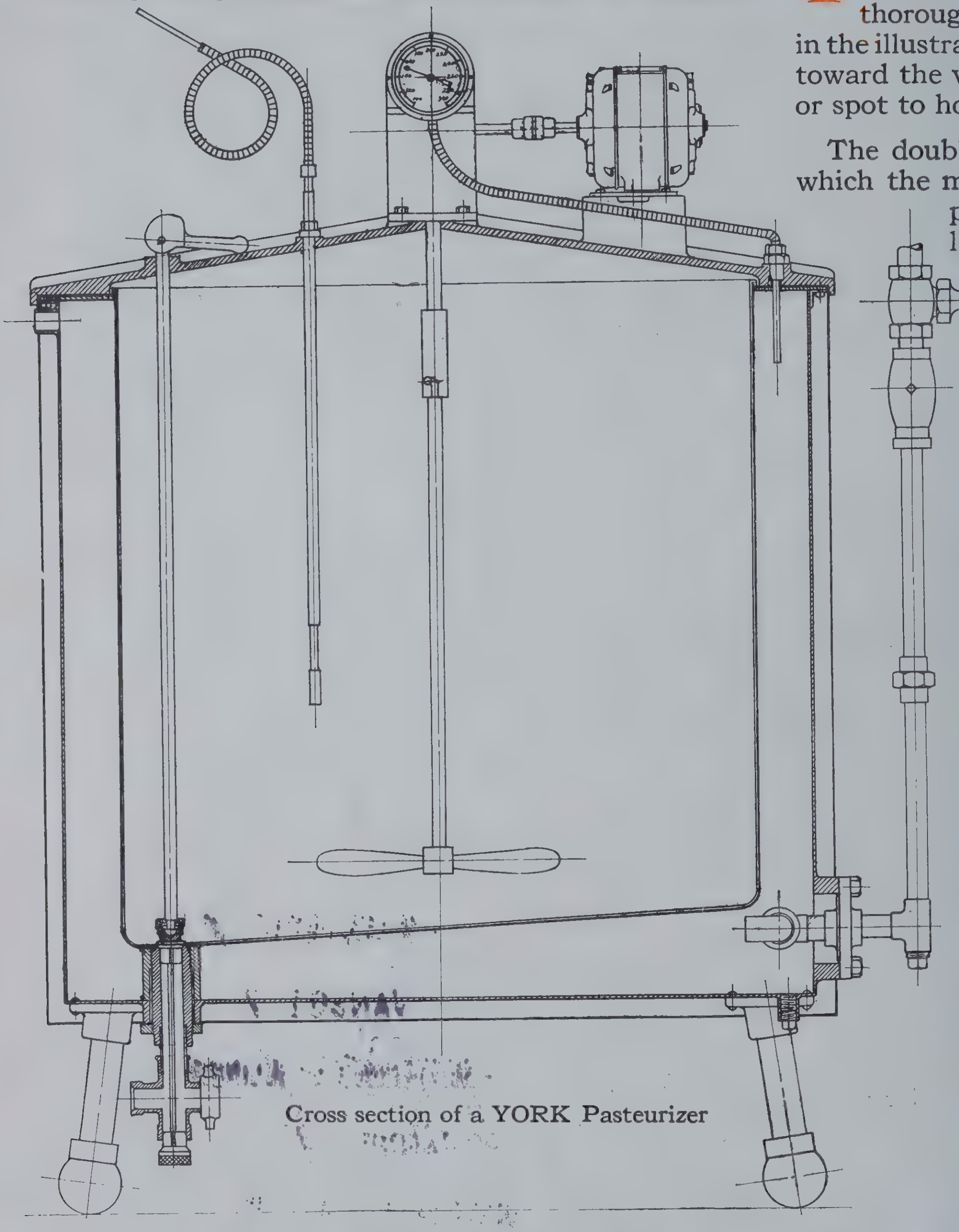
lanta, Ga.,	58-68 Nelson St.
ston, Mass.,	138 Washington St. N.
ffalo, N. Y.,	14-16 Ellicott St.
icago, Ill.,	1243 W. Washington Blvd.
nver, Colo.,	1649 Blake St.
Jersey City, N. J.,	122 Morgan St.
Kansas City, Mo.,	1408 W. 12th St.
Los Angeles, Cal.,	2461 Porter St.
Minneapolis, Minn.,	318 Third St. N.
Omaha, Nebr.,	113 S. Tenth St.
Philadelphia, Pa.,	1907 Market St.
Portland, Ore.,	6-8 N. Front St.
San Francisco, Cal.,	699 Battery St.
St. Louis, Mo.,	508 N. Second St.
Toledo, Ohio,	119 St. Clair St.
Waterloo, Ia.,	406 Sycamore St.

UIPMENT BEARING THIS *Trade* CP *Mark* IS ALWAYS HIGHEST QUALITY

"FOR BETTER MILK HANDLING"

Let YORK Help You Pasteuri

A YORK Pasteurizer will help you every day because it is easy to clean.



Cross section of a YORK Pasteurizer

THE YORK Pasteurizer is const
so that it can be cleaned eas
thoroughly. Note the interior
in the illustration. The Pasteurizer
toward the valve and contains no
or spot to hold dirt or sour milk.

The double-acting flush valve t
which the milk is discharged is t
possible protection
leakage into the milk li
is controlled
lever on top
pasteurizer. Wh
valve is holding mil
also open into a dra
and not into the mi
proper, so that if t
any leakage it will
the floor and is v
This valve can a
cleaned easily and
oughly. The use of
boxes is entirely elim

While the impell
tates the milk in one
tion, the hot water
outer jacket flows
opposite direction.
take pipe for water i
with a valve which
steam and cold water
desired temperature.

The inside lining i
of pure nickel sheet.
tains no grooves and
drained complete
cleansed thoroughly

**"For Better
Handling"**

YORK MILK MACHINERY CO.

Manufacturers of Milk Handling Equipment

York Penna.

1.05
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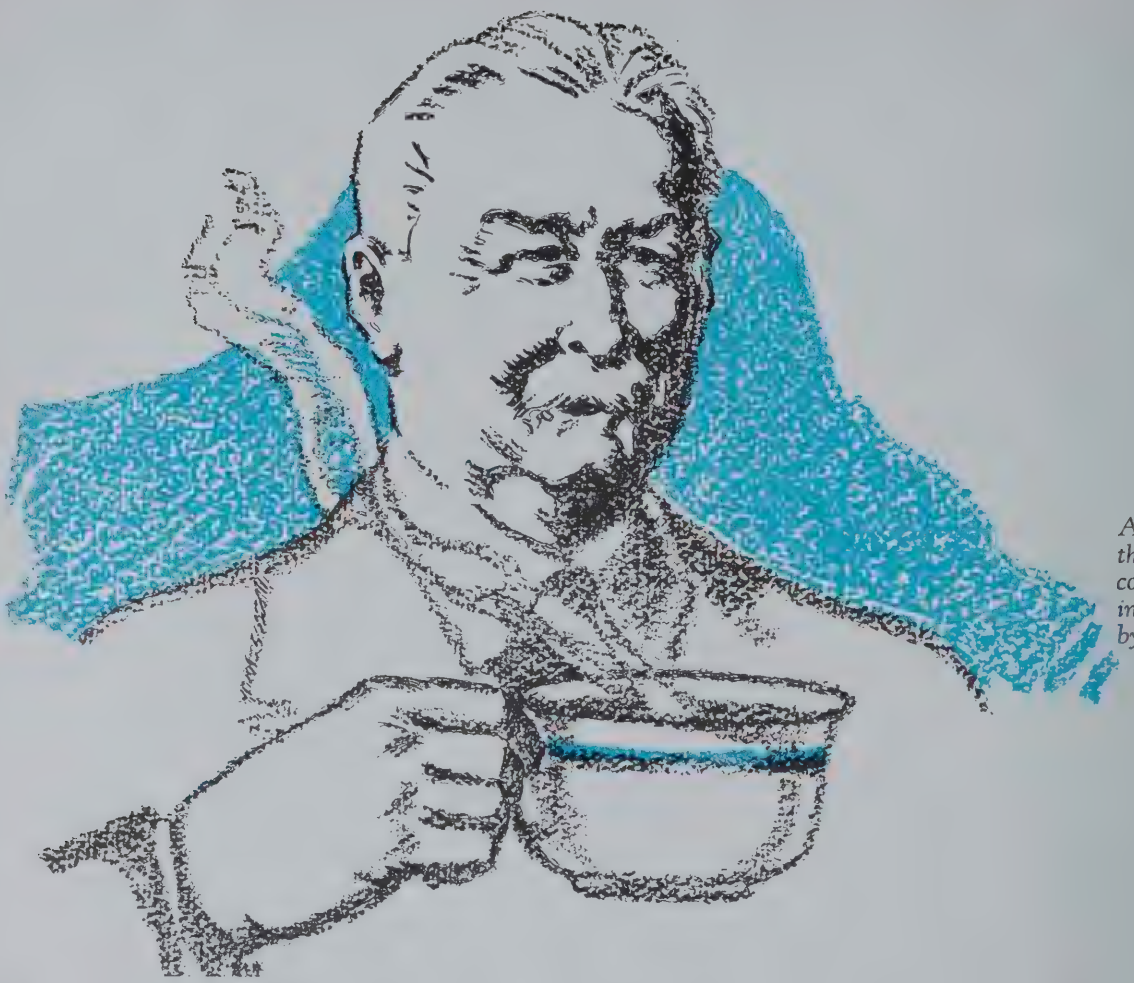
THE MILK DEALER

THE LIBRARY OF THE
FEB 28 1927
UNIVERSITY OF ILLINOIS

WISE BROTHERS

Volume 16 FEBRUARY, 1927 Number 5



A new milk drink with the invigorating tang of coffee; zippy and refreshing; wholesome and liked by everybody.

Increase Your Sales with Coffee-Milk---Popular Everywher

Every day will bring you dozens of new customers for COFFEE-MILK in offices, shops, stores and homes.

Everyday more milk dealers are selling Coffee-Milk, and making extra profits. Coffee-Milk is a great leader. It will help your driver-salesmen to get new accounts and keep them. Your old customers too will enjoy this zippy and wholesome drink. It is easy to make and easy to keep. Just mix milk with Arabian Brand Coffee Syrup—no trouble at all.

Made from full flavored, fresh roasted coffee, highly concentrated in syrup form. Easy to mix with milk; no equipment necessary. Never settles at bottom of bottle; no sediment. Write for prices and sample.

D. ABELSEN & SON, - - Providence, R. I.

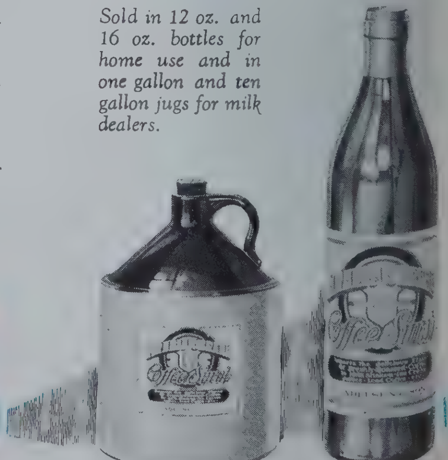
Central States Representative: M. C. DRESHFIELD, 405 East Main St., Kalamazoo, Mich.

To insure prompt reply when writing for samples or information, address direct to factory.

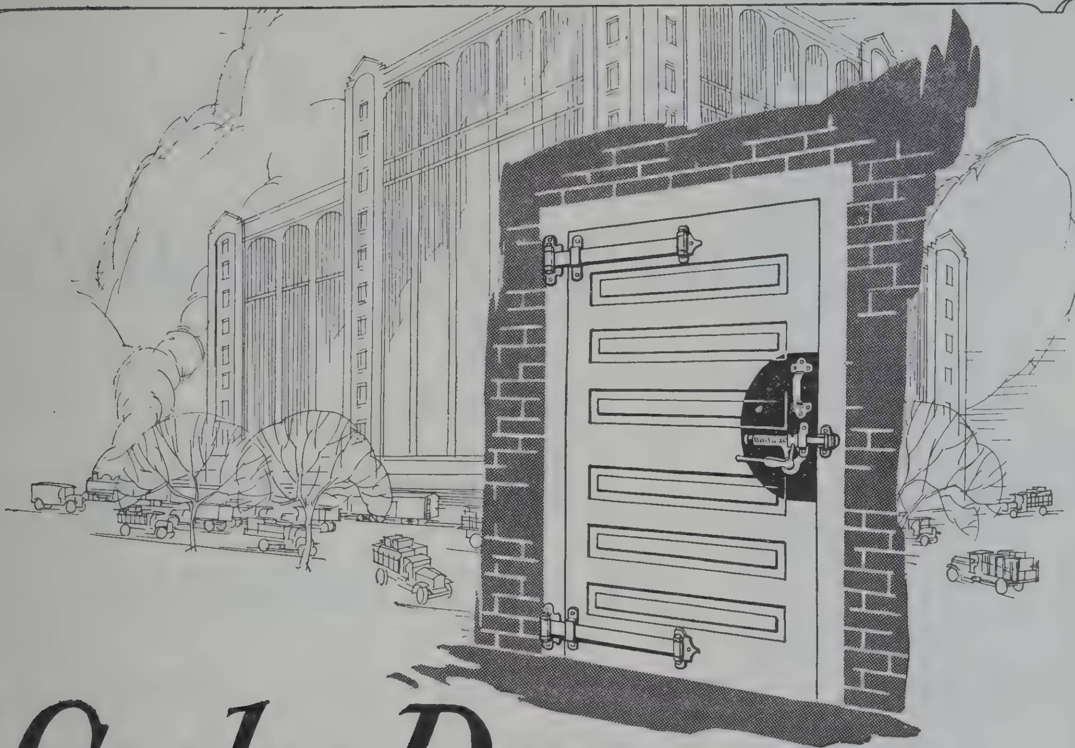
ARABIAN BRAND

COFFEE SYRUP

Sold in 12 oz. and 16 oz. bottles for home use and in one gallon and ten gallon jugs for milk dealers.



FACTS ABOUT COOLER DOORS ~ No. 1 of a Series



A Cooler Door is "only as good as its hardware"

Jamison Doors
Jamison Cold Storage Door Co

Send for new Catalog No. 13, giving complete information on Jamison Cooler and Freezer Doors, Automatic Ice Chutes, and other Jamison Products.

Look for No. 2 of this
ERIES on Page 63 of
his issue.

NO matter how well insulated and constructed a cooler or freezer door may be, it cannot give proper protection against air leaks, if the hardware is weak or inefficient.

That is why every Jamison Door is hung with specially designed, over-size hardware, far heavier than the hardware used on other doors.

The inevitable wear and tear of service bring no air leaks or temperature losses around a Jamison Door. For the pressure of the steel spring underneath Jamison Hinges can be adjusted by the special set screw with which it is fitted. Just a turn or two of this screw at any time increases the pressure, so the door is again held as tightly against its double seals of contact as the first day it was installed.

And, the fastener on Jamison Doors always works. Slam the door, bang it, or just push it. No difference! The Jamison Self-Tightening Fastener grips the door and holds it fast —air-tight, leak-proof.

There are many other important features that have won for Jamison Doors their outstanding reputation for dependable, low-cost maintenance. Send for catalog giving the whole story.

Jamison Doors

Jamison Cold Storage Door Company
Hagerstown, Maryland, U. S. A.

When writing to JAMISON COLD STORAGE DOOR COMPANY *please mention The Milk Dealer.*

WHAT IS GOOD

Dairying Country

HISTORY
OF
DAIRYING
T. R. PIRTLE
MOJONNIER BROS. CO.
CHICAGO

WITH THIS

History of the Dairy Industry

you can trace the progress different nations and localities have made in dairying.

You can learn quickly and positively how the industry originated, why it progressed and why it is what it is today.

Back of all these various degrees of success or failure there must be some fundamental reasons.

THEREFORE

reading this book gives you a knowledge that is essential to proper location of a dairy business and its proper development.

Copies sent postpaid on receipt of

$6.25 FOR DELIVERY IN THE U. S. **$6.50** FOR DELIVERY IN ALL OTHER COUNTRIES

The Olsen Publishing Co.

501 Cherry Street " " " Milwaukee, Wis.

nder perfect control

IN THE Prest-O-Lite Gas Torch you have a torch that is under perfect control. Open the valve of the Prest-O-Lite Tank not more than a quarter turn, usually less, ignite and instantly you are ready to work with flame of the size and temperature desired. You can direct the heat exactly where you need it without undue heating of nearby parts. Your control is perfect, down to a fraction of an inch.

Factories find the Prest-O-Lite Gas Torch produces unusual economies. It speeds up production, and its absolute uniformity reduces waste and spoilage.

Individual workers, skilled or unskilled with the old-fashioned type of blow torch, quickly prefer the Prest-O-Lite with its instantly ready flame. It burns Prest-O-Lite Gas, familiar to all through its use in motor-truck headlights. Available in several sizes of portable tanks. Empty tanks exchanged for full ones at any one of the thousands of Prest-O-Lite Gas exchange stations, for small cost of gas only. Write us for full details, naming the kind of work you do.

THE PREST-O-LITE CO., INC.
INDIANAPOLIS, IND.
New York San Francisco
In Canada, Prest-O-Lite Company of Canada, Ltd., Toronto, Ontario
Unit of Union Carbide and Carbon Corporation

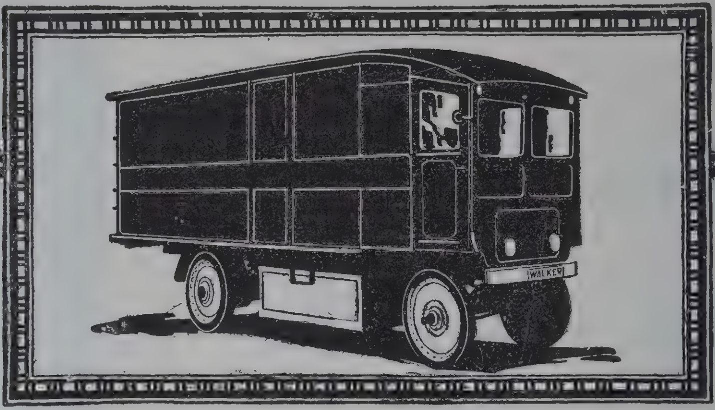
There's a nozzle especially designed for every type of blow-torch job

Prest-O-Lite Gas

"The gas of a thousand uses"

PREST-O-LITE

When writing to PREST-O-LITE CO., INC., *please mention The Milk Dealer.*



SUPPLEE-WILLS-JONES MILK CO.
MATTHEWS SELECTED DAIRIES
LOS ANGELES CREAMERY CO.
BORDEN'S FARM PRODUCTS CO.
FORREST GLEN CREAMERIES
BOWMAN DAIRY COMPANY
BURR CREAMERY CORP'N
CHESTNUT FARMS DAIRY
INTERNATIONAL DAIRY CO.
WIELAND DAIRY CO.

Where Experience Buys—

Results are what count with business leaders like these. When they buy trucks, they invest money farsightedly in order to secure the greatest return. That these firms—and scores of others equally well regarded—continue to reorder more and more Walker trucks, indicates the result of their experience—

Trucking and deliveries in closely populated areas require Electric trucks—and Electric trucks means Walkers.

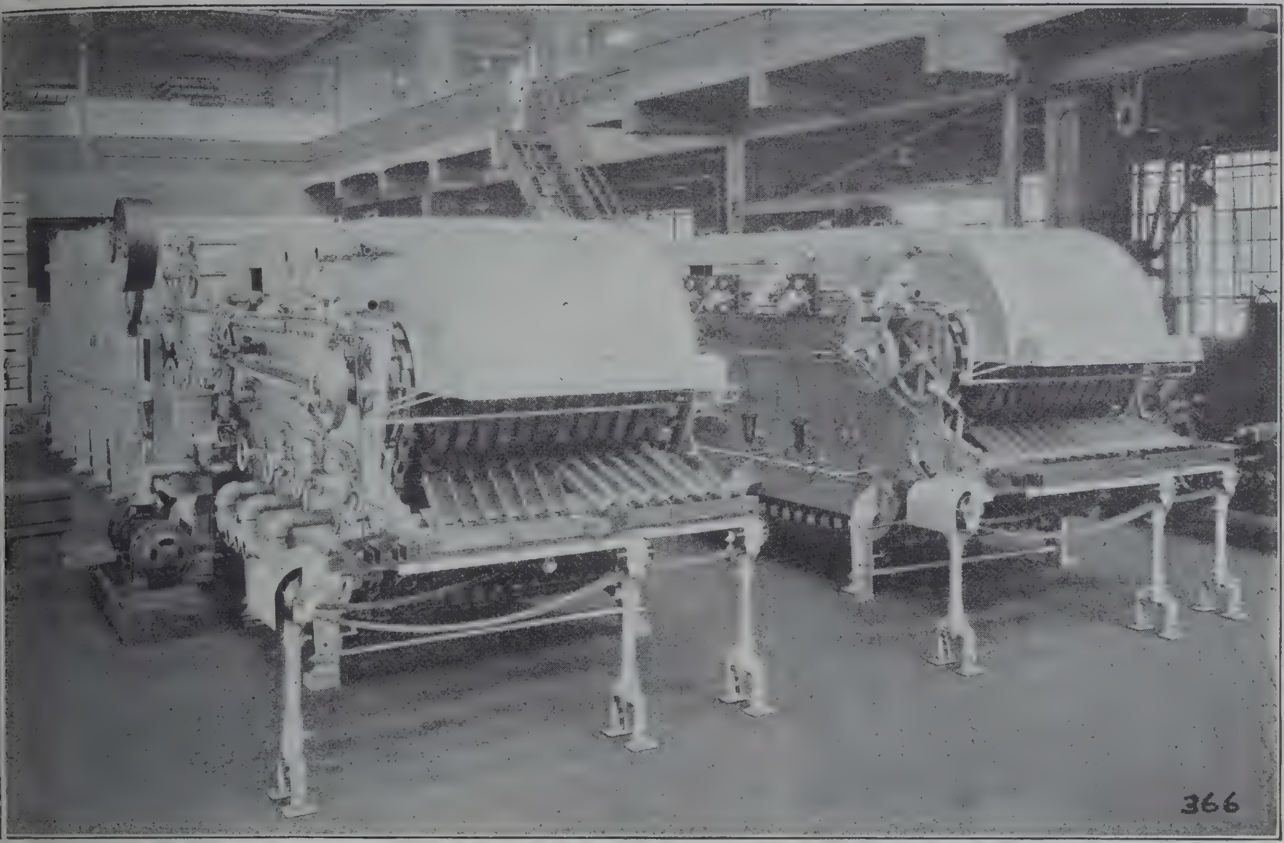
Ask us about the Walker's 16 money making and money saving advantages in city traffic, also names of Walker users in your own line.

Order Walkers now!

WALKER VEHICLE COMPANY
CHICAGO

WALKER ELECTRIC TRUCKS
LOWEST TRUCKING COST ON CITY ROUTES

When writing to WALKER VEHICLE COMPANY *please mention The Milk Dealer.*



The "ARISTOCRAT"

OF BOTTLE CLEANERS

APTLY NAMED BECAUSE IT IS IN A CLASS BY ITSELF

Above cut shows TWO large ARISTOCRAT units consisting of independent 5-COMPARTMENT SOAKER connected to our latest hygienic BRUSHLESS WASHER with Sterilizing and 3-Compartment Cooling attachments. Photo was taken on the assembly floor of our large modern factory.

These units are now being installed in that new wonderful plant of SIDNEY WANZER & SONS, INC., CHICAGO, ILL., where the best was the main consideration. Write us for full particulars. Our engineering staff belongs to you. 26 years experience.

Sheffield Farms selects Barry-Wehmiller Bottle Washers, Soakers and Sterilizers for their *new Jamaica*, Long Island Plant. After using 2 Barry-Wehmiller machines for more than 2 years in their New York City Plant, 2 more at the Brooklyn Plant, 2 more at the Harlem Plant, and 2 more at the Bronx Plant, all of 6 to 8 compartments in size, they have for the *fifth time ordered 2 more for their new Jamaica Plant.*

Barry-Wehmiller Machinery Company

Pioneers of Bottle Cleaners and In-the-bottle Pasteurizers

660 W. Florissant Ave., St. Louis, Mo., U. S. A. **New York Office: 18 West 25th St.**

When writing to BARRY-WEHMILLER MACHINERY COMPANY *please mention The Milk Dealer.*

Barber Goodhu

Everything for the Dairy Industry

The New Mayfair Plant of the Bowman Dairy Co.

Barber-Goodhue Service and the new Mayfair Plant of the Bowman Dairy Company

VISIBLE expression of the broad scope and th high efficiency of Barber-Goodhue service i exemplified in a most impressive way in th wonderful new Mayfair plant of The Bowman Dair Company of Chicago.

Two 12,000 Pound Simplex Pasteurizing Outfits

In this modern plant—one of the largest of its kin in existence—we have furnished complete Burrell Simplex pasteurizing equipment, a battery of 6 Mil waukee fillers, Barber-Goodhue Skim Milk Foan Eliminator, and equipment for the two receivin rooms. All of this important equipment was choser with extreme care as the most efficient, speedy long-lived apparatus available.

One Burrell-Simplex pasteurizing unit which has beer serving under the most exacting conditions for th past eleven years in one of Bowman's country plant was transferred to the new Mayfair plant. Wha better evidence than that could possibly be given demonstrating the dependability, long life, and con tinued efficiency of this equipment?

If you contemplate building a new plant—if you want to remodel the old one—if you are thinking about purchasing new equipment or supplies of any kind, by all means depend upon Barber-Goodhue for conscientious, top-notch service, and for utmost satisfaction. Write us about your requirements today.

A.H. Barber-Goodhue Company

TWIN CITY OFFICE
2490 University Ave.
ST. PAUL

Home Office
300 W. Austin Ave.
CHICAGO

216 South
Pennsylvania St.
INDIANAPOLIS

When writing to A. H. BARBER-GOODHUE COMPANY *please mention The Milk Dealer.*

GRAHAM BROTHERS
TRUCKS

Yearly sales of Graham Brothers Trucks are shown in the table below. It begins with 1921 and goes through 1926.

1086

3401

6971

10743

23884

37463

This steady growth is complete and convincing proof that the public has recognized the superior value in Graham Brothers Trucks.

Graham Brothers Trucks and Commercial Cars meet 91% of all hauling requirements.

GRAHAM BROTHERS
EVANSVILLE · DETROIT · STOCKTON
A DIVISION OF DODGE BROTHERS, INC.
GRAHAM BROTHERS (CANADA) LIMITED, TORONTO, ONTARIO

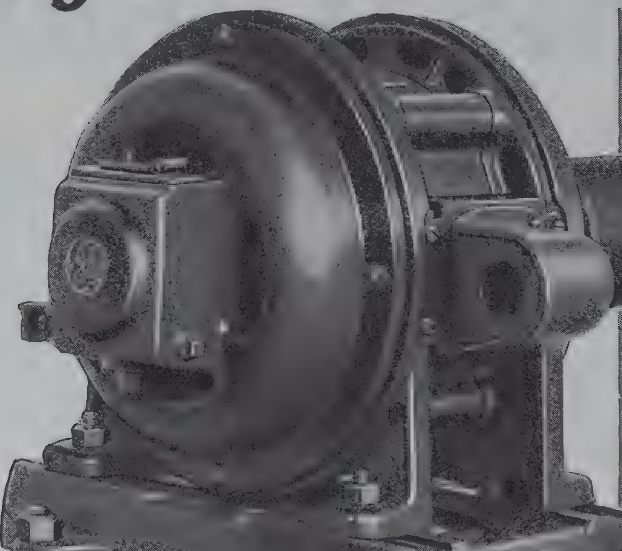
¾-TON COMMERCIAL CAR CHASSIS	$ 670
1-TON TRUCK CHASSIS (G-BOY)	885
1½-TON TRUCK CHASSIS	1245
2-TON TRUCK CHASSIS	1445*

**Disc Wheels With Dual Rear, Optional*
Prices f. o. b. Detroit

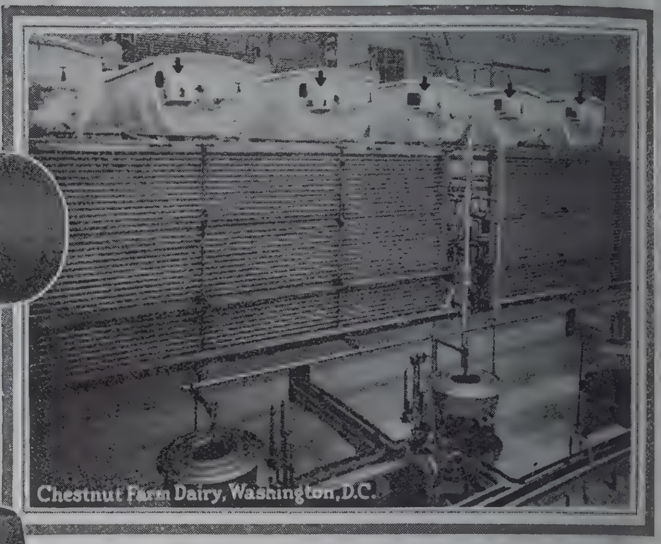
SOLD BY
DODGE BROTHERS
DEALERS EVERYWHERE

When writing to GRAHAM BROTHERS *please mention The Milk Dealer.*

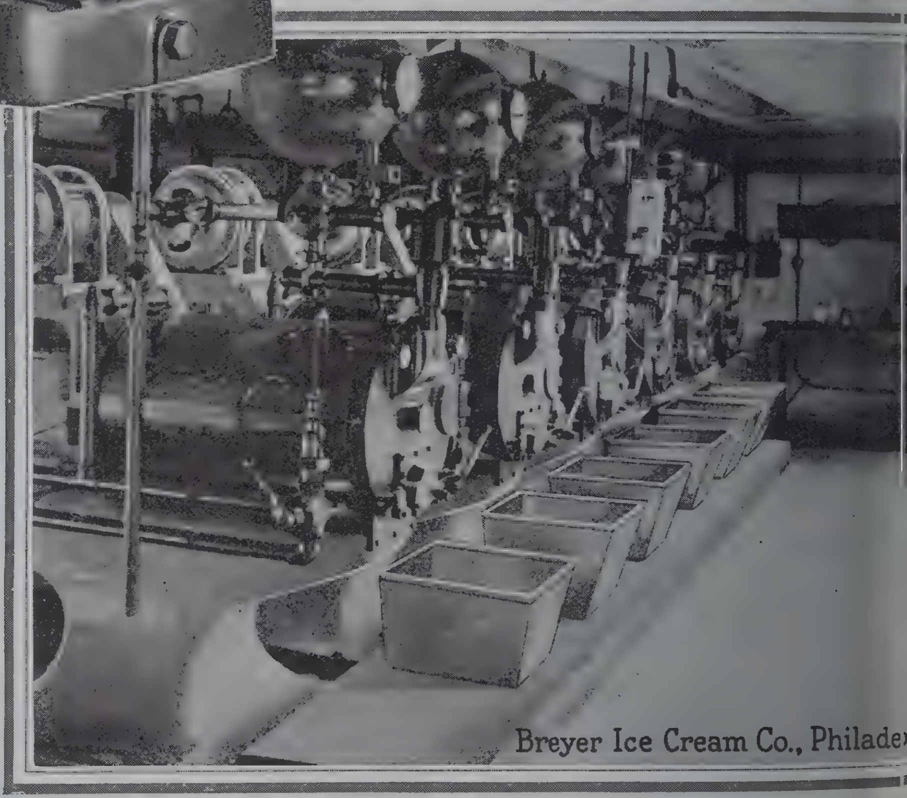
Again the "900 Series" Mo



The G-E '900 Series" Polyphase Motor—Type KT, 3 phase; Type KQ, 2 phase.



Chestnut Farm Dairy, Washington, D.C.



Breyer Ice Cream Co., Philade

Apply the proper G-E Motor and the correct G-E Controller to a specific task, following the recommendations of G-E specialists in electric drive, and you have G-E Motorized Power. "Built-in" or otherwise connected to all types of industrial machines, G-E Motorized Power provides lasting assurance that you have purchased the best.

MOTORIZED POWE

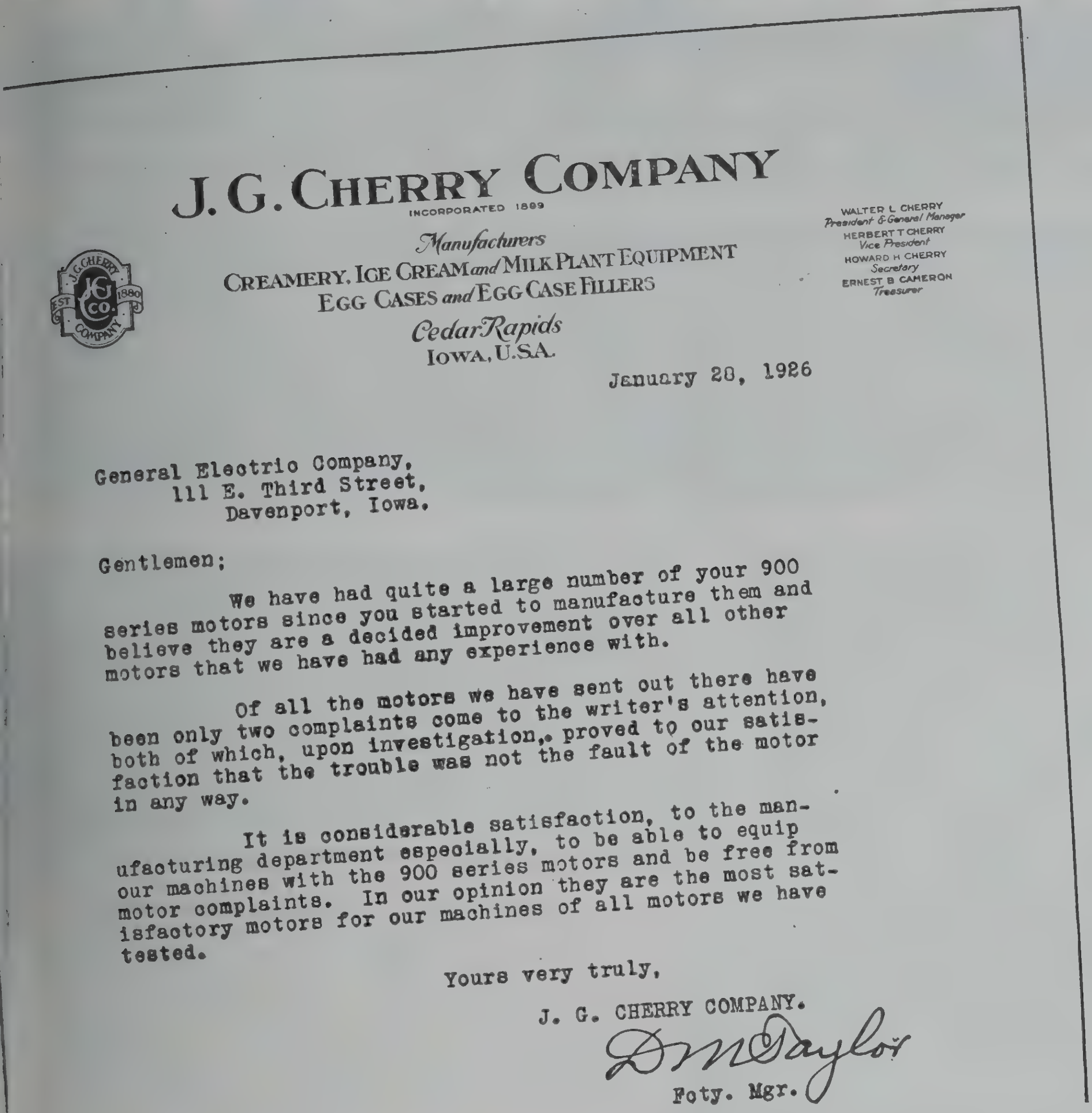
-fitted to every ne

GENERAL

GENERAL ELECTRIC COMPANY, SCHENECTADY, NEW YOR

When writing to GENERAL ELECTRIC COMPANY *please mention The Milk Dealer.*

oves its Reliability ~ ~ ~



J. G. CHERRY COMPANY
INCORPORATED 1889
Manufacturers
CREAMERY, ICE CREAM *and* MILK PLANT EQUIPMENT
EGG CASES *and* EGG CASE FILLERS
Cedar Rapids
IOWA, U.S.A.

WALTER L. CHERRY
President & General Manager
HERBERT T. CHERRY
Vice President
HOWARD H. CHERRY
Secretary
ERNEST B. CAMERON
Treasurer

January 28, 1926

General Electric Company,
111 E. Third Street,
Davenport, Iowa.

Gentlemen;

We have had quite a large number of your 900 series motors since you started to manufacture them and believe they are a decided improvement over all other motors that we have had any experience with.

Of all the motors we have sent out there have been only two complaints come to the writer's attention, both of which, upon investigation, proved to our satisfaction that the trouble was not the fault of the motor in any way.

It is considerable satisfaction, to the manufacturing department especially, to be able to equip our machines with the 900 series motors and be free from motor complaints. In our opinion they are the most satisfactory motors for our machines of all motors we have tested.

Yours very truly,

J. G. CHERRY COMPANY.

D M Taylor

Fcty. Mgr.

In addition to the above letter the J. G. Cherry Company writes:

"One of the most recent and largest installations is the plant of the Southern Dairies at Miami, Florida, which is a combined milk and ice cream plant.

"Another large installation, of course, is that of the Chestnut Farms Dairy, at Washington, D. C., the Breyer Ice Cream Company, at Philadelphia, the Seattle Ice Cream Company, at Seattle, Wash., the Dallas Milk Company, Dallas, Texas, Armour & Company, who have specified on a recent order given us for twenty-four Dreadnaught Churns and seventeen Class "L" Pasteurizers that they shall be direct motor driven, and they will, of course, be equipped with General Electric motors."

ELECTRIC

ALES OFFICES IN ALL PRINCIPAL CITIES

When writing to GENERAL ELECTRIC COMPANY *please mention The Milk Dealer.*

GLASCOTE

HIGH GLAZE GLASS COATED TANKS

Preston
CREAMERY
No 1
Preston

Cleanliness, Beauty, Economy

All over the world, the most efficient and progressive Dairies and Ice Cream Plants are using Sanitary Blue Glascote Equipment for Pasteurizing, Aging, Cooling and Storing their products. Capacities 20 to 5000 gallons. Glascote means permanency, profits and superiority of output.

New Bulletin Ready

DETROIT CREAMERY

THE GLASCOTE COMPANY, EUCLID, OHIO [Cleveland Distr

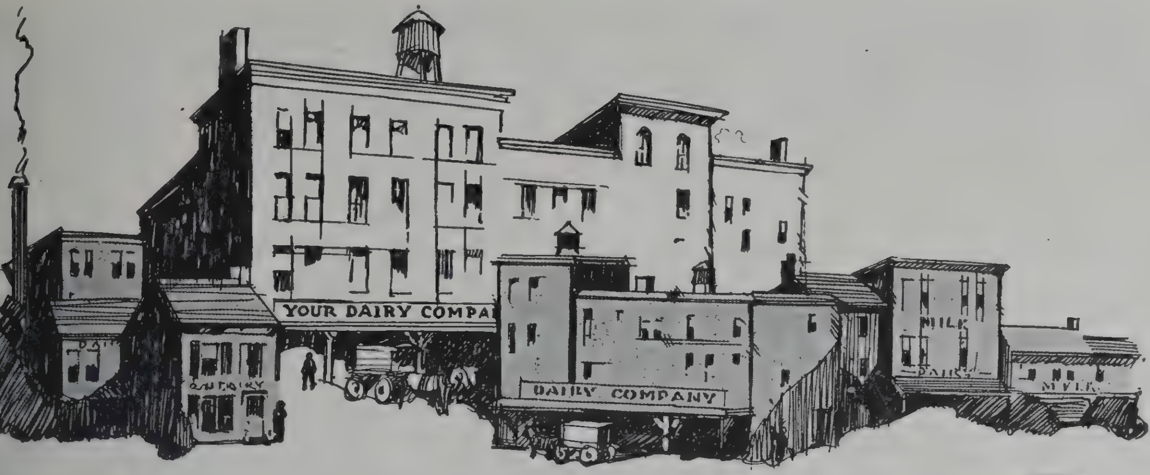
NEW YORK OFFICE
15 Park Row
Barclay 1784

CHICAGO OFFICE
127 North Dearborn St.
Dearborn 9731

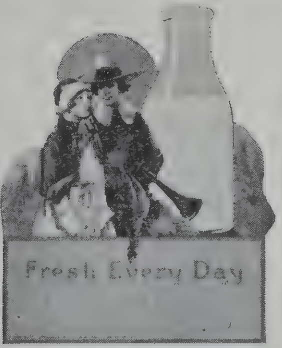
DETROIT OFFICE
1217 Book Building
Cadillac 0799

ST. LOUIS OF
905 Carleton Buil
Garfield 35

When writing to THE GLASCOTE COMPANY *please mention The Milk Dealer.*

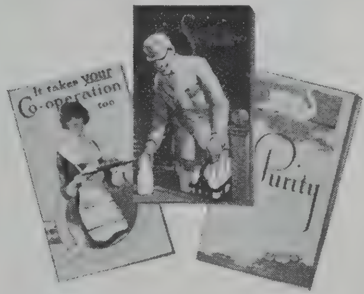

YOUR DAIRY COMPA
DAIRY COMPANY
MILK

Giving YOUR BUSINESS a Personality —

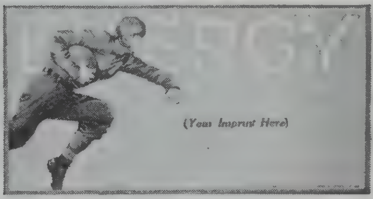

Fresh Every Day

ON the loading platform of your plant it is "*your milk*"—is it still "*your* milk" when it reaches the homes of your customers or is it just "milk"?

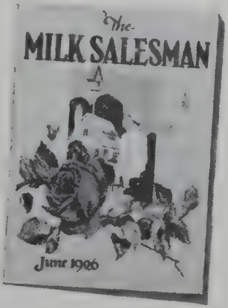
The answer to that question depends entirely on whether you preserve your identity clear through to the homes you serve. And it's a mighty important question because millions of gallons of milk flood the cities of this country every day. And if you're spending money to get good milk and to give good service, you can't afford to submerge the personality of your business in the daily Niagara of milk that pours out over the country.


It takes your Co-operation too
Purity

That's what advertising is for.


ENERGY
(Your Imprint Here)

Never mind now about education. The purpose of advertising isn't to educate—it's to sell goods. And you can use it, if you like, to make *your* milk stand head and shoulders above the common level.

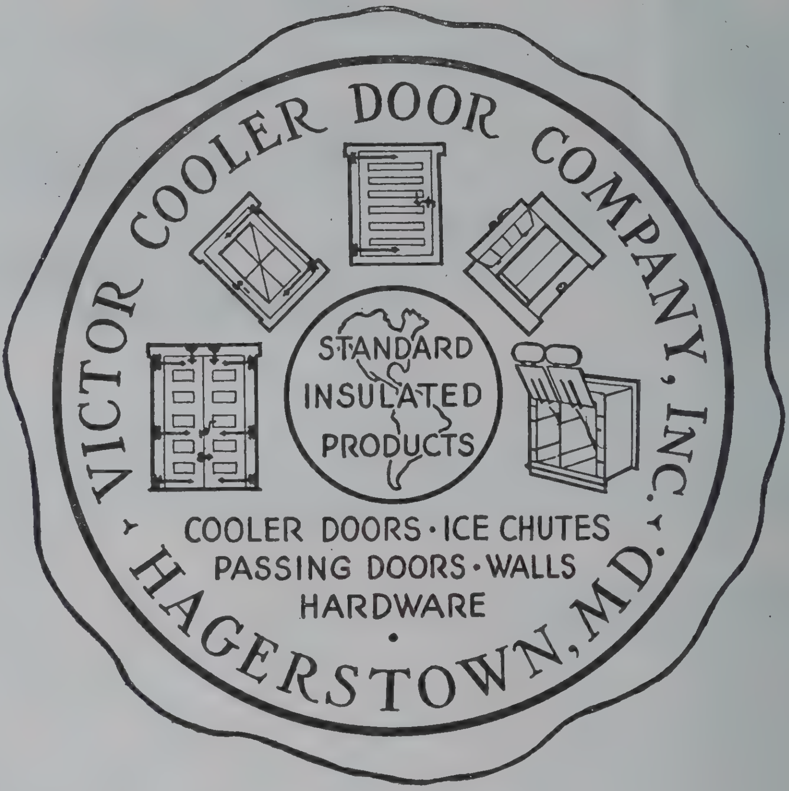

The MILK SALESMAN
June 1926

Let us tell you how we are helping other dealers do this job. We've had a lot of experience in the milk business. We know the milk man's message and the milk man's market. Maybe we can help you. Drop us a card.

THE FARRAR ADVERTISING COMPANY

108 FULTON BUILDING :: :: :: PITTSBURGH, PENNA.

When writing to THE FARRAR ADVERTISING COMPANY *please mention The Milk Dealer.*


VICTOR COOLER DOOR COMPANY, INC.
STANDARD INSULATED PRODUCTS
COOLER DOORS · ICE CHUTES
PASSING DOORS · WALLS
HARDWARE
HAGERSTOWN, MD.

THE ACCEPTED STANDARD

The Washington Hotel, Washington, D. C., where 54 Victor Doors have been giving 100% service over a period of ten years.

This Seal—found only on Victor products—is a guarantee to the user of the maximum degree of refrigeration, with a minimum loss of cold

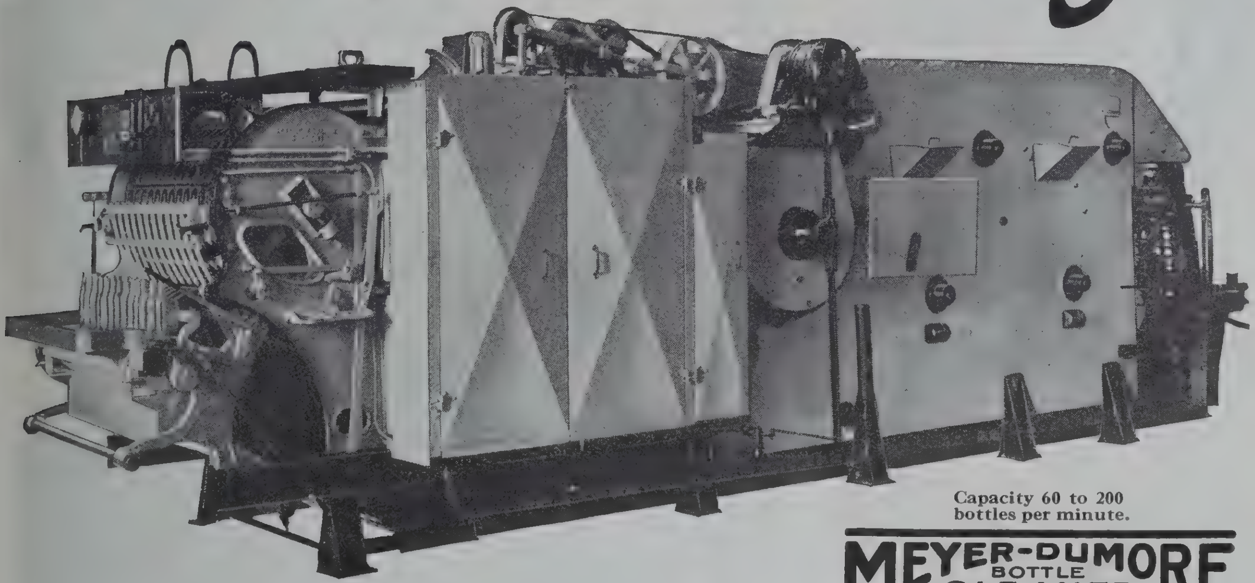
Insist upon the Victor Seal. It is an assurance to you, by the manufacturer of these Standard Doors.

Bring your refrigeration problems to our attention. We employ a corps of refrigeration engineers who will be glad to advise you with regards to your needs. Of course, this service will not obligate you in any way.

VICTOR COOLER DOOR COMPANY, INC.

Home Office and Plant, HAGERSTOWN, MD. *Branch Offices*, NEW YORK AND CHICAGO

102 DUMORES sold in 97 business days!



Capacity 60 to 200 bottles per minute.

MEYER-DUMORE BOTTLE CLEANER

Sales Record

19 DUMORES
Sold in October

35 DUMORES
Sold in November

31 DUMORES
Sold in December

17 DUMORES
Sold up to January 19

A Record!
Aug. 1925 to Aug. 1926
245 Dumore Bottle Cleaners sold in 279 business days.

ALWAYS AHEAD!

Still keeping the record-breaking pace set more than two years ago — *a sales average of more than a DUMORE a day!*

Why?

Meyer-built bottle cleaning machinery delivers *clean* bottles in such an efficient and economical way that its capabilities are recognized throughout the industry.

The MEYER-DUMORE and the DUMORE JUNIOR BOTTLE CLEANERS have been built expressly for you. Let us tell you of the features embodied in their construction. We manufacture necessary bottle conveyor equipment to suit any installation, including accumulating tables where necessary, and motor drive. Write for bulletins and complete information.

DUMORE-JUNIOR BOTTLE CLEANER

Capacity 24 to 60 bottles per minute.

Geo. J. Meyer Manufacturing Company
Largest Builders of Bottle Cleaning Machinery in the World.
569 Barclay Street, Milwaukee, Wis.
Offices: NEW YORK and CHICAGO

When writing to GEO. J. MEYER MANUFACTURING CO. *please mention The Milk Dealer.*

"Cherry" of course!

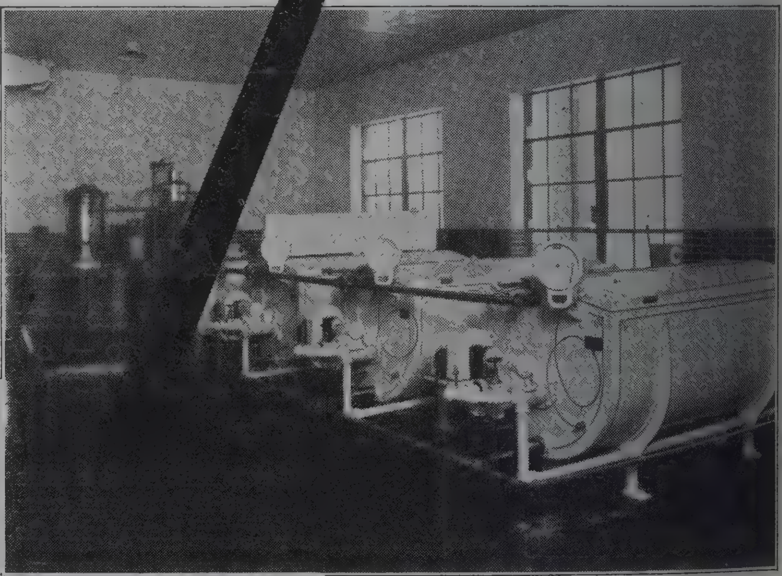
Cherry Receiving Vat, Cherry Pre-Heater, Cherry Coil Pasteurizers, Cherry Tubular Coolers, Cherry Upright Pasteurizers, Cherry Churn, Cherry Mixer, Cherry Starter Can — the equipment of the fine new plant of the Union Dairy Company at Freeport, Illinois is another striking manifestation of the definite swing to Cherry.

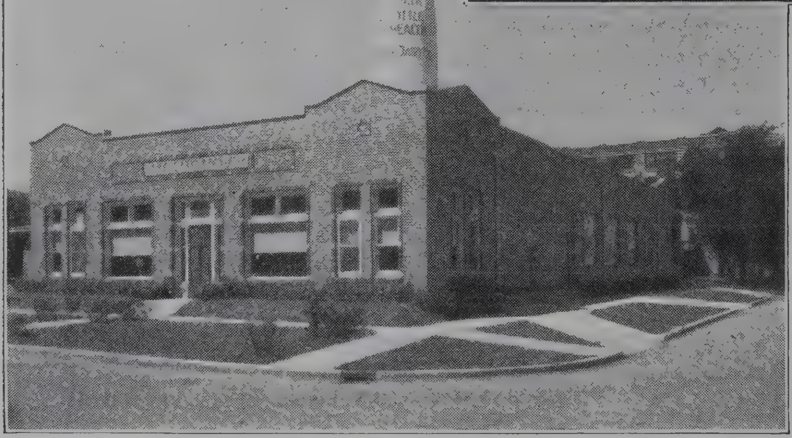
J. G. Cherry Company

Cedar Rapids, Iowa

ST. PAUL, MINNESOTA TAMA, IOWA PEORIA, ILLINOIS

At the right — are the three 300-gallon Cherry Milk Pasteurizers, No. 7 Cherry Continuous Pre-Heater, 100-gallon Cherry Upright Cream Pasteurizer, Bestov Milk Filter and 300-gallon Receiving Vat. The water for pasteurizing is circulated by pump from a Whitlock Storage Heater located in the boiler room and which is equipped with automatic temperature control, assuring low temperature heating medium.





At the left—is the Exterior of Union Dairy Company new building at Freeport, Ill. Note landscaping which, when developed, will add much to the appearance of this beautiful building.

J.G. CHERRY COMPANY EST. 1880

When writing to J. G. CHERRY COMPANY *please mention The Milk Dealer.*

REMEMBER THE NAME

American MALLEABLE Nickel 99% +

SPECIFY this better metal, if you would have your coils, tanks, holders, etc., made of the best. ¶Costing no more, it is available to every producer of your plant equipment—no purer metal is obtainable—and it is free from cobalt.

American Mond Nickel Company
CLEARFIELD, PENNSYLVANIA
Exclusive American Representatives of the Mond Nickel Co., Ltd.

f ou wish to
v the names
o equipment
ilers who use
is better
metal
RITE US

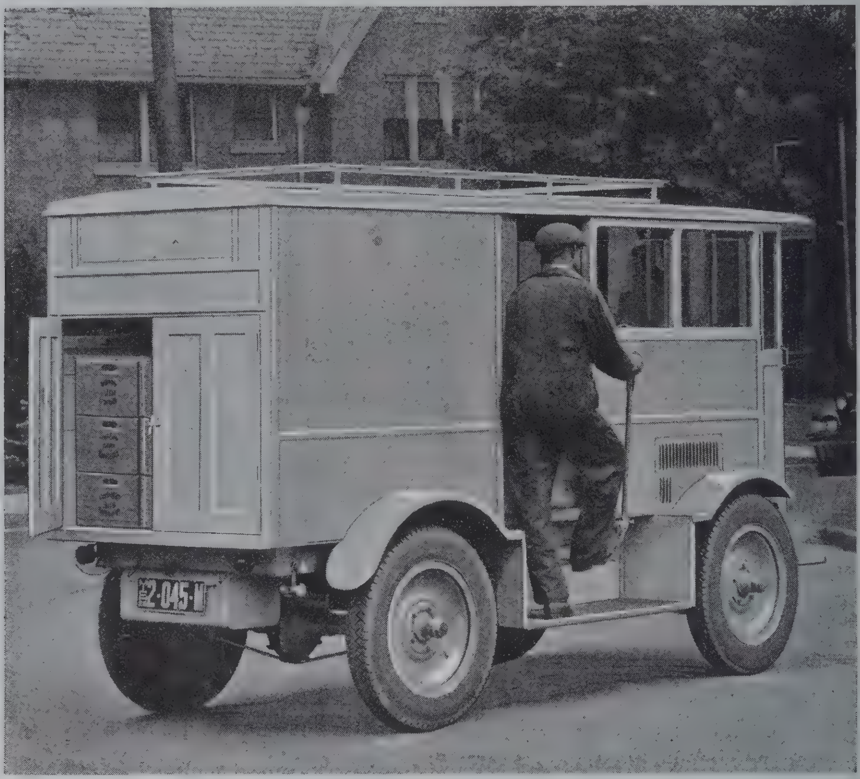
Specify
American Nickel
insist on it and
you will get
the best

When writing to AMERICAN MOND NICKEL COMPANY *please mention The Milk Dealer.*

DIVCO THREE POINT CONTROL TRUCKS

The only Truck designed and especially built for

RETAIL MILK DELIVERY



Capacity
50
Cases

Rack for
Empties
on Top

Prominent Features over any other Gas Truck

1. **Three Point Control**

   Easily operated from either running board or front seat. Making multiple stop delivery quicker — more economical — more efficient than conventional type Gas or Electric trucks.

2. **Economy of Operation**

   Perfect idleing slow speed motor.

   Gas Milage, 18 to 20 M. P. G. on straightaway—7 to 10 M. P. G. on house-to-house delivery—motor running continuously.

   Oil Mileage averages 800 M. P. G.

3. **Long Life**

   Special slow speed motor, governed to 18 M. P. Hour. Every necessary part oversize. Extra large clutch and brakes designed for Multiple Stop delivery.

4. **Small Turning Radius**

   Divco turns in 4 ft. smaller circle than a Ford.

5. **Power**

   Divco will economically negotiate any road where it can get traction—giving it larger cruising radius than other trucks.

6. **Quietness**

   Practically as noiseless as an electric.

7. **Storage Space**

   Overall length, 79 inches. This means less garage investment.

8. **Looks—Advertising Advantage**

   Trim—well balanced—low in appearance—quiet in operation.

9. **Ease of Operation**

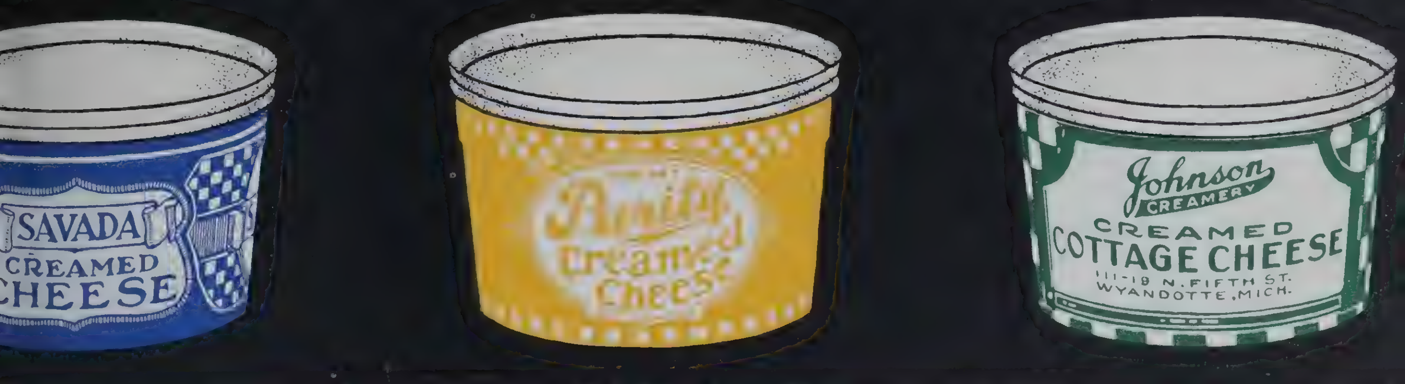
   Quick—smooth acceleration from either running board—easy steering—positive fool-proof brakes.

10. **Saving in Collections and Soliciting New Business.**

Send for Booklet — "From House to House with Divco"

DETROIT INDUSTRIAL VEHICLE CORPORATION

1400 WEST FORT STREET - - DETROIT, MICHIGAN


SAVADA
CREAMED
CHEESE
Amity
Creamed
Cheese
Johnson
CREAMERY
CREAMED
COTTAGE CHEESE
111-19 N. FIFTH ST.
WYANDOTTE, MICH.

Lent
March 2nd
to
April 17th

Cottage Cheese

UNIVERSITY of MARYLAND DAIRY
NEUFCHATEL CHEESE

PORTAGE FARMS
CREAMED
COTTAGE CHEESE

KNUDSEN'S
"DANISH
COTTAGE CHEE
CONTENTS
PURE

Supply the greatly increased demand for Cottage Cheese during Lent—

Use the Lenten period to increase sales volume and create a permanent twelve month market for Cottage Cheese. This package is a big factor in lifting sales to high peak levels—it promotes the greatest volume of repeat business. Used successfully by the leaders in the dairy industry for sixteen years. Proven the most practical package for Cottage Cheese.

Wright's
Cottage Cheese
NET WT. 12 OZ.

ICE CREAM & CREAMERY CO
AGE CHEESE
LUMBUS, MISS.

QUALITEE DAIRY PRODUCTS CO
SAN DIEGO CALIF
"QUALITEE"
COTTAGE CHEESE
NET WEIGHT
½ LB.

NET WT 8 OZ
CLOVER FARM
COTTAGE CHEESE
MADE BY
CLOVER FARM
DAIRY CO
MEMPHIS
TENN.

Made of snow-white spruce wood fiber. Substantially constructed. Imparts no odor or foreign taste to contents. Keeps the cheese fresh and clean. Your own name and label printed in one or more colors directly on the package.

KLEEN KUP

The Package That Sells Its Contents

Made in sizes holding from one ounce [sampler] to ten pounds. Send for new low price quotations and samples.

Mono Service Co.
NEWARK NEW JERSEY

ALWAYS ASK FOR
Nance's
DELICIOUS
COTTAGE CHEESE

Homedale
CREAMERY
CREAM CHEESE
6131 GATINA ST
NEW ORLEANS
TIP-TOP
QUALITY
COTTAGE CHEESE
WITH CREAM
TIP TOP CREAMERY CO.
GEN'L. OFFICES
VINCENNES, IND.
COUNTRY MAID
COTTAGE CHEESE
MUSKEGON DAIRY

KLEEN KUP

for

Cottage Cheese

and

Ice Cream

Dominates the field in appearance and construction. Dominates in business building qualities. Selection and use of this package is positive assurance of successful marketing. Ask for our latest low price quotations.

Mono Service Co.
NEWARK NEW JERSEY

Look for
e Seal of Safety

Look for
the Seal of Safety

ONE thousand members of the Salesmen's Club of the Association today wear the Seal of Safety lapel button—carry the Seal of Safety identity card. Many of them shrewdly study trade conditions—enjoy a wide, informative acquaintanceship; they are true messengers, to manufacturers of dairy products, of progress and of profits.

Make friends of the experienced salesmen of Association houses. It will pay you—always.

DAIRY AND ICE CREAM MACHINERY
AND SUPPLIES ASSOCIATION, INC.
1328 Broadway - - - New York City

Look for
tl Seal of Safety

Look for
the Seal of Safety

hen writing to the DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION, INC., *please mention The Milk Dealer.*

THE MILK DEALER

PUBLISHED THE FIFTEENTH OF EACH MONTH BY
THE OLSEN PUBLISHING COMPANY
H. P. OLSEN, President and Manager
LESTER S. OLSEN, Vice-President
E. K. SLATER, Secretary and Editor

Also Publishers of
"BUTTER, CHEESE & EGG JOURNAL" and "THE ICE CREAM REVIEW"

FIFTH AND CHERRY STS. MILWAUKEE, WISCONSIN

We will not accept responsibility for the views or opinions expressed by contributors nor for news sent us for publication, nor for statements made by advertisers in their advertisements.

Entered as second-class matter December 1st, 1911, at the Post Office at Milwaukee, Wis., under the act of March 3rd, 1879

Requests for CHANGE OF ADDRESS must be received not later than the 10th of the month to insure delivery of that particular month's issue at New Address. **Old Address** as well as **New Address** must be given us as all records carried by us are "Geographically arranged" and not "Alphabetically arranged."

Subscription in United States, U. S. Possessions, and Foreign Countries taking U. S. Postage................$1.00 per annum
Canadian and Foreign Subscriptions............$3.50 per annum
Payable in Advance.

OFFICIAL ORGAN OF
The International Association of Milk Dealers
Dairy Products Association of Kentucky, Inc.

FEBRUARY, 1927

BULLETIN *of* EVENTS

Dairy Products Association of Kentucky—Final meeting of the spring and summer season will be held in Cincinnati, O., on Wednesday, April 21, at the Gibson Hotel. Carlton Ball, 206 Republic Bldg., Louisville, is general secretary.

Dairy Industries Exposition—The second annual exposition of the Dairy and Ice Cream Machinery and Supplies Association will be held at Cleveland, Ohio, on October 24-29, inclusive.

MILK dealers the country over are building the industry on a sound basis; that is, the majority are so building. They appreciate the importance of high quality products and good service to their customers. The cynic might add that competition forces them to recognize the importance of these two things, but even so the fact remains that they are building well because of it.

In many communities they are doing another thing well that influences the progress of the industry's development. They are working together to improve quality and give still better service. They are employing constructive competitive methods instead of the destructive kind.

This is particularly true in the larger cities. There is a reason, we believe, why we find co-operation working out best in the larger cities. There are enough far-sighted ones in one community to make a co-operative effort possible. They generally represent a large share of the business done in that community. They are big enough and strong enough to work together and the field is big enough to permit of intense co-operative effort. They get results and they don't worry about the little fellows who are not willing to travel alo them.

In some of the smaller cities and towns one fi milk dealers working together, but they are exc In the town of 10,000 or 15,000 inhabitants, for i one usually finds a progressive dealer with a consi share of the business and several little fellows a him, and perhaps quarreling among themselves same time.

It's difficult to get the leaven of co-operation t ing in such a place. Seed sown there will n sprout, as a rule.

We don't know how to change conditions in community except to keep on talking about the tc come to men in the same line of business thro cperative effort. Some day they will see the lig as men in other communities have seen it.

❧

MEN in the milk business, in fact any branch dairy industry, whose business has not been ed by city ordinances requiring that all milk mu from tuberculin free cows should not feel too Food control officials have a habit of working t and exchanging ideas. They generally figure th one can do another can do. And what greater tion can a public official meet up with than the tunity to "clean up" the milk supply of his const

The danger of using milk from tuberculin i areas, when properly pasteurized, has, of cours greatly exaggerated. If there were the dang sensational reformers would have us believe th human race would have been wiped out long ag that fact does not alter the situation.

The fact remains that it is a good thing for th industry to eliminate tuberculin infected cattle rapidly as possible. When a food control official tuates the process of elimination by laying down rules it is the course of wisdom for the milk de other dairy products manufacturer to co-opera him.

The elimination process may work individua ships, but when the job is done it is mighty fine tising for the industry when it can be officia nounced that the milk supply of a certain area i suspicion. So far no food control official has. knowledge, required dairy products other than milk to come from tuberculin free areas, but the coming when all dairy products the country o be included.

It seems wise for dairy products dealers and facturers everywhere to join hands with the m agencies that are promoting sentiment in favor tuberculin test. There are many farmers oppose Their opposition is based mostly on ignorance of i fits to them and to the industry.

Some men in the manufacturing end of the i help the opposition by the same sort of ignoranc some cases, to please their farmer patrons. Such is short-sighted, to say the least.

E ARE sure our readers will profit by reading an article published in this issue, relative to the use atine in the manufacture of buttermilk. The atti- of various city officials is interesting, in view of the hat health experts agree on the food value of ne.

e investigation carried on by The Milk Dealer, and will be continued, reveals a woeful lack of infor- n on the part of food control officials relative to ed buttermilk as well as gelatine. The majority however, that gelatine may be added if the fact ed on the bottle cap.

ese same men seem to feel that cultured butter- s inferior to “churn” buttermilk. They seem to that buttermilk sales never reached a respectable in any city until cultured buttermilk was put on rket, and then not until cultured buttermilk was right and uniform in quality. Under modern but- king methods it is absolutely impossible to produce n” buttermilk of good, uniform quality. There e demand for it and it is impossible to build up table sales volume on it.

e demand for cultured buttermilk depends on the y and uniformity of the product put on the market. addition of a small amount of gelatine will assist lk dealer to put out a better and a more nearly m product he should be encouraged to do so by s whose duty it is to do everything they can to e the food supply of their people.

* * *

ST milk dealers are so situated that they can manufacture butter to advantage. Many maintain making departments, but more purchase the but- their trade.

y should they? Why not buy cream as well as the territory and make butter? Why not thus the quality of your butter and make more money? rse, if there is no butter made in your city then ipply of butter must be shipped in, but if there or more creameries in your town then you can am just as easily as the creamery can buy it.

e milk dealers have tried it out and given up the a bad one. The most of them didn’t go into the s on a sufficiently large scale. They attempted ly supply their retail trade. That doesn’t mean enough except in the case of the big dealer. The go into the creamery business is to buy all the ou can get, regardless of the quantity of butter d for your routes. Make your creamery depart- and on its own feet and make you money. There s a market for good butter.

, you folks who have tried it out, please write us how bottling milk and making butter mix.

* * *

city business man gets up on a cold, frosty morn- , rubs his eyes and looks out upon the street and sees two or three milk wagons parked along the hile the salesmen are making their deliveries to nearby homes. “What a waste!” he exclaims as he sits down to breakfast and eats his bacon and eggs and drinks his coffee.

He proceeds, perhaps, to regale his wife with a dissertation on the subject of wasteful distribution in the milk business. “Why should three or four milk men be necessary to supply the people in this block with milk?” he asks his sympathetic spouse, and her silence pleases him.

This city business man may be in the retail business, but he forgets that for every staple product sold to the folks in that block there are fully as many, or more, competitors delivering goods in that block than there are milk men. Why jump on them? Who wants to see a monopoly in the milk distributing business? No one, except some fellow who doesn’t study the distribution problem clear through.

* * *

THERE is a lot of hard work to do before the men in this industry can enjoy the benefits that might come to them. The time will come when everybody in it will recognize that only through co-operative effort can they enjoy the maximum of benefits.

The big men in the industry who are supporting and promoting the agencies that are but slowly building up confidence and good will for the dairy industry are in the minority. We are not measuring men by the size of the business institutions they represent, either. There are some real big men in this industry connected with comparatively small concerns, and there are some mighty small ones associated with some big concerns.

Yes, the time will come when we shall see a more enlightened body of business men connected with the dairy products manufacturing plants. The minority will grow into a majority and then we shall see this industry dignified and put on a basis of service and salesmanship worthy of its importance to society. We may have to wait a long time, but the day will arrive just as it has arrived for some other industries.

Then we shall see men get together to plan big things for this industry. They will think and plan in terms of industry instead of in terms of selfish gain. They will have learned that a business prospers most when it serves best, and they will hunt for ways to co-operate instead of hunting for excuses to dodge it.

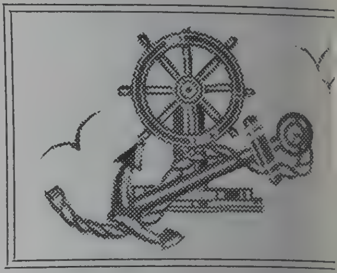
* * *

INCREASED consumption of milk means an increased demand for everything that the milk dealer uses in the production of that milk.

A prominent manufacturer of milk bottles, for instance, spends good money for advertising space in a popular magazine to emphasize the food value of milk. Returns will come in larger sales of milk bottles to handle larger sales of milk.

This is what we term “enlightened selfishness.” It helps the man or the firm who helps his customers to build up their sales. It is “bread cast upon the waters” which is sure to return.

Yo Ho-Ho and a Bottle o —Milk



When Wisconsin Folks Christen a Ship They Do It With Milk In Spite of the Fact That In Days Gone By They Produced the Stuff That Made Some Other Folks Jealous

EVER since men have been "going down to the sea in ships" tradition has decreed that each new craft shall be started on its career of usefulness by appropriate ceremonies. The breaking of a bottle of wine over the prow of the ship has for many long years been accepted as the proper nucleus for such ceremonies.

It has remained for Wisconsin folks, assisted by some friends from other places, to smash tradition and use the product of the cow in place of the product of the grape for that important ceremony. What is more fitting, they decided, than to christen a Wisconsin made ship by breaking a bottle of Wisconsin made milk? Such an innovation was in the nature of a testimonial to the state's fame as a dairy section.

About 200 railroad officials, dairymen and representatives of the shipbuilding corporation went to Manitowoc, Wis., on a special train Wednesday morning, January 19, from Milwaukee, where at 11:30 A. M., Miss Marian M. Dixon, daughter of George Dixon of Chicago and one of the directors of the Grand Trunk Railway, was given the honor of this first place in history. Promply at 11:30, Miss Dixon raised the bottle of milk, crashing it against the side of the steel ferry, "I christen thee 'Madison.'" Everything worked perfectly and the milk pouring down the side of the huge boat, and with a cheer from the assembled officials, the ferry launched down the ways, at first seeming to the uninitiated that she was going to turn turtle, but soon righted herself majestically as though she was proud of her distinction that had thus been conferred upon her in history-making event.

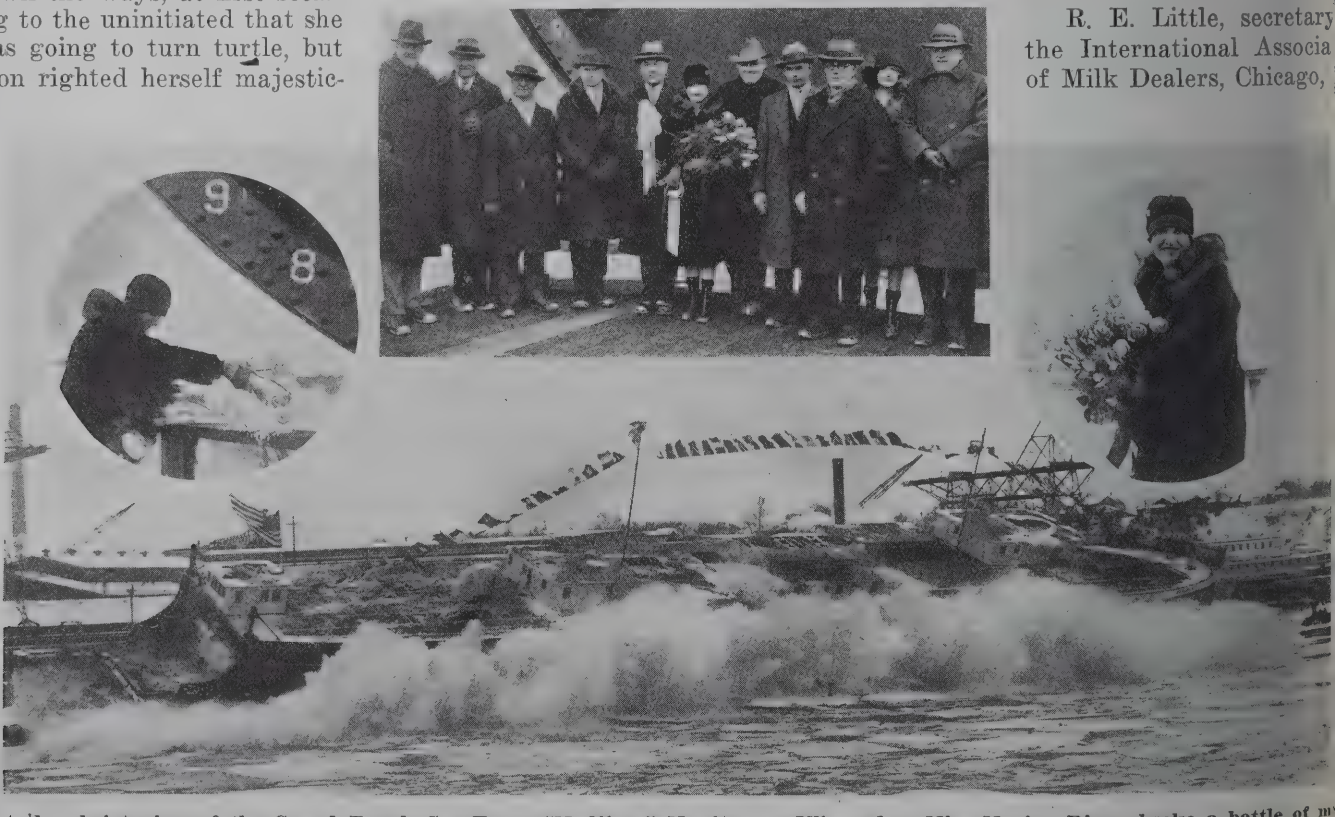
Following the launching, a luncheon was held at Manitowoc Elk's Club at which officials of the road shipyard corporation as well as several Milwaukee spoke. John LeFeber, president of the Gridley D Company, Milwaukee, announced that the fluid use christen the ship was representative of the state's tire dairy industry, having been composed of milk ta from five breeds of cows.

The "Madison" will carry 30 of the largest typ freight cars and is also suitably arranged to carry class passengers and automobiles.

The "Madison" is 300 feet over all, 56 feet in mold beam, 21 feet 6 inches depth of hold and 17 6 inches from car deck to saloon deck. The gross nage is 2,942. The net tonnage is 1,488.

Much of the credit for the success of the funct from the dairymen's standpoint, is due Mr. LeFe He conceived the idea of thus recognizing the sta leading agricultural industry and, by enlisting the port of the Milwaukee Association of Commerce, gained the consent of the Grand Trunk officials to violate the age old custom of christening ships wine.

R. E. Little, secretary the International Associa of Milk Dealers, Chicago,



At the christening of the Grand Trunk Car Ferry "Madison," Manitowoc, Wis., when Miss Marion Dixon broke a bottle of m over the bow of the vessel.

f the moving spirits in making the function a suc- and he seemed to take special delight in helping ash tradition and to back up his .friend LeFeber, is one of the past presidents of the International. his brief talk at the Elk's Club luncheon Mr. Le- r said:

> r. Chairman, Ladies and Gentlemen: The christening great ship with milk, as was done here today, is indeed que and momentous event in recognition of Wisconsin's dairy industry.
>
> or many years it has been my ambition to have all new that are launched, particularly in this state, christened the fluid that means so much to the industrial welfare isconsin, and equally as much, or more, to the welfare people of this state, and the building of the nation.
>
> everal years ago, when I first suggested this idea to iends, they seemed to think that I could not be serious. t, they thought it was only a joke.
>
> o me it always seemed a serious matter, and I can see ason why I was not justified in making this request ne authoritative body.
>
> fter long consideration, I finally brought the matter e the board of directors (of which I am a member) of Milwaukee Association of Commerce. I argued with that it would be a great opportunity for this business- s organization to do something in recognition of our e in the rural districts in Wisconsin, and, particularly, e man back on the farm, who, in my opinion, has never recognized by the business people as he should have
>
> his seemed to appeal to the board of directors as an tunity of helping the dairy farmer of Wisconsin boost very essential product.
>
> he result was that a resolution was drafted and unani- ly adopted, and through the splendid efforts of Phil ring and Harry Bell, president and secretary of the aukee Association of Commerce, who brought the mat- efore the Manitowoc Shipbuilding Company of Man- c, Wis., they were granted the privilege to christen the ship which was to be launched, and today we are cele- ng, as I have stated before, this momentous event in tening the ship "Madison" with milk in recognition r great state industry, which I assure you will be highly eciated by all of the people of this state.
>
> conclusion I personally want to thank the officials of anadian National Railway, and the Grand Trunk Rail- and the management of the Manitowoc Shipbuilding any, for having given our Wisconsin people this splen- ecognition.

J. W. RICE ELECTED PRESIDENT PENNSYL- ANIA ASSN. DAIRY AND MILK INSPECTORS.

t the third annual convention held in Pittsburgh, Dr. J. W. Rice of the faculty of Bucknell University elected president of the Pennsylvania Association airy and Milk Inspectors.

r. Charles H. Miner, former state secretary of h, Surgeon Charles Armstrong of the United States ic Health Service, and H. B. Dugdale, vice-presi- of Green Van Sant Company, spoke on subjects nent to dairy and milk inspection.

homas W. Henderson, secretary of the Washington d of Health, was the originator of the association the first president.

he association, by its earnestness and stability, as- g permanency, is attracting more and more the ic's attention; it is contributing in large measure ild welfare by safeguarding the milk supply, and also educating the public to use more milk and to and that this milk be free from all impurities and disease germs.

M THREE TO 7,000 BOTTLES OF MILK A DAY.

When A. D. Grieves of Inglewood, Calif., began busi- eight years ago his first day's sales amounted to bottles of milk. He has just opened a new $30,000 t, with F. E. Bolger as a partner, which new plant a capacity of 7,000 bottles daily.

he new plant is one of the most modern and com- in that section of the country.

KENTUCKY MANUFACTURERS MEET IN LEXINGTON.

The winter meeting of the Dairy Products Association of Kentucky, an annual event in compliment to the farm and home convention of the College of Agriculture, was held in Lexington, at the Phoenix Hotel, Thursday, January 27, with an attendance of approximately 60. About 30 guests were present from Ohio and Tennessee.

The meeting convened at 12:30 p. m., with President Chas. G. Vahlkamp presiding. John Kloecker, Sr., expressed the city's welcome to the visitors. The routine of the general session was dispensed with and that time devoted to impromptu remarks by Fred Rasmussen, secretary, National Association of Ice Cream Manufacturers; Harry A. Cuscaden, president, Southern Association of Ice Cream Manufacturers; W. A. Wentworth, general secretary, Ohio Dairy Products Association; J. H. Cline, president-elect of the Ohio Association of Ice Cream Manufacturers, and W. B. Wilkerson of the Nashville Pure Milk Company.

These talks were followed by divisional group meetings. The ice cream manufacturers discussed a proposed sanitary grading system for ice cream plants, ice problems, the corn sugar question and national advertising.

The creamerymen gave their attention to a tentative report of a cream grading committee, which was empowered to continue its work toward making a final report at the next meeting in March. J. D. Foster, inspector in charge, creamery license section of the experiment station, presented some suggested changes in the rules and regulations governing cream stations, which were endorsed by the creamerymen, with the exception of a few minor details.

The milkmen, having no special problems before them, joined in the meetings of the other groups.

As was previously announced, this winter meeting of the Kentucky association and the Ohio annual convention were so arranged as to give the manufacturers of each state an opportunity to exchange hospitalities and to get a closer insight of the particular problems in each state. A representative group of Kentuckians attended the Ohio convention in Cincinnati on January 25 and 26, and returned to Lexington with a car load of Ohio visitors.

The advantages of the close relationship of state associations, exemplified by the exchange of visits of the Ohio and Kentucky manufacturers, were emphasized throughout the day, and, in accordance with this thought, the Tennessee manufacturers invited all present to come to Tennessee at some future date to be announced later.

With the announcement that the next meeting of the Dairy Products Association of Kentucky would be the annual business meeting and the election of officers, Wednesday, March 9, Kentucky Hotel, Louisville, the meetings were adjourned to attend the annual farm and home convention banquet which immediately followed.

WHY SHOULD WE USE BUTTER?

Dr. E. V. McCollum, head of the school of hygiene and public health at Johns Hopkins University, gives the following reasons why people should eat butter:

"It is the best food source of the substance (vitamine A) for health and growth.

"It is a good source of fuel for work and heat.

"It is one of the most digestible of all fats.

"Its flavor improves the palatability of the diet.

"Since butter is a highly concentrated food, its chief value is in combinations with vegetables, bread and butter, and in cooking."

The International Cost Accounting Syste

What Uniform Cost Accounting Will Do for the Fresh Milk Industry

By W. B. CASTENHOLZ*

THE subject that I am going to speak about tonight is also international. I know no reason why national boundaries should in any way influence our concepts and reactions tonight as regards cost accounting. Certainly you who have followed the progress of cost accounting in this country and elsewhere in the last decade, will realize that it is one of those common sense applications to business that is needed in order to stabilize business. The work of standardization being undertaken by the United States government is a legislative cost accounting proposition; just as you are standardizing the sizes of your bottles, just as you are attempting to have the manufacturers of dairy machinery standardize their products, so that you will get the best results out of the machinery, so also, is it necessary for you to think of that other business equipment in your institutions, your cost accounting system. It seems to me that that will, in the last analysis, summarize the effect of all of these other standardizations. In 1915, about 11 years ago, Mr. Hurley, of the Federal Trade Commission, published a book called the "Awakening of American Business." There are some very significant passages in that book. That book is well worth reading today, even though we might consider it somewhat antiquated, because there has been considerable progress made in the subject of cost accounting. At that time, and in that book, Mr. Hurley deplored the fact that in the United States, probably less than 10 per cent of the manufacturers knew what it cost them to manufacture and distribute their commodities. That was truly a serious indictment against American business. At the same time he commented upon the extent of such information abroad. I think, in this work, he mentions specifically the progress that had been made along those lines in Germany. He indicated that in Germany, at the time, about 90 per cent of the manufacturers knew what it cost to manufacture and distribute their commodities. There is a reason, of course, why we have not developed in this country along these lines as rapidly as they did abroad. In the first place, there is the pressure of population on the continent, which forces them to adopt methods which would lead to greater economies, and to more standardized business conditions. But right there is the kernel which lies in back of the objects of cost accounting. Cost accounting is a standardization. In other words, it goes back to the rockbound dictum, that "knowledge is power," and that you cannot effectively operate your business unless you know in dollars and cents exactly what the different factors in your business, in trade, are costing you. In other words, the adoption of sound cost accounting system will permit you to put cream into your surplus account instead of skim milk.

Now, let us analyze the situation and just see what uniform cost accounting does for business. In the first place, it teaches this great lesson, which you apparently are learning, or which you apparently have already learned, the great lesson of industrial co-operation. That lesson is being taught and adopted all over the country. It is the lesson that the United States Department of Commerce is spreading. It is the lesson that your standardization committee is advocating. It is the lesson that other factors in business are strongly advocating. For example, the American Arbitration Association is advocating co-operation, rather than fighting, rather thar
norant competition. In other words, we must hav
knowledge of costs, costs applied not only to your pla
but to your distribution problems in order to make
petition intelligent. Cost accounting makes competi
fair; it does not kill it; it puts it on a higher plane
raises the man that is apparently unprepared, at time
hold his position in the industrial strife of today.
is eminently displayed in the progress that has
made in cost accounting as it has been adopted in a
form manner by various trade associations.

The printers' trade is an outstanding example of
successful application of uniform cost accoun
methods. Not many years ago, the printers, through
United Typothetae, the national organization, felt ra
flattered that they had a fund of $61,000 a year w
they could devote to this subject of standardized cos
counting and of securing its adoption by the membe
that association. At present, that association has a
able about a million and a half dollars in connection
its work of standardization of costs. What has happe
in that industry, and what is bound to happen in any
dustry that adopts the same intelligent method of
forming itself of what is going on in business? Be
the adoption of a uniform system of cost accountin
the United Typothetae of America, the printers' t
was near the bottom of American business, as fa
financial integrity was concerned. At the present t
there is not a single printer that has adopted the unif
cost accounting system of the United Typothetae,
does not enjoy the highest grade credit rating in I
or Bradstreet's. Now, that is the effect of the app
tion of a knowledge of things to your business. A
accounting system, of course, from its very analy
nature injects sound accounting methods into your
ness and injects at the same time sound business
ciples, thereby making it possible for business me
constantly and to intelligently feel the pulse of indu
and to eliminate, because of that knowledge, the l
and the waste, and to intelligently plan the future.

There is no cost accounting system that exists in
for itself. It is not introduced into a business mere
convince business men, or an accountant that put i
that it is a means for a finely arranged system o
counts, which expresses a balance sheet properly, cl
fying its parts into logical groupings or which mak
possible to present a profit and loss statement in pe
form. Those things are very nice. But that is no
object of cost accounting. The object is to get you
counts working for you, in other words, to make
accounts in a way, a regulator of your business af
If accounts are expressed in the proper analytical f
they, themselves, become correctives of many of
evils, or weaknesses, that may exist in your bus
structure.

Through the comparisons that are made possib
uniform cost accounting systems, you are not only g
to help yourself, but you are going to stabilize you
tire industry. Now, I mean that in a broader sense
just merely to cut an item of expense off here, or an
of cost there. It will mean a whole lot more to a
dustry. There are so many factors over which w
times seem to have no control in business, and yet,
boil them down and we analyze them to their base
find after all, that they are controllable. For exa

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*At Detroit convention of the International Association of Milk Dealers.

assume that we have comparative figures showing arious elements of cost among the different mem- of this association, yet I know that there will be one nt in which there will be considerable variation, ly in that of depreciation. One member will indi- a large amount of depreciation, another, a small nt of depreciation. Now, that cannot be altered, be- one man has an up-to-date, well-equipped, efficient , equipped with the latest and best type of machin- nd his equipment is not subject to a high rate of ciation, whereas, another member whose plant is cally run down, whose equipment is antidated or in condition, will have an entirely different deprecia-

Cost accounting, of course, won't provide capital e latter so that he may reconstruct his plant, but l put him on notice that if he wants to continue in ess, and to continue as an effective contributor in particular field of industry, he must face about and rnize his plant. In other words, it brings out the tance of obsolescence, the inadequacy of present ment to meet the conditions of business. People of shudder when we speak of obsolescence. They it is something horrible, that it is something like a disease. It is not. It is simply a negative term rogress. Obsolescence means that there is some- better which is taking the place of something that d die—something that should be discarded.

ur comparisons, in the depreciation element, are to show you the deficiencies that exist in your and structure. In the same way, the comparisons other lines of expenses, are going to show you the esses that exist in the other activities of your busi- So, all in all, uniform cost accounting is a con- ive piece of work and a business building factor in try. I think I already mentioned the United Typo- as an outstanding example of the good effects re- g from the adoption of uniform cost accounting.

hink the National Association of Cost Accountants, which association I have been intimately associated its inception, now has on record over 125 uniform ccounting systems. Practically 70 per cent of those ns were adopted within the last ten years. That in- s, of course, the progress in that particular line of uctive study within recent years.

nother outstanding group that has adopted uniform ccounting systems is the National Coal Association. s almost as essential, I presume, to civilization, and gress, and to good health, as milk. That association dopted uniform cost accounting, and has been ex- ly successful in connection with it. It has been en- ged, indirectly, of course, by the Federal Trade ission, as far as the National Coal Association is rned. You can remember that during the war, all e coal dealers were required to fill out elaborate ionnaires, and to prepare very detailed statements e Fuel Administration. That was, in a way—al- h it aroused a lot of opposition on the part of the lealers—a start of uniform cost accounting on the f the National Coal Association. In other words, it hem into the habit of preparing reports that had meaning. Of course, the Federal Trade Commission t time was manned, as you know, part of the time, r. Hurley, and his influence followed him for some after he resigned. Mr. Hurley, I believe, is prob- more responsible than any other man, for the large th in uniform cost accounting in this country.

e work of the National Association of Chair Man- urers is another outstanding example of the bene- be derived from a uniform cost accounting system.

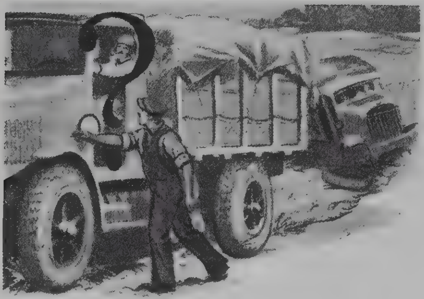
ne of the essential values—I should say, one of the important applications in connection with a system iform cost accounting, is the preparation of monthly nents. We used to be in the habit, in cost accounting, and in general accounting, of waiting until the end of the year before we prepared profit and loss statements and then trusted to a hopeful inventory to put us on the right side of the balance sheet. We do not believe that business can be successfully run on an annual basis, any more. A successful business, in order to remain successful, must currently check itself. It must have current information as to all of its activities, expressed in the language which business best understands, the dollar sign; expressed, of course, intelligently. Such a procedure will bring out clearly the weaknesses in the various factors of your business, if, in fact, there be any weaknesses.

What advantages will you enjoy under your cost system? There is no reason why I should confine my talk especially to milk; it applies to tobacco manufacturers; it applies to machine production; it applies to any industry under the sun. The principles of cost accounting are the same, no matter what the individual application may be.

We have no patience, any longer, with the man who says "My business is different." One might just as well say that the study of mathematics should be different in Canada than what it is in the United States, or that the study of chemistry and chemical formulas is different because of national boundaries. There is no business that is so different but what cost accounting principles can be applied to it. Cost accounting principles are the same, no matter what the business may be. These considerations affect your association. It will make possible comparative analysis of the past, analysis of the present, and will help your plans for the future. The object of accountancy today is not so much to make records of the past but rather to prepare you for the future. I have often said that the accounting of the future is going to be an accounting of the future. The intelligent analysis of what you have been doing and what you are now doing, is going to make it possible for you to budget what you are going to do in the succeeding months and years to come. You are preparing yourselves for the progress which you, yourselves, should recognize as coming in your particular lines. You are working right towards budgetary control. Budgetary control is not a dream. It is certainly not a dream to big organizations, like Armour & Company, the Edison industries, the Bell Telephone systems, the General Electric, and a host of others. Progressive industries in this country are planning ahead, rather than resting upon their past laurels. You can readily realize that the problem is a much easier one to the smaller industries, but even the large industries are making their actual operation conform very closely to their budget estimates; budgetary control is a profit insurance instrument.

A very large concern in Chicago, the Jewel Tea Company, projects its balance sheet six months in advance and makes the mark within a few thousand dollars. How can that be done? Not by sitting down and dreaming, not by imagining what might occur in the future, not by hoping, but by analyzing the things that happened in the past and by studying present conditions. That which has been accomplished, certainly can be accomplished again, and if the proper progressive spirit pervades an organization, the past can be improved upon by intelligent planning. Planning makes all of the factors of your business fully controllable. You cannot control anything unless you know it, unless you know all of the elements that are involved in the processes of your different branches of business. Know these things, know all of your weak spots, and not only the weak spots, but know the strong spots in your business; don't take a negative attitude only and think that a cost accounting system or any accounting system exists merely to reveal weaknesses. Of course, it does but a cost accounting system,

(Continued on page 128)



Who Is Driving Your Motor Trucks?

The Liability of a Motor Truck Owner for Damages As a Result of Injuries. When the Milk Dealer Pays and When He Doesn't Pay

By LEO. T. PARKER

IN VIEW of the numerous past litigations involving the death or injury by motor truck of pedestrians or other vehicle occupants, the law with respect to the liability of motor truck owners is well established.

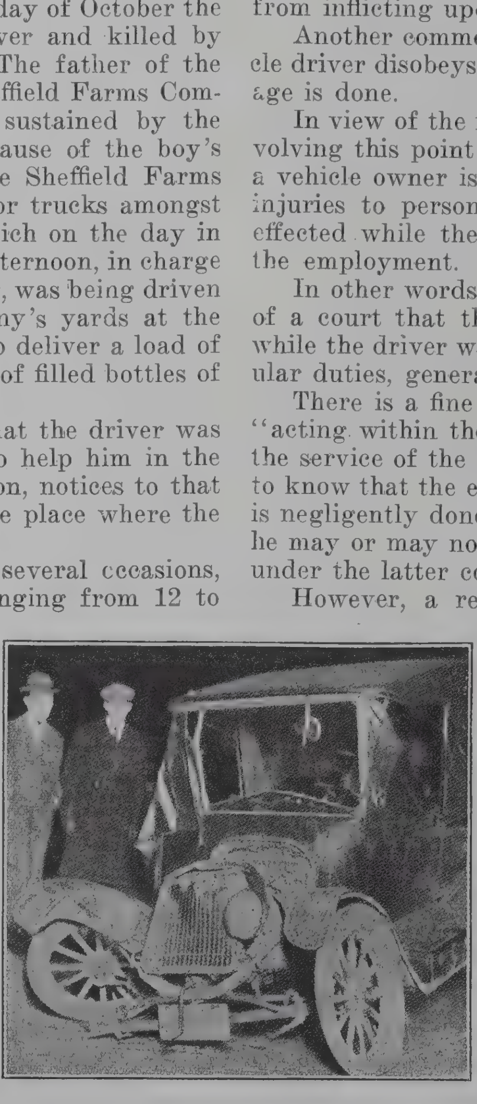
For instance, in the case of Glowacky vs. Sheffield Farms Co., 134 Atl. 674, it was disclosed that the driver of a motor truck disobeyed his employer's orders and hired a boy helper, who was killed. The facts of the case are that the Sheffield Farms Company is a corporation selling and dealing in milk at wholesale and retail. The milk was received and obtained by it in the Pennsylvania Railroad Company's yards at Jersey City, from the latter's freight cars. On the 17th day of October the plaintiff's decedent (son) was run over and killed by one of the trucks of the company. The father of the boy brought an action against the Sheffield Farms Company to recover the pecuniary loss sustained by the father and brother, alleging as the cause of the boy's death the company's negligence. The Sheffield Farms Company had in operation many motor trucks amongst which was a nine-ton Mack truck, which on the day in question, at about five o'clock in the afternoon, in charge of a chauffeur accompanied by a helper, was being driven to the Pennsylvania Railroad Company's yards at the foot of Exchange Place, Jersey City, to deliver a load of empty milk bottles and to take a load of filled bottles of milk and milk in cans.

There was uncontroverted proof that the driver was expressly forbidden to hire anyone to help him in the discharge of his duties, and, in addition, notices to that effect were conspicuously posted at the place where the drivers called for their trucks.

There was some evidence that, on several occasions, the driver's helper requested lads ranging from 12 to 15 years to help the driver, and that the latter would compensate them for their work. There was no testimony that these acts of the helper or driver were ever brought to the notice of the employer, or that he had knowledge of any such conduct as attributed to them.

The boy hailed the driver and asked him for work. The driver slowed up and permitted the boy to climb upon the running board. Immediately afterward the boy fell off and was run over.

The lower court held the Sheffield Farms Company liable for $6,000 damage, but the higher court reversed the verdict and said:



"An equal bar to a recovery is the undisputed
that the plaintiff's decedent (boy) was running fo
truck and was aware that it was not slackening its s
but was going fast, and hence was not going to sto
him and take him on; nevertheless, he made the att
to board it and succeeded in obtaining a momentary
hold, when he either slipped or fell off through the
nary movements of the vehicle. There being no
that he was invited to get on, but on the contrary
the attempt to board the truck as above stated, he
there as a trespasser, and, therefore, there was no
duty owing to him from the defendant except to re
from inflicting upon him a willful and wanton inju

Another common source of litigation is where a
cle driver disobeys his employer as a result of which
age is done.

In view of the numerous previously decided case
volving this point of the law, it is well established
a vehicle owner is not liable for damages as a resu
injuries to persons or property, unless the dama
effected while the driver is acting within the sco
the employment.

In other words, if it can be shown to the satisfa
of a court that the injury inflicting accident occ
while the driver was **not** in the act of performing hi
ular duties, generally, the employer is not liable.

There is a fine line of distinction between the
"acting within the scope of the employment," an
the service of the employer." Moreover, it is impo
to know that the employer **always** is liable when da
is negligently done under the former circumstance
he may or may not be liable when the accident hap
under the latter conditions.

However, a review of the leading cases invo
these points of the law prob
will convey the desired inform
more readily than mere exp
tion.

The facts of the quite re
decided case of Carty vs.
206 N. Y. S. 773, are intere
At about a quarter to 7 o'cl
the evening a driver, havin
ished his work for the day, le
employer's place of business
the empty truck. His desti
then should have been direc
the garage. Instead of going
as his duty required, he per
one of his fellow employees to
the truck. He took this emp
to his home. And then whil

(Continued on page 130)

hall We Go To Europe In 1928?

Tentative Plans Made for a Vacation Trip for Dairymen to World's Dairy Congress Next Year in England.

Will You Join Us

?

IS Majesty King George V has given his approval of a preliminary announcement of a World's Dairy Congress to be held in great Britain during the latter part of June and the early part ly of next year. Dairymen from all over the world gather there and sessions will be held in London, ding, Edinburgh and Belfast.

he Olsen Publishing Company has made tentative ngements for chartering an ocean liner to carry deles from the United es to England and rn. Will you be one hem?

hese tentative argements provide for efinite program of ness and pleasure the time the ship es New York har- until its return e. Time will permit trips from Eng- to such continenpoints as delegates choose.

he boat selected is of the best transntic liners and will ish accommodations please everybody. h day of the trip be filled with profit pleasure for all.

hat finer vacation than to cross the n with your friends to enjoy ample for discussing the lems in which you interested?

Why not a conven- session for each ich of the industry day during the n voyage?

bviously, such a stupendous undertaking will re- e considerable time and much planning. We are ouncing tentative plans this early for the following ons:

. That you may begin now to arrange your plans to forego a vacation this year, if necessary, in order pend a month of vacation in 1928. The cost of the will be within the reach of all. In fact, by combin- your vacation for this year and next year you will l spend no more money or time than you would in ng your usual vacations.

2. In order that we may learn the sentiment in the industry and determine whether such a big plan can be carried out.

We stand ready to charter the liner on which we already have an option. We would stand ready to work out all the details, in co-operation, of course, with representatives of the different branches of the industry who may later be selected.

What we need first is your reaction to this proposed trip.

Shall we go to Great Britain, en masse, and give to the dairy industry of this country the greatest advertising impetus that it has ever enjoyed, at the same time enjoying a most delightful and profitable vacation trip?

Sit down and write us a letter and tell us whether you will plan to join in making such a trip possible. Tell us how many may be in your party as, of course, the ladies will be invited to participate.

We want no binding promises — just an expression from you that you favor the proposition and will plan to go if possible.

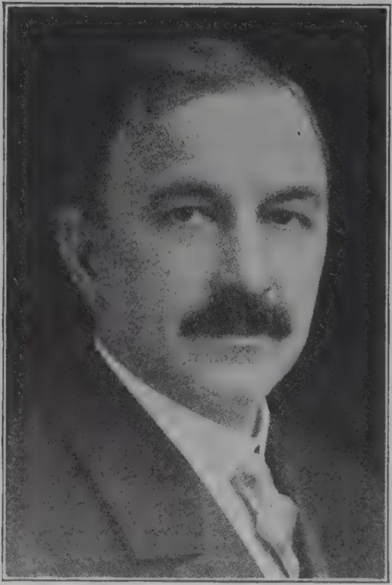
It will be a trip worth while and one long to be remembered, Delegates to the last World's Dairy Congress held in Washington, Philadelphia and Syracuse, will recall its importance and the benefits that followed.

Dairymen of this country are offered this wonderful opportunity to enjoy the benefits of the next World's Dairy Congress and at the same time enjoy one of the most delightful vacation trips possible.

Will you join us?

Write and give us your tentative reservation and then we will keep you advised from time to time of the progress made in arrangements for the trip.

Address your letter to **The Olsen Publishing Co., 501-515 Cherry St., Milwaukee, Wis.**



JOHN LE FEBER.

Big Milwaukee Dairy Plant Changes Han

The Gridley Dairy Company Buys the Geo. C. Mansfield Compa Thus Entering the Wholesale Ice Cream Manufacturing Fiel

ONE of the most important business transactions, and one of special interest to milk dealers and ice cream manufacturers, was the transfer recently of the plant, business, good will, 'everything of the Geo. C. Mansfield Company of Milwaukee to the Gridley Dairy Company of the same city. The transfer took place on February 1st.

The Gridley Dairy Company is the largest distributor of milk and manufacturer of butter in the state of Wisconsin. "The most efficient dairy organization in the world," one enthusiastic friend of the company remarked not long ago in our hearing, and he is a man who knows the business and who has traveled far and wide.

The Gridley Dairy Company is now a manufacturer of ice cream as well as other dairy products. In acquiring the business of the Geo. C. Mansfield Company they have taken over "the second largest ice cream business in Wisconsin," according to Geo. D. Mansfield, president and general manager of the company. In addition to the manufacture of ice cream the business of the Mansfield Company includes the manufacture and wholesaling of artificial ice, and they also do a public cold storage business.

The business was originally established at Jo Creek, Wisconsin, in 1860 by Geo. C. Mansfield, f of Geo. D. Mansfield, the Milwaukee business oper as a branch for a few years after its establishme 1902. Thus, for over 65 years the Geo. C. Mansfield pany has been identified with the progress and de ment of dairying in the leading dairy state of the U Geo. C. Mansfield was one of the first men to oper gathered cream creamery in southern Wisconsin, a credited with owning and operating the first cream arator used in the state.

GEO. D. MANSFIELD.

In retiring from active participation in the products manufacing field, Mr. Mansfield is leaving a sphere of action in which he has played an important role for 40 years. Born in Johnson Creek, Wis., in 1863, Mr. Mansfield spent several years of his early manhood railroading. In 1887 he became manager of his father's line of whole milk creameries. He owned 26 of them and controlled the output of 20 more.

MANSFIELDS
MANSFIELDS

rrangement lasted two years and then the call of g city took the young man to Chicago, where he four years in the wholesale butter business.

the spring of 1893 he again became associated with o. C. Mansfield Company and took charge of ten company's creameries located in Edgerton, Wis., adjacent communities. In 1900 the Senior Mans- etired from active business and the Junior moved nson Creek and took over the general management. o years later, in 1902, the Milwaukee branch was l in the basement of the Milwaukee Cold Storage Eighteen months later, the business having out- its quarters, it was moved to another rented build- the corner of Prairie and 4th Sts. There the busi- rew and prospered until April 17, 1908, when the nit of the present fine plant was occupied, and the ny had acquired its own home.

e greatest development in the business dates from when the company moved to its present location and Poplar Sts., and when the executive offices noved to Milwaukee. The public cold storage and es date from that time.

even years later, in 1919, the second unit of the t big plant was occupied, thus providing the busi- ith a building 150x150 feet, four stories and base- At that time the ice cream department was moved he new annex and a wholesale ice department in- ated.

aven't made any plans, just going to take a good said Mr. Mansfield, as we pressed him for a state- ne day recently when we caught him in a reminis- ood. "I am turning over to the Gridley Company business, built on honor and integrity. The build- this business to its present magnitude and stand- the trade has been a joy to me, and it is a great ction to be able to turn it over to an organization e Gridley Dairy Company."

ose who know Mr. Mansfield and who are familiar is business policies and ideals can understand why gratified to know that the business has gone into hands. He retires with honors from a field of y in which he has not only won business success, which he has also won the respect and esteem of o know him.

The Gridley Dairy Company.

bit of history of the development of Wisconsin's nding dairy products business institution will add st to the story. In taking over the Mansfield plant idley Dairy Company will add another half million s' business to the already huge business of that Last year the volume totalled over eight and one- illion dollars.

e story of the company's development reads almost omance; in fact it seems almost like romance to an who has guided the policies of the company all the years.

st folks in all branches of the dairy products in- es know John Le Feber, president of the Gridley Company. He has played an important part not n building his own organization, but also in de- ng trade association work the country over. He ast president of the International Association of Dealers and has been active for many years in help- promote anything and everything to advance the ry.

rty years ago he was a farmer, living near Milwau- He was then 23 years old, and it was at that time one of his neighbors asked him to buy his milk ss, which then meant a herd of milking cows, milk , and the renting of a farm.

After negotiating with this neighbor for about a day he bought from him a herd of about 100 head of cows, two milk routes, and about eight horses, and agreed to rent the farm of 145 acres. This was a milk business that had been started by a retired businessman who had grown tired of his venture.

When Mr. Le Feber bought this business it was the first bottled milk distributing concern this side of New York City. This business was carried on for a number of years by running the milk routes from the farm, one of the routes being run by himself most of the time. He says that that was the time when everyone who distributed milk in the city owned his own cows, and produced all of his own milk. To deal in milk was unknown at that time.

This business was built up to three routes after a number of years, and then he conceived the idea of merging with other small dealers, and, after such merger was accomplished with three of his competitors as a partnership, he finally consolidated with the Gridley Dairy Company; his organization being just a partnership, and the Gridley Dairy Company being a corporation.

The capital stock of the company was increased, and has been continued under that name ever since, although Mr. Gridley's interest was bought shortly after the consolidation. The combined companies at that time were operating about 18 routes.

The first "down town" location of the company was at 412 Grand Avenue, where one of the city's big department stores now stands, and where the business was established on April 1, 1903. Six years later the first unit of the present plant on Eighth street was erected, and eight years later the second unit was built, the present building being 95x150, five floors and basement.

In addition to this main plant the company operates four big branch plants which are complete in themselves. These are located, one in a western suburb and the other three in strategic locations in the city of Milwaukee.

The Gridley Dairy Company operates 316 milk routes and supplies approximately 80,000 families daily with their milk and other milk products, including "Gridley's" famous sweet cream butter.

Mr. Le Feber was the first president of the Wisconsin Milk Producers' Association, and at that time Eugene Chafin, later a candidate for the presidency of the United States, was secretary. Thus we delve, just for the moment, into the history of pioneer dairying in Wisconsin.

Mr. Le Feber, in addition to performing his duties as president of the Gridley Dairy Company, finds time to direct one of the city's large banks. He is president of the Grand and Sixth Street National Bank of Milwaukee.

When we asked him for a statement relative to his plans for conducting the business of the newly acquired Mansfield Company he replied: "We shall operate our ice cream business as a department of our business. We hope to make 'Gridley's' ice cream as well and favorably known as our other products. Our ambition is to make the best ice cream that can be produced. We will expect to build the business larger and larger only as we build on high quality. A. H. Graeszel, who has been secretary and plant manager of the Mansfield plant for many years, will continue in charge of the business under the direction of M. Van Antwerpen, our vice-president."

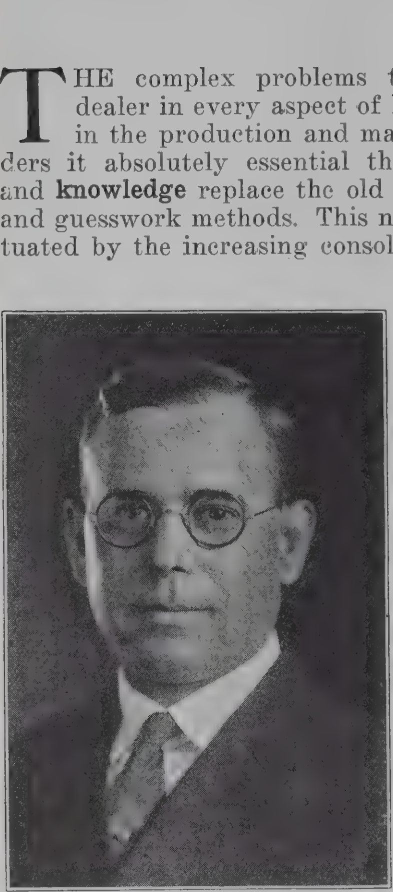
Readers who know the Gridley organization and the company's products will best understand what Mr. Le Feber means when he says that his ambition is to put out the best ice cream that it is possible to produce. He has the experience, the facilities and the organization to do what he starts out to do.

Taking Guess Work Out of Milk Plant Management

How One Plant Was Transformed from a Money-Losing to a Money-Making Institution

By N. E. LAZARUS*

THE complex problems that confront the milk dealer in every aspect of his business, particularly in the production and manufacturing phases, renders it absolutely essential that **accurate information** and **knowledge** replace the old fashioned rule of thumb and guesswork methods. This necessity is further accentuated by the increasing consolidation and combination of large plants that is now prevalent in the dairy industry.



N. E. LAZARUS.

The tendency up to the present time has been for milk distributors to center their attention on distribution and sales problems. The up-to-date distributor is realizing however that profits can be made, by proper analysis and efficiency, in the production and manufacturing ends of his business as well as in the distribution end.

It is a serious problem which confronts the average milk distributor—how to meet keen competition and show a balance on the right side of the ledger. Fortunately, there is a logical and practical solution to that problem and the answer is found in that old maxim, "Knowledge is Power."

The first principle in the application of that maxim is the elimination of guess-work. A series of questions, somewhat similar to the following, is advantageous in the campaign for elimination of guess-work:

1. What are present conditions in my business?
2. Are we providing the best quality of milk and by-products?
3. Are we getting the lowest possible costs?
4. Can we increase production economically?
5. Is our help satisfied?
6. Can we get larger profits?

The solution of these questions usually opens a fertile field for improvement and correction of existing conditions. If properly answered, the results will soon be apparent in the visible, satisfactory form of increased sales and profits.

The best way to gather the facts which are essential in the solution of these questions is by means of a **survey** of **cold facts**. Such a "cold fact survey" is practically a written examination consisting of a series of questions which delve into every nook and corner of the physical and operating parts of plant management. In order to be of value, however, it is absolutely essential that **every** fact and condition be dug out, no matter how unpleasant the revelation may be. Then by the application of
mon sense, unbiased observation and practical knowl
there will be no difficulty in remedying the trouble
is amazing how quickly, faulty conditions become ap
ent when you get them down on paper.

The writer recently made such a "cold fact surv
for a large Eastern corporation. Like most succes
dairy concerns, this concern built additional cou
plants or purchased them as necessity or business ex
sion required. These plants had been erected on
basis of fitting the machinery and apparatus after it
built, instead of the modern and efficient method of p
ning for the necessary machinery to do the required w
efficiently and then erecting the building around
machinery. There is a world of difference in econ
efficiency and profit between those two method
building.

However, here were the plants already in opera
and, as a result of lack of proper planning, were r
rially affecting the earning capacity of the corpora

The "cold fact survey" was started. It naturally
into two divisions:

A—An analysis of every factor that enters into the ph
aspects of the plant.

B—An analysis of every factor that entered into the oper
aspects of the plant.

The physical aspects were then subdivided some
as follows:

General Information—location, shipping facilities, fr
rates, etc.

Buildings and Real Estate—description, conditions,
Water Supply—quantity, location, kind, etc.
Sewage—method of disposal, size, efficiency, etc.
Power Generation—type, condition, capacity, etc.
Refrigeration—type, efficiency, etc.
Hauling—equipment, conditions, etc.

**The installation of the two square precoolers and the in
tube condensed milk cooler replaced six circular coolers,
which is shown in the foreground. This system enable
plant to take care of three pans working continuously.
heated plain condensed is cooled from a temperature of
grees F. to 40 degrees F. at a rate of 72 cans per hour.**

All other physical aspects, such as pumps, en
and equipment of all description, were subjected to
detailed questionnaire showing all present condi
whether good, bad or indifferent. The object, of c
was to get every ounce of information down on pap

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* President, Lacteal Analytical Laboratories, Inc.

re analysis. In addition, whenever possible, photo-hs and maps were made, in order to have visual in-nation to amplify the written.

The **operating** aspects presented a more difficult task use here we came in contact with that variable fac- human and machine efficiency. These aspects were ded somewhat, as follows:

ersonnel—duties, qualifications, etc., of employees.
aw Milk Supply—quality, variation, territory, etc.
Milk Receiving Department—equipment, supplies, opera-
s.
ccounting and Cost System—methods, efficiency, etc.
aboratory Department—equipment, supplies, operations.
ottling and Canning Department—equipment, supplies,
ations.
ream Department—equipment, supplies, operations.
utter Department—equipment, supplies, operations.
owdered Milk Department—equipment, supplies, opera-
s.
ondensed Milk Department—equipment, supplies, opera-
s.
heese Department—equipment, supplies, operations.

aving accomplished the survey, the next step was nalyze the information it contained and then to sum-ize and diagnose the faulty conditions disclosed by survey. This particular survey disclosed thirty faulty sical conditions and fifteen faulty operating condi-s, although the latter were sometimes the direct cause aulty physical conditions.

or instance, the survey showed that this plant had ty physical conditions which seriously handicapped proper operation of the plant at the peak load period, n the raw milk supply was at its flush. Any break-n at one of several points, at this time, would result large monetary loss. As a matter of fact, the execu-s of that organization had accepted the condition as of the hazards common to the dairy industry. The ey disclosed that the plant was not flexible enough bsorb the raw supply in times of flush production. consequence, the surplus raw milk, of necessity, was ufactured into unprofitable products that were usual- glut upon the market.

With these and other faulty conditions clearly indi-d by the survey, the final step was to recommend nges to improve or eliminate the faulty conditions to put the recommendations into effect.

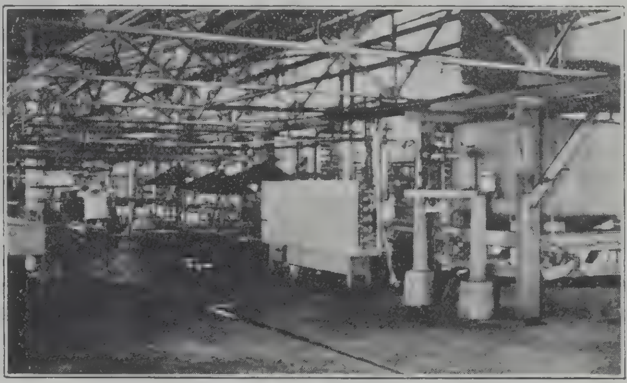
ight here is where common sense and practical wledge was essential. It is a real temptation to make nges which are not only expensive but may prove to valueless after they are put into effect. Probably e time was devoted to this phase of the work than to of the preliminaries.

loseup view of hot wells showing usual method of heating nts with steam which adds about 10 per cent extra mois- that the fans have to condense. By first heating the milk heater (tubular type) this excess moisture was eliminated.

he first essential was to place the plant in a flexible lition, just as a banker would first solve the problem ransforming frozen assets into liquid assets. The factors that affect the flexibility of a milk plant are as follows:

1. Sufficient water supply.
2. Sufficient boiler and refrigeration capacity.
3. Proper apparatus for manufacturing by-products.
4. Peak load capacity of machinery and apparatus.

As an illustration of the manner in which this flexibility was accomplished, the survey disclosed the fact that four boilers of 150 H. P. each were being used to capacity, in order to furnish sufficient steam to operate the pasteurization of 1,800 gallons of milk, running four separators, three vacuum pans and a spray system powder unit, in addition to water pumps, engines, etc. Here was a dangerous condition. If one boiler were to be out of commission, the plant would be unable to function because of lack of steam. It was also very hard to give the boilers proper attention, as they were in constant service. However, as a result of methodical analysis and observation, changes, involving little cash outlay, remedied the trouble so that three boilers furnished ample steam to take care of all peak operations and at other times two boilers were sufficient.



Another view showing the high temperature milk heater which heats the skim or milk going to the hot wells to a temperature of 190 degrees F. This replaces the usual method of using direct steam in hot wells, a bad practice which adds 20 per cent moisture to the mixture in the hot wells. The combined weigh scale and standardizing tank in the foreground insures standardized cream and condensed goods.

Another instance, was the fact that it took about four hours to cool a batch of condensed milk. By purchasing a condensed milk cooler of the continuous type and connecting it up with the vat type cooler. The vacuum pans were kept going at maximum speed, the peak steam load was distributed evenly throughout the working day and labor costs were radically reduced.

Another recommendation put into effect that was an immediate profit maker, was the substitution of two glass lined tank trucks to replace three trucks of three-ton capacity and three Fords of one-ton capacity in hauling raw milk from feeder plants to the main plant.

One of the important recommendations put into effect was a practical system of cost accounting which included report forms, dairy operating and inventory reports, etc., so that exact information was had daily of the distribution of every pound of milk. Sufficient emphasis cannot be placed upon the necessity of a practical system of records, if guesswork is to be eliminated.

A total of sixteen recommendations were put into effect in this plant, which corrected practically all of the physical and operating faulty conditions disclosed by the survey. Today this plant is functioning as a large plant of its size should. It is in excellent physical condition, capable of handling an increased quantity of milk, even in flush time, at lower costs and greater efficiency.

There is no desire in citing this particular plant, to give an erroneous impression that all milk plants require drastic change or have many faulty conditions. It is absolutely true, however, that every milk plant will be benefited by a survey along the lines indicated. Labor costs can be reduced, proper planning may shorten and improve operating methods, and a host of apparently insignificant leaks, will become apparent and easily remedied by the use of a survey.

A survey will determine whether you are actually putting out high quality products or whether you are deluded into thinking so.

Know your costs; no plant can be successful otherwise. The daily operating and inventory report form was an essential factor in eliminating guesswork for one milk company. By means of this report, they now can tell **every day** how their raw milk supply was distributed and manufactured.

Is the apparatus in your plants properly arranged so as to save extra help and time? Just a little sketch of present arrangements on paper will show you visually hitherto unseen possibilities for improvement.

Is your help satisfied? Are you getting all the work you are entitled to receive? Don't blame them! Have **you** done your share by training them properly; explaining the importance of their work to the finished product? Just a short series of educational talks saved a long established plant from going into discard. Give the men a square deal, standardize their jobs, work with them and you'll be surprised at the results attained.

The subject of practical milk plant efficiency requires considerable study and its many ramifications cannot be written in an article of this nature.

However, if the milk distributor will follow out the suggestion of a "cold fact survey" and apply it with common sense to his production and manufacturing operation, he will be amply rewarded financially. "Knowledge is power."

DAIRY PRODUCTS MEN MEET AT FREDERICK, MARYLAND.

A representative crowd of dairy manufacturers—the count being evenly divided between milk men and ice rceam men—attended the Dairy Products Merchandising Conference at Frederick, Maryland, January 26, 1927.

W. Horace Harper, secretary of the Baltimore Dairy Council, discussed the activities of dairy council work. He emphasized the fact that the dairy council is strictly an educational organization to acquaint people with the food value of dairy products. This organization cooperates with parent groups, girls' clubs and teachers of public schools by the use of motion pictures, exhibits and publicity as well as actual demonstrations in food products. This, coupled with the health-giving and nutritious character of the products, makes the work of the organization very popular.

Problems of the individual manufacturer of dairy products were discussed by R. C. Munkwitz, assistant professor in dairying at the University of Maryland. He cited particularly the losses an organization experienced by placing salesmen in the field who are uninformed about the quality of the product, or principles and policies of the organization they represent. Varied uses of the telephone and follow-up letters were taken up, stating they can be ably applied in the merchandising of dairy products, as means of publicity heretofore practically untouched but offering many possibilities if properly executed.

The lunch served by the cafeteria was delicious and wholesome. It fully demonstrated the possibility of supplying lunches consisting of vegetables, bread and dairy products.

ADVERTISED BUTTER ON MILK TICKET

Milk is a commodity, distributed to tens of thous of Denver families, for which the Windsor Farm has best been known for years. It is milk which is tured in the company's advertising. But Windsor butter, too—hence a milk ticket advertising plan.

A principle of sales demonstrated by many hun of advertisers is development of greater volume t crease the sales to present customers. In practice dairy with second and third products can find new

A picture showing the girls at Windsor Dairy wrapping was used on the back of milk tickets.

tomers for these with greatest readiness among pr customers for the first product.

Milk tickets went to the company's many thous of customers. So special advertising for the milk ti was devised.

An expert commercial photographer was calle the company's plant where he took two pictures i butter department. One of these was selected, made, and the milk ticket printed with it upon the of each.

The half-tone herewith shows the photograph The fresh, wholesome lasses in pure white uniforms shown at the wrapping table, a half dozen of them. looked happy, too.

Of course, the cut upon the ticket back cost thing to put there, but the advertising was extre inexpensive. There was no distribution expense a no expense for stock. And present customers by wholesale found the advertising upon something for once they had no wish to destroy!

As an oft quoted Chinese proverb says, "A pi is worth a thousand words." Commercial photog taken by experts, are not expensive, seldom excee $3.50 for an 8 by 10 interior, with considerable prices for exteriors. There are other milk ticke the country which would benefit by this advert idea of the Windsor Farm Dairy of Colorado.

NEW COMPANY TO HANDLE 1,500 GALLONS MILK DAILY.

The Lexington Dairy Co. of Lexington, Ky., has incorporated with a capital of $25,000 to manufa butter and engage in the milk business. The incor tors are N. J. Steinau, Louisville; Jacob Abraham, byville, and C. Shields, I. Abraham and Philip W all of Louisville.

Plans are under way for the construction of a m sanitary plant, the location of which has not been mined. Equipment has been purchased and will stalled with the approval of the city and state b of health.

New Series
De Laval Separators

Average skim-milk test is a slight 1/100 of 1%

THE Western Dairy and Ice Cream Company of St. Joseph, Mo., skims from 10,000 to 25,000 pounds of milk per day with the New Series De Laval Separator and keeps an accurate daily record of their skim-milk and cream tests. They write:

"The approximate average cream test for the entire period of use is 58% butter-fat while the approximate average test of the skim-milk is only a slight 1/100 of 1%.

"From the standpoint of skimming efficiency and durability we will say this machine has no equal."

This proves the statement made in recent De Laval advertisements to the effect that the New Series De Laval produces very heavy cream with less loss of butter-fat than was ever before possible. Obviously, it will also make a marked reduction in butter-fat losses when producing thinner cream, for any separator which will skim to less than 1/100 of 1% with cream testing 58% can be depended upon to skim equally clean under any other reasonable condition of separator use.

You owe it to yourself to obtain full information on the size of New Series De Laval Separator adapted to the needs of your plant.

The De Laval Separator Company
NEW YORK ~ CHICAGO ~ SAN FRANCISCO

A New World's Standard of Skimming Efficiency

When writing to THE DE LAVAL SEPARATOR COMPANY *please mention The Milk Dealer.*

The Use of Gelatine In Buttermilk

What Authorities the Country Over Think of the Practice of Adding Gelatine to Cultured Buttermilk. Facts That Every Milk Dealer Should Know

IN THE January issue of The Milk Dealer there was printed, on page 27, an item written by J. J. Frey, chief of the bureau of dairy control of California, in which the chief remarked that the use of gelatine in buttermilk was objectionable. To make this point clear and to emphasize his position, the California chief quotes the provisions of the California law, a section of which reads as follows: "It shall be unlawful for any person to produce, manufacture or prepare for sale, or to sell, or to offer for sale, or to have on hand for sale, any milk or product of milk, to which any coloring matter, except as otherwise provided in this act, has been added by any person or to which any gelatine or any other substance, except as otherwise provided in this act, has been added by any person to increase the consistency of such milk, or product of milk, so as to make it appear richer or of better quality...."

Following publication of this item, The Milk Dealer, in order to shed further light upon the subject of gelatine in buttermilk, addressed letters to several of the health commissioners of the larger cities in the United States. Letters of similar inquiry were also addressed to many of the state agricultural colleges. With replies from these institutions and these health authorities, it was thought that milk dealers who are interested in the subject for the reason that they are interested in any product which will tend to increase the palatability, healthfulness and sale of milk and milk products, would be in better position to combat, if necessary, the prejudices and other contra-appreciative results which are secured by the addition of gelatine to buttermilk.

The assembling of opinions and data from these influential sources might be undertaken by the manufacturers of gelatine but it resolves itself into a rather too delicate subject for them to broach directly inasmuch as they are monetarily interested. The Milk Dealer can take up and discuss the question from an unbiased standpoint with only the interests of the milk dealers at heart, which must include, the interest to help produce better, more nutritious dairy products which will assist the milk dealer in making greater sales and greater total net profits from his business enterprise.

In view of the fact that the use of gelatine in manufacturing commercial buttermilk is becoming more and more general among the milk plants of the country, we asked Prof. H. H. Sommer of the University of Wisconsin to give us his opinion. His reply, in part, follows:

"Permission to use gelatine in commercial buttermilk by food officials, in my opinion, can be justified for the reasons that: First, gelatine is a well recognized edible food substance. Second, the use of gelatine in cultured buttermilk tends to produce a better product and thus encourages a greater consumption of milk. Third, the addition of gelatine tends to aid digestion, because of the fact that it prevents coarse curd particles. Fourth, it would not be a deception, because there is no intention to sell such a cultured buttermilk as real (churn) buttermilk."

This opinion of Prof. Sommer's is held in substance by many of the nation's leading health authorities, though there are also those who take an opposite view of the matter. From the state of West Virginia we have the following: "The law of West Virginia does not prevent the use of gelatine in the manufacture of mercial buttermilk. I have no definite data avai but am inclined to believe that most of the butte sold in the state is of that character." This lette written by W. T. Henshaw, M.D., state health missioner.

Something of the attitude which a few health missioners take upon this subject is revealed in a to our letter by C. C. Slemons, M.D., health offic Grand Rapids, Mich., who says: "........the u gelatine in producing commercial buttermilk is n lowed."

A similar expression of forbiddance is give Thomas J. Steele, acting chief milk inspector of J City, N. J. "Under our state regulations, the u gelatine in buttermilk is an adulteration and ther cannot sanction the use of the same," says Mr. S

Cleveland sends a similar expression, as Haro Knapp, M. D., chief of the department of public h and welfare, writes: "In the opinion of this office atine may not be added to buttermilk, unless its pre be clearly stated upon the label appearing upo container in which the product is sold. Ohio standards prescribe: 'Buttermilk is the product th mains when fat is removed from milk or cream i process of churning.' "

This letter has also brought up the subject probable or possible necessity of "labeling." Pur laws have become so stringent, and rightly, that su and truthful descriptions of food products are th and it may be required that buttermilk which in the addition of gelatine be some way labelled s the bottle cap states that gelatine is used.

An expression from the city of Evansville, board of health and signed by Walter E. Zumstein inspector, says: "We are in favor of the use of ge in cultured buttermilk as we recognize its high value." Here is a direct endorsement.

Paul C. Schotte, Ph. D., health officer of the d ment of health, Irvington, N. J., summarizes th like this: "——regarding my opinion of the use atine in buttermilk, will say that I can see no obj from a health standpoint providing milk of this c properly marked, so as to avoid deception, even t the deception be harmless."

Still additional evidence that labelling may be sary comes from A. L. Stone, M.D., director of t partment of public health, Camden, N. J., who vi "I can see no reason why gelatine could not be cultured buttermilk and sold as such. Butterm sold, not in competition, but as a food or corr Hence if labeled it would be lawful to sell the Personally, I believe the product would be impro the addition of gelatine." This is also testimon the use of gelatine.

The health commissioner of Buffalo, N. Y., do think that gelatinized buttermilk is really butte He writes: "......As to the attitude of this ment respecting the use of gelatine in producin mercial buttermilk, would say that we cannot s reason why gelatine may not be used in correct tions in a synthetic buttermilk so-called. I however, that any such food article should be sol

(Continued on page 109)

THAT the problem of the heating and ventilating of a milk plant and creamery should be left to men who have a comprehensive knowledge of the subject is obvious, when we consider the factors to be dealt with.

THE operation of the plant in practically every detail entails the use of water in some form or other. Rates of air change necessary to the removal of the excessive moisture vary according to the operations of the plant.

THE amount of heat required depends upon the air change provided by the ventilating system.

TO deliver a satisfactory and profitable air condition demands familiarity with your business, your product, and the machinery and equipment you use, as well as a knowledge of the handling of air.

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Invariably, Edison Batteries bring about greater economies in electric truck delivery. It is a universal experience—and is the reason for Edison leadership in the field of electric transportation. Nearly two thirds of all motive power batteries now in service are Edisons—the only batteries of commercial importance made of iron and steel.

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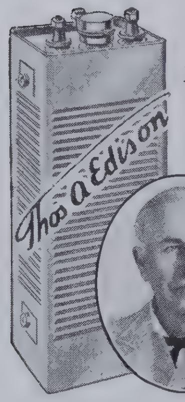

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It is the best by test.
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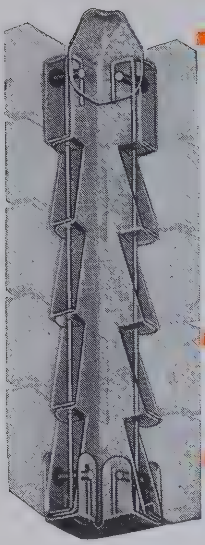
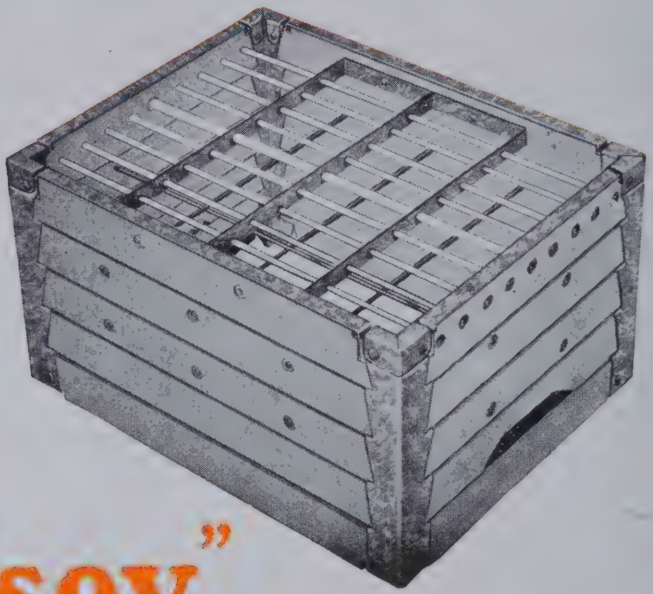


GUIDE

. . . To Bottle Crat



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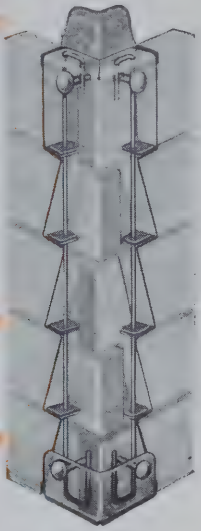

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M-W Milk Can Jackets

Protect Milk, Sweet Cream and Ice Cream Mix from extremes of temperature while in transit, insuring shipments arriving in good condition.

Increase your sales by reaching new territory and add to your profits by eliminating adjustments caused by shipments spoiling.

Milk or cream shipped in "M-W" Jackets is kept at a temperature that complies with requirements of the Health Authorities. Their use will please your customers.

Made by the manufacturers of the original
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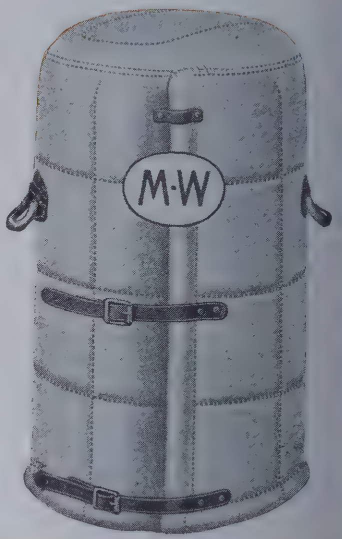
"The Jacket That Defies Heat"

Montgomery - Washburn Co., Saugerties, N. Y.



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Mundet Jointite Cork Board
TRADE MARK
Signify Satisfied Customers

Of the large number of cork insulation jobs completed by us during the past year, the majority were repeat orders from satisfied customers. For example, Corkboard for the latest building of the Shaw Bros. Creamery Co., Fort Worth, Texas, was installed by us recently.

The House of Mundet gives the best that can be had to meet the requirements of its clients and allows nothing to stand in the way.

Each problem is carefully studied with but one object in mind, i. e. to give the client that which is the very best, using only the highest grade materials at the lowest possible cost for such products.

Whenever you have a low temperature insulation problem, our organization will be glad to work on it for you without obligation. Mundet has Practical Refrigerating Construction Engineers in all of the principal cities of the United States.

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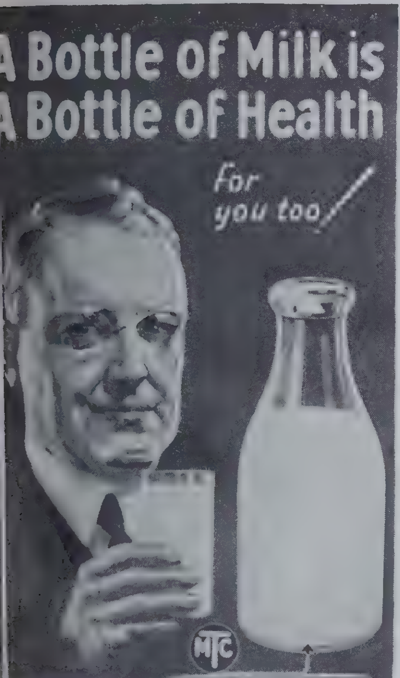
New York Office: 461 Eighth Ave.
Also Manufacturers of Jointite Pure Cork Sectional Pipe Covering and Moulded Fitting Covers.

Ohio Dairy finds key to Bigger Milk Sales!



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oster on Your Wa-
ons and Windows.
your supply now.

THE Lorain Creamery Company, Lorain, O., has used Thatcher Superior Quality Milk Bottles for two years. Last year it used Thatcher Posters on its wagons and windows and in the public schools of Lorain. We quote what happened:

> *"Feeling that Thatcher Advertising in The Saturday Evening Post and other magazines had increased the public interest in milk and had resulted in grown-ups, as well as children, drinking more milk, we tied-up our local advertising with Thatcher National Advertising. We got very good results. In one year, our milk sales jumped 30%."*

The Thatcher Key to bigger milk sales will open many friendly profitable doors to you, as it has for dairymen everywhere. Why not use it? Now is the time to start.

"MORE TRIPS PER BOTTLE"

The most important item in buying milk bottles, is the final cost per bottle to you. The first cost or purchase price means little or nothing to you. From the actual experience of dairymen and from exhaustive laboratory tests, it has been definitely proved that Thatcher Superior Quality Milk Bottles will give you more trips per bottle. For Thatcher Bottles are tougher, more uniform in quality, have a better distribution of glass, and consistently perform better in actual service than any other bottle made.

Specially designed lehrs, used exclusively by Thatcher, help to give Thatcher bottles that Superior quality and wear-resisting toughness not found in ordinary bottles. The Thatcher Trade-mark is blown on every Thatcher Bottle for your protection and guarantee. Then too, millions of milk users see and read the celebrated "A Bottle of Milk Is A Bottle of Health" advertisements of Thatcher Bottles in The Saturday Evening Post and Good Housekeeping Magazine. If you want to increase your milk sales, fill in and mail the attached coupon. It will pay you to act at once.

THATCHER MANUFACTURING COMPANY
Elmira, N. Y.

Operating several plants throughout the country, each strategically located and devoted to making Superior Quality Milk Bottles. Prompt, efficient service—always.

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(2) *Send me . . . . Thatcher Posters. I intend to use these Posters on my wagons . . . ., windows . . . .*

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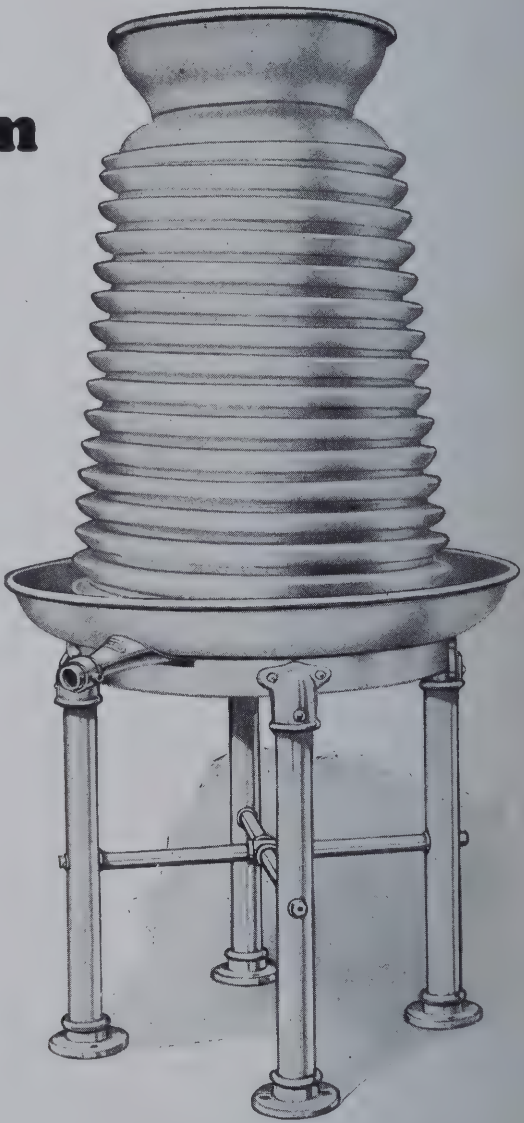

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When writing to THE H. H. MILLER INDUSTRIES CO. *please mention The Milk Dealer.*

What About the Exclusive Dairy Store?

The Possibilities of Marketing Dairy Products Through Dairy Stores

By WM. H. E. REID*

HE milk that the housewife uses each day comes from one of three sources, namely, (1) direct from producer to consumer, (2) from producer to dis- tor and then to the housewife, and (3) from a re- tore, where milk is carried as a sideline. At the nt time there are very few dairy stores serving exclusive market or outlet for dairy products. is definite reasoning which carries us to believe this channel offers a splendid possibility and that al large corporations at the present time are con- ng the placing of a chain of exclusive stores in the r cities in all the states, which will dispense only and its by-products. They will be operated un- edly on the same basis as the grocery chain stores now occupy considerable prominence and repre- an immense financial saving to the consuming e.

the smaller cities throughout the country the milk najority of instances reaches the consumer directly the producer, while in the larger cities it is impos- to reach every consumer with the same procedure he second or third channels must be resorted to. all number of the cities located in the Middle West s high as 50 per cent of the total volume of milk med through the grocery store. Fluid milk is dis- d chiefly. The small store or the super modern tessen as a means of marketing fluid milk has ed the attention of most of its owners or operators. consumers are of the belief that the store should bute the milk as they distribute other foods. There reat diversity of opinion regarding this question equal number of users of milk think that the mar- of milk should be done by the milk dealers and er channel can render this equal efficiency. There apparent cheapness of either method, or one sys- ould have eliminated the other.

the present time the store plays an important part distribution of fluid milk. The services that the ry store renders may be divided into two classes, y, (1) that of supplying emergency calls for milk, 2) that of providing storage and refrigeration of ntil it is needed for immediate consumption. When products are distributed through a chain store is a saving to the consumer to the extent that the of the milk products would be decreased if these would be operated on the same basis as other stores, namely, cash and carry. This type of store furnish milk for the laboring classes of people, the more well-to-do classes of people would not hemselves of this opportunity and go to the chain for their milk supply. If the price of milk prod- ould be lowered materially then the grocery stores decrease their prices, even to the extent of not g a profit on the milk they handled. They would in order to maintain maximum sales of groceries. organization of chain stores were set up through- e country and they distributed all milk products s milk, butter, cheese, ice cream, buttermilk, etc., cash and carry system, they could very well un- the grocery store and continue to realize a nom- rofit on their investment. However, the consump- milk per capita is so small, especially among the g classes, the volume of milk products might not be sufficient to pay the overhead and assure the desired profit. Thus the selling price of milk would necessarily have to be increased in the chain stores if they were to remain in existence and would almost equal the selling price in the grocery. The general public must be convinced of the nutritional value of milk and milk products before such an organization of chain stores is set up, or the volume of milk sold will not be sufficient to make a profit.

Milk products, especially fluid milk, are perishable unless good refrigeration is practiced. The grocery store cannot handle all of the distribution of milk. On Sundays and holidays the grocery stores are closed and on the days prior to the holidays the housewife must purchase a supply to last two days. Unless the housewife has a refrigerator the milk will sour, especially in the warm summer months. The grocery store cannot afford to distribute milk to those people who desire only milk. This would result in increased delivery costs.

Milk is the only regularly used food in this country. The stores as a rule do not make regular deliveries. The chain stores would not solve this problem since so many people are not in a position to go after the milk when it is needed.

A survey of all cities in the United States that are using the cash and carry system determined the fact that where the consumer relied on their milk supply from these stores, there was a marked irregularity of consumption of milk and the average consumption was lower than in the districts where the consumer relied upon the direct delivery of milk from milk plants or grocery stores.

Until the time comes when the public is educated to the extent of realizing the importance of milk and the consumption per capita decidedly increases, the milk routes and grocery stores are positioned to care for the distribution problem more economically than could an organization of chain stores selling only dairy products.

⁂

THE LENROOT-TABER MILK BILL.

After defeating a motion to recommit by a vote of 48 to 32, the senate on February 4 by a vote of 51 to 27 passed the Lenroot-Taber milk bill to set up sanitary standards to regulate the importation of milk and cream.

This was the dramatic culmination of one of the most bitterly contested legislative fights in the history of the milk industry. During the course of the senate consideration, enemies of the bill introduced nearly a score of amendments whose objects were to either nullify or weaken its provisions so as to make it impossible to administer the act.

The bill now goes back to the house for concurrence in three amendments which were made in the senate and accepted by the advocates of the measure. One of these amendments makes an exception to the tuberculin test and the temperature test of milk when such milk is produced on Canadian farms within 20 miles of a milk plant in the United States and is to be subsequently pasteurized before consumption. The other two amendments apply only to making the temporary permits, which the secretary is to issue, mandatory until such time as the secretary of agriculture is in a position to administer the provisions of the act.

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sociate professor of dairy manufacture, College of Agri- , University of Missouri, Columbia, Mo.

Dairying Booms in the Emerald Isle

The Glamour of Former Days Returns—Ireland Exported to Spain Italy, Gibraltar, and the West Indies in Early Nineteenth Century — Free State's Present Policy of Technical Education Makes Itself Felt — 24-Hour Shipments to All Parts of England

By GEORGE F. KROHA*

IN THE old days of the absentee landlord who lived in London and owned vast estates in Ireland, the picture of the hard-hearted agent driving away the Irish family cow, leaving starving children to cry at their mother's knee, was a common one, and not at all exaggerated. Hand in hand with this ironclad colonial policy to which Ireland was subjected, went a miserable, shiftless, hand-to-mouth cultivation of the soil and an equally careless development of dairying, altogether incommensurate and scarcely conceivable in a country which in its natural endowments was designed to be a land of plenty.

Ireland has never been considered wealthy in mineral deposits, although there are some copper, tin, and iron mines there. Consequently, she has been obliged to rely upon agriculture as the foundation of her economic structure. And in agriculture, dairying has been the dominant keynote.

In spite of the depressing influence of governmental policies which restricted education, Ireland, even in the early nineteenth century, was a large exporter of butter to Spain, Italy, Gibraltar, the West Indies, and certain Asiatic countries. In this connection, Julian F. Harrington, American Vice-Consul in Ireland, points out that the Cork Butter Exchange, which graded and branded the butter going to these various countries, was established by Royal Charter in 1769 and for more than 100 years after its inauguration as an organized system of inspection and grading, was one of the leading butter markets of the world. But the Irish dairy industry has never enjoyed long continued prosperity, due to the inroads made on the English market by neighboring dairy countries. Thus, at the close of the Franco-Prussian war the high prices which prevailed in England greatly stimulated production in European countries which gradually took over most of the Irish trade.

In 1900, the Irish Department of Agriculture and Technical Instruction was created and this represents the first definite scientific attempt to raise the calibre of the Irish dairy industry. This department, by inspection of creameries, instruction courses, the establishment of a register of well-managed creameries, and by various other methods, accomplished more in a few years than in the half century preceding.

Comparison Between Ireland and Denmark.

Prior to this, however, the farmers inaugurated cooperative dairying and in 1884 the first farmers' joint stock creamery was formed. This was two years after the first co-operative creamery was established in Denmark, and it is interesting to note the competitive opment which too place about this time in these countries. The co-operative movement in Denmark forward by leaps and bounds, whereas it progresse slowly in Ireland until recent years.

Comparing Ireland, geographically, with Denn we find that it is more than twice as large as the la that it has four and one-half million people, as ag Denmark's three and one-half million; that its pastu is the finest to be found anywhere, even includin United States, whereas the soils of Denmark have made productive through scientific culture and ment. Denmark's remarkable progress can only plained in terms of the application of science to dair

Now that Ireland has been inoculated with the of Irish Free State's uplift program, there can question about the future of Ireland's place amon dairy-producing nations of the world. In fact, the of the Irish dairy industry may be said to have act begun.

The Development of Winter Dairying.

Up to this time, dairying has been a seasonal i try, but in 1925 the Irish Free State Government

© Ewing Galloway

THE SHADE OF ST. PATRICK witnesses a revival of glory. The Irish Free State's new program for a great dairy industry shows itself in better animals, greater tion, and the development of a winter dairying industr above photo illustrates the status of the patron saint of on the Hill of Tara, site of the seat of the ancient kings of

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* Advertising manager, The Pfaudler Co., Rochester, N. Y.

Ewing Galloway

ROYAL AVENUE, BELFAST.—The Pittsburgh of Ire-d with a population of nearly 400,000 people is the at industrial center and is second only to Dublin as an let for Irish fluid milk and manufactured dairy prod-s. Ireland, as a nation, is undergoing great changes tically, industrially, and, in particular, agriculturally. ert—Weighing milk at a country station.

© *Publishers' Photo Service*

a series of experiments with sugar beet crops, that they could be successfully grown on home s a result, the first crops to be produced on a cial scale were grown in 1926, and, according r Harrington, Irish Vice-Consul, the estimated of beet pulp and tops available for fodder pur-ll approximate 100,000 tons. While the win-on has only just begun, the results thus far , point to a continued carry-on of winter , which will greatly influence total Irish pro-

gely enough, during the last fifty years the num-ilk cows in Ireland has remained practically con-round numbers, 1,500,000. But the producing per cow has in recent years been gradually in- This increased productivity can be traced to the policy which led up to the passage of the ck Breeding Act of 1925, fostering the formation esting associations, the steady exclusion of ani-ertained by tests to be of inferior grade, and gulatory measures.

tly related to this is the Dairy Produce Act of ich had for its primary purpose the improve- the quality of butter manufactured in Ireland. accomplished by regulations dealing with con- f cleanliness, the establishment of a system of marks, the vesting of power in the Minister of re to prohibit the exportation of butter be- be inferior in quality, and the establishment of r of creameries and butter factories.

All of these control regulations along with the offering of free scholarships in technical instruction by the Free State Government to be given at the Dublin and Cork Colleges of the National University of Ireland, are the influencing factors in the present situation.

During 1925 it is true that total Irish butter exports dropped from 457,024,000 pounds (established in 1924) to 401,559,000 pounds. On the other hand, cream exports rose from 490,591 gallons in 1924, to 627,530 gallons in 1925, most of which were shipped directly into England; in the same way, milk shipments in 1925 showed a marked increase over 1924.

The New Free State Dairy Industry.

Shipments can be made to all parts of England within twenty-four hours of the time the milk is produced in Ireland. Few continental dairy countries can hope to compete with Ireland on a service basis which is necessarily related to geographical location. This is particularly true of cream and milk shipments.

© Publishers' Photo Service

THE RICHEST PASTURAGE IN THE WORLD comprising over 9,000,000 acres gives Ireland a physical advantage over many other countries, as for example, Denmark, where scientific culture and treatment of the soil has been necessary. The passage of the Live Stock Breeding Act of 1925 has been a powerful influence in increasing the productivity of the Irish dairy cow. See text.

Thus, with an unusually rich pasturage, coupled with a growing appreciation of the importance of science in agriculture, the Free State strikes a new note of progressiveness which reflects the marked improvement in her political condition.

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THE RECEIVING STATION AT BALLYLONGFORD.—While many of Ireland's handling methods are archaic in comparison with American standards, the passage of the Dairy Produce Act of 1924 dealing with regulations on cleanliness, the creation of a system of national marks for butter branding, the offering of free scholarships in technical dairy instruction by the Free State at the Dublin and Cork Colleges of the National University of Ireland, and other regulatory measures have done for the manufacturing end of the industry what the Live Stock Breeding Act has done for production. The location of Ireland within twenty-four hours shipping distance of all parts of England affords her an excellent opportunity for marketing both butter and her fluid milk supply. Ireland has already made large equipment purchases in this country and England, which further suggests the upward trend of the industry.

⚜

WESTON TO HAVE NEW MILK PLANT.

Weston, W. Va., is to have a new milk plant which is to be erected at a cost of $15,000 as a result of the recent dairy survey made of Weston and Lewis counties. This survey was made through the co-operation of the Baltimore and Ohio Railroad Company, the Lewis County Farm Bureau and the chamber of commerce as well as a big Eastern dairy.

NEW ZEALAND HAS HIGH STANDARDS MILK.

According to Prof. N. P. Neal of New Zealand, in America to study dairying, standards of purity lished at the farm and not at the consumption en reason for New Zealand to market its butter in Am and English markets at a price sometimes highe the domestic product will command. Home consu of milk, however, is very small, each person usin 27 gallons of milk a year, in contrast to 50 gallo capita in Wisconsin. Wisconsin eats 50 times a ice cream, he said.

On bacteria count and other scientific tests consumption end, America is far ahead of New Z but there are two factors which Prof. Neal said sponsible for the high standard of New Zealan and they are the employment of dairy instructo the grading of milk at its source.

The milk is graded at the factory by experts scores of taste and smell. One of the reasons that ards can be constantly improved is that 94 per the milk is produced by co-operative associations. is all marketed through producer's organizations.

Milk should never be allowed near anything will taint it, he said, since it absorbs odors easily. ing experts in his country detect by smell prese pigs or fowls near the milk house, stagnant water ing from bad drainage, or from the fumes of a g engine used for milking machine power.

The care of milking machines makes the dif between good and bad milk, Prof. Neal said. The be washed with boiling water, he said. The ex quality of New Zealand milk is at least partly due cheap hydro-electric power, which can be switche a heater during the night, when not being used fo purposes, and will produce 15 or 20 gallons of water in the morning, all at a cost of $18 to $25 a

He expressed astonishment that most United separators are washed only once a day, and ofte cold water. Seamless milk pails and quick coo milk were other suggestions to improve quality. T milk to stand in the sun has been found to prod "tinny" flavor sometimes apparent.

The reason that such excellent quality is prod New Zealand, Prof. Neal held, is that farmers a according to the grade, and since it costs no more duce clean milk than dirty, they have elected t their entire production to a good standard. Su grade of butter pays the farmers 34 cents a poun A-1, 32 cents; grade A-2, 30 cents, and second gr cents.

The fact that people are willing to pay for hi ity is shown in the sale of certified milk here, the said. The price charged, however, seems out of tion to the cost of production, he said.

He told of the outdoor milking sheds of his where milk is transferred direct from milking m to separators without being touched. Climatic co make it possible to keep cows on pasture all around.

The methods of handling in use there are no cable here, but Prof. Neal suggested that our might profit by New Zealand's experience in co-o production and marketing and dairy instructio

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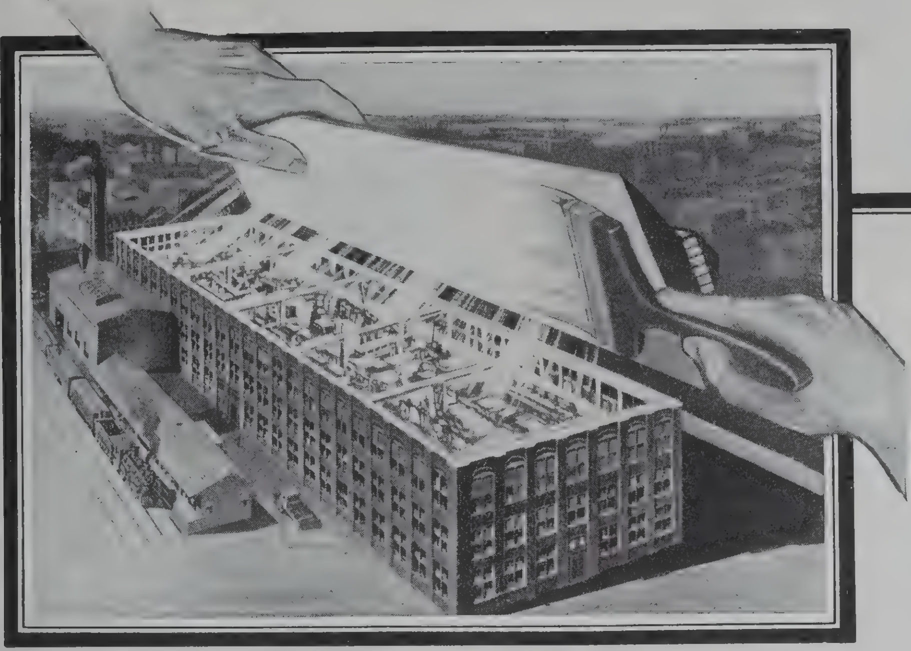

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KNOW YOUR MILKMA

It's a Simple Matter to Put Milk of Some Sort Into a of Some Sort and Undersell Competitors Who Take Care, But It Is a Foolish Housewife Who Takes a C on Unknown Milk Sold Below the Regular Market

By THURMAN B. RICE, M. D.*

A VERY careful and self-respecting housewife is very proud indeed to believe that she serves her family and her guests with food of the very highest quality. No suspicion of taint or of inferiority may sully her reputation for clean, high grade food. She insists, for instance, that the grocer send her only the reddest of salmon, and the smallest of peas, though, as a matter of fact, the cheaper grades are just as wholesome. Expensive cuts of meat may have a better flavor than the cheaper ones, and are more tender, but otherwise there is little basis for preference, provided both are handled in a sanitary way, and are government inspected.

She must have only strictly fresh eggs, and woe to the groceryman who presumes to send her any other kind. Yet there is mighty little sanitary reason for being so finicky about eggs. They are delivered in the original sterile container, sealed by the original producer—the hen herself. Besides they are nearly always cooked. It is rather hard to see how any transmissible disease might be carried by eggs, and yet the greatest of care is taken to get "good" eggs, and from five to twenty-five cents per dozen extra is cheerfully paid for the assurance that such eggs are "strictly fresh"—whatever that means.

How different the situation with regard to the manner in which milk is purchased! Recently there came through the neighborhood where the writer lives a rough looking man driving a dilapidated wagon. He was telling a hard luck tale about illness in the family, and offering to deliver milk for a cent less on the quart than was charged by the regular companies, which were well-known and long established. Thrifty housewives were obsessed with the idea that a penny saved is a penny earned. For the sake of a cent or two or three a day they were willing to take a chance, though they knew nothing at all about the man or his milk. A few days later they were defending their position by saying that the milk was just as good as any, as they knew because it had a big layer of thick, yellow cream.

The cream line is the customer's usual means of judging milk, and yet—as every capable milkman knows—it is practically worthless as a test of quality. Nursery milk of the very best grade may show a poor cream line because the fat globules are so small, and for that reason do not rise to the top rapidly, or produce a stiff cream. Holstein milk is commonly chosen for nursery purposes and is good milk for the baby just because the globules are small. The fat is there, of course, but it does not make a big show. On the other hand a milk from certain other breeds of cattle would make a splendid showing in this regard even though the milk might be dirty, old, unpasteurized, and everything else that milk should not be.

Good milk is by all means the best of all foods since it is Nature's own answer to the question, "What is a balanced ration?" But carelessly produced mil be most dangerous. For these very good reasons wives should use lots of milk, but should know the man and the milk company that supplies the milk cannot afford to risk his health and that of the for the sake of a penny on the quart. It is eviden it is safer to trust old established companies wi sponsible men in charge.

The production of good milk in large quanti big business, and requires a large and expensive of machinery and equipment. It especially requir attention of trained and trustworthy employees, w preciate the subtle ways of bacteria, and the compl needs of proper nutrition. Large companies have bacteriological laboratories controlling the various in production. Being large, these companies ar spicuous and often the subject of close scrutiny an All of this is as it should be, and is in the interest o milk production.

The smaller producer cannot, of course, have advantages of the large company, but, on the other he escapes many of the complications of a large If he is interested in his product, and in his bu future he will give his personal attention to the of production. As a rule he does not need to bri milk from a great distance, as do some of the larg panies. He can be just as reliable as a company th tributes many thousands of gallons of milk daily. of his reliability will manifest themselves in his stock which comes to your door each morning, the appearance of himself or of his employee w livers the milk. If there is suspicion as to the qua the milk, a pint bottle might be sent, properly id the nearest milk laboratory for analysis, or a phon or letter to the health department having jurisd may give valuable information.

Milk is too important a commodity to be turne to the "bootleg" milkman with a decrepit old w an ancient horse, a dozen battered cans, and a coll of other folks' bottles. It's a simple matter to pu of some sort into a bottle of some sort, and un competitors who take more care, but it is a very housewife who takes a chance on unknown milk s low the regular market price. The money save need be spent with a lot more for doctor's blls.

It is really too bad that housewives are not as about the milk they buy as they are about their eg other foods that are far less important to the hea the household. Beyond doubt good milk is the m uable food that comes to our homes. It is rich i mines, mineral and in fuel value; it is a body, bo tooth builder; it is easily digested and excreted; be served in the widest variety of ways, and is indpe able in cooking; it is one of the cheapest of food the other hand poor milk is one of the most dan of foods if it has been carelessly handled, and h

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* Assistant professor of sanitary science, University School of Medicine, Indianapolis, Ind.

properly pasteurized. One cannot afford to take
hance with it.

ilk standards are not very tangible to the ordinary
imer. Bacterial counts mean little or nothing to
chemical composition is a mystery; and the various
is of really determining the quality of milk are en-
unknown. He or she has but two yard sticks for
ieasurements of milk—the appearance of the cream
, and the presence or the absence of sediment in the
m of the bottle or glass. As has been explained
is nothing more deceptive than the cream layer,
t should be more generally known that a milk that
s no dirt whatever may still be very dangerous. In-
milks of very high quality are often not permitted
strained or filtered in any way because such pro-
es take out only the visible dirt and leave the milk
ingerous as it was before, while at the same time it
ost its warning sign.

ne must buy a bottle of milk not at all as he buys a
of clothes which he can examine and try on. He
buy the milk on faith. My milk company assures
iat the milk they sell comes from healthy cattle and
barns; that it is handled by healthy workmen, and
ered to the plant as soon as possible and kept cool
insit; that they have properly pasteurized and test-
e milk, and that they stand back of the product. I
ot test out every bottle so I take their word for
n this I feel safe, because I know the company, its
, and its officers. I have been in their plant and
t well equipped and managed, clean and modern in
respect. Probably in no other case am I so de-
ent upon the honor of the establishment selling me
For these reasons I can consistently deal only with
milkmen to whom I know honor is due.

ow it is possible that the one-horse milk peddler to
i we have referred is putting out excellent milk,
cannot be certain of this by inspecting the cream
or by looking for visible dirt that might have been
but has been strained out. Unless I can trust the
I cannot conscientiously give such milk to my chil-
Yet how can I trust him when he is unknown and
the appearance of being ignorant and untrust-
iy?

ometimes housewives judge the quality of milk by
ngth of time it will stay sweet. Exceptionally clean
can be kept at moderate temperatures for surpris-
engths of time. We were struck a few years ago
a truck with a glass-lined tank like an enormous
os bottle carried milk a distance of many hundred
in summer, and delivered it still sweet six days
Clean milk will stay sweet longer than dirty milk,
i milk, but milk that has had a preservative added
will stay sweet much longer than either. One
't relish the idea of serving embalmed milk to his
however.

ie addition of preservatives to milk is, of course,
l in most modern communities, but might still be
ced by the peddler. He does not greatly fear the
ecause he has little capital invested, as a rule, and
responsible. Every milkman has "returns," that
tles that come back to the plant unsold. By an-
day this milk will be too old and probably sour or
near it. The shyster can doctor these bottles up,
er, and sell them to-morrow as fresh milk; the
entious and responsible milkman or firm will con-
hem into cheese, buttermilk, butter or some legiti-
product that sails under its own colors, and is what
laimed to be.

a rule milk is worth what it costs. It is not neces-
hat milk for common usage shall be produced under the exceedingly rigid requirements of certain committees of certification that are trying desperately to secure the best possible milk for babies. Such milk sells at from twenty-five to forty cents a quart, and that price is clearly prohibitive for the great mass of people with large families of growing children needing from a pint to a quart of milk a day. But there are a great many communities — indeed, nearly all communities — that would be immensely better off if they would be willing to pay two or three cents more on the quart for their milk, and then, of course, insist on getting a product of corresponding merit.

An example will make this clear. Mr. A. sells his milk at fourteen cents, while Mr. B. sells his at thirteen. Both must get their milk from cows, both must feed the cows, care for them, house and milk them. Both must bottle the milk and haul it to the consumer. Both must have practically the same basic expense and this is, of course, the largest portion of the cost of output. But Mr. A. and Mr. B. handle the milk very differently, and because of this difference the latter can afford to sell his milk cheaper. But from the standpoint of health the proper handling of milk is by far the most important item.

Folks have the right to expect their milkman to provide a safe and acceptable supply of the life-giving fluid provided by Mother Nature for her children. The milkman must receive his proper compensation, because milk production is hard, tedious work, requiring cleanliness, training, care, experience and capital.

The milkman is a sort of foster-father to the family. Very much depends upon his trustworthiness. So we heartily advise folks to get acquainted with the man and the firm that stands behind the baby's bottle, and the family dish of cereal. If they are of the right sort they will be mightily pleased to be so recognized for what they are worth. If they are the other sort you ought to know it. Know your milkman.

MILK COMPANY DOES $900,000 BUSINESS IN 1926.

The election of officers at the annual meeting of the Fort Plain Milk Company, Fort Plain, N. Y., resulted in the following officers and directors being elected:

Robert Z. Smith, president; E. J. Dunkell, vice-president; Clarence H. Brookman, secretary; H. H. Fredericks, treasurer; Fred Failing, Ezra Shults and Howard Walts.

A summary of the business done by the company during during 1926 is as follows: Total milk sold, 27,675,245 pounds, or 325,591 cans; average number of cans per day, 892; average price received for 1926 milk, $2.74 7/12 per hundred pounds; highest price, $3.35 for the December output; number of patrons, 250.

The total volume of business done by the company during the year was $905,555.92, which was an increase of $124,969.27 over last year.

The company is continually improving their plants at Fort Plain and Hallsville, the latest improvements being a $9,000 ice machine and a $3,000 can washer, which were installed in their plant at Hallsville. At Fort Plain an $11,000 glass-lined pasteurizing machine was added to the equipment.

ROSEN DAIRY PLANT TO BE COMPLETED SOON.

The new $225,000 home of the Louis Rosen Dairy, located at 1334-42 S. Peoria St., Chicago, Ill., is expected to be completed about March 1.

The building is two and one-half stories high, is constructed of tile and terra cotta, and is believed to be one of the most modern of its kind in Chicago.

Cleaning a Milk Bottle Without Breaking

The Effect of Temperature and Washing Powder on Bottle Breakage

By DR. J. M. SHERMAN*

THIS report of the fellowship, which this association gives to Cornell University, is based upon the work done by Mr. Myers, a graduate student. Mr. Myers unfortunately cannot be here, so I am giving you a brief report.

The title may be slightly misleading, in that it speaks of bottle breakage losses. This is the ultimate aim of all this work. The present report concerns only one phase of that problem. There are about three angles from which this problem should be attacked. In the first place, there is statistical work, a study of the breakage of bottles, which your association is doing. Then there is the glass technology end. That is being conducted by some of the glass manufacturing interests. The other angle is the germicidal action of these washing powders. You can easily learn to wash bottles with less breakage but you have to learn also what is happening there so far as the bacteria are concerned, and that is the angle of the problem we are working on: To see how germicidal the different commercial washing powders are, why they are germicidal, and how their germicidal action or bacteria-killing action may be increased. If we can find that, you could then increase the efficiency of a washing powder so as to allow you to use lower temperatures. Perhaps that would save a good deal in bottle breakage.

Our first guess was that the germicidal action of most washing powders is due mainly to their alkalinity, and that guess seems to be correct. Therefore, Mr. Myers made a study of the effect of alkalinity upon bacteria, and he has studied in that connection a number of different bacteria, including the typhoid germ, which is one of the main disease germs which may be carried in milk. Tests were made with another organism, bacterium coli, which is, so far as laboratory tests indicate, as difficult to destroy as any of the disease germs which ordinarily occur in milk. Some work has also been done on spores.

Now the germicidal action of alkali is due to what the chemist calls the hydroxyl ion concentration, and I find in the trade somewhat similar terms used. Some of the milk dealers speak about the alkalinity of the washing powder and the "causticity" of washing powder, and they mean by the causticity the effective alkalinity of it. There is a difference between the free alkalinity and the total alkalinity. The free alkalinity, or the effective alkalinity, is what the chemist calls the hydroxyl ion concentration, and that is what we worked upon.

It might be well to give you a few figures. The chemist expresses this alkalinity in terms of what he calls pH, which we do not need to worry about, but neutrality on this scale is pH 7, or the reaction of water. Pure water is neutral. Now a strong alkali, such as you use in titrating milk, a tenth normal sodium hydroxide has a pH of about 13, if I remember correctly. In other words, the figures that we are interested in with respect to washing powders will range between pH 7 and 13; pH 13 is very strongly alkaline and pH 7 is neutral.

In studying this, of course, it was found that the higher the temperature, the more rapidly the bacteria are killed. That is obviously true. But it was also found that as you increase the alkalinity of the washing pow-
der, the lower the temperature necessary to destro
bacteria.

We gave a preliminary report on this last sur
to the committee on bottle breakage at a meeting
in New York. At that time a number of questions
put to us, and we can answer several of those ques
now.

In the first place, this question was asked:
alkaline would a washing powder have to be to ki
the disease germs which might be in or on a milk b
without heating at all. These tests indicate that if
have an alkalinity of pH 12, which is strongly alka
but less alkaline than the tenth normal alkaline solu
you can kill the germs of typhoid fever. You ca
test that as satisfactorily on tuberculosis, because
technique would be very cumbersome and you coul
get very definite results, but with the typhoid organ
an organism which we believe is of about the same
tant as the tuberculosis organism, you will find tha
alkalinity of pH 12 will completely destroy them i
cold in less than five minutes. With a powder that
little less alkaline than that, a pH of about 11, you
get the same results if you use heat of only abou
degrees Fahrenheit.

Now, as a matter of fact, these different was
powders (we have the results on individual powder
I do not believe it would be good taste to put the
the board by name, but any of you who are inter
can see the results) run all the way from a pH of a
10 up to, some of them, as strong as pH 13, whi
very alkaline.

We find that the germicidal action of those wa
powders correlates exactly with this true alkal
We find that some of the most used washing pow
are not alkaline enough to be strongly germicida
though they may be very good cleansers and, ther
mechanically remove most of the bacteria; but
would not do for perfect sterilization. As I think
a moment ago, you can take these washing pow
which are not germicidal and, by adding a little
to them to make them about pH 12, make them ju
germicidal as the other powders.

That is not the only factor, however. There are
factors involved in some of these powders which
them a greater germicidal action than a pure alk
that same degree of alkalinity. What those factor
has not yet been fully determined. They are diff
in different powders.

Of course, you have other types of powders,
as those that have hypochlorites in them, which h
strong germicidal action which is not dependent
their alkalinity.

We have been speaking only of these non-spore
ing bacteria of about the same resistance as the ty
organisms. Spores can be destroyed at relativel
temperatures if you have a very strongly alkaline
tion. Taking spores which can withstand the tem
ture of boiling water for about two hours, and by
a washing powder of about pH 12, they can be dest
in five minutes at a temperature of only 176 degre
which is considerably below boiling. So you se
alkalinity increases the toxicity of the washing po
greatly.

Another question that was put to us was wheth
could get some practical test for determining the alk

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* Cornell University, Ithaca, N. Y. At Detroit convention of International Association of Milk Dealers.

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ity of washing powder in a plant. We can answer that if your ideal is a very strongly alkaline powder. If you want a powder which is very strongly alkaline, more alkaline than pH 12, up in the neighborhood of pH 13, there is an indicator called sodium indigodisulphonate, which will determine that.

This indicator, if the reaction is around pH 11.4, or less alkaline than that, is a dark blue color. Around pH 12, it shades off into green and then becomes yellow, as it gets more strongly alkaline. So if you are tryin use a solution of strong alkalinity, which will insure very positive germicidal action, you could use this dicator. This indicator, however, is of no value in t powders which have hypochlorites in them. That is cause of the action of the chlorine; but most of the w ing powders are not of that type. If you are using type, you are depending upon some other kind of ge cidal action than alkalinity anyway.

Whipping Cream

A Report of the Work Done Under the Fellowship of the International Association of Milk Dealers at the University of Wisconsin

Reported by PROF. H. H. SOMMER*

WHEN work on this subject was undertaken, it was with the intention of studying not only the practical phases of this problem but also the physical and physico-chemical phases. Unfortunately, on account of resignations, three different appointments had to be made, and as a result of these interruptions, the study had to be confined to the purely practical phases.

Shortly after work on this problem had been undertaken, the work of Dahlberg and Hening, in Research Bulletin 113 of the N. Y. Geneva Station appeared. This together with the earlier work by Babcock, in the U. S. D. A. Bulletin 1075, covers the practical phases of the problem quite thoroughly. Our work during the year has corroborated the work of these investigators in practically every detail. Since some of these factors are already quite generally known, it will not be necessary here to go into detail, but it will suffice to summarize the conclusions.

It has been found:—(1) The whipping quality is increased with the fat content; there is a marked increase up to 30%; above 30% fat the improvement in whipping is mainly in the quality of the whip and not in the time required to whip.

(2) The temperature at which the cream is whipped is of marked importance. A 30% cream whips well at 50 degrees F., whips less satisfactorily at 60% F. and produces a poor whip at 70 degrees F.

(3) Raw cream whips better than pasteurized cream.

(4) Homogenizing destroys the whipping ability of the cream practically completely.

(5) Aging improves the whipping ability of cream. The biggest improvement occurs in the first 48 hours of aging, after which the improvement is slight.

(6) The increase in volume on whipping bears no definite relation to the quality of the whip, although frequently the poorer whipping cream shows the greatest increase in volume. With any given cream, there is a large increase in volume early in the whipping, followed by a decrease in volume as the maximum stiffness of the whip is attained.

(7) The permanence of the whip as measured by the amount of liquid draining out on standing, is proportional to the stiffness of the whip.

(8) There is a pronounced difference in the speed with which ordinary household beaters will whip cream. Of the six different whippers tried, the time ranged from 30 seconds to 6 minutes to accomplish the same stiffness of whip. In this comparison the whipping was done in a cold room at a temperature of 45 degrees F. or slig below. These same whippers used under ordin household conditions, would have showed a much lar difference. In ordinary household practice the whip and the bowl are at room temperature; the crear taken out of the ice box; and the whipping is don room temperature. If a rapidly whipping whippe used, the chances for success are good because the w per will accomplish the whipping before the tem ature has a chance to rise to a point where whippin impossible. On the other hand, if a slowly whipp whipper is used, the temperature of the cream will to a point unfavorable for whipping, and it will be possible to obtain a good whip. It is safe to say 90% of the complaints on whipping cream are du the fact that the importance of having the cream co disregarded, together with the use of inefficient whipp

(9) The condition of the fat at the time of s rating the cream has a rather marked effect on the cosity and the whipping ability of the cream. Cr separated while the fat is in a semi-solid condition h higher viscosity and whips better than cream separ while the fat is fluid. Dahlberg and Hening compar the cream of milk separated immediately after mil with the cream from another portion of the same separated after holding at 37.4 degrees F. found above mentioned difference. In our work the milk r ceived at the university creamery was separated at ferent temperatures ranging from 60 degrees F. to degrees F. The results corroborated the finding Dahlberg and Hening, viz. the viscosity of the cream highest at the lowest temperature of separation, and stiffness of the whip obtained was also highest in cra separated at the lowest temperature. No doubt par this difference is due to the clustering of the fat glob that is induced by separating at a low temperature. addition to this it is my theory that there is a thic film of absorbed material on the fat globules in cra separated from the colder milk, due to the fact that kinetic energy of the particles is reduced. At equilibr um between the surface tension forces which cause absorption, and the tendency to diffuse caused by kinetic energy of the particles, there would then larger amount of substances absorbed. Since this ab sorbed substance is supposedly also the substance wic has a marked effect on the whipping of the crea seems probable that the effect of separating milk at ferent temperatures is operative on the whipping abi of the cream not only on account of the way the f grouped, but also on account of the greater amou material absorbed at the lower temperatures.

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* Dairy Dept., University of Wisconsin, Madison.

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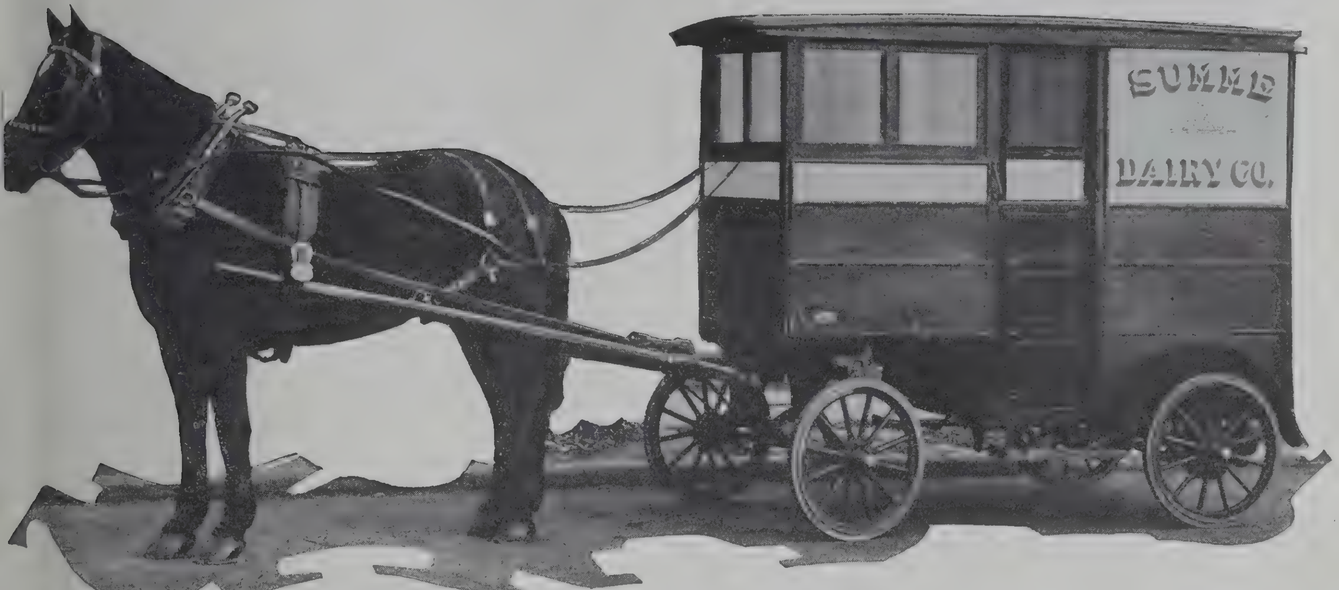

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They Saved the Milk for Chicago

Men Endure Hardship to Bring Supply of Milk Through to Destination and Save Loss to Their Employers. Northern Illinois Storm Remind Old Timers of Pioneer Days

WASHINGTON at Valley Forge had nothing on the crew of men which labored in 18 degrees below zero in a driving sleet two nights and a day last month to rescue trucks containing the milk supply of 30,000 Chicago children.

Two trucks and a trailer, holding three large glass-lined tanks filled with nature's food for children, started from Dundee for Chicago early Thursday morning. Half way to the city on Higgins' Road the trucks were stalled in a five-foot snowdrift and the helpless drivers called on the Bowman Dairy Company in Chicago for aid. Snowplows from the highway roadmen had given up when within five miles of the trucks.

A call for volunteers in the dairy company's office brought forth the pick of the men, and a crew was hastily equipped with sweaters, horse-blankets, overshoes and shovels. They drove in cars to Snell's Corners, where they had been informed they would be obliged to walk the remaining three-quarters of a mile. Arriving at the Corners at dusk, with shovels, torches and already crisp fingers, they gave up the cars and started out for the trucks. The wind whistled and blew driving sleet into the faces of the men, the snow became encrusted and slippery and the three-quarters of a mile to the trucks lengthened into nearly five miles, to the surprise of the crew.

A farmer was prevailed upon to furnish bobsleds on which the men trailed with their shovels and the trucks were discovered, buried in the snow, the drivers beating themselves to keep warm and keeping the motors running to prevent their freezing. The rescue crew took shelter in a nearby farm house and held a council with the drivers, the fear uppermost in their minds being that the milk might freeze and expand in the tanks, bursting expensive equipment and losing the valuable milk supply necessary for the needs of Chicago the following day.

An examination showed that a slight crust of ice had formed on the milk but it was otherwise in fine condition. The men started in with shovels to remove the snow, but it seemed a hopeless proposition. The snow was crusted and had melted underneath and frozen solid in the lowest temperature of the year. Working until 3:30 in the morning the crew had advanced the trucks but a mile and a half when farmers were secured with horses and plows. These plows made two furrows the width of the car tracks and were followed by the men, taking turns with shovels, to clear away. When the horses came to a snowdrift the men were obliged to pile in and excavate in trench fashion.

By the following morning the men were exhausted from lack of sleep and cold and a report to the Chicago office brought forth a second rescue of eleven men. The exhausted force rolled up in blankets by the farmer's fire for a few hours, but by noon Friday were out again, advancing the trucks by degrees. One of the cars in which the rescue crew had come was frozen stiff and one of the trucks which had been stopped to save gasoline could not be started without a good deal of difficulty.

The wind blew up drifts of snow, making the work as disagreeable as though in a heavy snowstorm. Not until Saturday morning did the trucks dig their tedious through the five miles of snow and ice to hurry i Chicago, just in time to prevent a shortage of milk, principal food supply for 30,000 children. One ma face was frozen and for several days carried a solid s over the left side of his face. Another man's hand frozen, but they were cheerful and regarded their perience as a signal service to the people of Chica whom the dairymen serve, that they delivered the m without loss of a single customer's supply, saved large glass-lined trucks and brought the milk throu in fine condition to Chicago with a change of but degrees in temperature in the entire three days, in sp of temperatures of fifteen to eighteen degrees below ze One of the drivers who was working constantly for th days when taken in to a fire at a corner roadhouse c pletely lost control of himself, and, as the men remo his clothing and shoes, he broke down hysterically two days' rest was all that saved him.

“This experience,” according to the National Da Council, the educational organization for the dairy dustry, “is typical of the service which a four bil dollar industry, which supplies the fundamental food children, must consider in its routine of the day. I the worst situation a Chicago dairyman has ever exp enced and some customers were obliged to do with milk during this severe storm. With our modern meth of transporting milk in glass-lined refrigerator cars trucks, however, the milk is kept in excellent condit It is reported that during the summer months, milk f Wisconsin is delivered in Chicago with a change of one-half a degree in temperature.”

⚜

CLEVELAND EXPOSITION DATES FIXED.

The second great unified Dairy Industries Exposi of all the physical requirements for the manufacture distribution of dairy food products will be held Oct 24-29, inclusive, the Dairy and Ice Cream Machinery Supplies Association has announced.

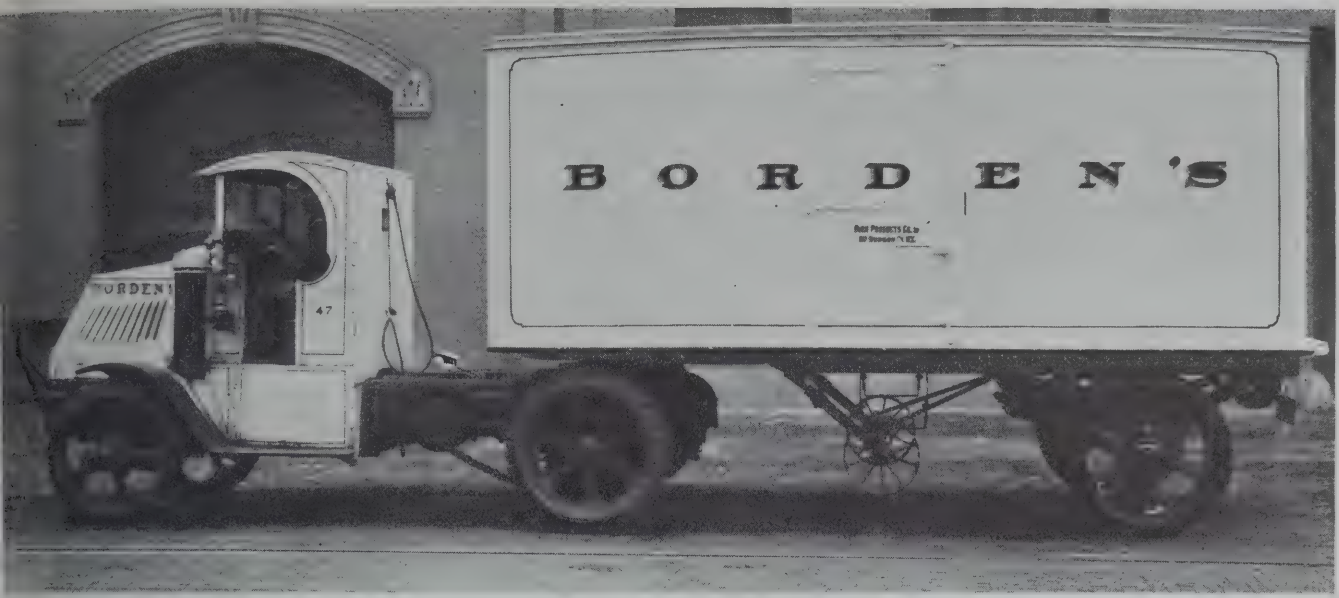
Selection of Cleveland as the scene for the 1927 S was announced a number of weeks ago. Determina of exact dates was deferred to permit the working of various convention arrangements.

October 24, the opening day of the exposition, wil Monday. The exposition will close Saturday. This m a change from the nine-day period, embracing the la half of one week, the first half of a succeeding week, the intervening week end, which was experimentl used in Detroit last year, and a reversion to the calen week exposition plan pursued in most industrial sh

The exposition committee of the Dairy and Ice Cr Machinery and Supplies Association, of which K. W Schantz, K. W. Schantz, Inc., is chairman, reports ha much of the important primary preparation for the ex position is already under way.

⚜

Send your news items and personal notices to “Th Milk Dealer” and see how well they look in print.



10-ton Fruehauf Semi-Trailer—with Refrigerator type of body—owned and operated by Borden Farm Products Co., Inc., of New York City

Low-Cost Distribution of Milk

THE Borden Farm Products Co., Inc., of New York City—well known as the largest Milk Dealers in the country—were one of the first organizations to adopt the Semi-Trailer with Refrigerator body as a means for distributing Milk to Branches.

In the 10-ton Fruehauf Semi-Trailer, shown in the above photograph, approximately 300 quart cases of bottled milk are hauled with very satisfactory results.

And when you consider the substantial reduction made in distribution costs through the use of such Trailer equipment, you will readily understand why the Fruehauf Trailer system is being adopted by leading Milk institutions everywhere.

No longer is it practical to erect expensive Branches in the different delivery zones of your city—with the heavy cost of handling—of modern refrigerator equipment—and the expense of necessary supervision and labor.

Just compare the cost of such a system with the economy of Fruehauf Refrigerator Trailers. These storage-plants-on-wheels can be "spotted" each night in convenient locations throughout your territory. Then, early in the morning, the neighborhood delivery wagons can be loaded directly from the Trailers—saving extra handling and the heavy investment required for permanent plants.

Certainly such an investigation will point the way to greatly reduced haulage costs and a surprising increase in profits!

Write today for new Folder "C"—giving the interesting details of Trailer transportation in your special field.

Oldest and Largest Manufacturers of Semi-Trailers, Four-Wheel Trailers and Adjustable Pole Trailers.

RUEHAUF TRAILER COMPANY

942 Harper Avenue
BRANCHES AND DISTRIBUTORS IN ALL PRINCIPAL CITIES
Detroit, Michigan

When writing to FRUEHAUF TRAILER COMPANY *please mention The Milk Dealer.*

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(Continued on page 60)

Looking for New Equipment? Read the Advertisements.

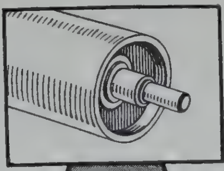
Star Performance

5 points of superiority that make

LAMSON SANITARY CONVEYORS

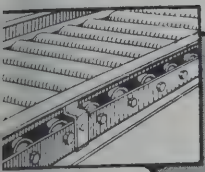
last longer

1



Moisture can't get in. Corrosion comes with moisture. Keep moisture out and you prevent corrosion. Lamson Rollers, extra-heavy throughout, have heads *welded in.* No joint through which moisture can enter. No inside corrosion. Remember that.

2



pecial guard rail
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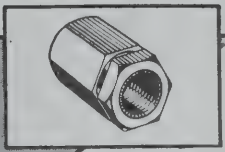
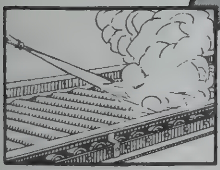
5



Non-corrosive bearings of special design. The bearings are cast of non-corrosive alloy. They are extremely resistive to all corrosive action. They are hexagonal in shape, so inserted in the frame that they can never turn with the shafts. Consequently they cannot freeze, and always operate.

3



Stands up under flushing and steaming. Turn the hot water on it as often as you please. Steam it often as you want. You can't harm the bearings, you can't force any moisture into any part where it will be harmful. Lamson has designed this conveyor to stand a limitless amount of cleaning

Durable—and therefore lower in *yearly* cost.

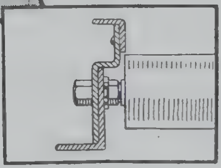
Easily kept clean—and therefore saving in time and labor.

For these two reasons alone, it pays to own Lamson Sanitary Conveyors.

Send coupon for more information.

THE LAMSON COMPANY
SYRACUSE, N. Y.

4



Practical mounting. The frame is so designed that it forms a cup-like protection to keep moisture and milk away from the shafts and bearings. This mounting maintains dryness of the moving parts, even in conditions where a great deal of moisture is present. It adds greatly to the service of Lamson conveyors, and helps to prevent rolls from sticking.

LAMSON
SANITARY
CONVEYORS

THE LAMSON CO.,
Syracuse, N. Y.

I want to get more complete information on Lamson Sanitary Conveyors.

Name ....
Firm Name ....
Business Address ....

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MUSSOLINI'S SOLE BREAKFAST IS LARGE GLASS OF MILK.

The kind of a breakfast which one of the strongest political figures in modern history finds necessary to maintain vigor is discussed in the exclusive story of the personal life of Mussolini, the Italian dictator, which has been released to newspapers of America through the United Press Association, with permission extended the National Dairy Council to reprint it.

Mussolini is regarded by his followers as the busiest man in the world, working intensively fourteen to sixteen hours a day. The Duce personally holds seven portfolios in his own government and every minute of each day is scheduled in advance for something definite he must do. Personal efficiency and hard work are his pet hobbies and it was through his belief that his own example of efficiency would do good in the world if widely known that he consented to allow Thomas B. Morgan, Rome manager of the United Press, to publish his personal habits, from which the following is quoted.

After arising in the morning and shaving, Mussolini tells of his breakfast:

"I go then fully attired wearing my riding breeches to breakfast. It is what I call breakfast. I wonder sometimes what an Englishman or an American or a German would call it, and what he would do with such a breakfast as mine. There is no fruit. There is no toast. There are no sausages, ham and eggs, breakfast foods or anything which would typify the modern breakfast. There is even no coffee, for I do not drink coffee in any form—it is not a food, it is disastrous for brain-workers. My breakfast simply consists of a glass of milk and is a matter of one minute. I drink it at the table in sm gulps so that it may be properly salivated.

"Milk is a wonderful food, perhaps the best f known to man. This one glass of milk contains eno nourishment to sustain me until the midday meal. hours hence. It is always taken when I am alone, f am not a great lover of company at the table. The gr est honor I can bestow upon anyone is to invite then lunch. It would even be an honor for my own brot Cosira, my servant, puts the milk on the table and t withdraws. She is 40 and silent, uncommunicative.

"It is 7:30, and I am ready to take my morning ter."

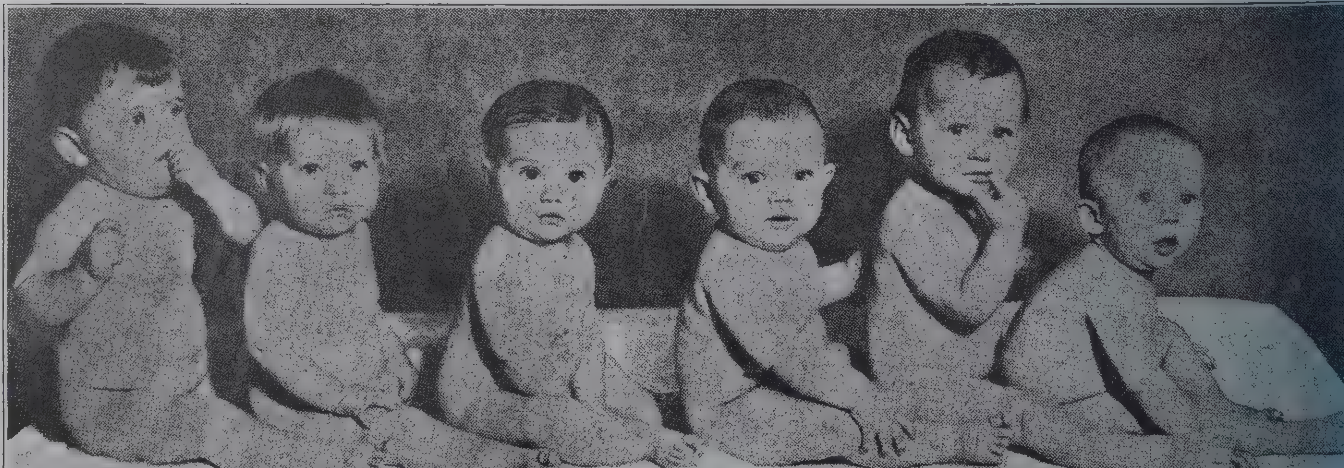
◆

MRS. NEWTON COMBS IS PRESIDENT OF BA MILK SUPPLY.

Mrs. Newton Combs was re-elected president of Baby Milk Supply, Philadelphia, at the annual mee of that organization. The other officers were chose follows: First vice-president, Mrs. Thomas Owsley; ond vice-president, Mrs. Samuel Halley; third vice-p ident, Mrs. Leonard G. Cox; recording secretary, D. J. Healy; corresponding secretary, Mrs. Jacob Spe treasurer, Mrs. Robert D. Scott.

All were re-elected, except for the offices of t vice-president and treasurer, from which Mrs. Cole Callaway and Miss Pauline Purcell resigned. Miss cell was unable to fill longer the office of treasurer the society because of her work at the Chimney Cor She has been one of the valued officers for a numbe years.

GEE, WHEN IS THAT MILK MAN COMING?



This striking picture was used in a Community Chest Campaign in Tampa, Fla. "Your contributions to the chest fund v help to send the milk man regularly to many like these," said the Tampa Tribune.

THE MILK DEALER

Pure Nickel Dairy Equipment

To Our Readers:—

This insert is an unique co-operative advertising effort between the manufacturers of pure nickel dairy equipment and the producers of INCO pure nickel to present to the dairy industry the latest developments in modern dairy machinery.

Purchasers of nickel equipment from these advertisers can be assured of the best obtainable in design, workmanship and materials.

The Olsen Publishing Co.

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INCO
NICKEL

Why you should use
Pure Solid
INCo Nickel
dairy equipment

1. **EASY TO CLEAN—**

Purity of product and resulting increase in consumption are founded on thorough cleanliness in the dairy. Nickel makes such cleanliness possible with a minimum of effort. All types of cleaners, whether or not they contain abrasives or strong chemicals, are being used on pure nickel equipment. Such cleaners not only preserve the natural attractive appearance of nickel but maintain the high quality of the products handled. Users of pure nickel equipment consistently report lower bacterial counts even after years of service.

2. **IMPARTS NO FOREIGN FLAVOR—**

Nickel belongs to the iron group of metals but does not impart any foreign flavor to any dairy products handled in it. It is interesting to note that the U. S. Department of Agriculture places no legal limit on the nickel content of foodstuffs.

3. **DOES NOT RUST—RESISTS CORROSION—**

Nickel will not rust and is extremely resistant to the corrosion of dairy products, even those of high lactic content.

4. **HAS GREAT STRENGTH-**

Pure solid nickel, rolled into all commercial forms suitable for the construction of dairy machinery, is a strong, tough, silvery white metal, having higher physical properties and greater resistance to denting and abuse than any other material obtainable for such construction. Because of the high strength of pure nickel, thinner gauges can be used.

5. **TRANSMITS HEAT WELL—**

Nickel in the form of tubes and sheets used in dairy equipment is a good conductor of heat.

6. **ADAPTABILITY—**

Leading manufacturers of dairy equipment are rapidly adapting INCO nickel to their regular lines of equipment. Nickel is readily formed, seamed, welded, brazed, silver and soft soldered. Nickel tubing is coiled by the usual methods. It is just as easy to get dairy equipment of pure nickel as of inferior materials.

Availability

The development of the nickel industry dates back over fifty years. The mines and smelter are located in the Sudbury district of Canada. Ore bodies, already located, assure a practically inexhaustible supply of raw material. The refining is carried on in a modern refinery at Port Colborne, Ontario, with a capacity of over 5,000,000 pounds of nickel per month.

After refining the nickel is shipped to the company's rolling mill at Huntington, West Virginia. This plant extends over more than 40 acres and is equipped with machinery of the very latest design for the production of rolled nickel in the forms of sheet, rod, tubing, etc. Over $5,000,000.00 is invested in this plant alone.

Stocks are carried both at Huntington and in the warehouses of our various distributors located in the leading distributing centers of the country.

Consumers can readily appreciate that with such an organization for the production of nickel, from the ore to the finished mill product, they are assured of a continued supply of a pure rolled nickel of highest quality at reasonable prices.

It is not necessary for users of dairy machinery to go to new and unknown manufacturers for nickel dairy equipment. The same manufacturers and jobbers you have always dealt with can supply you with nickel machines of proved design.

Write for information on any particular Nickel equipment in which you are interested or for further information on INCO Nickel.

The International Nickel Company
67 Wall Street **New York, N. Y.**

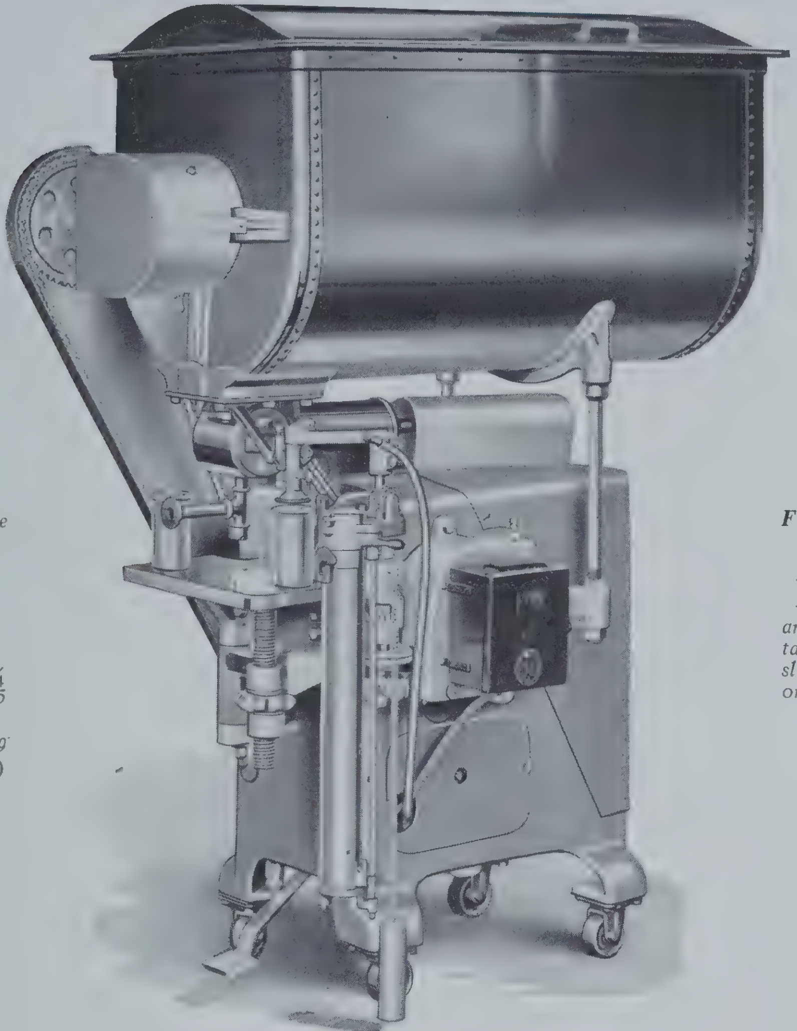
INCO NICKEL TRADE MARK

Pure Nickel for Modern Dairies

Mojonnier Cottage Cheese Filler

with mixing and capping mechanism. ***Three machines in one.***

__Fills__ and __Caps__ any one type of the following:
Glass Jars
Standard Milk Bottles
Paper Tubs
Paper Cups
Capacities (8 oz. to 2¼ lbs.) at rate of 15 to 25 a minute.
(Maximum capacity 29 quart fillings per minute.)



Fills—
10 lb. tin pails
5 and 10 lb. paper pails
5 and 10 lb. jars
and other standard cottage cheese packages, at slower capacity depending on size of container.

The Mojonnier Cottage Cheese Mixing, Filling and Capping Machine.

This machine embodies in one machine means of mixing cottage cheese with cream and salt, then filling into cartons, glass bottles or five or ten pound containers. The same machine caps the standard tapered paper containers, or standard glass jar or bottle where the straight disc caps are used.

All parts of the machine are operated by the same motor driven mechanism.

CONSTRUCTION

The mixing hopper is made of *pure nickel*. It is ideal for handling cottage cheese. A positive mixing mechanism of the spiral ribbon type, mixes cottage cheese and cream perfectly. The filling and capping principles are the same as used in the well-known Mojonnier Ice Cream Packaging Machine.

SPECIAL ADVANTAGES

Saves labor. This machine will pay for itself in a short time.

Saves product. Fills measured amounts cleanly into each container. There is no spilling or waste from overfilling. No possibility of air pockets. By keeping the package perfectly clean, it helps increase sales.

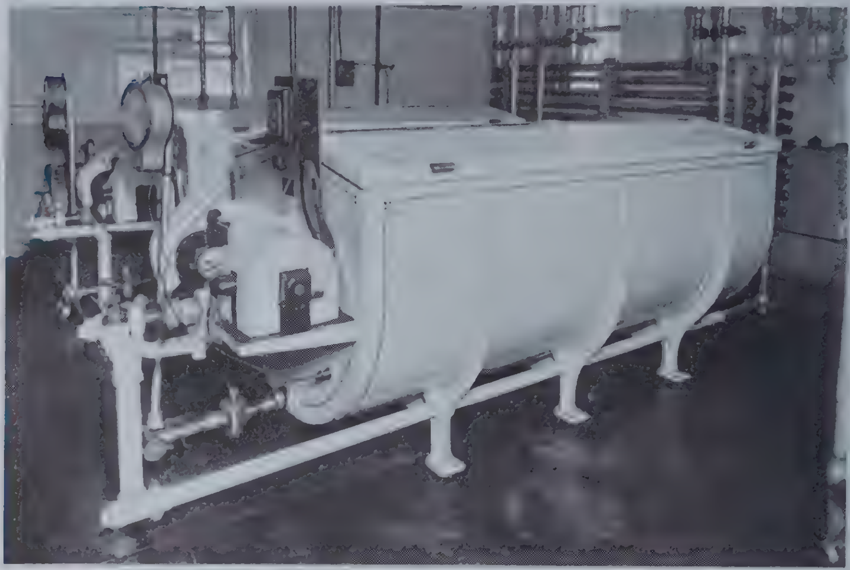
This machine may also be used for filling and capping Jewish Cream bottles in one quart, pint or one-half pint sizes.

This machine carries the usual Mojonnier guarantee of absolute satisfaction to user.

Please write our nearest sales engineer for further information.

Mojonnier Bros. Co.
MILK ENGINEERS
4601 W. Ohio Street **CHICAGO**
Sales Branches **— New York (Mt. Vernon) — Columbus, Ohio — St. Louis Mo. — Oakland, Cal.**

INCO
NICKEL
TRADE MARK
For Modern Dairies Pure Nickel



"durable, economical no metallic flavor"

The advantages of this 500 gallon, Class L, Cherry Twin Coil Machine, with pure nickel lining and coil, recently installed in the plant of the Janssen Dairy Co., Inc., Hoboken, N. J., are emphatically stated in a letter from Mr. F. W. Janssen to the International Nickel Company. Mr. Janssen terms the Cherry vat dependable, durable, economical. He is especially pleased with the fact that there is no discoloration of the vat and no metallic flavor.

J. G. Cherry Company

Cedar Rapids Iowa

St. Paul, Minn. Tama, Iowa Peoria, Ill.

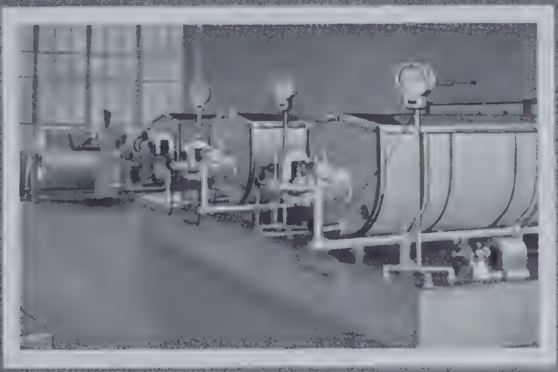
A 3763—DPI

INCO NICKEL

Pure Nickel for Modern Dairies

Many other Successes for Cherry Pure Nickel Pasteurizers

Cherry Twin Coil Pasteurizers, with linings and coils of pure nickel, are duplicating the great performance reported by Mr. Janssen in such plants as that of the Farmer's Union Creamery at Fremont, Nebraska, the Farmers Co-operative Creamery Company at Payette, Idaho, the Sanitary Dairy at Cedar Rapids, Iowa, the Battle Creek Sanitarium Creamery at Battle Creek.



Here are the three Class L Cherry Pure Nickel Pasteurizers of the Battle Creek Sanitarium Creamery. One is used for the making of Acidophilus Buttermilk and the other two for pasteurizing milk and cream. The creamery reports that their performance is "faultless."

J. G. Cherry Company

Cedar Rapids *Iowa*

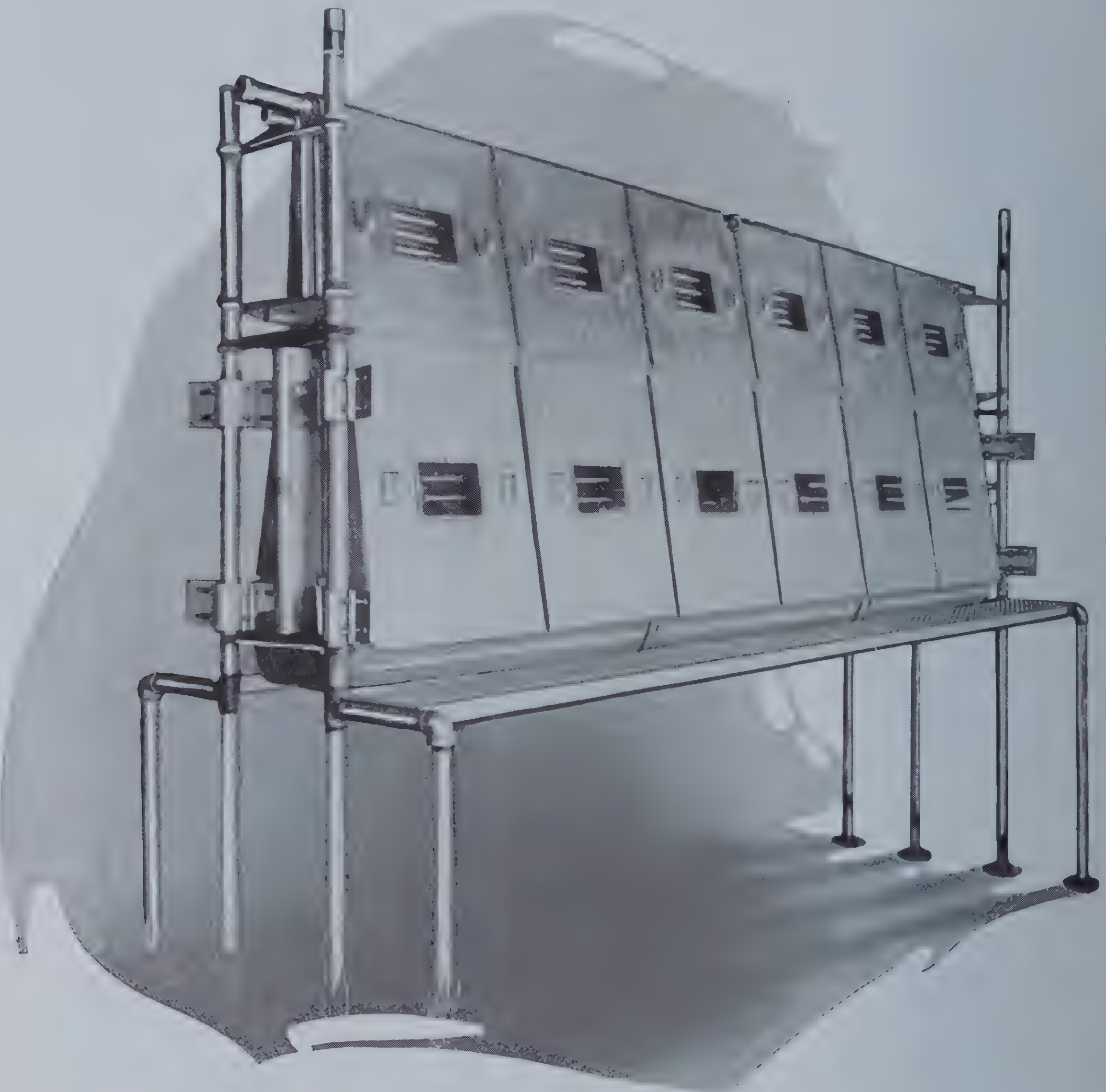
St. Paul, Minn. Tama, Iowa Peoria, Ill.

A 3763—DPI

NICKEL

for Modern Dairies Pure Nickel

CHESTER SURFACE COOLERS



CHESTER SURFACE COOLERS

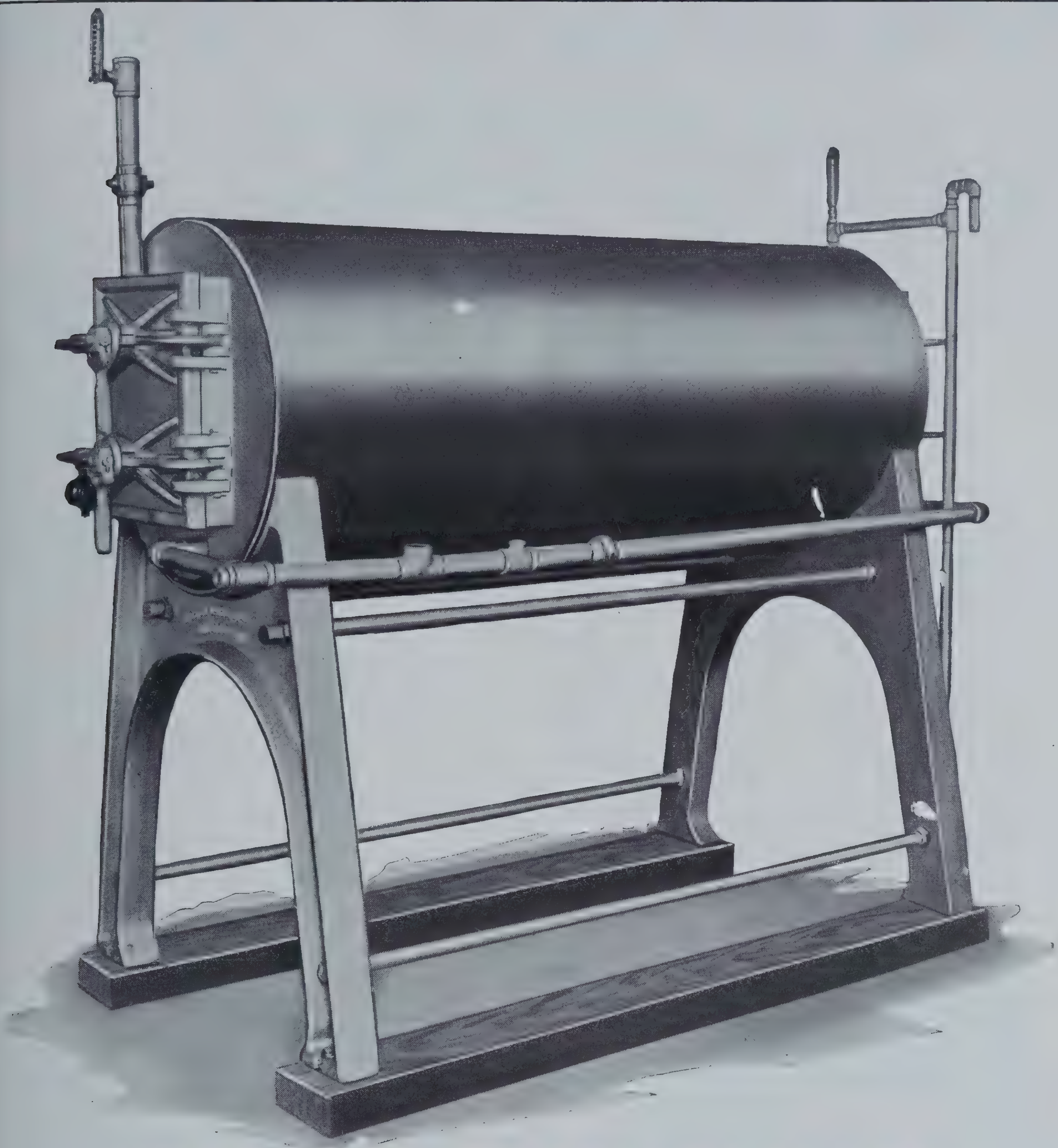
Our line is complete including a standard surface cooler using 1″, 1½″ and 2″ tubes, regenerative surface coolers using 1½″ and 2″ tubes and direct expansion coolers. We are in a position to furnish any of these machines using pure nickel tubes and nickel alloy castings. Covers may, of course, be furnished of pure nickel if desired.

CATALOG FURNISHED ON REQUEST

CHESTER DAIRY SUPPLY COMPANY
Mauufacturers
CHESTER - - PENNSYLVANIA

INCO
NICKEL
Pure Nickel for Modern Dairies

CHESTER BARREL HEATERS



CHESTER BARREL HEATERS

are being used in every department of the dairy industry. They are made in many sizes and capacities ranging from 1500 lbs. per hour to 20,000 lbs. per hour. We can furnish these machines with pure nickel tubes and castings of nickel alloy if desired.

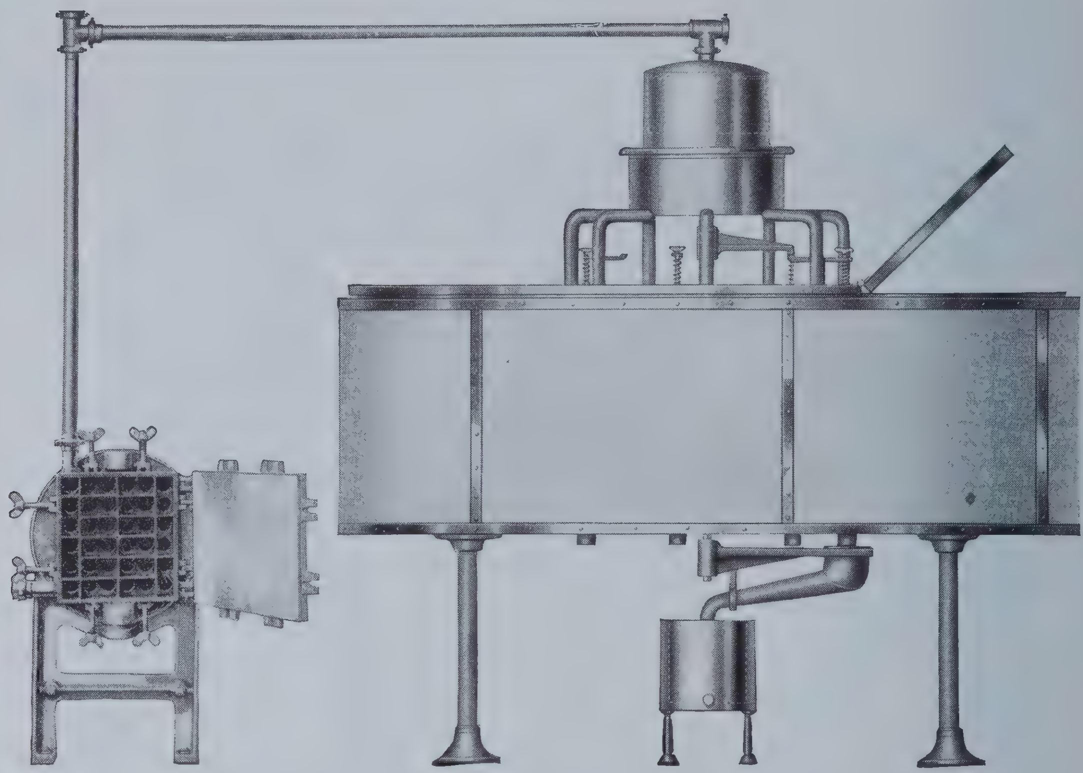
CATALOG FURNISHED ON REQUEST

CHESTER DAIRY SUPPLY COMPANY
Manufacturers
CHESTER - - PENNSYLVANIA

INCO NICKEL

For Modern Dairies Pure Nickel

"AMERICO" QUALITY EQUIPMEN



"AMERICO" Nickel Lined Positive Holder.

Lined with pure nickel, simple in design and operation, positive in holding, with no chance of milk by-passing, the "Americo" Positive Holder offers greatest value in sanitation, efficiency, and durability.

"AMERICO" Pasteurizer

The **"AMERICO" Coil Vat** through its wonderful performance is rapidly gaining the confidence of the trade. By its mild agitation — use of low temperature heating medium—lack of stuffing boxes and thorough cleaning possibilities by raising of coils out of vat, it is producing milk products of the highest quality.

Whether it be for pasteurizing whole milk, cream ripening or making commercial buttermilk, the "AMERICO" will be found most efficient.

WRITE FOR FURTHER PARTICULARS ON "AMERICO" EQUIPMENT

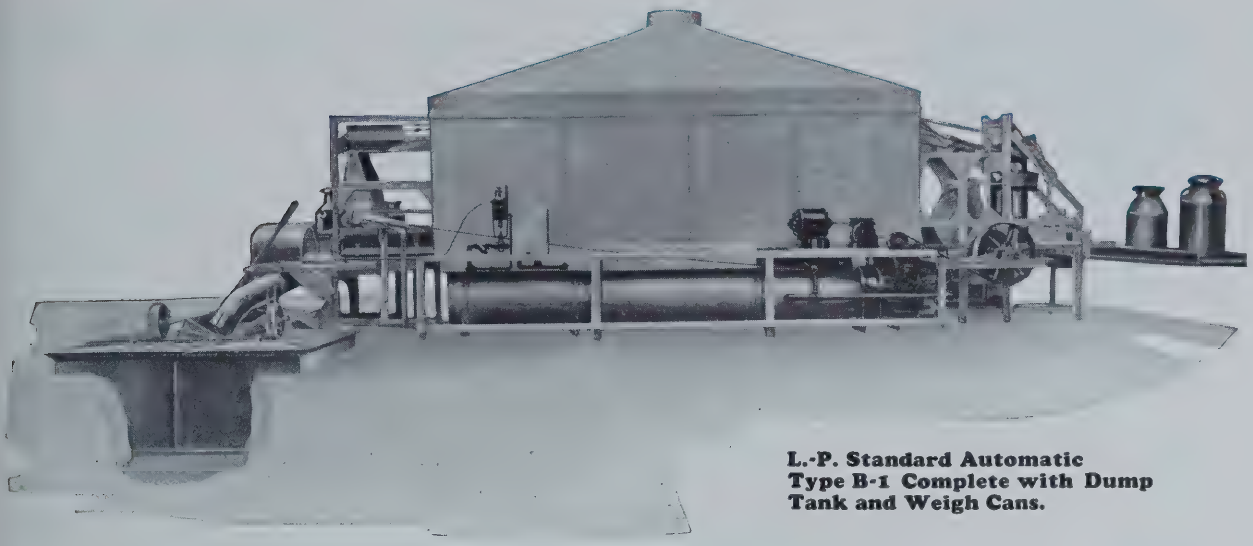
American Copper & Brass Works

Manufacturers of Dairy Equipment

610-616 E. Front Street

CINCINNATI, OH

INCO
NICKEL
TRADE MARK
Pure Nickel for Modern Dairies



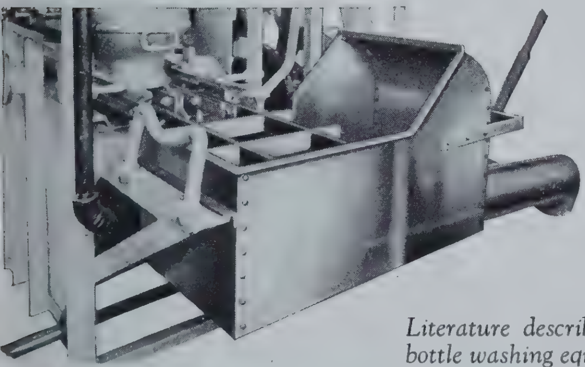
L.-P. Standard Automatic Type B-1 Complete with Dump Tank and Weigh Cans.

.-P. Automatic with Dump Tank

This patented pure nickel dump tank in conjunction with the L.-P. Standard Automatic can washer, is the outfit the dairy world is talking about. This dumping device eliminates the time otherwise lost in waiting for the milk to drain out of the tank—and enables one man to dump the milk, wash the cans and covers [which are replaced] at the remarkable rate of

1,000 lbs. of Milk per Minute.

This pure nickel dump tank is standard equipment on Types B, B-1 and B-2 L.-P. Standard Automatic can washers—with capacities of 12 and 14 cans per minute. The device is a basic patent and is held by the Lathrop-Paulson Company.



We were one of the pioneer dairy machinery manufacturers to recognize the value of and adopt nickel on our equipment.

Literature describing the complete line of L.-P. can and bottle washing equipment will gladly be sent upon request.

THE LATHROP-PAULSON COMPANY

2459 W. 48th Street, CHICAGO, U. S. A.

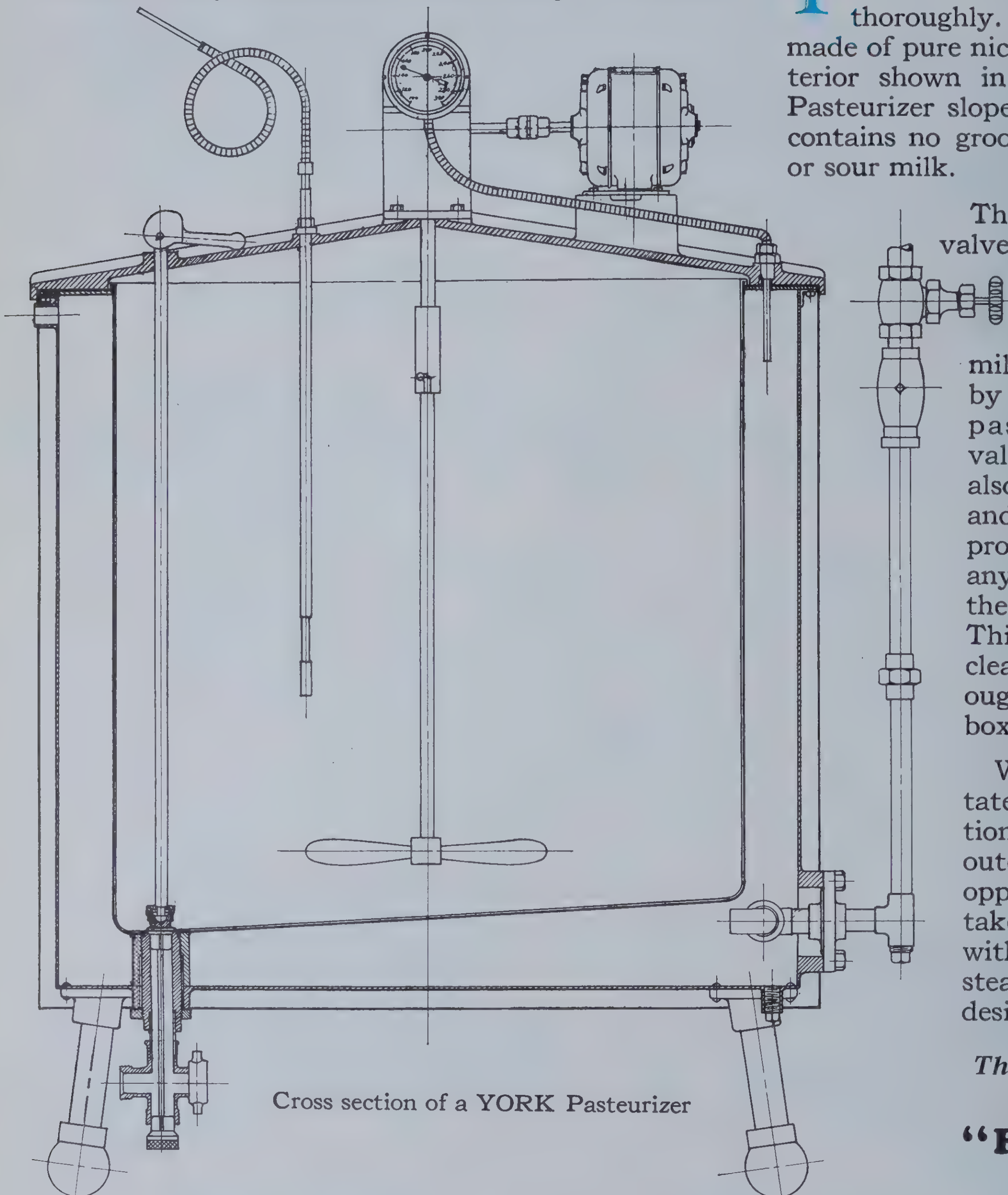
There is an L.-P. Representative near you.

INCO
NICKEL
TRADE MARK
for Modern Dairies Pure Nickel

"FOR BETTER MILK HANDLING"

Let YORK Help You Pasteurize

A YORK Pasteurizer will help you every day because it is easy to clean.



Cross section of a YORK Pasteurizer

THE YORK Pasteurizer is constru so that it can be cleaned easily thoroughly. The inside linin made of pure nickel sheet. Note the terior shown in the illustration. Pasteurizer slopes toward the valve contains no groove or spot to hold or sour milk.

The double-acting f valve through which the r is discharged is the possible protect against leakage into milk line. It is contro by the lever on top of pasteurizer. When valve is holding milk, also open into a drain and not into the milk proper, so that if ther any leakage it will drip the floor and is visi This valve can also cleaned easily and t oughly. The use of stu boxes is entirely elimina

While the impeller tates the milk in one d tion, the hot water in outer jacket flows in opposite direction. Th take pipe for water is fi with a valve which m steam and cold water to desired temperature.

The Inside Lining is M of Pure Nickel Sheet

"For Better Mi Handling"

YORK MILK MACHINERY CO.

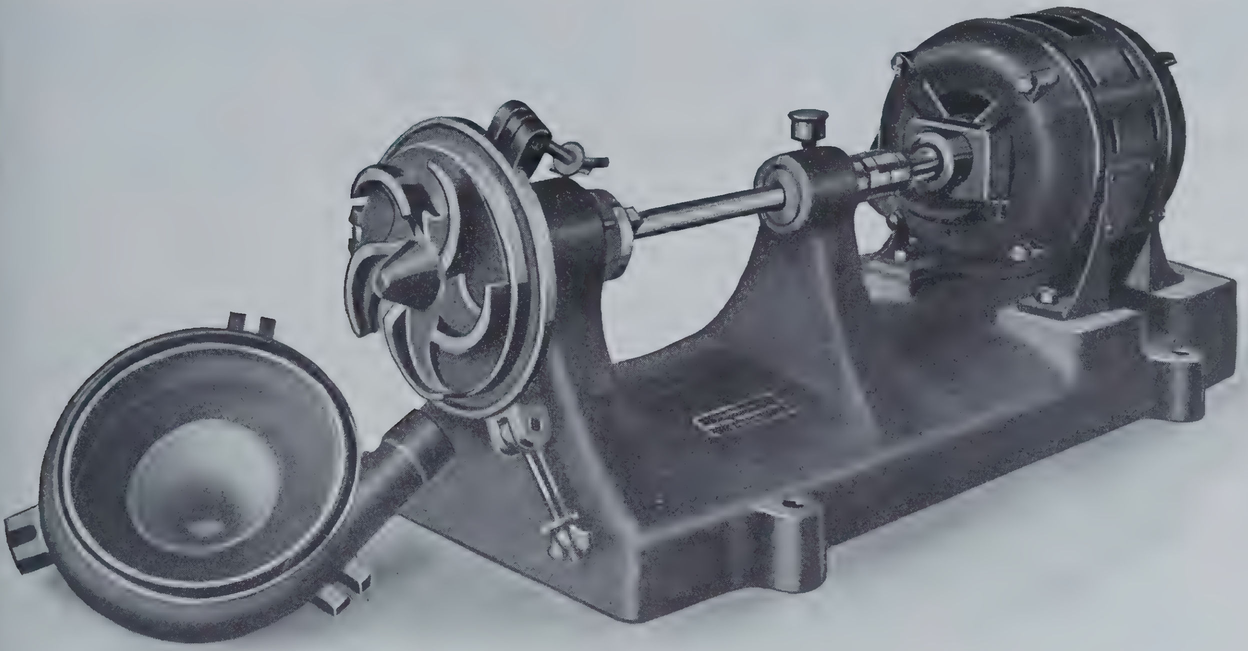
Manufacturers of Milk Handling Equipment

York Penna.

INCO NICKEL TRADE MARK

Pure Nickel for Modern Dairies

"FOR BETTER MILK HANDLING"



The shaft is regularly made of Nickel and all parts of the pump in contact with the milk can be furnished of Nickel Composition Castings.

The YORK Milk Pump No. 1

is best for ordinary lifts *because—*

1. ***It can be cleaned easily and thoroughly.***
The above illustration shows how perfectly accessible the pump is for cleaning and sterilizing. By removing only three thumb nuts, you are able to clean every inch without any guess work. There are no cracks or crevices which are hard to get at.

2. ***Has an oilless bearing.***
The shaft at the impeller is provided with a bearing which must be absolutely clean. An oilless bearing does this to perfection. The shaft is made of nickel.

3. ***Does not agitate the milk.***
The impeller has been designed so that it will not agitate the milk as it is forced up. Much milk is wasted through improper handling. The York Milk Pump No. 1 saves milk.

4. ***Is of sturdy construction.***
It is fitted with a noiseless, flexible coupling between the motor and impeller shaft. Regularly furnished for 1″ sanitary tubing connection. Floor space—10¼″ x 27¼″ and 8″ high. Can be had direct connected to motor or belt driven.

For further information or prices, write

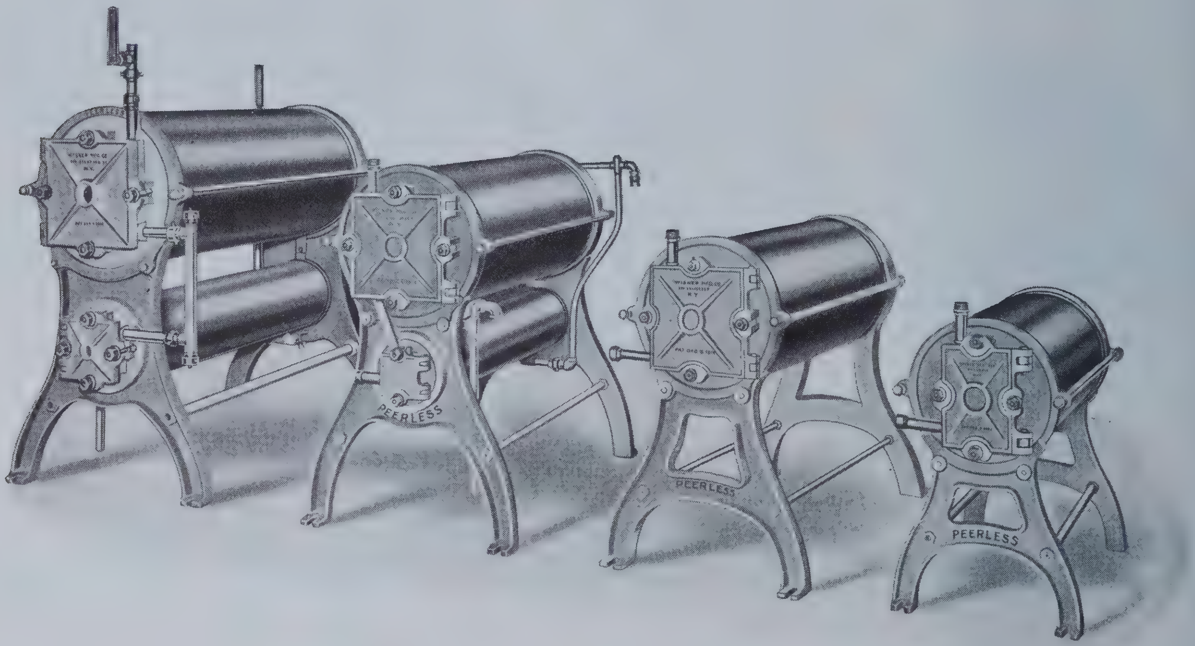
YORK MILK MACHINERY CO.
Manufacturers of Milk Handling Equipment
York, Penna.

INCO
NICKEL

for Modern Dairies Pure Nickel

Peerless Approved

Pasteurizers • Positive Holders • Weigh Tank



Peerless Pasteurizers

PEERLESS PASTEURIZERS are sturdily built, operate smoothly, accurately and produce perfect results at all times. All PEERLESS Pasteurizers are made of best obtainable materials, heavily tinned copper and bronze being used throughout. They are thoroughly insulated with finest quality corkboard. Outside jackets can be had in polished copper—tinned copper—pure nickel—or galvanized iron.

Some Exclusive Features of the Peerless Pasteurizer

Heating to desired pasteurizing temperature almost instantly, obviating the possibility of bacteria growth without disturbing the cream line.

Reduces Bacteria count—increases the capacity of milk handled in every plant daily—reduces operating time on each batch of milk a minimum of 20 minutes.

Economical and simple to operate—

Easy to keep clean—

Can be used with any system of pasteurization or any method of holding—

Easy to install—requires little floor space—

Nominal in cost — it reduces operating costs greatly—

A wonderful piece of pasteurizing equipment.

Wisner Manufacturing Co

INCO NICKEL TRADE MARK

Pure Nickel *for* Modern Dairies

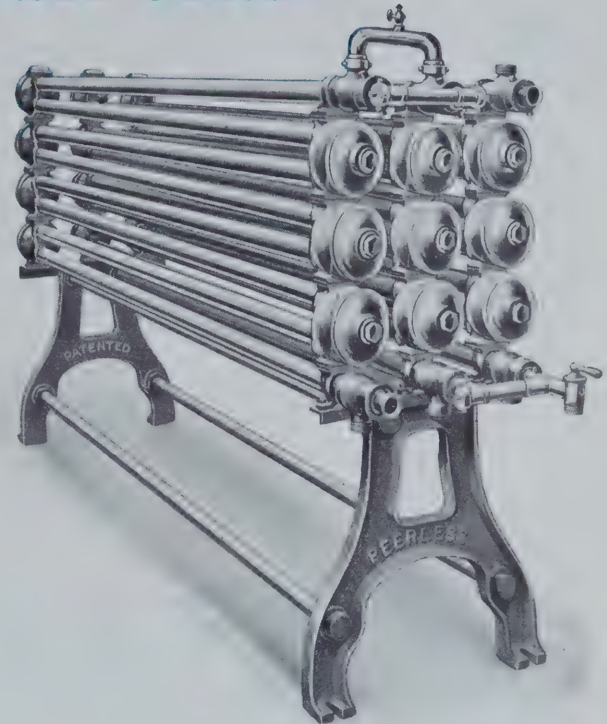
)airy Equipment

Receiving Vats • Internal Tube Coolers • Etc.

Peerless Internal Tube Cooler

The PEERLESS Internal Tube Cooler is identical in ap-
ance to the PEERLESS Regenerative Heater-Cooler but is
t for straight cooling, using water or brine.

The great efficiency of the PEERLESS Internal Tube
ler is due partly to the larger water circulation and the thor-
h mixing of the milk at each end of the tube.



'eatures of the Peerless Internal Tube Cooler

:—No elbows or difficult parts to clean and every part can be thoroughly nspected.

nd:—Only one nut to loosen to remove return cap to each pair of con- necting tubes.

'd:—Positive draining out of all milk from every tube. This is espe- cially valuable in cooling cream or evaporated milk.

th:—Milk thoroughly mixed at each end of every tube insuring better cooling, especially of cream or evaporated milk.

ı:—Great cooling capacity per section, making a less number of sections to clean.

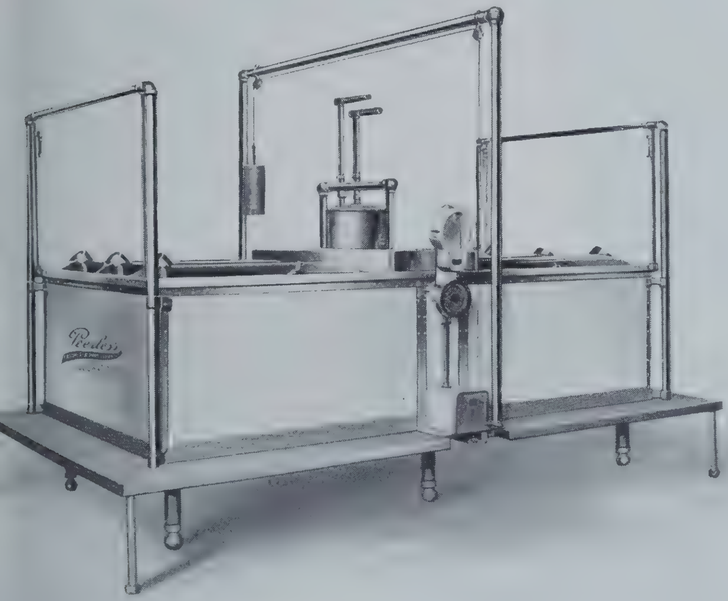
h:—Eight tubes in standard cooler but can be made up of ten, twelve or any even number of tubes desired.

nth:—No possible chance of a leak and water getting to the milk.

ıth:—Compact, requires small floor space.

'h:—The entire cooler is made of copper and bronze, heavily tinned, no iron or steel parts to rust.

th:—Inner tubes can be quickly removed without the services of a mechanic for cleaning water circulation, should same become clogged with sawdust or other foreign matter.



Peerless Automatic Positive Holder

A Mechanical and Scientific Triumph

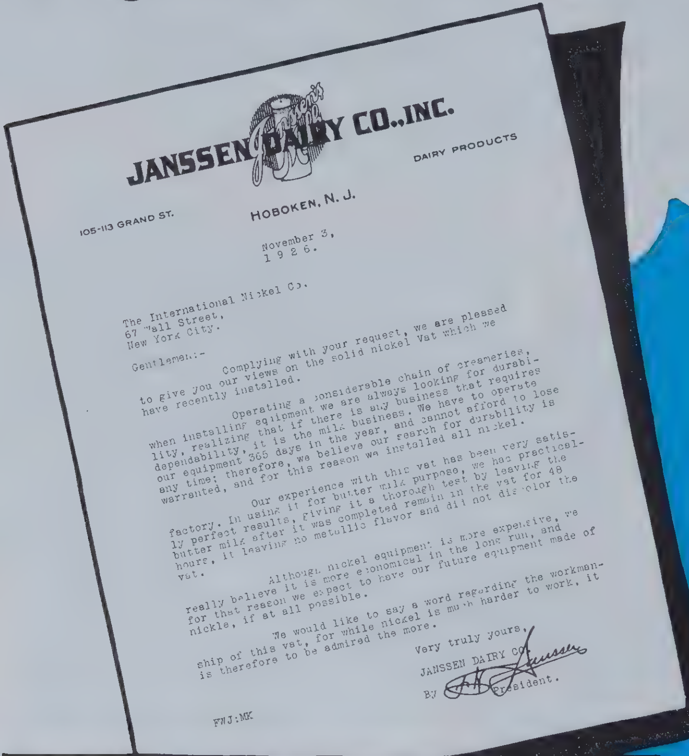
"BEST by TEST"

1. Positive Holding.
2. Automatic and Continuous.
3. No Power necessary to operate.
4. Holds exactly 30 minutes.
5. Impossible for heated and held milk to intermix, because there are no valves, cross-overs, etc.
6. Sanitary White Porcelain Exterior.
7. Pure Nickel Interior.
8. Thoroughly and properly insulated.
9. Automatic Timing Device.
10. No Foam Filling Device.

41-243 West Broadway, New York, N.Y.

INCO
NICKEL
TRADE MARK
for Modern Dairies Pure Nickel

Some Users of Pure Nickel Equipmen



JANSSEN DAIRY CO., INC.
DAIRY PRODUCTS
105-113 GRAND ST.
HOBOKEN, N. J.

November 3,
1 9 2 6.

The International Nickel Co.
67 Wall Street,
New York City.

Gentlemen:-

Complying with your request, we are pleased to give you our views on the solid nickel Vat which we have recently installed.

Operating a considerable chain of creameries, when installing equipment we are always looking for durability, realizing that if there is any business that requires dependability, it is the milk business. We have to operate our equipment 365 days in the year, and cannot afford to lose any time; therefore, we believe our search for durability is warranted, and for this reason we installed all nickel.

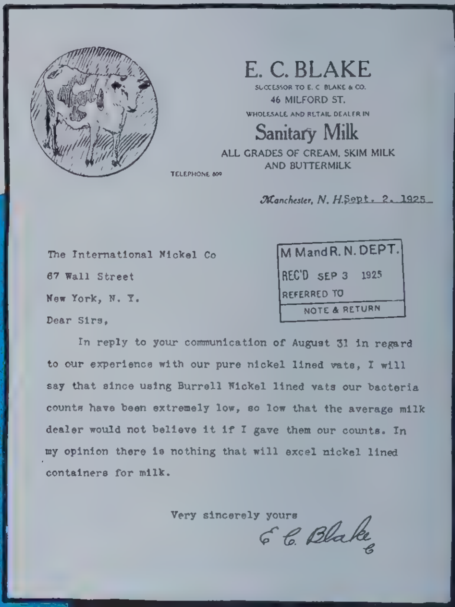
Our experience with this vat has been very satisfactory. In using it for butter milk purpose, we had practically perfect results, giving it a thorough test by leaving the butter milk after it was completed remain in the vat for 48 hours, it leaving no metallic flavor and did not discolor the vat.

Although nickel equipment is more expensive, we really believe it is more economical in the long run, and for that reason we expect to have our future equipment made of nickle, if at all possible.

We would like to say a word regarding the workmanship of this vat, for while nickel is much harder to work, it is therefore to be admired the more.

Very truly yours,
JANSSEN DAIRY CO.
By F. W. Janssen President.

FWJ:MK



E. C. BLAKE
SUCCESSOR TO E. C. BLAKE & CO.
46 MILFORD ST.
WHOLESALE AND RETAIL DEALER IN
Sanitary Milk
ALL GRADES OF CREAM, SKIM MILK
AND BUTTERMILK
TELEPHONE 809

Manchester, N. H. Sept. 2. 1925

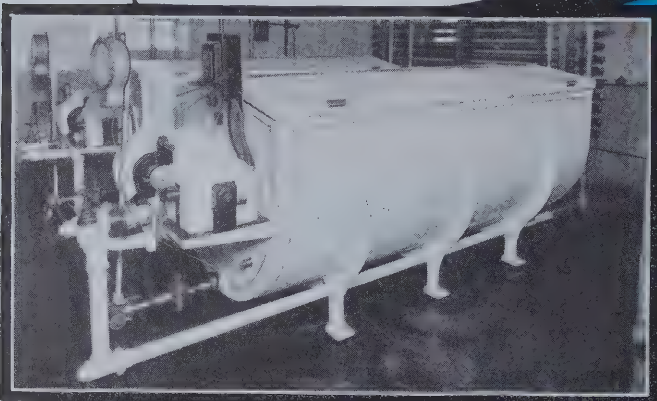
M M and R. N. DEPT.
REC'D SEP 3 1925
REFERRED TO
NOTE & RETURN

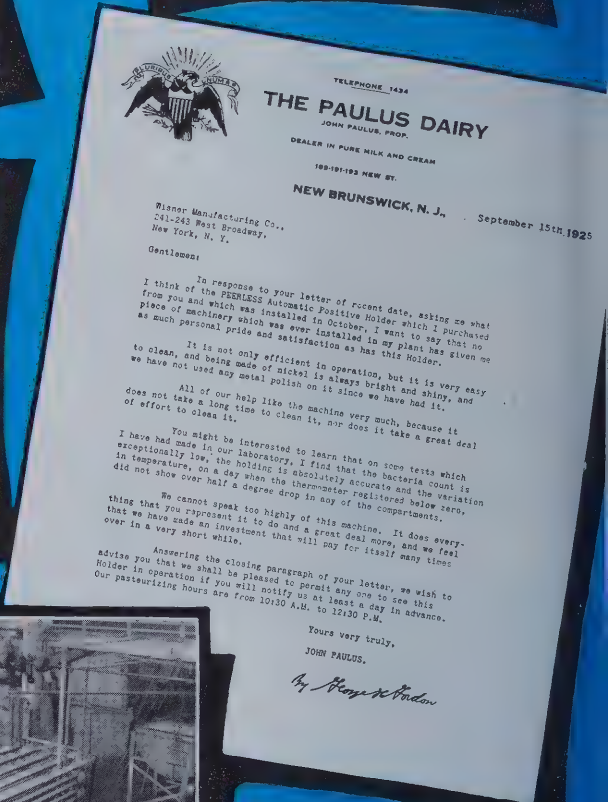
The International Nickel Co
67 Wall Street
New York, N. Y.

Dear Sirs,

In reply to your communication of August 31 in regard to our experience with our pure nickel lined vats, I will say that since using Burrell Nickel lined vats our bacteria counts have been extremely low, so low that the average milk dealer would not believe it if I gave them our counts. In my opinion there is nothing that will excel nickel lined containers for milk.

Very sincerely yours
E. C. Blake





TELEPHONE 1434
THE PAULUS DAIRY
JOHN PAULUS, PROP.
DEALER IN PURE MILK AND CREAM
189-191-193 NEW ST.
NEW BRUNSWICK, N. J.

September 15th 1925

Wisner Manufacturing Co.,
241-243 West Broadway,
New York, N. Y.

Gentlemen:

In response to your letter of recent date, asking me what I think of the PEERLESS Automatic Positive Holder which I purchased from you and which was installed in October, I want to say that no piece of machinery which was ever installed in my plant has given me as much personal pride and satisfaction as has this Holder.

It is not only efficient in operation, but it is very easy to clean, and being made of nickel is always bright and shiny, and we have not used any metal polish on it since we have had it.

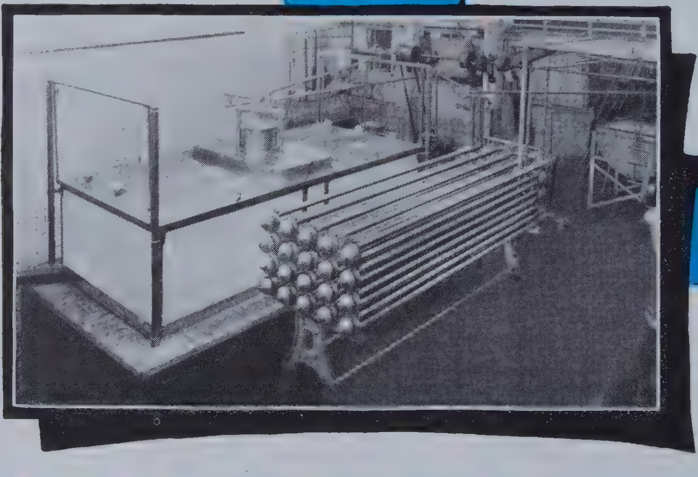
All of our help like the machine very much, because it does not take a long time to clean it, nor does it take a great deal of effort to clean it.

You might be interested to learn that on some tests which I have had made in our laboratory, I find that the bacteria count is exceptionally low, the holding is absolutely accurate and the variation in temperature, on a day when the thermometer registered below zero, did not show over half a degree drop in any of the compartments.

We cannot speak too highly of this machine. It does everything that you represent it to do and a great deal more, and we feel that we have made an investment that will pay for itself many times over in a very short while.

Answering the closing paragraph of your letter, we wish to advise you that we shall be pleased to permit any one to see this Holder in operation if you will notify us at least a day in advance. Our pasteurizing hours are from 10:30 A.M. to 12:30 P.M.

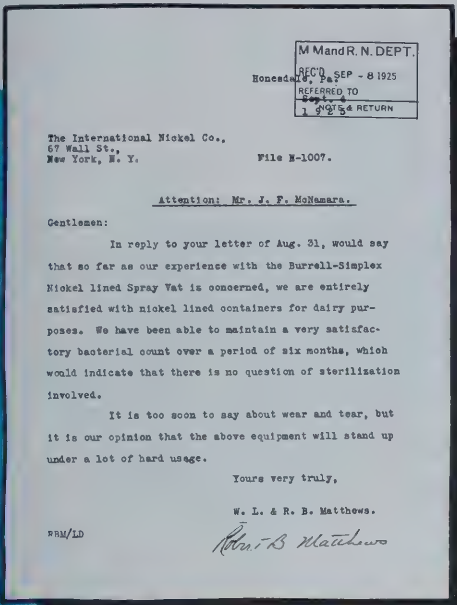
Yours very truly,
JOHN PAULUS.
By George H Gordon



INCO
NICKEL
TRADE MARK

Pure Nickel for Modern Dairies

and What They Say about Results



M Mand R. N. DEPT.
REC'D SEP - 8 1925
REFERRED TO
NOTE & RETURN

Honesdale, Pa.
Sept. 4
1925

The International Nickel Co.,
67 Wall St.,
New York, N. Y.

File N-1007.

Attention: Mr. J. F. McNamara.

Gentlemen:

In reply to your letter of Aug. 31, would say that so far as our experience with the Burrell-Simplex Nickel lined Spray Vat is concerned, we are entirely satisfied with nickel lined containers for dairy purposes. We have been able to maintain a very satisfactory bacterial count over a period of six months, which would indicate that there is no question of sterilization involved.

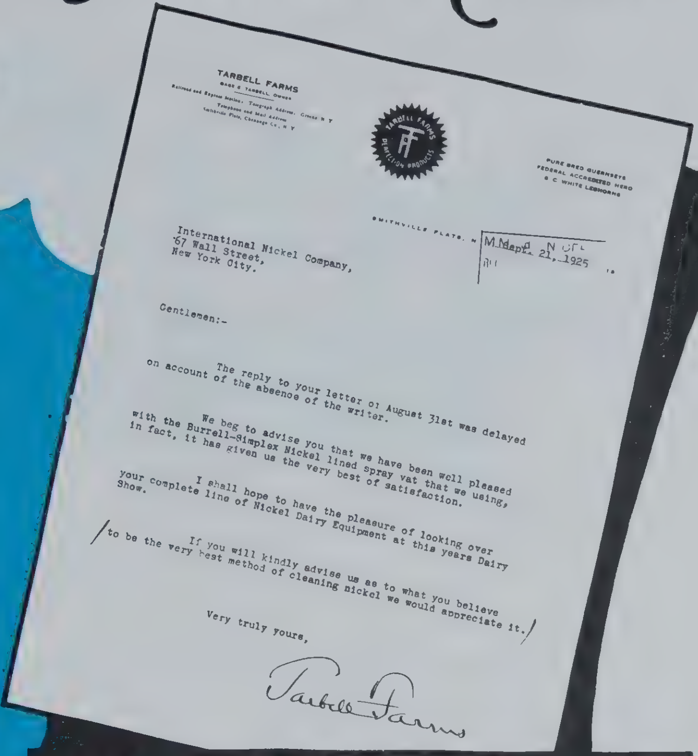
It is too soon to say about wear and tear, but it is our opinion that the above equipment will stand up under a lot of hard usage.

Yours very truly,

W. L. & R. B. Matthews.

Robert B Matthews

RBM/LD



TARBELL FARMS
GAGE & TARBELL, OWNER
Railroad and Express Station, Telegraph Address: Greene N Y
Telephone and Mail Address
Smithville Flats, Chenango Co., N Y

PURE BRED GUERNSEYS
FEDERAL ACCREDITED HERD
S C WHITE LEGHORNS

SMITHVILLE FLATS, N Sept. 21, 1925

International Nickel Company,
67 Wall Street,
New York City.

Gentlemen:-

The reply to your letter of August 31st was delayed on account of the absence of the writer.

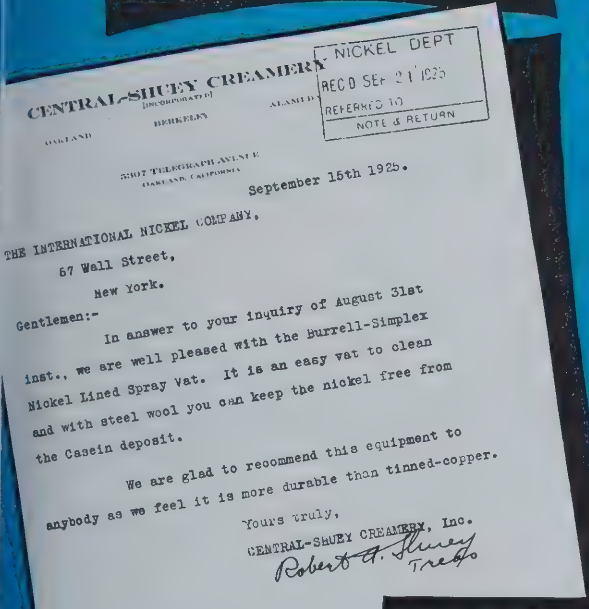
We beg to advise you that we have been well pleased with the Burrell-Simplex Nickel lined spray vat that we using, in fact, it has given us the very best of satisfaction.

I shall hope to have the pleasure of looking over your complete line of Nickel Dairy Equipment at this years Dairy Show.

If you will kindly advise us as to what you believe to be the very best method of cleaning nickel we would appreciate it.

Very truly yours,

Tarbell Farms



CENTRAL-SHUEY CREAMERY
[INCORPORATED]
OAKLAND BERKELEY ALAMEDA
5307 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA

NICKEL DEPT
REC'D SEP 21 1925
REFERRED TO
NOTE & RETURN

September 15th 1925.

THE INTERNATIONAL NICKEL COMPANY,
67 Wall Street,
New York.

Gentlemen:-

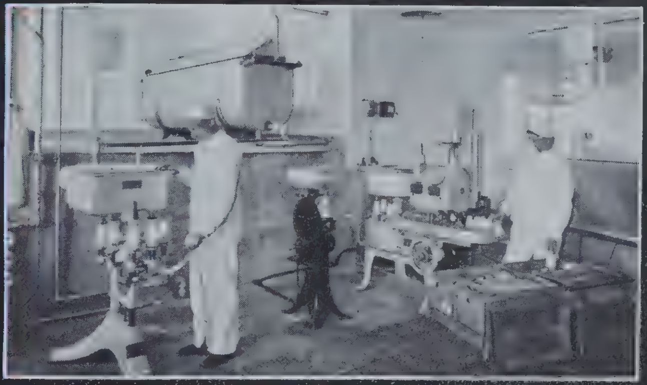
In answer to your inquiry of August 31st inst., we are well pleased with the Burrell-Simplex Nickel Lined Spray Vat. It is an easy vat to clean and with steel wool you can keep the nickel free from the Casein deposit.

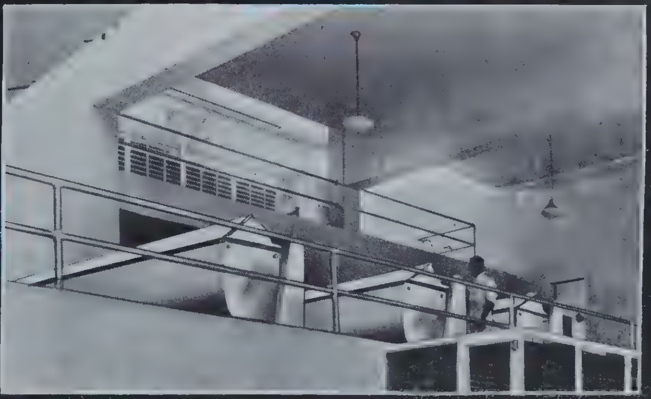
We are glad to recommend this equipment to anybody as we feel it is more durable than tinned-copper.

Yours truly,

CENTRAL-SHUEY CREAMERY, Inc.

Robert A. Shuey
Treas





INCO
NICKEL

for Modern Dairies Pure Nickel

A & P CONDENSERY
WEST BEND, WIS.

WACHO *Nickel Lined* Steel Tanks

For safely and economically hauling milk or cream over any kind of road under all conditions. Wacho Nickel Lined Steel Tanks will withstand this hard wear. No jars, bumps or road abuse will affect this tank.

The tank body is made of steel, perfectly welded inside and outside. On the inside pure nickel sheets are welded to the steel so that the two metals become one strong and solid mass.

Tests prove that it is impossible for dents or bumps, no matter how severe, to loosen or peel off the solid sheeting of nickel.

Another important feature of Wacho Milk Tanks is the manhole. Authorities have pronounced it the best and most sanitary cover ever designed for use on milk tanks. It is airtight and prevents dirt and dust or air from contaminating the milk. Wacho Milk Tanks are built in sizes from 500 gallons to 2000 gallons capacity. They are lighter in weight than other metal tanks. The cost is less. Built for all makes of trucks and trailers.

Write for prices and specifications.

WACHO MFG. COMPANY
Manufacturers
MILK TRUCK TANKS, STORAGE TANKS, SPECIAL DAIRY EQUIPMENT
966 30th St., Milwaukee

INCO
NICKEL
TRADE MARK
Pure Nickel for Modern Dairies

Faultless

Positive — Automatic — Valveless

HOLDER

¶ Incorporates every requirement to accomplish perfect pasteurization.

¶ Each compartment is absolutely separated, forming a distinct holding unit in itself.

¶ Each compartment is automatically filled without the usual dependency of valves.

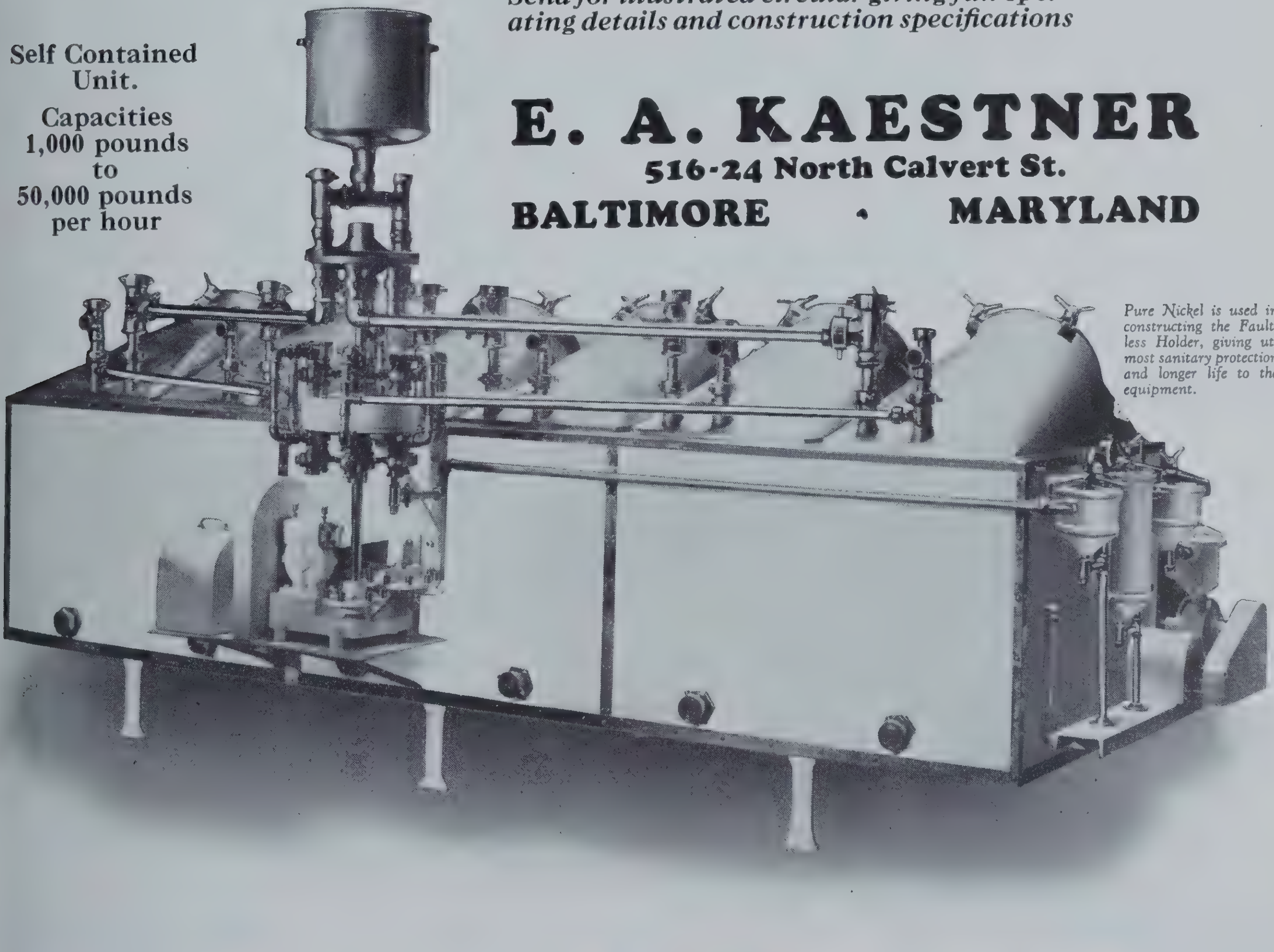
¶ Each compartment is automatically discharged by compressed air pressure, at the end of a correct holding period by a fool-proof timing device.

Send for illustrated circular giving full operating details and construction specifications

Self Contained Unit.

Capacities 1,000 pounds to 50,000 pounds per hour

E. A. KAESTNER
516-24 North Calvert St.
BALTIMORE · MARYLAND



Pure Nickel is used in constructing the Faultless Holder, giving utmost sanitary protection and longer life to the equipment.

INCO
NICKEL

For Modern Dairies Pure Nickel

The Mark of Merit

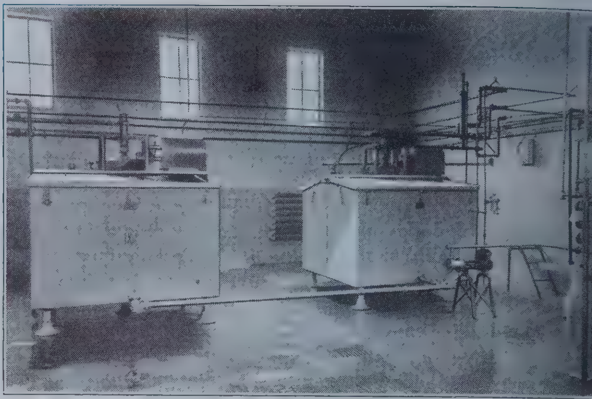
JENSEN

Dairy Products

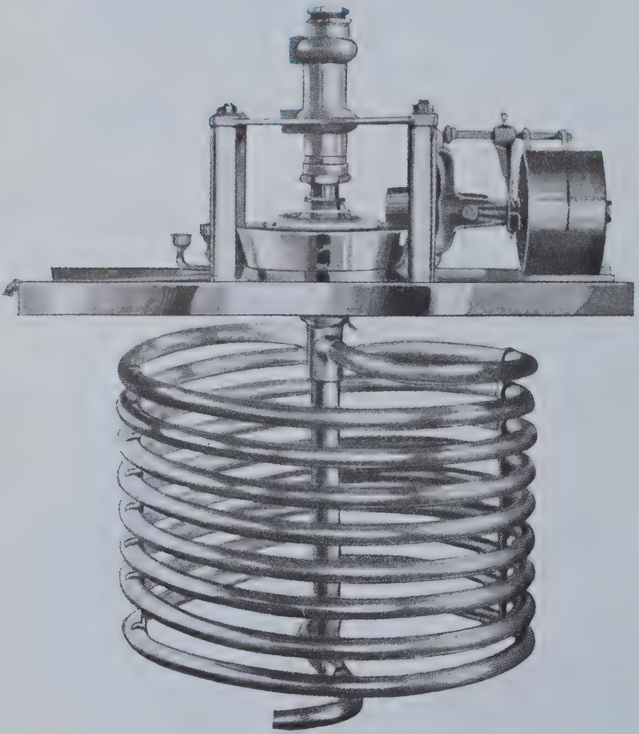
can be only as good as

the Equipment Handling Them—

That is why one of the largest dairies in the East has standardized on the



VERTICAL COIL MACHINES made of **Pure Nicke**



The photo above shows two 750 gallon PURE NICKEL VERTICAL COIL MACHINES used for manufacturing CULTURE MILK in the above mentioned plant.

The photo to the left shows a completely assembled

Jensen Vertical Co

made of SEAMLESS NICKEL TUBING with NICKEL HEADERS and NICKEL SHAFT, and this is what turns the trick and produces the wonderful results we are getting all over the country where JENSEN VERTICAL COIL EQUIPMENT made of PURE NICKEL is being used.

Jensen Creamery Machinery Company

BLOOMFIELD, N. J. **OAKLAND, CAL**

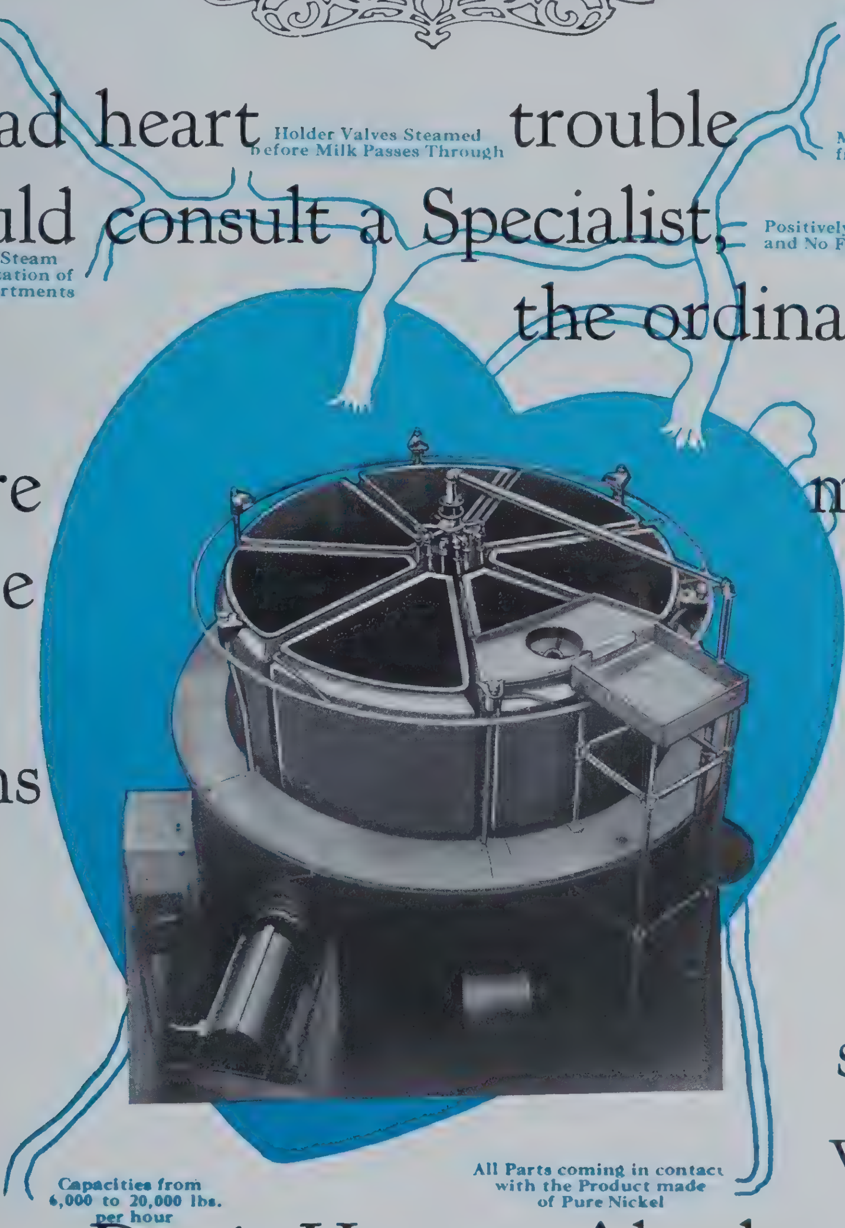
INCO
NICKEL
TRADE MARK
Pure Nickel for Modern Dairies

Vhat the Heart is to Your Body
e Holder is to Your Milk Business

you had heart trouble
ou would consult a Specialist, not de-
nd on the ordinary M. D.

here are many milk
ants, we are pos-
ive, with
mptoms of heart
ouble.

Ve are specialists
this work and
e Jensen-Davis-Horton Absolute Positive
older is the remedy.


All Foam Entirely Eliminated by Water Tube
Holder Valves Steamed before Milk Passes Through
Live Steam Sterilization of Compartments
Holder Valves Washed after Milk Passes Through
Milk Smear Eliminated from Valves by Steaming and Washing
Positively Timed and No Foam
Capacities from 6,000 to 20,000 lbs. per hour
All Parts coming in contact with the Product made of Pure Nickel

Ask Us for Quotations and Data.

INCO NICKEL TRADE MARK

or Modern Dairies Pure Nickel

Assure Yourself It's Pure Solid

Nickel

INCO

When you buy Dairy Machinery insist on INCO Pure Nickel construction.

As a sanitary surface it stands supreme.

It is easy to clean and keep clean.

It does not rust and resists corrosion of lactic acid so detrimental to many surfaces.

Its great strength and malleability makes it adaptable to a wide variety of uses.

Its ability to conduct heat makes it efficient for heating apparatus.

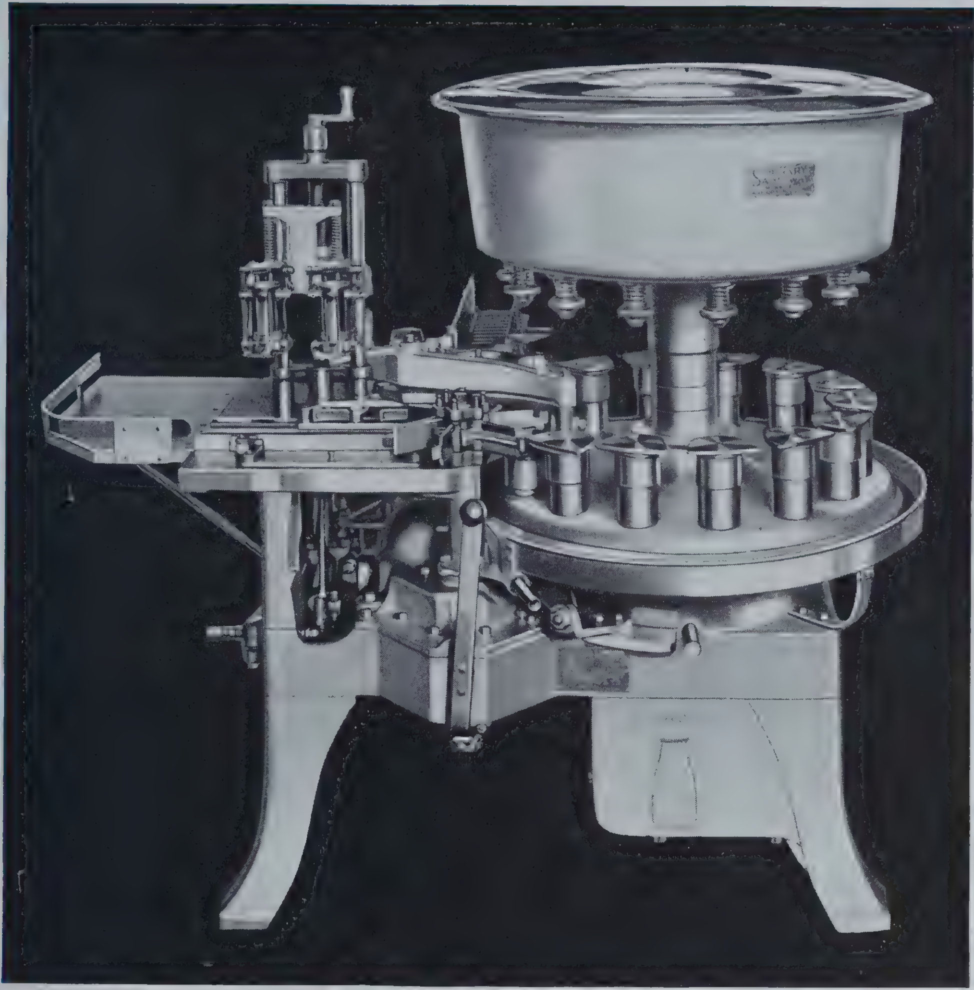
In general plant appearance INCO Pure Nickel equipment is second to none.

The International Nickel Company

67 Wall Street **New York, N. Y.**

INCO NICKEL TRADE MARK

Pure Nickel for Modern Dairies



—of course

MILWAUKEE

FILLERS AND CAPPERS

Use Pure Nickel

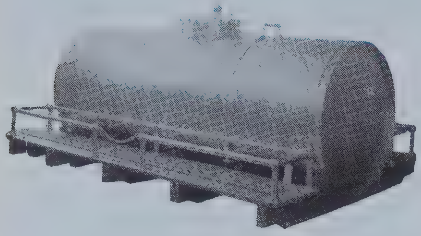
in every connection dictated by best engineering practice, such as **Valves, Bottle-lifters, Table, Drip Trough, Cover—** wherever milk comes into contact with metal, pure nickel is used.

Milwaukee Dairy Supply Mfg. Co.

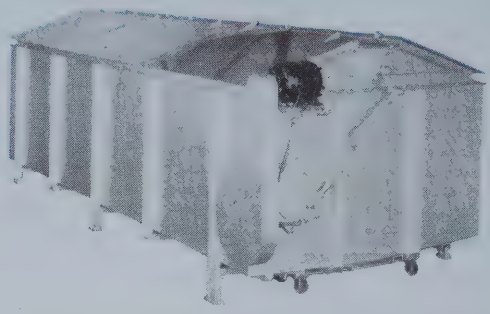
MILWAUKEE, WISCONSIN

INCO NICKEL

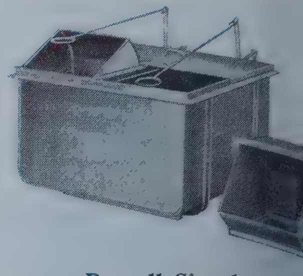
or Modern Dairies Pure Nickel



Burrell-Simplex
Truck Tank



Burrell-Simplex Sanitary Storage Vat



Burrell-Simplex
Style "C" Sanitary Weigh

Here Is
Representative Burrell Nickel-lined Equipment

HERE is a line of Burrell dairy equipment, already distinguished for its superior features, which has been made still better by the use of pure nickel.

This pure, solid nickel-lined apparatus ensures the greatest possible sanitation—for pure nickel provides a smooth, rust-proof, non-corrosive surface. Milk handled in nickel-lined Burrell-Simplex Storage Vats, Filters, Weigh Cans, Truck Tanks, Coolers and Pasteurizers comes into contact with nothing but clean, smooth surfaces that keep it fresh, sweet and uncontaminated. Moreover, these pure nickel linings have a toughness and durability that match the sturdiness characteristic of Burrell equipment. Pure nickel will not rust, peel, chip or crack—and it has the strength and wearing qualities of steel.

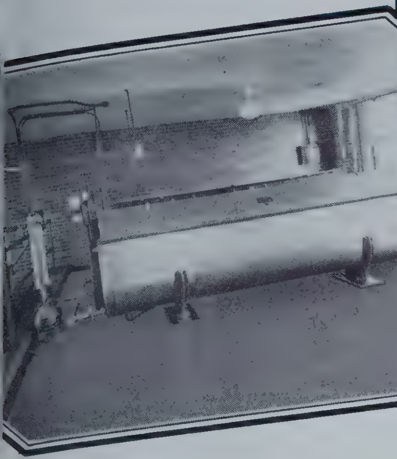
On this page is illustrated some Burrell Dairy equipment which can be supplied with linings of pure nickel. We will be glad to send you complete information about this or other apparatus—without obligation.

D. H. BURRELL & CO. INC. LITTLE FALLS, NEW YORK

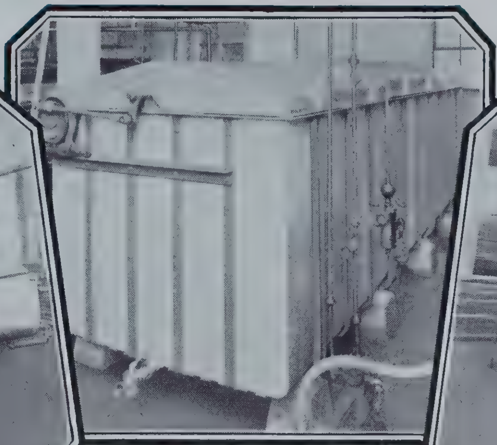
TRADE MARK REG. U. S. PAT. OFF.
BURRELL
SIMPLEX
Dairy Creamery Cheesery and Milk Plant Apparatus

INCO
NICKEL

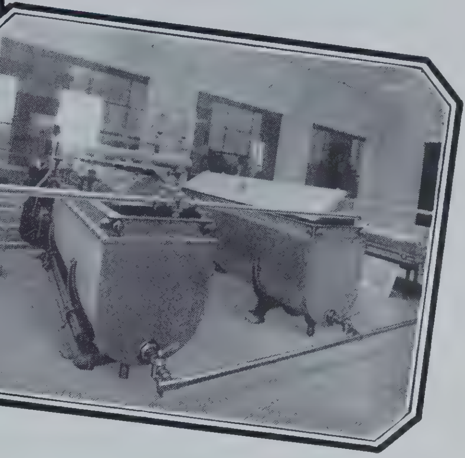
Pure Nickel *for* Modern Dairies



the Earl E. Blain Dairy,
veland, Ohio.



In the Brown & Bailey,
Condensed Milk Co.,
Lakeville, N. Y.



In the Walker-Gordon Laboratory,
Charles River, Mass.

laster Craftsmanship
Has Built Pure Nickel *into* Superior Dairy Equipment

Pure nickel is accepted as ideal for the linings of dairy equipment, yet in order to make a substantial piece of equipment from pure nickel, the manufacturer must so construct his apparatus that it will last as long as the nickel itself. This requires experienced workmen, expert engineering—master craftsmanship.

It is significant that Burrell was first to exhibit pure nickel-lined dairy equipment, and probably the first manufacturer of dairy equipment in this country to recognize the value of pure nickel for this purpose. In 1921, at the National Dairy Show, a Burrell-Simplex Spray Pasteurizer, solid nickel-lined, was exhibited. It was the first piece of pure nickel-lined dairy equipment manufactured in this country.

Today the expertness of Burrell engineers and craftsmanship of Burrell workmen have made Burrell the leader in the production of pure nickel-lined dairy equipment—with Burrell apparatus being installed in the finest dairy plants throughout the world.

D. H. BURRELL & CO. INC. LITTLE FALLS, NEW YORK

TRADE MARK REG. U. S. PAT. OFF.
BURRELL
SIMPLEX
Dairy Creamery Cheesery and Milk Plant Apparatus

INCO
NICKEL
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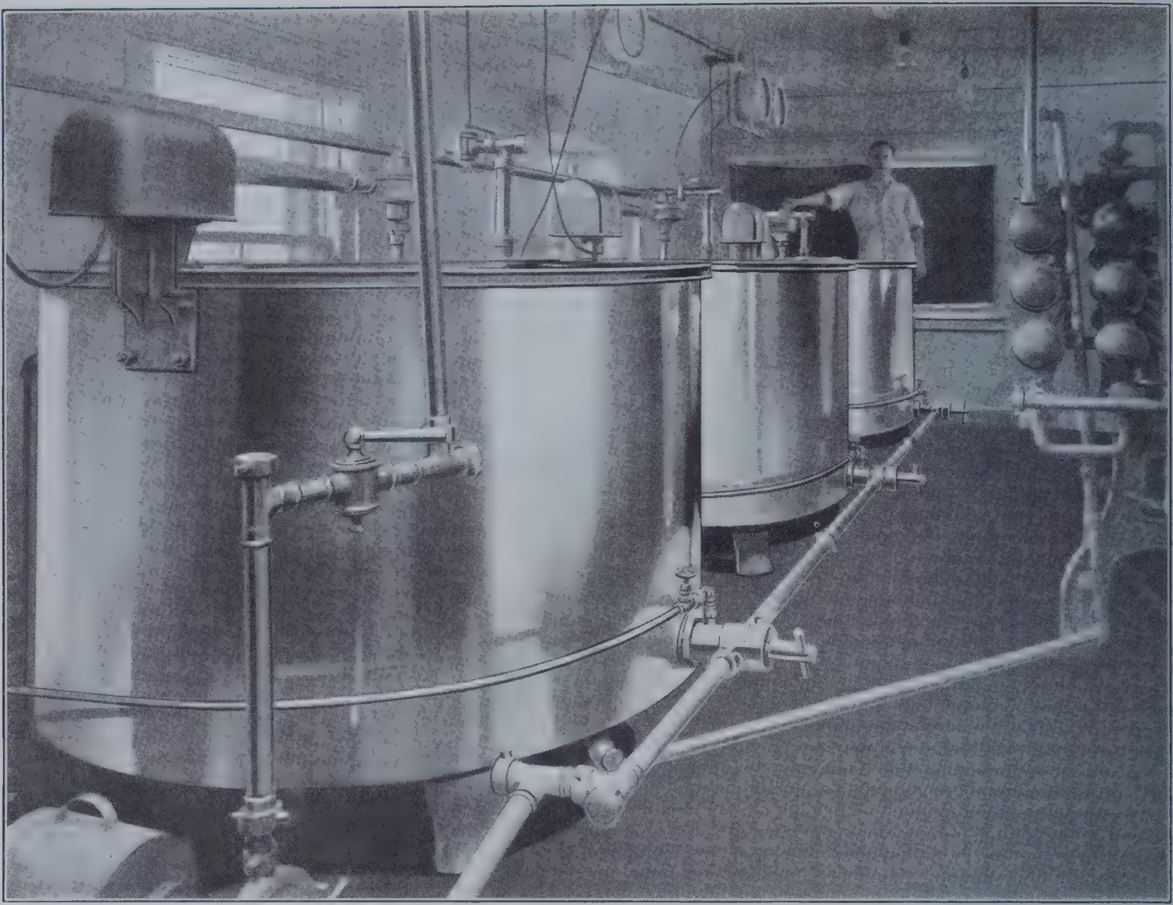
or Modern Dairies Pure Nickel



A view of pasteurizing room of the Boyda Dairy Co., Chicago, showing an installation of three 300-gal. "Illinois" motor drive pasteurizers with automatically sterilized leak detector flush valves.

The "Illinois" Pasteurizer

(Eighty-six now in daily operation in the Chicago district alone)

THE Pure Nickel used in the construction of the Illinois Pasteurizer and the special design that eliminates all pockets for the lodgement of bacteria are just a few of the reasons why users of the Illinois Pasteurizer show such low bacteria counts.

¶ Furthermore, the Pure Nickel stays bright. Its surface is hard and lasts long. Neither do the milk acids affect it nor does it peel off like tinned surfaces.

¶ The increasing numbers using the Illinois Pasteurizer should warrant a thorough investigation on your part.

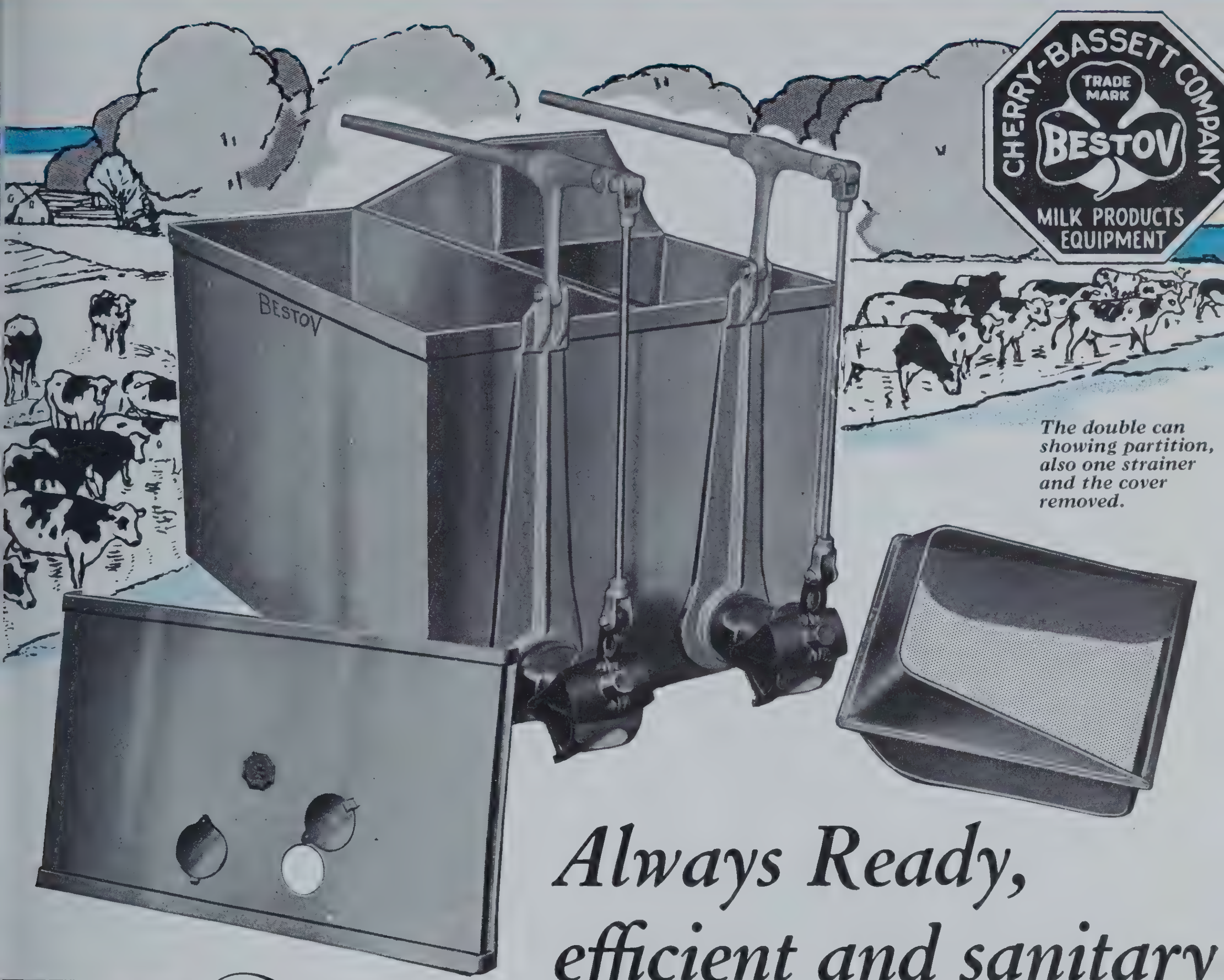
——— ***Write us or your nearest jobber*** ———

CHAS. DENNERY CO., 2824 Williams St., Dallas, Texas
CHAS. DENNERY CO., 520 Magazine St., New Orleans, La.
HUNGERFORD BROS., 676 Chapel St., New Haven, Conn.
DAIRY & PRODUCE SUPPLY CO., 107 S. W. Third St., Des Moines, Iowa
HUGHES SALES CO., 326 Railway Exchange Bldg., Seattle, Wash.
SHELLEY EQUIPMENT CO., 8th and R Sts., Lincoln, Neb.
GEO. W. PRISING, Western Dairy Equip. Co., 1215 Clay St., Oakland, Calif.

SEND FOR THE COMPLETE DETAILS

ILLINOIS CREAMERY SUPPLY CO.
715-19 South Robey Street **CHICAGO, ILL.**

INCO
NICKEL
Pure Nickel for Modern Dairies



The double can showing partition, also one strainer and the cover removed.

Always Ready, efficient and sanitary

e first unit of equip-
nt to receive incoming
sh milk must always
sanitary and in per-
t working order 365
s a year.

WHEN fresh, sweet milk reaches your plant it is important that you weigh it quickly with a minimum of man power, and with full assurance that your weigh can is not a source of contamination. You will find these requirements carefully anticipated in the design and construction of the

BESTOV WEIGH CAN

You can depend on this device to perform efficiently day after day because it is built to withstand the severe daily service every weigh can receives. Most weigh cans break down quickly because of the constant strain and jolt from the operation of the gate levers. The Bestov however, as illustration shows, is designed so that no strain is transmitted to the body or seams of the can. Solid brass castings extend from the gates up to the levers, making an independent support.

The bottom of the Bestov Weigh Can is pitched and channelled for quick draining. The walls and covers, made in master style of pure nickel provide the utmost in sanitation.

Bulletin 2602 explains every detail; sent promptly without any obligation.

herry-Bassett Company

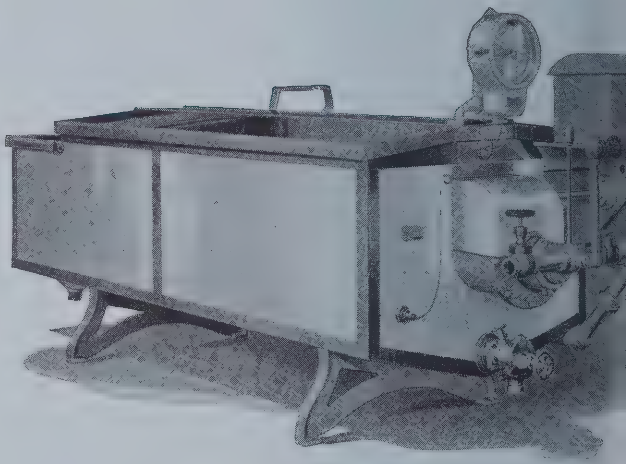
PHILADELPHIA
PITTSBURGH :: N. Y. CITY :: SYRACUSE
BALTIMORE

INCO
NICKEL

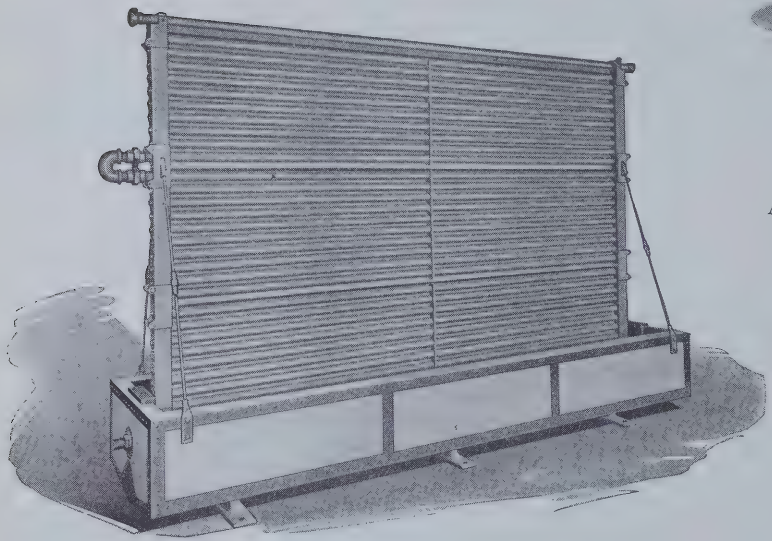
or Modern Dairies Pure Nickel

CP Specialties of Pure Nickel

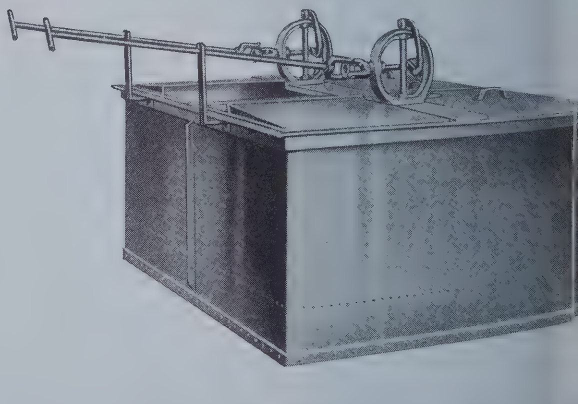
At the left. *Rectangular Milk Storage Tank.* Pure Nickel lining and covers. Cork insulated. The ultimate in storage tanks for raw milk.



At the right. *Wizard Pasteurizer.* Pure Nickel lining, coil and covers.



At the left. *Alaska Tubular Cooler.* All Pure Nickel where milk contacts. Made in many sizes.



At the right. *Weigh Can of Pure Nickel.* Made to any specifications desired.

INCO
NICKEL
TRADE MARK
Pure Nickel for Modern Dairies

Master Workmen in all Materials

CP dairy apparatus shops are among the longest established in the business. They manufacture a greater variety of items for the dairy products industry than does any other establishment. In producing the ***CP*** Line we use all materials recognized as standard for the dairy industry and our operations cover a wide range of materials and processes and our facilities for special work are unsurpassed.

On the facing page are illustrations of standard items made largely of pure nickel when so ordered. We are prepared to supply any of our apparatus of pure nickel construction wherever its use is practical.

The characteristics of pure nickel make it especially suited to use in apparatus at points where milk comes in contact.

Correspondence and inquiries are invited.

THE CREAMERY PACKAGE MFG. COMPANY

SALES BRANCH OFFICES (Write Nearest One)

Atlanta, Ga., 58-68 Nelson St.
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Denver, Colo., 1649 Blake St.
Jersey City, N. J., 122 Morgan St.
Kansas City, Mo., 1408 W. 12th St.
Los Angeles, Cal., 2461 Porter St.
Minneapolis, Minn., 318 Third St. N.
Omaha, Nebr., 113 S. Tenth St.
Philadelphia, Pa., 1907 Market St.
Portland, Ore., 6-8 N. Front St.
San Francisco, Cal., 699 Battery St.
St. Louis, Mo., 508 N. Second St.
Toledo, Ohio, 119 St. Clair St.
Waterloo, Ia., 406 Sycamore St.

INCO
NICKEL
TRADE MARK
or Modern Dairies Pure Nickel

"Calling the Roll"

Pure INCO Nickel
in their Dairy Equipment

Adams Dairy Farm, Blue Springs, Mo.
A. J. Robinson & Co., Roslindale, Mass.
Armour & Co., Chicago.
Battle Creek Sanitarium Creamery, Battle Creek, Mich.
Belle Isle Creamery, Detroit, Mich.
Blue Valley Creamery Co., Cedar Rapids, Ia.
Borden's Certified Farms, Wallkill, N. Y.
Borden's Farm Products Co. (9 plants)
Brown & Bailey Condensed Milk Co. (2 plants)
Bowman Dairy Co., Chicago, Ill.
Central Shuey Creamery, Oakland, Calif.
Clearfield Dairy Co., Clearfield, Pa.
Cloverland Dairy Products Co., New Orleans, La.
Commonwealth of Massachusetts, Springfield, Mass.
Dairymen's League Co-operative Association, Inc., Remsen, N. Y.
Danvers State Hospital, Hawthorne, Mass.
E. C. Blake, Manchester, N. H.
Farmers' Union Creamery Co., Fremont, Neb.
Fairmont Creamery Co. (2 plants)
Florida Dairies, Miami, Fla.
Glenn Dairy, Sacramento, Calif.
Hendler Creamery Co., Baltimore, Md.
Highland Farm Dairy, Highland, Ill.
Hoosier Condensed Milk Co., Bluffton, Ind.
Ideal Dairy, Marion, Ohio.
J. T. Castle Ice Cream Co., Irvington, N. J.
Janssen Dairy Co., Hoboken, N. J.
Jessen & Goldtrap Creamery Co., Caspar, Wyoming.
Kipp Dairies, New Haven, Conn.
Libby, McNeil & Libby, Chicago, Ill.
Louisiana Creamery, Baton Rouge, La.
Millbrae Dairy, San Francisco, Calif.
Montrose Dairy Co., Akron, Ohio.
Moore's Dairy, Cedar Rapids, Iowa.
National Dairy Products Co. (2 plants)
Nestle's Food Co., New York, N. Y.
Paulus Dairy, New Brunswick, N. J.
Pennsylvania State College, State College, Pa.
Pet Milk Co., St. Louis, Mo.
Phenix Dairy, Houston, Texas.
Producers' Dairy Co., Springfield, Ill.
Purity Milk Co., Philipsburg, Pa.
Risdon Creamery, Detroit, Mich.
Roberts Sanitary Dairy, Omaha, Neb.
Sanitary Gold Seal Dairy, Los Angeles, Calif.
Sheffield Farms Co., N. Y. (2 plants)
Southern Cream & Milk Co., Atlanta, Ga.
Springdale Dairy, Seattle, Wash.
Tarbell Farms, Greene, N. Y.
U. S. Dairy Products Co. (Scott-Powell Div.)
University of Illinois, Urbana, Ill.
Walker-Gordon Milk Co. (2 plants)
Westboro State Hospital, Westboro, Mass.
Wrentham State School, Wrentham, Mass.

Nickel is rapidly replacing coated materials in the construction of dairy equipment. The day is not far off when it will be universally used once its advantage become generally recognized. The partial list above gives an idea of the type dairy now equipped with nickel. More detailed information on any of these i- stallations will be furnished on request.

INCO NICKEL TRADE MAR Nickel INCO NICKEL ADE M

THE INTERNATIONAL NICKEL COMPANY, 67 WALL STREET, NEW YORK,

Some More Facts About Metals

Metals Commonly Used in Milk Plant Equipment Cause no Abnormal Changes, it is Pointed Out

By G. N. QUAM and E. I. SOLOMAN*

MUCH work has been done on the effects of certain metals on the flavors of milk and butter. The methods of observation have been varied in some instances the descriptions of procedure have vague. It was during the effort to check some ished results that one of the authors started the y of the effect of metals and metallic oxides on the ge in acidity and rate of spoilage of milk.

s early as 1905, Golding and Feilmann, Jour. of of Chem. Indus. 24, 1285, discovered that milk ed through a partially de-tinned copper cooler aced a "mealy flavor." W. H. Sheffield, Res. Lab. heffield Farms Co., June 29, 1915, observed that copcopper alloys and zinc produced disagreeable flavors ilk at pasteurizing temperature while nickel and had no effect. Similarly Hunziker and Hosman, . of Dairy Sci. 1, 320 (1918), reported the developt of a tallowy flavor and the acceleration of bleachin butter exposed to iron or copper. Nickel and tin luced no such effects. Donauer, Ice Cream Review 3 (1922), stated that metals accelerated the spoilage ilk and that metal in solution beyond a certain perage imparts peculiar metallic flavors. His method rocedure is not clearly indicated and his conclusions rding the effect of metals on the flavor of milk and rate of spoilage may not be applicable to milk at ince it appears that the study of flavors was made water solutions of lactates and the rate of spoilage, prepared metallic lactates dissolved in milk. In former case, milk was not involved and in the latthe composition of the milk was altered. Likewise, solution of lactic acid and citric acid used by Erf, Technical Control of Dairy Products, Mojonnier Troy, page 856, in his study of flavors cannot be to be comparable to milk.

The object of the work reported here was to deine the effect of metals and their oxides on the ge of acidity of whole milk under natural condis and the effect of metals on taste, odor and rate of efactive decomposition of raw whole milk. The les of the metals were also used, since an oxide film ld form on some metals during the processes of hing and steaming as employed in milk plants.

I. The Change of Acidity During Spontaneous Souring of Milk.

The metals used were in sheet form cut into 3" by 3" res and highly polished. The squares were rolled coils and introduced into 500 c.c. pyrex glass Erlener flasks, plugged with cotton and sterilized be being charged with 400 c.c. samples of milk. At rvals, each flask was shaken and a sample of milk drawn to determine the per cent acidity. A flask aining no metal and one containing hard porcelain s were observed in a similar manner for comparison. metals used were the best that could be obtained; copper used was a high grade raw copper, which ld not be confused with tinned copper, and the ial steel contained 17-18 per cent chromium. The nesium used was a pure grade of turnings. Table low indicates the observations made in one of the s of experiments. The temperature was room temperature as comparative results only were sought in this investigation. The column marked Blank indicates that the milk was exposed to no other surfaces than that of the glass flask. It will be noted that the increases of acidity for Blank, glazed porcelain, aluminum, chromium steel, nickel, tin and silver are the same; thus it appears that the presence of those metals caused no change in the rate of souring. Further the development of odor and appearance were similar. The increases of acidity for milk exposed to raw copper, wrought iron and zinc and magnesium were much lower. The milk became slightly colored and developed bad odor from exposure to wrought iron. The magnesium caused the early solution of the curd and the development of a foul cheese-like odor. In general, the retardation of souring seems to be directly proportional to the increase of the rate of spoilage. Table II further verifies the statement above.

Table I. The Increase in Per Cent Acidity (Lactic Acid) of Whole Raw Milk in the Presence of Metals.

Hours exposed	Blank per cent	Glazed porcelain per cent	Magnesium per cent	Aluminum per cent	Zinc per cent	Wrought iron per cent	Chromium steel per cent	Nickel per cent	Tin per cent	Copper per cent	Silver per cent
0	.145	.145	.145	.145	.145	.145	.145	.145	.145	.145	.145
5	.148	.147	.147	.147	.147	.145	.147	.148	.148	.147	.148
12	.151	.151	....	.150	.151	.151	.152	.151	.151	.148	.151
15	.185	.185	.148	.185	.184	.182	.186	.185	.183	.172	.185
18	.327	.326	....	.326	.318	.289	.327	.326	.326	.249	.327
20	.51	.513	....	.515	.50	.43	.515	.51	.501	.345	.515
22	.69	.69	.41	.690	.68	.60	.70	.685	.685	.48	.685
25	.78	.785	....	.775	.71	.70	.78	.775	.77	.62	.78
27	.79	.79	.55	.79	....	.76	.785	.785	.78	.72	.79

The observations on the effect of oxides of the metals on the change of acidity could not be made complete. The oxides of nickel and tin had no effect on the change of acidity of souring milk while the oxides of aluminum, zinc, wrought iron and raw copper greatly retarded the rate.

Table II.—The Increase in per cent Acidity (Lactic Acid) of Whole Pastuerized Milk in the Presence of Metals.

Time hours	Temperature °C	Blank per cent	Nickel per cent	Tin per cent	Chromium steel per cent	Wrought iron per cent	Copper per cent
0	27	.145	.145	.145	.145	.145	.145
5	25	.151	.146	.151	.152	.145	.147
12	24.5	.151	.147	.151	.152	.157	.148
15	25	.185	.182	.183	.188	.187	.172
18	26	.327	.326	.325	.327	.289	.249
20.5	27	.51	.51	.501	.515	.43	.345
22	27	.69	.68	.685	.70	.60	.48
23.5	27	.74	.74	.73	.750	.69	.55
25	26.5	.76	.76	.73	.75	.71	.62
27	26	.79	.78	.78	.78	.76	.72
29	26	.80	.795	.78	.79	.77	.74

III. Effects of Metals on the Putrefactive Decomposition of Milk.

In the study of the change of acidity it was observed that certain metals seemed to hasten the putrefactive decomposition of the raw milk to which they were exposed. The samples were prepared as described above and odor and taste tests were made at intervals for

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Chemistry Department, Coe College, Cedar Rapids, Ia.

nine days. Magnesium caused the most pronounced change. On the second day the curd had been converted to a whey-like solution and a bitter taste had developed. On the third day the odor was like that of decayed cheese. Wrought iron developed a pungent, sour odor and an acid, metallic taste, in the milk to which it was exposed. Copper likewise early developed signs of putrefactive decomposition. Lead and zinc seemed to have a slightly opposite effect; the milk exposed to lead, developed a sweetish sour taste. Milk exposed to nickel, chromium steel and tin was not affected by the metals as the changes observed were the same as with milk not exposed to any metals. The latter would also be true of properly tinned copper. For the metals effecting more rapid spoilage of milk, the order found was: Magnesium, low carbon steel, copper, wrought iron and aluminum. The effect of aluminum was practically ne ible. It is difficult to classify lead and zinc as putr tion was much retarded, apparently due to the ant tic properties of salts formed from these metals.

IV. Conclusion.

The observations reported above verify the s ments of some investigators regarding copper and but it is evident that the sweeping statements reg ing the general effect of all metals on spoilage are well founded. Nickel and chromium steel (of the g used) and tin do not appear to cause any change o properties of milk and therefore, as far as the obse tions reported above are concerned, are apparentl inert toward milk as the containers used: namely, p glass.

That 1926 Inventory

By FRED E. KUNKEL

THE beginning of a new year's business brings to every progressive dairy-products merchandiser a resume of last year's activities in retrospect as "Inventory Time," only in a different way from the ordinary stock-taking and book-analysis methods, or striking off a profit and loss statement.

One dairyman last year found it a good plan to make this event a time for contemplative thought — a fitting moment in which to review the twelve months which had just passed—a survey with both a personal and a business aspect.

And in going over those memorable ledger sheets of time itself he found ample food for serious reflection. Based on the achievements of the past he speculated on conquests for the future. It was a constructive moment, pregnant with tremendous possibilities, if only he could manipulate it in just the right way.

So, in his inventory-analysis, he jotted down some of the salient phases of his business, such as "bill paying," including credit and collection problems, advertising program and an analysis of "why not use more direct mail?" since results in the past had fully justified it, and how to build up a corking good mailing list, a study of his newspaper advertising and whether more constructive effort should be put into this in the future; delivery methods, or how to simplify and short cut effort, the wisdom of hiring and firing incompetents, etc.; service and business-building, or how to handle telephone calls at all times with good salesmanship spirit, how to promote a friendly feeling between the customer and the house, how to do little favors which make the customer feel like coming back again and again, little stunts which helped along publicity, etc.

All of these little ideas he pulled out of cobwebbed cubby holes, dusted them up, gave them an airing, with the net result that the year just closed proved one of the best in history, and he does not by any means attribute it solely to business conditions either or to natural prosperity.

This dairy products merchandiser feels that as a result of making a "**mental**" inventory of his business accomplishments in the past from the purely "**personal**" side of it, that he had made rapid strides progressward, and he is now a firm believer in letting each month of January and the New Year be a contemplative occasion for constructive sales and business management analysis, with a view to detecting the weak spots in his orga tion, the missing links which complete the chain, the ten parts in his business which need to be consigne the scrapheap and sacrificed on the altars of progre

To sell more milk, cream, butter, cream cheese, termilk, ice cream, and other dairy products from to year—that's the altruistic aim of this aggressive dealer—and by taking a careful inventory of his accomplishments he is enabled to prepare a real he business-building program for each New Year.

One religious principle of this milk dealer is to tig up on his accounts. He doesn't believe, like he use of letting the customer run way behind for no good son at all, and then get all "het-up" of a sudden when he didn't pay his bills when reminded of that past due account. He now finds that by keeping customers in a nice way long before they become l lessly delinquent, that he does not have nearly so r trouble collecting his bills.

All milk dealer problems, if thought about and lyzed, present ample food for constructive reflectio taking an accurate inventory of "what happened" year, and then building up your sales-pyramid of cess for next year on the ashes of past experiences.

NEW HOME OF HISE DAIRY PRODUCTS C

Some time in March the new home of the Hise D Products Co. at Joplin, Mo., will be completed.

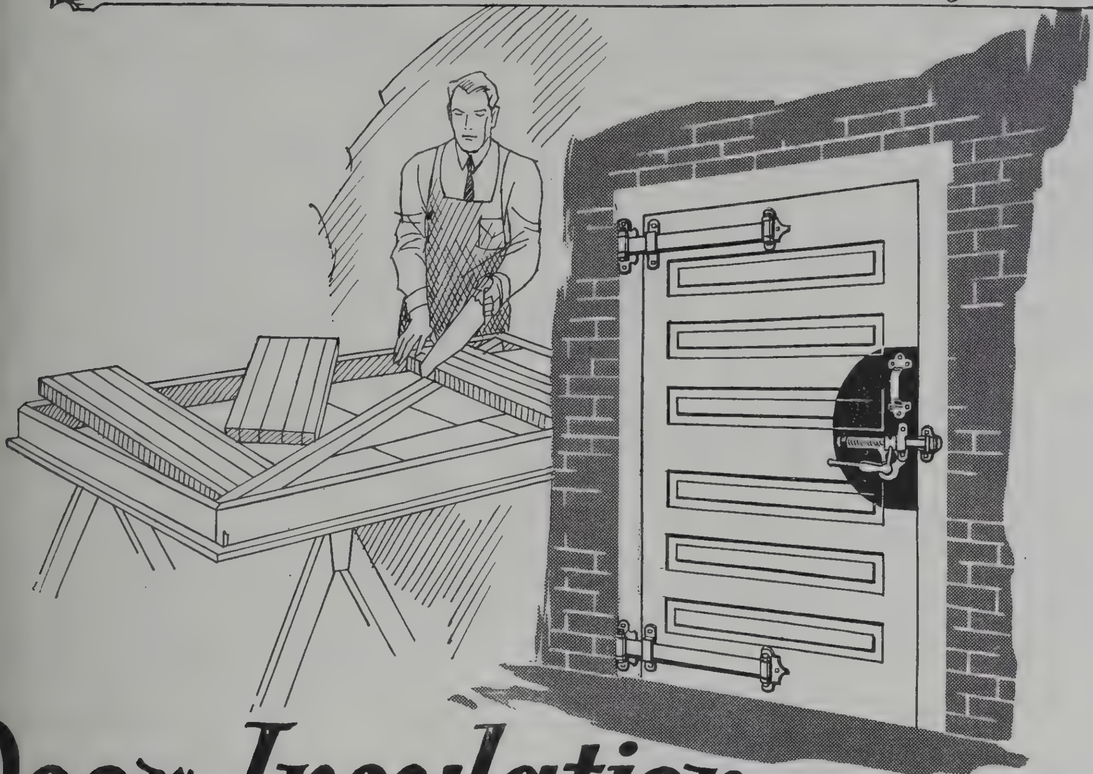
The new building will be of hollow tile construc one-story, with a two-story front, and will be fin in white stucco, with a green tile shingle roof. Th sign, presenting a symmetrically windowed front, is ilar to that used in stucco buildings of a late ty Eastern cities.

The structure is to occupy a space 40x100 feet, a 50x110 foot lot adjoining on the north also is a pa the property, but for the present will be held in res The total cost of the property and building will b proximately $20,000.

A unique feature of the new plant is a large obs tion window which will look down upon the plant i rear from the auditorium, which will be in the part of the upstairs floor.

The company's capacity is expected to be incr from 10,000 to 20,000 pounds of milk a day.

FACTS ABOUT COLD STORAGE DOORS ~ No. 2 of a Series



Door Insulation ~ is as important as wall insulation

YOU would never take chances on the insulation of the walls of your cold storage compartments. And the insulation of your doors is equally important. Whether through walls or doors, temperature losses are always exceedingly expensive.

So in buying cooler or freezer doors, never select doors insulated with anything but those materials that have proven their value over a reasonable period of time. And this insulation should be of the same kind and thickness as used for the wall in which the door is installed.

Use Jamison Doors, and you'll know your doors are as well insulated as your walls. In Jamison Doors only standard, time-tested insulating materials are used. These materials are always tightly packed and fitted in the door, and carefully sealed against moisture and dampness with hot asphalt or waterproof insulating paper.

Install Jamison Doors, and be sure of full protection.
Send for our catalog, giving all the facts.

Jamison Doors
Jamison Cold Storage Door Co

Send for new Catalog No. 13, giving complete information on Jamison Cooler and Freezer Doors, Automatic Ice Chutes, and other Jamison Products.

Jamison Doors

Jamison Cold Storage Door Company
Hagerstown, Maryland, U. S. A.

1 of this Series appears on Page One of this issue.

When writing to JAMISON COLD STORAGE DOOR COMPANY *please mention The Milk Dealer.*

Municipal Control of Milk Supplies

Rockford, Illinois' Health Official Suggests Novel Score Card for Appraising the Milk Supply of a City

A QUESTIONNAIRE prepared in the office of the Rockford, Illinois, Department of Public Health, N. O. Gunderson, M. D., commissioner, presents a series of questions and answers which serve as a guide in "scoring" a city's milk supply. It is illustrated by forty small drawings arranged to spell out the word "Milk." Each drawing counts for 25 in the total of 1,000.

Milk dealers, health officers, and all others interested in bettering a city's milk supply will be interested in this novel presentation of the factors involved. The questions and answers are as follows:

1. Has an appraisal form been prepared for judging the sanitary status of the milk ksupply of the city?

A compresentive systematic milk campaign cannot be instigated in a city unless the health department knows what the particular local problem is. One method of learning this problem is to make out an appraisal form.

2. Has the health officer outlined a definite program for the milk inspector?

Having appraised the local milk supply, the health officer with the aid of the state health department can outline corrective measures for improving the quality and safety of the milk.

3. Are detail records kept of all field inspections?

It is essential that an index file system be prepared containing detailed records of all producers, dairies, employees, equipment, general methods, and records of laboratory, reductase, and sediment tests.

4. Has the need of a milk ordinance been explained to the public?

If a city does not have an effective milk ordinance, all local civic organizations and the public at large should be informed of its need in protecting the health of infants, school children and adult population of the city.

5. Has an ordinance conference been held with the board of health, the city attorney and city council?

Backed with field findings obtained through the appraisal form and the endorsement of the public and local civic organizations, the health officer seldom experiences any difficulty in getting the city council to adopt the state model milk ordinance.

6. Is all milk in the city pasteurized except a small amount of certified?

The only safe milk is pasteurized milk. The producer can furnish clean milk, but the only sure protection against the transmission of certain communicable diseases from the silk milker or bottler to the consumer, is proper pasteurization.

7. Has a T. B. testing program been inaugurated?

Medical authorities, veterinarians and milk sanitarians advise that all herds should be tested for tuberculosis because this procedure aids in eradicating bocine tuberculosis from the community

8. Does the health officer keep a record of all t herds?

It is essential that records be kept of all tested h that a time limit be set for testing, and that exclusion o be applied to those producers who have reacting cows.

9. Has the health officer a definite farm inspection gram?

Farm inspections may be carried on by the healt partment, the milk plant owner or a milk producing as tion, but the milk inspector should supervise and keep records as to efficiency.

10. Have means been devised for raising funds for inspections?

The health department in order to assure a clean, supply of milk should know how funds can be raise carrying on this work.

11. Are the milk inspectors properly trained to do inspections?

A corps of trained milk inspectors can be forme proper schooling under a trained, experienced veterinari

Does the health department support a remote farm trol program?

All milk producers will instigate any and all measur sanitation if they thoroughly and specifically understan reason for same. So, does the health department carr the following:

12. Are instructive pamphlets, letters and circulars to the producer?

Easily carried out if health department has a mi graph machine.

13. Are grange talks, lectures and demonstrations ried on?

This is a direct means of reaching the producer.

14. Does the health department have milk exhibi annual county fairs?

Very helpful and instructive.

15. Are radio talks given for the producers?

Can be done through a co-operative state and city gram.

Have dairy owners inaugurated a co-operative pro with the producer?

Dairy plant owners can aid materially by inaugur co-operative measures that deal with the following:

16. Are whitewash crews organized at a nominal c the producer?

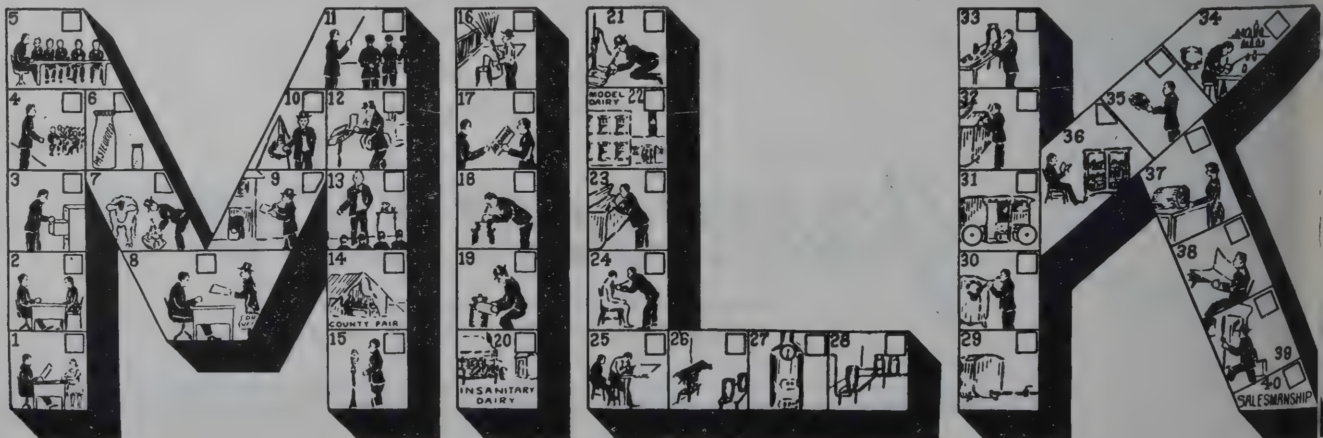
Whitewash crews can be sent out by the plant owne spray cow stables and thus keep them clean, presentabl sanitary at a nomical cost when they are all done at one

17. Is a bonus offered the producer for good milk?

Milk plant owners can improve the quality of brought to the plant by paying a bonus on butterfat, ment free milk, keeping quality of milk as shown by th ductase test, proper temperature and T. B. tested herds

18. Is an inspection made of all milk and milk ca the receiving platform of the dairy?

This phase of milk work consists of testing the tem ture, taste, odor and color of the milk, checking the q by the reductase test or laboratory methods, and notin cleanliness by the sediment test. Milk cans should al



Where all 'round efficiency and quality of product is the chief consideration the selection results in an installation of

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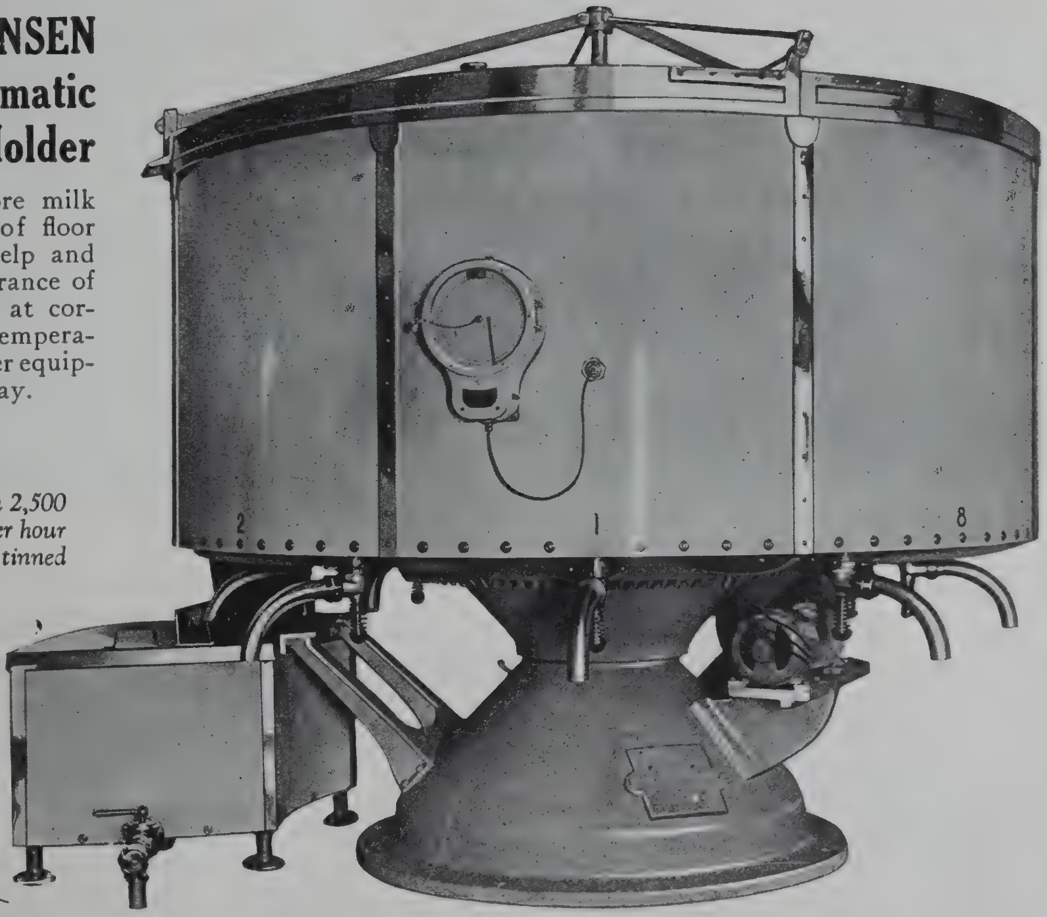

Standard Milk Machinery Co.
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inspected to see if they are of proper construction, free from dust, no broken seams and perfectly clean.

19. Are dairy plant owners permitted to use condemnation cards?

Many gallons of unfit milk enter a city dairy, which should be condemned. For this work condemnation cards bearing the name and seal of the health offcer can be placed in the hands of the plant owners, and then checks made of all condemnations to see if they are justified; also, corrective measures instigated at the farms.

20. Are all the dairy plants of proper construction?

...This takes into consideration proper buildings, good ventilation, sufficient light and an adequate, efficient system for the disposal of waste.

21. Is the water supply safe?

All dairy equipment, utensils, cans, and bottles are rinsed with water which should be of safe, sanitary quality.

22. Is all the dairy equipment of approved sanitary type?

Under this item comes adequate, efficienely arranged equipment, sufficient steam, recording thermometers, mechanical refrigerators, automatic bottlers and cappers, sanitary piping, automatic can and bottle washers and driers, and approved pasteurizers with no blind pockets, foam, splash, or air pockets.

23. Are the plant methods conducive to the production of a safe, sanitary quality of milk?

Under this item is considered clovenly plant operators, whether all equipment is cleaned and sterilized daily, whether all milk cans are dried after pasteurization, if the milk is filtered before instead of after pasteurization, and whether all cold pockets have been eliminated in the pasteurizatoin equipment.

24. Are physical examinations required of all dairy employees?

These are done for the purpose of locating chronic carriers of disease among the employees.

25. Are laboratory tests made of employees?

This is paramount to determine if any of the plant employees are typhoid, diphtheria, streptococcus sore throat, or tuberculosis carriers.

26. Is all equipment dismantled and sterilized after each day's run and then stored in a place free from contamination?

This item is highly essential to keep the milk sweet, free from odor and free of pathogenic bacteria.

27. Is the plant boiler capable of supplying sufficient steam at all times?

An abundant supply of steam is necessary at all times in order that all equipment may be properly and efficiently sterilized and pasteurization carried on at the proper temperature.

28. Are milk cans properly dried with hot air after sterilization?

Excessive bacteriological counts, disagreeable odors, peculiar tastes, and color can be eliminated by carefully drying milk cans and piping with hot air after sterilization.

29. Have all cold pockets been eliminated in the pasteurization equipment?

It is essential that all pasteurization vats be provided with flush type valves, that splash, foam and air pockets be eliminated so that every particle of milk can be heated to the required temperature and holding time of thirty minutes.

30. Are all thermometers checked with a master thermometer?

It is essential that all the thermometers in a dairy and especially the automatic recording type be checked periodically with a master thermometer that has been checked by the U. S. Bureau of Standards.

31. Is all milk iced on the delivery wagons in the summer?

This is to assure all milk reaching the customer's doorstep at the proper temperature.

32. Are laboratory efficiency tests conducted on all the dairy plant processes?

Of late, milk sanitarians have come to recognize the great benefit derived from conducting laboratory tests on all the processes because they show the percentage of bacteria killed by pasteurization and also where plant deficiencies exist.

33. Are laboratory checks made of all sterilization processes?

Laboratory checks are necessary on milk bottles, cans and equipment after they are sterilized to determine if it is efficient.

34. Are weekly laboratory tests conducted on the finished milk product?

Laboratory tests of butterfat, preservatives, water dilution, sediment, and number of bacteria of the milk is another criterion for judging the safety and food quality of milk.

35. Are automatic recording thermometer charts sent to the health department weekly?

By examining these records periodically the inspecto tell whether the milk is properly pasteurized or not.

36. Does the health department have a good library

To do effective work all the U. S. P. H. S. milk bull

To do effective work all the U. S. P. H. S. milk bulle good text books, and latest research reports should be a able to the health officer and his assistants.

37. Does the health department have a mimeog machine?

Extensive publiciay and educational work can be ca on when one has access to a mimeograph machine.

38. Are milk articles prepared for the daily press?

This is one of the greatest and most effective aids a h officer has for carryingi on a milk program.

39. Does the health officer and milk inspector a conventions?

Attendance at annual conventions is highly essent one is to keep abreast of all new procedures in the game.

40. Does the milk inspector work under the follo suggestions?

Salesmanship is necessary in health department wo elsewhere and calls for good general principles, a fe which may be:

...a. **Pursuasion is better than force.**
b. **Instruct, do not boss.**
c. **Cannot instruct unless well grounded in subject.**
d. **Clean, safe milk is better than cleaned, safe milk**
e. **Remember that milk plant owners know milk gar well as health department.**

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NEW JERSEY GOVERNOR FAVORS STANDA MILK REGULATIONS.

In his first annual message to the legislature, w convened January 11, for the 1927 session, Gove Moore recommended, among other things, the ado of a uniform milk standard. Said the governor:

"Milk is a product which is of vital importance to ou ple. The farmers of our state are endeavoring, and suc ing, I believe, in furnishing a pure and wholesome su They are greatly hampered, however, by the fact that municipality sets up a standard of its own, thus maki difficult for the farmer to meet all of the individual dem

"A general standard should be set, and it seems t that if your body, in its wisdom, would appoint a comn to look into the matter, with the end in view of gettin the health authorities to agree upon a standard progra would facilitate the farmer and insure a stable conditi this highly important field.

"There are other matters to which I shall call your a tion as occasion may demand."—Trenton (N. J.) Time

THE COW IS AN IMPORTANT CHARACTER HISTORY OF NATIONS.

In the early pioneer days, when cavemen grad became civilized and turned to the plow to till the the cow was the first animal to become domesticat

The cow has, and still plays an important part i history of nations. In India the cow has been wors as a gift of God for centuries, and still, today, s cows are maintained in temples.

Milk, the product of the cow, has also had a pla history. Canaan, the promised land of Israel, was to flow with milk and honey. Ovid, the Roman gave milk second place only to nectar, the drink o gods.

And all through the ages, milk has been regard a cure for human ills. It has been discovered as mendous factor in building up and maintaining the The reason for this is that milk is almost a perfect combining nearly all the elements necessary for com nourishment.

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Theories About Pasteurization of Milk

Past and Present Theories—Pasteurization and Vitamines—Pasteurized Milk for Infants—The Necessity for Pasteurization. Facts the Milk Dealer Should Know

PASTEURIZATION at present is looked upon with favor by medical men, sanitarians, dairymen, and consumers, but the art has not been developed without opposition, and its value is not universally accepted. Most of the objections to pasteurized milk have been based on theory, or on experiments in which milk was pasteurized at high temperatures. In view of our modern theories they are of no great importance.

One of the greatest objections to pasteurized milk has been that the heating destroyed the lactic-acid bacteria and that putrefactive organisms were left, which, when relieved from the restraining action of the acid-forming bacteria, would develop, forming toxins and putrefactive products. It was believed that the milk, because it was not sour, would be consumed in that condition. This objection was based on experiments in which milk was heated to temperatures near the boiling point and can not be applied to milk pasteurized at low temperatures. From the results of many years' work in the bureau of dairy industry on commercial pasteurized milk, it has been found that such milk sours, as raw milk does, but that the souring is delayed when compared with the souring of the same grade of raw milk. Pasteurized milk sours in a manner similar to that of a high grade of raw milk, and there is no more reason to fear the overgrowth of putrefactive organisms than there is in any high-grade milk. Pasteurization for 30 minutes at temperatures of about 145 degrees F., as is generally practiced in this country, does not destroy all the lactic acid organisms, and those which survive play an important role in the souring of commercially pasteurized milk.

Another objection to pasteurized milk has been that bacteria grow faster in it than in raw milk. In spite of several experiments which seem to prove this point, it has never been thoroughly established. It has been found that the rate of bacterial increase is approximately the same when the comparison is made between raw milk and pasteurized milk having about the same bacterial content.

It is often stated that pasteurization, even if it does destroy bacteria, does not destroy poisonous products of their growth. This can hardly be considered a real objection, for if they are present in raw milk they must be consumed with it, and if pasteurization does not destroy them the pasteurized milk would be no worse than raw milk.

The question as to whether pasteurization destroys beneficial enzymes is still an open one. In the light of our present knowledge of the enzymes in milk and the part they play in the digestive process it is quite impossible to settle the question of their importance. It is evident, however, that the low temperatures now in use in pasteurization have little effect on the commonly recognized enzymes.

Does Pasteurization Cause Lax Methods?

The opponents of pasteurization have raised an objection on the ground of its direct influence on the milk producer. It has been asserted that pasteurization would cause lax methods of production on the farm, for the reason that farmers would know that the milk was to be pasteurized and, therefore, they could be careless in its production. There seems to be some basis for this objection, but in any city where there is any inspection of the raw milk supply the same inspection can a
should be continued even though the milk is to be p
teurized.

From a chemical standpoint serious objections h
been raised against pasteurized milk, because the heat
produces changes which render the milk less digesti
particularly in the case of infants. However, Rupp
found that milk pasteurized at 145 degrees F. for
minutes does not undergo any appreciable chemi
change. He found that soluble phosphates do not beco
insoluble, that the albumin does not coagulate, and t
when higher temperatures are used chemical changes
occur. He also developed the fact that five per cent
the albumin is rendered insoluble in milk heated for
minutes at 150 degrees F., while at 160 degrees F. 30
per cent of the albumin is coagulated. Further eviden
that low-temperature pasteurization does not injure
digestibility and nutritive value of milk are shown
the results of feeding experiments with babies. Acco
ing to Weld a number of babies that were fed raw m
and pasteurized milk showed only a slight difference
the average net daily gain in weight during the feed
period. The slight difference was in favor of pasteur
milk. Hess, however, has found that milk pasteur
for 30 minutes at 145 degrees F. may cause, in infa
a mild form of scurvy, which yields readily to so sim
a remedy as orange juice.

High-temperature pasteurization of earlier days m
not be confused with low-temperature pasteurization
the present day. Many of the objections which h
been raised to pasteurization have been founded on
observation of milk heated to high temperatures.
fallacy of the objections to pasteurization have b
shown, however, through scientific research in the
few years, and as a result the value of the process
been firmly established.

Pasteurization and Vitamines.

The discovery of vitamines within recent years
shown how impossible it is to estimate nutritive requ
ments solely in terms of digestible protein, carbohydr
fat, and inorganic salts. Little is known of the real ch
ical nature of vitamines, but they are necessary for
mal growth and health.

Five vitamines are now recognized—known as v
mine A (soluble in fat), vitamine B (soluble in wat
the antiscorbutic vitamine C, the antirachitic vitamine
and a vitamine concerned in reproduction originally
ignated X but now known as E. A and B are compa
tively abundant in milk, while C is present in small q
tities only. D and E evidently do not occur in milk
sufficient quantities to make it an important source
these vitamines.

Because of the limited character of the infant's
the vitamine content of its food is more important t
that of the adult's, as the latter has a great variety
foods.

Fat-soluble A and water-soluble B have been fo
to be quite resistant to heat, and it is agreed that
teurization has little or no effect upon them. The a
scorbutic vitamine C, however, is quite sensitive to h
above 122 degrees F. While the destruction of this v
mine depends upon the temperature, length and co
tion of heating, as well as upon the reaction of the

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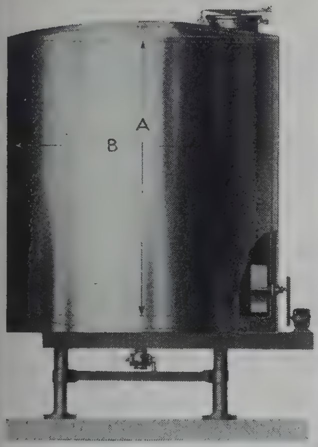

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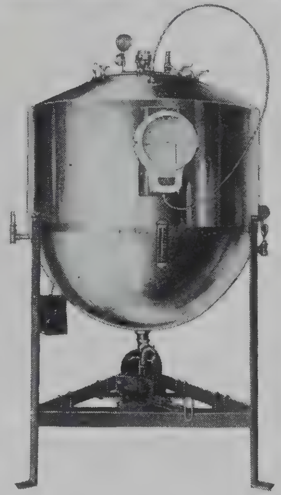

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terial in which it exists, there seems to be little d
that pasteurization of milk, under usual commercial
ditions, at 145 degrees F. for 30 minutes, weakens
antiscorbutic property of the milk.

Hess and Fish, in 1914, in studying scurvy in
dren found that some cases of scurvy developed w
milk was used which had been pasteurized at 145
grees for 30 minutes.

After further studies on this subject Hess made
following statement:

> "Although pasteurized milk is to be recommended o
> count of the security which it affords against infection
> should realize that it is an incomplete food. Unless anti
> butics, such as orange juice, the juice of an orange pee
> potato water is added, infants will develop scurvy on this
> This form of scurvy takes some months to develop and
> be termed subacute. It must be considered not only the
> common form of this disorder, but one which passes
> often unrecognized. In order to guard against it, infants
> exclusively on a diet of pasteurized milk should be g
> antiscorbutics far earlier than is at present the custom,
> as early as the first month in life.
>
> "In the course of the development of infantile sc
> growth both in weight and in length is markedly affe
> Under these conditions weight ceases to increase, and a
> tionary plane is maintained for weeks or for months. T
> is quick response, however, on the administration of or
> juice or its equivalent; indeed supergrowth is thereupon
> quently manifested."

Pasteurized Milk for Infants.

A rational view must be taken of the use of past
ized milk. Shall the protection against infection, w
is made available by the proper pasteurization of m
be discarded because of its deficient antiscorbutic p
erty, or shall its protection be accepted and the deficie
in vitamine C be made up by feeding orange juic
other antiscorbutics?

Perhaps the feeding of infants calls for even fur
thought than is generally given. As Eddy points
there are two points to be kept in mind in infant n
tion. The first is that the vitamine content of cow'
human milk is dependent primarily on the food e
by the producer of the milk. In other words, mil
merely a mobilization of vitamines eaten, and if the
is to yield a milk rich in vitamines the food eaten m
also be rich. He further points out the fact that cer
are poor in vitamines and green grasses rich in th
and that this brings up the question of winter feedin
the milk supply is used for infants, and he suggests
the variability in vitamines A and B in milk may
times make it necessary to supplement the diet.

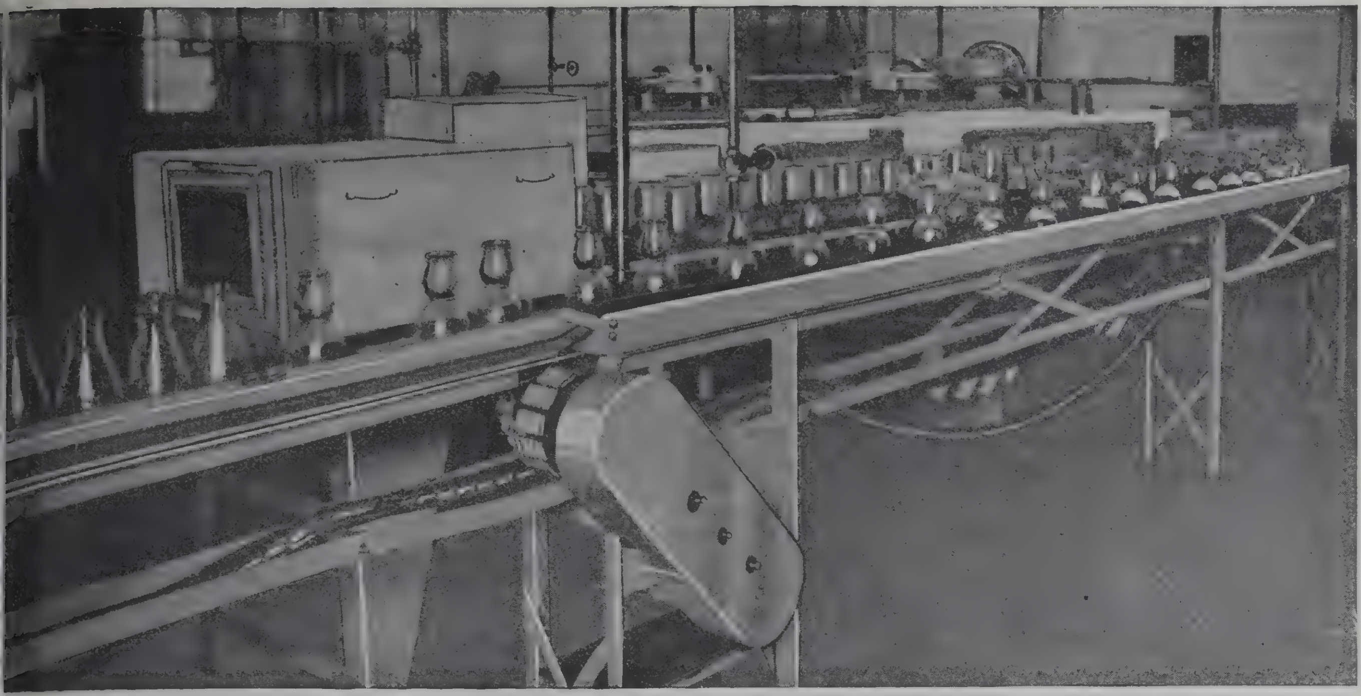
The second point brought out by Eddy expresses w
appears to be the most reasonable attitude toward
use of pasteurized milk for infant feeding, accordin
our present knowledge of vitamines, and it is there
quoted:

> "The second point in regard to milk lies in the effec
> pasteurization. This measure is now well-nigh universal
> in America at least has played a tremendous part in the
> duction of infant mortality, especially in the summer mon
> At present, however, we know that this treatment while
> moving dangerous germs may also eliminate the antiscorb
> factor. The sensible attitude then is to recognize this
> and if a clean whole milk is not available retain the past
> ization and meet the vitamine deficiency by other ag
> Such agents are orange juice and tomato juice, and exp
> ence has already shown that these juices can be well toler
> by infants much earlier than used to be thought possible

It seems, therefore, that the only serious effect of
teurization on the vitamines is on the antiscorbutic v
mine C, and it is evident that the feeding of orang
tomato juice, or other antiscorbutics, readily makes
for the deficiency of this vitamine in pasteurized m

The Necessity for Pasteurization.

The need for safeguarding the milk supply is am



View of a Miller installation at the Esmond Dairy, Sandusky, Ohio

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proved by the numerous epidemics traced to milk. Trask reported 179 epidemics of typhoid fever from 1881 to 1907, of which 107 were in the United States, 51 epidemics of scarlet fever, including 25 in this country, during the same period, and 23 epidemics of diphtheria from 1879 to 1907, including 15 in the United States. These were all traced to milk. He also listed seven epidemics of sore throat, most of which occurred in England. Since 1907 several epidemics of septic sore throat have been traced to milk. Among these may be mentioned the epidemics at Boston, Chicago and Baltimore, and others which have occurred in smaller cities.

The problem of pasteurization is not based simply on the question of which is preferable, raw or pasteurized milk, but rather upon the most economical and practical way of producing a safe milk supply.

In connection with the possibility of transmission of disease through the agency of milk, certain fundamental facts must be recognized.

1. That such possibilities exist, as demonstrated by epidemics of the past.

2. That certain diseases transmitted to man, such as tuberculosis, may come from diseased animals. The danger from this source can be prevented by the elimination of tuberculous cattle from producing herds on the basis of the tuberculin test.

3. That the freeing of the herds from tuberculosis offers no protection against other diseases, as typhoid fever, diphtheria, and septic sore throat, because the pathogenic organisms causing these diseases may come from infected water supplies or probably in most cases from human carriers disease.

The term "carriers" is used to designate persons w carry the disease-producing bacteria. In the case diphtheria, carriers harbor the diphtheria organisms a discharge them from the note and throat. Typhoid ca riers discharge typhoid bacilli in their feces or urin Diphtheria carriers may become so after having an acu attack of the disease or from other carriers. Typho carriers are particularly important, because from 2 to per cent of the persons who have typhoid fever continu as evidence shows, to discharge the typhoid bacilli their feces or urine or both and become chronic carrie

Persons suffering from sore throat are a menace the milk supply, and probably the organisms responsil for septic sore throat are sometimes carried in the thro of apparently normal individuals.

It is manifestly impossible to have a medical exa ination of all persons engaged in producing and handli milk. Yet such examinations at frequent intervals wou be necessary, together with tuberculin testing and t assurance of unpolluted water supply on every farm order to safe-guard the milk supply of the nation the same extent that is now possible by proper pasteu zation. The appreciation of the need for pasteurizati is distinctly shown by the marked increase in pasteuri tion in the United States.—Extracts from Bulletin N 342, U. S. Bureau of Dairying.

CONTROL OF RETAIL ROUTES.

W. S. Lucas, Chicago, Ill.

An efficient manager wants to know if for every dollar's worth of sales made, a dollar has been turned in to the office. While the reports and amounts of cash turned in each day are of importance in the regular routine, they do not disclose certain facts which a manager must know to operate his business efficiently.

Sometimes, for various reasons, the route-rider or route-foreman is unable to make his usual "rounds" for an extended time and some salesmen get to be lax with their collections, too lenient with their customers, or, as occasionally happens, default in collections. This is especially true in the smaller organizations, where the route-foreman is given other duties, and not sent out for several months at a time.

During my experience as a public accountant for number of concerns, I evolved a monthly report, like t one illustrated, which proved to be of considerable valu especially to the smaller concerns, operating up to wagons.

It is seen from the illustration that for the month March salesman No. 1 collected $70.20 less than his tot sales for the same period, (Column "E"), and that f the first three months of the year the collections a $99.45 behind schedule, (Column "F").

Comparing the increase of route No. 1 against t others it is safe to say that this route in subject to i vestigation for the unusual increase in the outstandi balance.

A further study of the report is practically se explanatory.

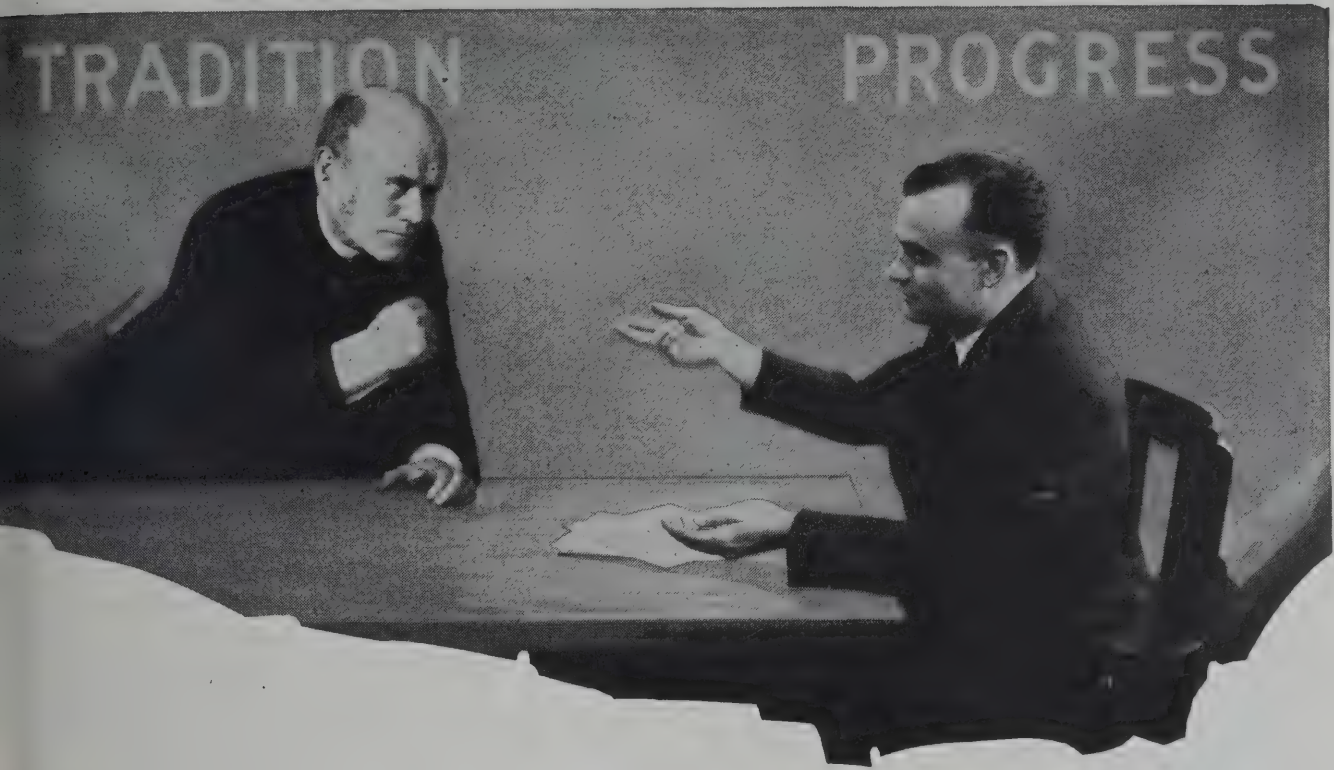
BLANK DAIRY CO.

Month of January, 1926.

	A	B	C	D	E	F	G	H	I
Route No.	Sales	Collections	Bal. First of Month	Bal. End of Month	Inc. in Bal. this Month	Inc. in Bal. this Year	Remarks	Av. Points this Month	Av. Poir this Yea
1	905.50	855.75	450.50	500.25	**49.75**	**49.75**		201	201
2	850.00	820.30	340.75	370.45	**29.70**	**29.70**		198	198
3	895.00	910.50	445.40	429.90	15.50	15.50		205	205
Total	2650.50	2586.55	1236.65	1300.60	**63.95**	**63.95**		604	604
Average per route	883.50	862.18	......	......	**21.31**	**21.31**		201	201
Month of February, 1926.									
1	900.00	920.50	500.25	479.75	20.50	**29.25**		200	200
2	835.50	852.40	370.45	353.55	16.90	**12.80**		194	196
3	840.30	830.50	429.90	439.70	**9.80**	5.70		195	200
Total	2575.80	2603.40	1300.60	1273.00	27.60	**36.35**		589	596
Average per route	858.60	867.80	......	......	9.20	**12.11**		196	198
Month of March, 1926.									
1	890.50	820.30	479.75	549.95	**70.20**	**99.45**		198	199
2	820.00	810.75	353.55	362.80	**9.25**	**22.05**		190	194
3	860.30	810.50	439.70	489.50	**49.80**	**44 10**		201	200
Total	2570.80	2441.55	1273.00	1402.25	**129.25**	**165.60**		589	593
Average per route	856.93	813.85	......	......	**43.08**	**55.20**		196	197

NOTE:—Black figures denote increase
Light figures denote decrease.

op Cusses and Lad Discusses Insulation



'Lad—

if we had in the bank all the money we
ost in bottle washer shutdowns due to motor
roubles last year, we could endow a primary
lection. Felix tells me it's all due to the
rong kind of insulation."

"No, Pop—

it's all due to the wrong kind of motors.

In all those shutdowns last year, read the names of the motors.

You don't see a Linc-Weld saying HERE to that mussy roll.

Those two Linc-Weld motors I bought over your objections had the hardest jobs in the plant and today their insulation is pliable as your ear lobe.

The Lincoln people have always led the field on insulation."

Read on Page 11 of the Motor book just why no motor can hope to beat Linc-Weld on this item. Your copy is waiting for you at:

The Lincoln Electric Company, Dept. 25-2, Cleveland, Ohio

MA-4

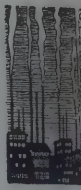
"Linc-Weld"

LINCOLN MOTOR

When writing to THE LINCOLN ELECTRIC COMPANY *please mention The Milk Dealer.*

Members Sell in a Common Marke

Annual Meeting of the Dairy and Ice Cream Machinery and Supplies Association Featured by Highlights of Interest to Dairymen Everywhere. Jordan Re-elected President.



IN RANGE of facts reported, action taken, comments made and predictions offered or substantiated, the eighth annual meeting of the Dairy and Ice Cream Machinery and Supplies Association, Inc., held in New York City, January 14, provided a series of "high lights" of interest to the dairy products industries.

With a representative attendance of member company executives from territories as diversified as Missouri, New York, Iowa, Illinois, Michigan, Wisconsin, Pennsylvania, Vermont, Ohio, Massachusetts, etc., a morning session was devoted to a consideration of officers and committees' reports and to general discussion of organization matters.

At luncheon an effective address was made by Fred Rasmussen, executive secretary of the National Association of Ice Cream Manufacturers, covering a number of phases of industrial development principles and practices, with particular relation to the dairy industrial field.

In an afternoon session five expiring directorships were filled by the re-election for three year-terms of Messrs. O. S. Jordan, Brown & Shaw; H. H. Miller, H. H. Miller Industries Co.; Thomas D. Cutler, The Ice Cream Trade Journal; H. A. Keiner, Keiner-Williams Stamping Co., and J. H. Mulholland, John H. Mulholland Co.

The board of directors, meeting later in the afternoon, re-elected Mr. Jordan, president; Mr. Miller, vice-president, and Mr. Cutler, treasurer.

Among other action by the association, special temporary financial support of the regular operating activities of the American Dairy Federation was authorized.

Some of the range of pertinent industrial affairs, conditions, trends, etc., to which attention was drawn by the occurrences at the meeting may be summarized:

"It is difficult to believe that the dairy products industries will suffer any recession in the next twelve months," was a statement made by President Jordan. "A great development of current business which makes it possible for executives to forestall the bad effects of sudden changes of conditions is the modern trade association....Our association is more and more becoming of value to our individual businesses through the wealth of information which it collects and disseminates.

"I am informed that trained students of industry report that a new attitude and condition have developed in the last few years. I am told that the chief statistician for a corporation reported to spend more than any other business unit in the world in trade research, has stated that the old habit of the curves which show business expansion and recession, is changing because where, before the w
there was perhaps one man in an industry watching t
curve, today there are thousands watching it. If
curve is seen to be rising too abruptly, these men shif
shorter-term commitments, and the curve straightens
If it is seen to be going down sharply, thousands of c
panies deliberately inaugurate last-ditch economies, p
on as many savings as they can to the buying field
stiffen or expand their sales efforts, and the dropp
line fairly quickly turns upward.

"To many business men charts and intricate figu
are unnecessary. They need only certain common se
related pieces of information which their own obser
tion can obtain for them or which their salesmen
purchasing departments are instructed to obtain. T
carry their charts in their minds. But it is because
many more of them are making these mental charts
studying experts' figures, that trained research men
port the predicting of strong upward or downward mo
ments, for the future is even more difficult than it u
to be. I believe that many of our member compan
many of their customers, and many of the compan
from which our members buy their raw materials, w
carefully on the lookout in 1926 for signs and symb
of approaching changes of conditions, and that th
watchfulness helped greatly to preserve a fairly e
movement of trade."

The "Why" of the Association.

"The fundamental human and business reason
your association," Roberts Everett, secretary-mana
told members, "is that you all sell to a common mar
Without you the dairy products industries would be r
tively puny industries. It is your group which has de
oped the labor-saving, profit-m
ing mechanism and methods wh
have permitted the tremendous
crease in the volume of manu
tured dairy products.

"Your association is the obv
and probably the only agency
which your relations as a gr
with your common market in its
tirety can be effectively bette
Collectively, as well as individu
you have a tremendous capital
personal stake in the manufac
ing dairy products field, and
safeguard and increase that s
there must be for you this ass
tion as a common agency, a c
mon voice, a common mercha
of activity.

"Many of the activities w
you pursue to effect this pur
actively materially exercise d
effect upon the dairy products m

HERE WAS A TEST!!

---AND PFAUDLER PROVED ITS DEPENDABILITY *as usual!*

Note:—Above views were taken immediately after the accident which befell this Tennessee Dairies' Truck Tank Dec. 28, 1926. Photos are unretouched.

ASH OF TENNESSEE DAIRIES' TRUCK TANK FAILS TO HARM TANK OR MILK

[Proving the Fallacy of Using Light-Weight Materials for Dairy Construction]

¶ Tennessee Dairies, Inc., whose slogan is the "The World's Safest Milk", was found to be absolutely safe in Pfaudler equipment, even under adverse operating conditions. The photos above depict the plight of one of their truck tanks which tried to play leap frog.

¶ In spite of this prank, Mr. K. V. Lipscomb, Vice-Pres., states that the tank, while full of milk at the time of the accident, was unharmed and not a single drop lost.

¶ Lying exposed for thirty hours in a climate averaging 70°, the truck was finally righted and brought to Dallas, Tex., where the milk on being emptied was found to have risen less than 4° in temperature.

¶ In many similar occurrences Pfaudler Truck Tanks have withstood such shocks without the slightest damage. This clearly illustrates the fallacy of using material of lighter construction to gain a partial benefit in total weight.

¶ For dependable equipment write The Pfaudler Co.

E PFAUDLER COMPANY *Dairy Division* ROCHESTER, N. Y.

Manufacturers of glass-lined tank cars, truck tanks, pasteurizers, general dairy and creamery equipment.

URER FOODS THRU GLASS LINED EQUIPMENT"

PFAUDLER

ufacturers of the country so that, selfish in your object, the pursuit of your ends, unselfishly benefits your buying field."

1927 Dairy Industries Exposition as a Buying Mart.

"The 1927 exposition promises opportunity of success equalling 1926...The belief appears strong throughout the dairy products field that the expositions should be made much more important buying events than in the past, that within a few years they can and will become annual buying marts. There is no valid argument against the association's stressing the value of future expositions as buying centers, plainly of inviting dairy products manufacturers to do a share of their buying at the shows and to round out annual buying schedules there. There are sound economic considerations which would make such a course of benefit both to the machinery and supplies houses and their customers," it was stated in a discussion of current and prospective activities by the association.

Bureau of Service and Statistics.

"Its job is to analyze and interpret the actual size and nature of, and practices and trends within, the ice cream industry, which is one section of your common market. This bureau in the last year has discovered things—homely and suspected truths some of them, some of them startling and thought-changing—about the ice cream industry that no one knew before. This bureau's work helps you because it tells you things about a part of your market that help you know how to prepare goods for and sell them to that market. It helps one section of your customers—the ice cream manufacturers—because it tells them, also, essential truths about their businesses and, making them more intelligent as buyers is, in the long run, once more benefiting you"....was an official summary given of the function of the ice cream industry's bureau of service and statistics, jointly maintained with the National Association of Ice Cream Manufacturers.

Association Membership.

A membership of 170 companies, making every physical and special service requirement of dairy products manufacturing businesses and thus, in the opinion of its officers, establishing the association as one of the strongest selling-interest national trade bodies in the country, was reported.

Salesmen's Club.

Activities of the salesmen's club of the association were reviewed and a membership of 980 sales representatives of machinery and supplies houses, travelling throughout every county of the United States and Canada, reported. The success of the club was reviewed, in its purposes "to make the salesman a better informed representative, to make him think in termss of an industry without forgetting his own company-thoughts and his own job-thoughts."

"The club tries to better the relations between salesmen and the buyer." It was stressed Honesty in Sales.

"The association can and does," Mr. Everett reported, "to the utmost that any voluntary association can expect to do, encourage honest sales practices and discourage and stamp out unfair business methods. No one can deny that the enunciation of the association's Fair Practices Code, to which every member of the association must subscribe, has improved business practices in this field. That improvement helps your customers save their money."

Manufacturers' Query and Answer.

The association as an information center in manufacturing dairy industrial matters was pictured in various reports presented.

"Queries from dairy products manufacturers, as as from member association houses, receive attenti they relate in any reasonably direct way to the fie dairy products manufacturing. These requests through personal callers, by letters, telegrams, local long distance telephone. Rarely a working day p without the association's office receiving, and atten to such an information query. Many buyers are dir to sources for equipment and materials in this Many inquiries concerning processes and their app tion are either answered directly, or routed to tech specialists for attention," is the summary made by report.

A Buyer's Guide.

The issuance by the association within the near fu of a comprehensive dairy industries buyers' guide forecast. "It will be in the form of an association log, listing all the requisites of dairy products man tories with manufacturers and distributors of each will be sent to all dairy products plants of record i United States and Canada and other continents," it stated.

COMMITTEES NAMED.

O. S. Jordan, president of the Dairy and Ice C Machinery and Supplies Association, has announce appointment of the following committees of that o ization:

Executive Committee of Board of Directors: Jordan, Brown & Shaw; H. H. Miller, The H. H. M Industries Co.; Thomas D. Cutler, The Ice Cream T Journal; H. A. Keiner, Keiner-Williams Stamping and J. H. Mulholland, John H. Mulholland Co.

Membership Committee: H. A. Keiner, Keiner liams Stamping Co.; B. B. Scott; W. L. Cherry, Cherry Co.; J. L. Nelson, C. Nelson Manufacturing and Loomis Burrell, D. H. Burrell & Co., Inc.

Exposition Committee: K. W. Schantz, K. W. Sch Inc.; L. B. Esmond, Essex Gelatine Co.; Albert Mc gal, The Champion Line Machinery Co.; J. W. Hu Davis Cooperage Co., and Warren J. Smith, Crea Package Manufacturing Co.

Finance Committee: O. S. Jordan, Brown & S H. A. Keiner, Keiner-Williams Stamping Co.; H. H. ler, The H. H. Miller Industries Co.

GREENE COUNTY, TENN., TO HAVE NEW MI CONDENSERY.

T. D. Bradson, president chamber of comm Greenville, Tenn., made the following announcemen garding the establishment of a milk condenser Greene county, Tenn.:

"We are making a survey of the county for the pose of securing pledges from farmers for 5,000 necessary for the minimum requirements of a milk densery for this city. The Van Camp Milks Pro Corporation of Indianapolis has a fieldman in the co and it is thought that a definite decision will be this month. The corporation expects to build a costing around $250,000, and believes that the req amount of milk will be 50,000 pounds a day. The co is ideally adapted to the dairying industry; it is the largest in the state, unusually well watered, with fe valleys and upland fields suited for pasture conditio

* * *

The BEST BULWARK

CLEARNESS
ACCURACY
STRENGTH

CLEARNESS

—that the customer may see the quality of milk you are distributing.

ACCURACY

—that the customer may get the amount that he or she buys.

STRENGTH

—that the bottle may last the dealer as long as possible. Bottle loss is one of the milk distributor's problems. Less breakage, less cost.

ATLANTIC
Milk
Bottles

ATLANTIC BOTTLE CO.

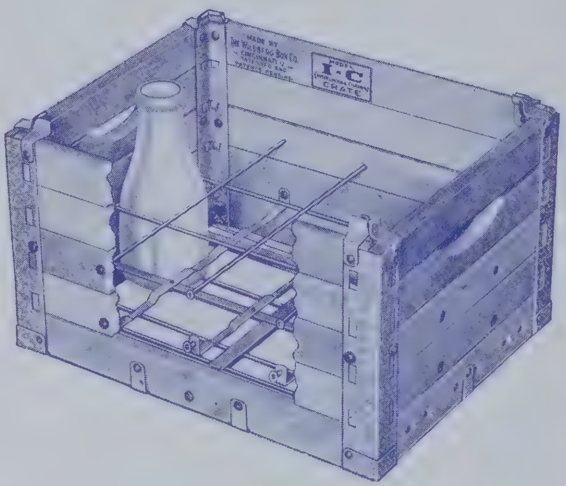
FACTORY: BRACKENRIDGE, PA.

W. Broadway, New York **327 S. La Salle St., Chicago**

When writing to ATLANTIC BOTTLE CO. *please mention The Milk Dealer.*

7 Reasons Why You Will Eventually Buy

The MODEL I-C (Interlocking Corner) CRATE


MADE BY THE WILDBERG BOX CO.
CINCINNATI O.
MODEL I-C CRATE

*NO NAILS.
NO SCREWS.
NO LACING WIRES.*

Consider These Points of Superiority

1. Great strength in construction and Flexibility of Frame to insure long wear.
2. Rigid interior Safety grid to give your bottles greater protection than any other crate on the market, with no sacrifice of ease in handling bottles.
3. Ease of Repair, which, due to the simplicity of our construction can be done in one-fourth the time needed for any other reinforced crate.
4. Lighter in weight by three to five pounds, yet stronger than any other crate.
5. Runners that reinforce the Bottom Slats on Bottom, and inside and outside—another exclusive patented feature.
6. Standard in size inside and outside—will stack with your crates and fit your wagons and conveyors.
7. Materials and Workmanship the best obtainable.

The following Dairy Machinery and Supply Houses, each the recognized leader in its territory, handle and carry stock of WILDBERG MILK BOTTLE CRATES, *to the exclusion of all others:*

CHERRY-BASSETT COMPANY
New York, Philadelphia, Baltimore,
Pittsburgh, Syracuse

EL PASO BUTCHERS AND
DAIRY SUPPLY CO.
El Paso, Texas

JOHN W. LADD CO.
Detroit, Cleveland Columbus,
Cincinnati

MILLER-LENFESTEY
SUPPLY CO.
Tampa, Jacksonville, Miami

JOHN PICO
New Orleans

WISNER MANUFACTURING
COMPANY
New York City

THE HURLEY CO.
Denver, Pueblo

WRIGHT-ZIEGLER CO.
Boston

MANUFACTURED BY

The Wildberg Box Company

Cincinnati, Ohio

"World's Largest Manufacturers of Milk Bottle Crates"

When writing to THE WILDBERG BOX CO. *please mention The Milk Dealer.*

Cosco

Cosco Bacteria Exterminator

For All Sterilizing, Disinfecting
and Cleansing in
The Dairy, Creamery,
Milk Bottling Plant,
and Ice Cream Factory

Bacteria

A Positive
Germ Destroyer
Leaves No Odor
Is Tasteless

Xterminator

Its Unusual Strength
Requiring Only
Minimum Quantities
Makes It The Most
Economical Cleanser
Offered

SETHNESS COMPANY
CHICAGO
659 Hobbie St.
NEW YORK
1133 Broadway

Sethness, Chicago.
Send Trial Callon C-B-X ◇
Send Particulars on C-B-X ◇
Name ....
Street ....
Town ....
State ....
M.D.

MAPLE RIDGE DAIRY
KEEP ME COOL
F. SNY
SUNSET DAIRY
PHONE 97
HOME OF GOOD MILK
WALTER BLACKBURN
PURE FRESH MILK
PHONE 31 F 12
JOHN GUNN
GRAD
A
RAW MI
RIDGWAY,
ELMWOOD DAIRY
GRADE A RAW MILK
H. 7862
PURITY DAIRY
P. D'ARAGO
GRADE A RAW
MILK
FROM OUR OWN TESTED COWS
FORESTVILLE, MD.
Georgia-Carolina Dairy Products Co.
PASTEURIZED MILK
PHONE 2762
Augusta, Ga.
ELLSWORTH
PURE M
PHONE 81
W. R. L
H. C. BURCH
MILK
LOMO ALTO DAIRY
GRADE A RAW MILK
OLIVER MOWAT 5-2326
MALLINSON DAIRY
RAW
GRADE A MILK
WEDNESDAY
INDEPEND. 2454
SUGAR CREEK, MO.
RAW MARKET MILK
LEDBETTER DAIRY
FROM NON-REACTING
TUBERCULIN
TESTED COWS
CUTLER-OROSI-CAL.
UNITED DAIRY
SAFE
MILK
PASTEURIZED
COLFAX 5269-
Bergja
DA
PERFECT
PASTEURIZ
MILK
4816 NATURAL BRID
W. A. DAVIDSON
JERSEY MILK
TURLEY, OKLA.
CLARIFIED AND PASTEURIZED
Roth's
APPROVED
MILK
ROTH DAIRY CO.
MT. VERNON, ILL.
STEVENS BROS.
TUBERCULIN
GRADE A RAW
TESTED
PHONE 9781 G
OIL CITY, PA.
ALWAYS A
PHONE 823
KELLY'S BES
KELLY DAIR

The Toledo-Baltim

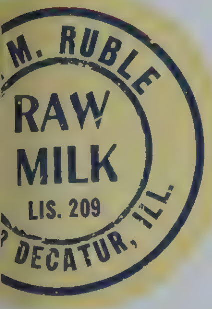
TOLEDO, OHIO

“Qual

Pa

We advertise your
business for you

When writing to THE TOLEDO-BALTIMORE BOTTLE CAP COMPANY *please mention The Milk Dealer.*


M. RUBLE
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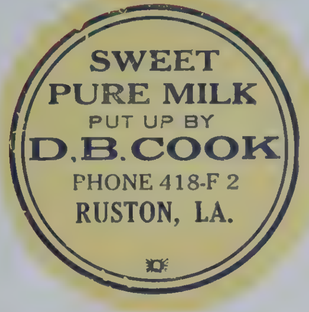
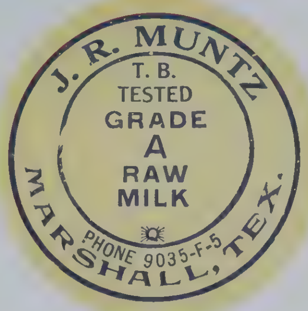
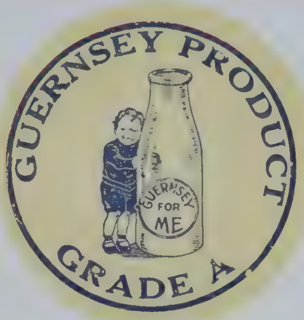
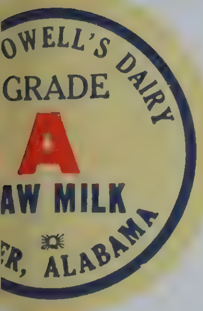
MILK
LIS. 209
DECATUR, ILL.


SWEET
PURE MILK
PUT UP BY
D.B.COOK
PHONE 418-F 2
RUSTON, LA.


J. R. MUNTZ
T. B.
TESTED
GRADE
A
RAW
MILK
PHONE 9035-F-5
MARSHALL, TEX.


GUERNSEY PRODUCT
GUERNSEY FOR ME
GRADE A


OWELL'S DAIRY
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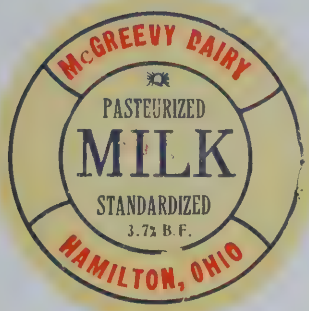
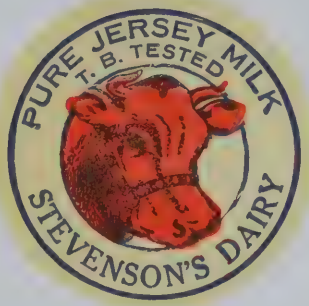
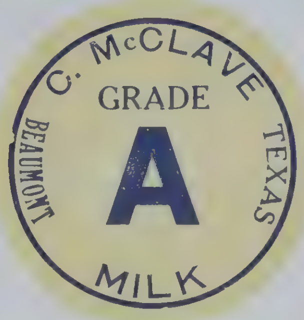

McGREEVY DAIRY
PASTEURIZED
MILK
STANDARDIZED
3.7% B.F.
HAMILTON, OHIO


PURE JERSEY MILK
T. B. TESTED
STEVENSON'S DAIRY


C. McCLAVE
GRADE
A
MILK
BEAUMONT
TEXAS

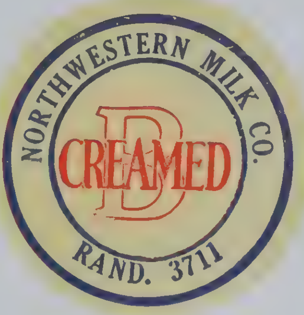
tle Cap Company

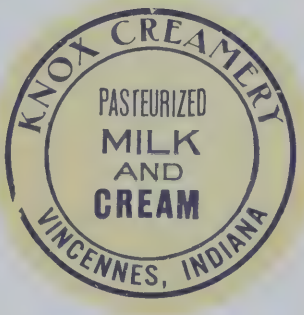
1345 Miami Street

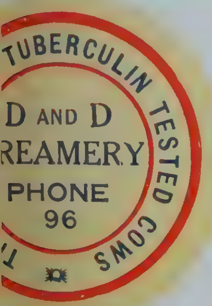
le Caps''

ood

Makers of Bottle Caps
for Progressive Dealers


NORTHWESTERN MILK CO.
CREAMED
RAND. 3711


KNOX CREAMERY
PASTEURIZED
MILK
AND
CREAM
VINCENNES, INDIANA


TUBERCULIN TESTED COWS
D AND D
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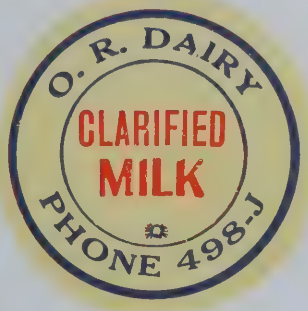
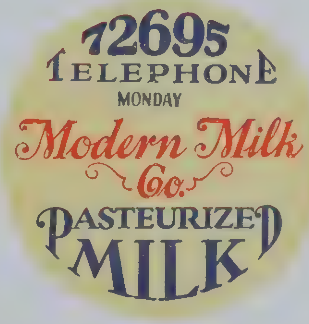
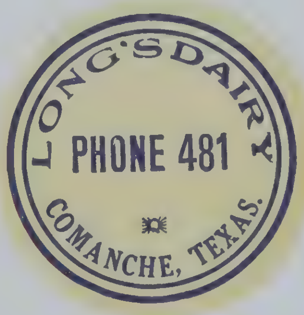
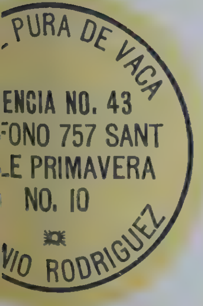
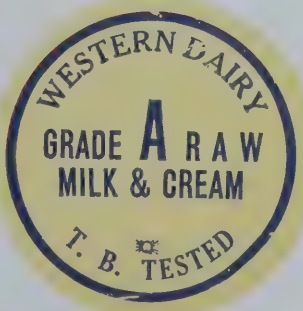
PHONE
96

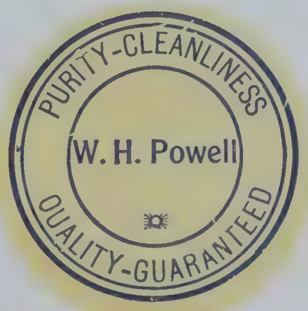

O. R. DAIRY
CLARIFIED
MILK
PHONE 498-J

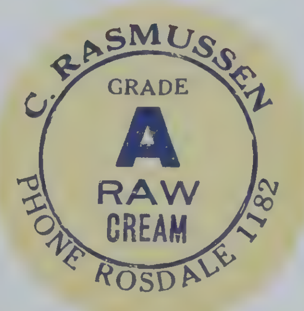

72695
TELEPHONE
MONDAY
Modern Milk
Co.
PASTEURIZED
MILK


LONG'S DAIRY
PHONE 481
COMANCHE, TEXAS.


PURA DE VACA
ENCIA NO. 43
FONO 757 SANT
LE PRIMAVERA
NO. 10
VIO RODRIGUEZ

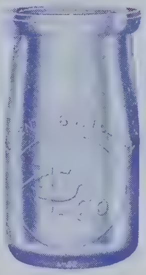

WESTERN DAIRY
GRADE A RAW
MILK & CREAM
T. B. TESTED


PURITY-CLEANLINESS
W. H. Powell
QUALITY-GUARANTEED


C. RASMUSSEN
GRADE
A
RAW
CREAM
PHONE ROSDALE 1182

When writing to THE TOLEDO-BALTIMORE BOTTLE CAP COMPANY *please mention The Milk Dealer.*

CHEESE JARS


16 oz.

14 oz.

12 oz.

12 oz.

Glass Containers are:

THE MOST SANITARY
MOST SERVICEABLE
MOST ECONOMICAL

We make all standard sizes and shapes.

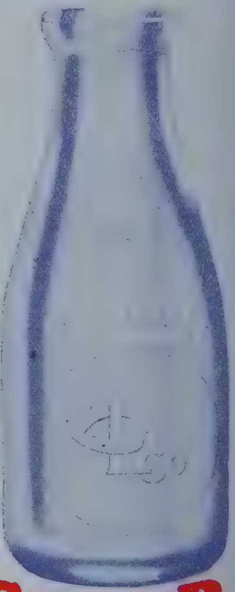
Send for samples and information to ... .. .

The LAMB GLASS CO.

FACTORY AND OFFICES AT..... **Mt. Vernon, Ohio**

Chicago, Ill., *Chas. E. Ketcham, Mid-West Representative*
New York, N. Y., *W. W. Wallace, Eastern Representative*

The Highest Development in Bottlecraft



SUPER
Milk Bottle

When writing to THE LAMB GLASS CO. *please mention The Milk Dealer.*

Getting Quality into Powdered Milk

By Which Surplus Milk is Turned to Greater Profit !

THE Rogers Way of reducing Surplus Milk to its most concentrated form results in a product highly superior in texture, color, solubility and minimum moisture content.

Experienced buyers readily appreciate the quality milk powder made the Rogers Way. It assures a better market and a better market seldom fails to reflect itself in more profit for the seller.

The Rogers Way

Let us tell you all about the Rogers way of reducing surplus milk to powder—the market for the product and the experience of users.

USE THE COUPON.

C. E. ROGERS

731 Witt St. Detroit, Mich.

C. E. Rogers,
8731 Witt St., Detroit, Mich.
Tell us how to make more profit out of surplus milk.

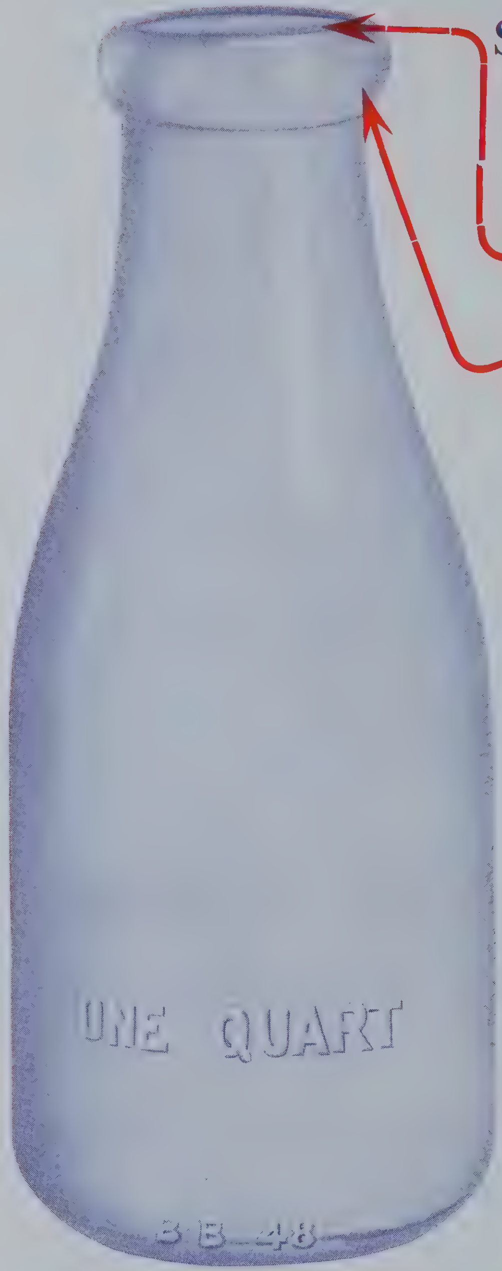
Company ....
By ....
Street ....
City .... State ....

When writing to C. E. ROGERS *please mention The Milk Dealer.*

Automatically Processed
Milk Bottles of Quality

Six Little Details All Big

1. Round cap seats that hold the cap
2. Well formed heads designed to obviate chipping
3. Accuracy in capacity uniformly maintained
4. Glass clear in color
5. Scientifically annealed (tempered) giving maximum strength
6. Grace in design, making a pleasing package



Our Motto:

Quality

Economy

Dependability

You Want Quality
Let Us Serve You

BERNEY-BOND GLASS COMPANY

Main Office-Factory: CLARION, PENNA.

CHICAGO Representative: A. F. MARTIN, 1654 Cleveland Avenue, Chicago, Ill.
MICHIGAN and OHIO Representative: Lock Box 56, Redford, Mich.
NEW YORK, N. Y., Hudson Terminal Bldg., 50 Church St.
BOSTON, MASS., 170 Summer St.
PHILADELPHIA, PA., Abbott Bldg., Broad and Race Sts.

When writing to BERNEY-BOND GLASS COMPANY *please mention The Milk Dealer.*

HECKING RECORDING THERMOMETERS.

emperature control is an essential feature in regard iform results and safety of the product in all dairy s. This is especially true in the case of pasteuriza- of milk for its consumption in the natural fluid Five years ago a survey of bureau of dairy con- showed that 80 per cent of the recording themom- used in dairy manufacturing plants throughout the of California were inaccurate or not in working ition. Today it is rather exceptional to find a ding thermometer out of use and the number of in- ate instruments have been greatly reduced. How- these inaccuracies occur with sufficient frequencies nphasize the necessity of checking the instruments equent intervals, at least every two weeks. We are in receipt of a report on the checking of recording nometers conducted by one of the California ap- ed milk inspecting departments. The results of king the thermometers in the milk plants were ted over a period of three months and we believe esults of this check will be of interest to all engaged ilk control work.

Aug. 7	Aug. 21	Sept. 11	Sept. 18	Oct. 9	Oct. 23	Nov. 11
OK	OK	OK	OK	OK	OK	2 deg.—
OK	2 deg.—	OK	OK	OK	OK	OK
OK	OK	4 deg.—	OK	OK	2 deg.+	4 deg.+
7 deg.+	OK	6 deg.—	OK	4 deg.+	sold out	
5 deg.—	14 deg.+	OK	9 deg.—	25 deg.—	25 deg.+ thermometer condemned	OK

n October 25 the instrument showing the 25 degree ation was condemned and a new instrument installed. as interesting to note that during the period the in- rate instrument was used the bacterial counts were irregular, ranging from 1,000 to 150,000. Since installation of the new thermometer the bacteria ts have been kept constantly under control.

Vith the thermometer spud located in the bottom of pasteurizing vat, it is possible to start bottling as as the milk has been raised to the required tem- ture without affecting the chart since the holding erature will be recorded as long as there is enough in the vat to cover the spud, the bottling process iring about 30 minutes for completion. Several gestions have been made for eliminating the possi- y of such a practice, none of which are considered e effective. It is recommended that in any instance re the above practice is suspected, that the plant be ed at the time the pasteurizing temperature has been ed to the holding point, and that the inspector leave return at the end of 30 minutes and if the plant is d to have been bottling the milk in the meantime they be prosecuted.

There are two types of inaccuracies of recording ther- eters. Where a correct reading is obtained at one perature but is incorrect at another temperature, the rument is out of calibration and must be sent to the ory for re-calibration. On the other hand, an in- ment which is uniformly off at all temperatures is of adjustment and can be corrected by means of the sting screw.—From a News Letter Issued by the eau of Control, California Department of Agricul-

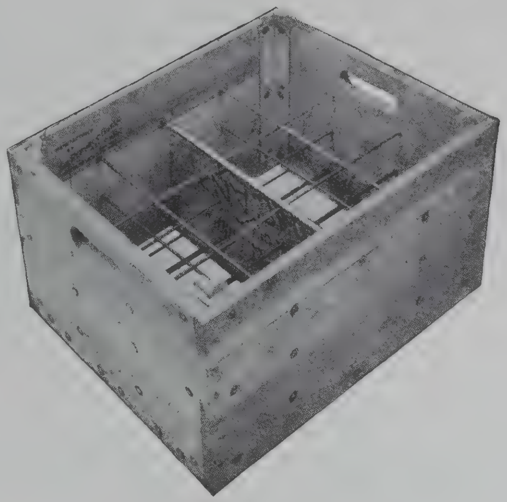
⁂

ANOTHER FINE PLANT FOR CHICAGO.

Construction is moving along nicely on the new plant the Louis Rosen Dairy Co. at 1336-42 South Peoria Chicago, Ill. The plant is expected to be ready for upancy by March or April of this year.

The structure will be two and a half stories high and said will be one of the most efficient plants of the l in the city. The exterior is to be of terra cotta, le the interior will be finished in tile.

The Highest Grade of Galvanized Metal



is used in

REPUBLIC
Bottle Crates

"As Strong as the Republic"

ONE of the most important parts of a bottle crate is the galvanized metal. Not all galvanized iron is alike. In Republic Bottle Crates you get the highest grade of galvanized metal obtainable—called "Toncan." This metal costs about one-third more per pound than ordinary grades generally used in making crates. But "Toncan" lasts longer, has greater rust-resisting properties and gives additional strength to the case.

This is but one example of the quality behind Republic Crates. Before you buy, get complete information and prices. You will save money on Republics.

THE REPUBLIC BOX CO.
1693-1711 Merwin Street
CLEVELAND - - OHIO

Standardization of Milk Plant Equipmen

Report of Committee on Standardization, as Presented to the Detroit Convention of the International Association of Milk Dealers

By W. H. FORSTER*

AT LAST year's convention in Indianapolis, the Plant Section passed a resolution recommending that a committee be appointed for the purpose of studying dairy machinery and equipment from the standpoint of sanitary construction. Your executive committee aproved of this, and asked the standardization committee to undertake this work.

Your committee, believing that we would get at the defects in dairy machinery more effectively from the experience of our members, instructed the secretary to send out a questionnaire to our membership, asking the members to first list the equipment that each member had found faulty in sanitary construction of mechanical operation. Second, to list the faults with this equipment. Third, give the name of the manufacturer of the equipment. This questionnaire brought 42 replies with various complaints. These replies were tabulated, as to the manufacturer of the equipment, the kind of equipment, and the complaints regarding this equipment. These replies to the questionnaire were taken up in detail by your committee at a meeting held in New York on July 14th.

It was found that some of the complaints were either unjustified, or were the result of old equipment, the defects in which have been remedied in later models of equipment, brought out by the same manufacturer.

After we had reviewed all of the reports of members, regarding defective or unsanitary machinery, our secretary wrote to each member who had answered the questionnaire, advising him of our findings. We have also written to the manufacturers of the machinery, drawing their attention to justifiable complaints that were reported on, by our membership, thus affording the manufacturer an opportunity to correct the trouble which any member was having with this particular machine, and thereby rendering our members a service in this respect. Your committee made arrangements to meet with the engineers of the various manufacturers on the floor of the Exhibition Hall on Tuesday, October 5th, the day preceding our convention, to discuss with them defects in machinery noted by our membership, which we hope they can remedy. The manufacturers have written many letters of appreciation of this movement, and are willing to work wholeheartedly with us for the sanitary and mechanical perfection of dairy machinery.

The standardization committee visited the machinery exhibition and went over the various types of machines of which there had been complaints, either regarding sanitary or mechanical conditions.

These various complaints were discussed with the engineers of the various firms and explanations were given by the engineers showing in some cases that they considered the complaints unwarranted but in the majority of cases complaints on older machines had been overcome and corrected in the newer models.

Other complaints that were warranted, the various firms appreciated, having us go over the equipment with them and will do everything within their power to correct the defects complained of.

Standardization of Sanitary Thermometer Connections:

At last year's convention we reported the standardization of a sanitary thermometer spud for coil vats. This standardization has been accomplished and a set of
master gauges is on file in the office of the secretar
case any member wishes to check up this standard
mometer spud.

We were not able to report at the last meetin
the standardization of a spud for glass lined tanks.
matter had to be further followed up, due to the
that two manufacturers did not see eye to eye wit
committee and the other manufacturers. A meetin
your committee and the thermometer manufacturer
held in New York on July 15th, to endeavor to co
a final decision on this spud, with this result, that
the thermometer manufacturers have now approv
the specifications for the spud for glass lined tank
last approval having come in under date of Octobe
from a district manager, and has yet to be confirm
the officers of the company, which will be forthco
in a few days.

We will have to amend that report to show now
per cent of the manufacturers of glass lined tanks.

Bottle Standardization.

You will remember that your committee has
working with the bottle manufacturers and the De
ment of Commerce, in an endeavor to eliminate
ous heights of bottles and cap seats. At the time o
year's meeting, we had practically reduced the he
of bottles from 12 to 3 heights on each size, quarts,
and half-pints, and probably 90 per cent of the cap
are now No. 2.

It was felt, however, that a further effort shou
made on the part of the committee and the bottle
ufacturers in co-operation with the Department of
merce, toward a further elimination of different he
of bottle. For the purpose of considering and stu
this matter, a meeting was held in New York Ci
September 8th, at which we met the bottle manuf
ers and Mr. Colwell, representing Secretary Hoov
the Department of Commerce. At this meeting i
decided to recommend to you, that quarts should h
minimum height of 9¼ inches and a maximum o
inches, the manufacturers reporting that 90 per ce
the quart bottles now manufactured are of these
heights. That pints should be standardized a
inches, the manufacturers reporting that 75 per ce
the present production is of this one height, and
half-pints should be standardized at a height o
inches, the manufacturers reporting that outside o
tain special large size orders, 80 per cent of the p
orders are of this height. As regards the half-pin
manufacturers are giving special study to the pra
bility of this height, and with a view to manufact
a bottle which will not tip so easily on the bottlin
chines, and will work satisfactorily in the present
matic washing machines. The committee espe
draws your attention to this proposed revised dime
of the half-pint bottle, so that you can check up
equipment, and especially the bottle crates holdi
bottles for half-pints, and see if the dimensions o
new half-pint bottle will work satisfactorily in
crates. We sent each member a blue print of thi
type bottle through the mail, asking you to chec
dimensions of the blue print with your present ha
bottle, and come prepared to discuss at this tim
advisability of making this new design standard.

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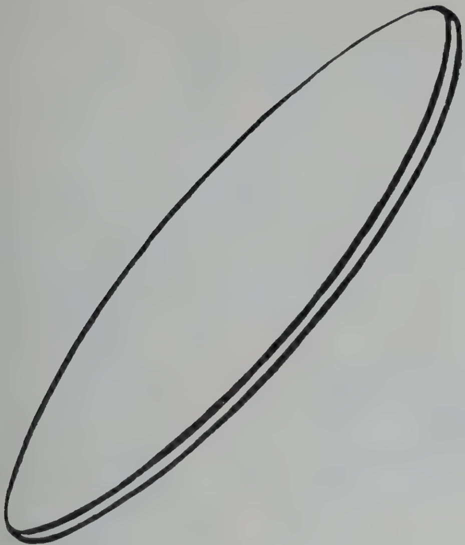
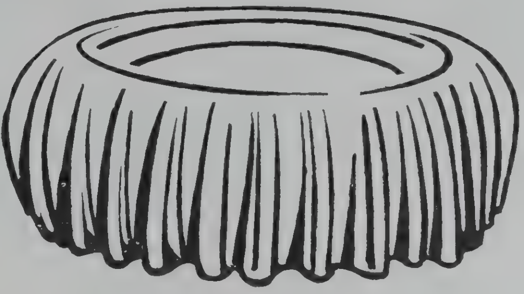
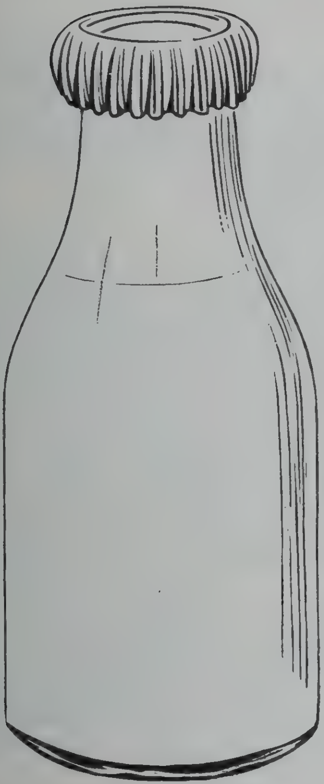
* Pure Milk Company, Ltd., Hamilton, Ontario.





The Perfect One-Piece Seal



THE PERFECT one-piece, non-resealable sanitary seal is here. No wires or other equipment of any kind are required to hold it in place, yet it is airtight and water-proof.

¶ It cannot be knocked off or jarred loose in handling, but by a simple turning and lifting movement may easily be removed by hand. Once removed, it can be used as a dust cover for the bottle, but cannot be tightened and used as a seal again.

¶ The five-ply spruce paper discs are softened in the automatic bottle sealing machine, and moulded to shape while soft over the tops to the under side of the lips of the bottles. The moulding fingers of the machine hold them in place while they cool and set. That's all there is to it!

¶ The Westlake Seal is the most completely protective milk bottle seal ever devised, the easiest to apply and the simplest to remove.

Write Today for Complete Descriptive
Bulletin and Prices.

The Lakewest Corporation
Division of
American Machine & Foundry Co.
5502-5524 Second Avenue - BROOKLYN, N. Y.

When writing to AMERICAN MACHINE & FOUNDRY CO. *please mention The Milk Dealer.*

hope you have done this before coming to this meeting and are now prepared to discuss it and take action.

I might just explain that there is only a difference of one-eighth of an inch difference between the half-pint bottles of 5⅜ and 5½. It was thought probably the best to try the 5⅜, as being medium, but inasmuch as there is only one-eighth of an inch difference between them and the 5¼, the manufacturers felt that they could make a more satisfactory bottle, a bottle which would not tip so easily, and a bottle which would have a broader base. They could shorten the curvature, a little wider, so that it would have a wider base and a little more acute circle at the corner. So far as the neck of the bottle was concerned the question was asked me today this, in putting out milk in half-pint bottles will this not reduce our cream line? An eighth of an inch reduction at the top of the bottle would not be a sixteenth of an inch difference in the depth of your cream line. I do not think that that is a factor that should worry you in the least, because you get a more satisfactory working bottle, a bottle on which you are going to save money, stops breakage of bottles. The committee felt, after considering the matter very carefully that it was the best height of bottle to recommend, providing you can work it in your cases, that is the only question.

Your committee likewise discussed the advisability of taking action on what we call freak or radical style of bottles. As the members will recall, this matter was considered at some length at last year's convention, at which time the milk bottle manufacturers proposed this program, "THAT THEY WOULD NOT MANUFACTURE ANY FREAK OR RADICAL STYLE OF BOTTLE WHICH MIGHT BE PRESENTED BY A DESIGNER OR PATENTEE UNTIL THE MATTER WAS FIRST REFERRED TO OUR STANDARDIZATION COMMITTEE," or until a program might be worked out as between our respective groups and the Department of Commerce at Washington.

As a result of our deliberations the following resolution was introduced by Mr. Colwell, representing Secretary Hoover of the Department of Commerce, which was unanimously adopted:

> "Furthermore recognizing the efforts that have been made by Secretary Hoover of the United States Department of Commerce, the manufacturers of milk bottles, and the International Association of Milk Dealers to benefit through a joint program looking towards the standardization of the milk bottle and further recognizing the fact that there is constantly being devised and placed upon the market numerous types, shapes or finishes of bottles and further recognizing that the constant adding of these additional types and shapes of bottles will not only tend to delay, if not, in fact, prevent a program of standardization and simplification of bottles, but that each new type and shape so adds to the increased cost of marketing of all milk bottles without tending to increase the efficiency of the industry.
>
> Be it resolved that the joint conference ask the Department of Commerce to add to Simplified Practice Recommendation No. 10 a recommendation that before agreeing to make any new type or shape of milk bottle, the milk bottle manufacturers through its committee appointed for the purpose shall first refer the matter to a joint conference of committees of the milk bottle manufacturers, the International Association of Milk Dealers and the Department of Commerce, with a view of determining, after the patentee or designer has been afforded an opportunity for a hearing, whether the addition of such type or shape will be in the interest of progress of the industry. If it is the opinion of the joint conference that such additional type or shape is in the interest of such eco
> progress, then such additional type or shape m
> included in the Department of Commerce, Simp
> Practice Recommendation, after which the milk
> manufacturers shall feel free to fabricate such
> type or shape of bottle but not otherwise."

Mr. Colwell, representing Secretary Hoover, sai
he would take these minutes and resolution back
Department of Commerce and refer the resoluti
their Solicitor General with a view toward determ
whether or not the said resolution was in strict
formity with legal requirements. If so, they would
revise the Simplification Recommendation No. 10,
you will recall was the first serious effort made
attempt to secure actual elimination of waste in the
ufacture of milk bottles. If this is accomplished
recommendation will come to you in the very ne
ture through the Executive Secretary's office.

During the discussion at our meeting in New
the milk bottle manufacturers made a statement
they were entering upon a program through the
Container Association for their industry, looking t
the adoption of a uniform cost system in their bus
Your committee feels that if they do this, that the
then apportion the proper cost to the present com
sense bottle, and the proper cost to the off-sta
bottles, for we feel sure that the off-standard bottl
not now bearing the proper share of costs, and t
prices were set in proportion to cost, the off-sta
bottle would be priced much higher than the com
sense bottle. We therefore feel that the standardi
of milk bottles should eventually reflect itself i
price of common-sense milk bottles as compared
off-standard bottles.

⚜

SEEKS TO REGULATE IMPORTS.

In speaking to the Senate, in behalf of Hous
No. 11768 to regulate the importation of milk and
into the United States, Senator Gillette of Massach
said in part as follows:

"The purpose of the bill, as we all know, is m
to insure the purity of milk which is imported from
ada. We have found in this country that the best m
of safeguarding the milk supply from the standpo
sanitation is by an inspection of the herds and
dairies; and this bill provides indirectly such insp
shall be made in Canada.

"The bill provides that milk shall not be imp
unless the U. S. Department of Agriculture is as
that it has been subjected to substantially the sa
spection as that to which the producers of mil
farmers and the dairymen of this country, are o
to submit.

"It is objected that the bill if passed would be
fringement of state rights. Here is a case whe
state cannot possibly secure the end at which w
No one state can compel milk inspection in Canada
ports are peculiarly and exclusively within the ju
tion of the federal government. That is what th
covers.

"If it were possible, I would rather that all th
consumed in New England should be produced
United States. Of course, that is impossible beca
distances. So, much as we would prefer to be f
our own countrymen, we are compelled by propi
to use the milk and the cream of Canada."

PROSPERITY

It is almost impossible to estimate the vast improvements which the last ten years have brought about in the production of milk and milk foods.

As a result quality milk foods are being produced, greater consumption is being encouraged, and bigger profits accumulated to the producer.

So significant is the contribution of sanitary cleanliness to these results that increasing numbers of dairymen are specifying

Wyandotte
Dairyman's
Cleaner and Cleanser

as the standard material for all their dairy cleaning.

This pure, inorganic, greaseless cleaner has stood the test of twenty years unfailing sanitary service to the dairy industry.

These years have been marked by the greatest prosperity, a prosperity in which Wyandotte Dairyman's Cleaner and Cleanser has contributed a valued part.

Indian in Circle

In Every Package

Ask your supply man for "Wyandotte"

The J. B. Ford Company *Sole Mnfrs.* **Wyandotte, Michigan**

Why not FILTER with a Ladd Filter?

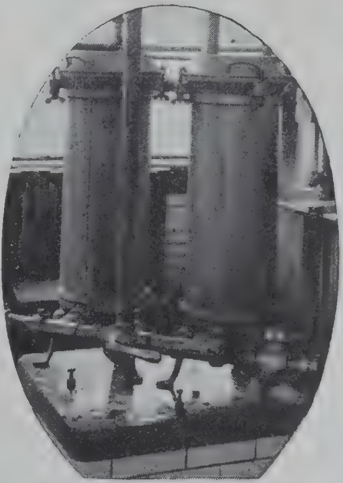
No. 6—Operated by E. E. Blaine
Cleveland, Ohio

We have some astounding reports of results from Ladd Filters. Don't you want to know more about them?

Remove visible and invisible dirt without affecting the cream line —

MOST ECONOMICAL TO BUY —
MOST EFFICIENT TO USE — —

We Have a Special Proposition for You



Two No. 12—Used by Risdon Creamery
Detroit, Mich.

JOHN W. LADD COMPANY

DETROIT COLUMBUS CLEVELAND CINCINNATI

Ohio Holds Banner Meeting

One of the Largest State Conventions Held in Great Industrial City Proves of Extensive Benefit to Hundreds Attending

WHEN Mayor Murray Seasongood and W. C. Culkins, executive vice-president of the Chamber of Commerce, extended greetings of welcome to the delegates to the Ohio Dairy Products Association Convention, which opened Tuesday morning, January 25, at the Hotel Gibson, Cincinnati, they addressed one of the largest crowds in history attending a state dairy meeting—the number reaching close to 500 attendants. Ohio proved to be full of enthusiastic dairy boosters; men in the dairy industries who are anxious to get together with their competitors, call them their friends, and exchange ideas and plans with each other for the general good of the industry in which they are all vitally interested.

The Ohio Dairy Products Association is comprised of The Ohio Milk Distributors Association, The Ohio Association of Ice Cream Manufacturers and the Ohio Association of Creamery Owners and Managers. These associations held joint meetings following the general meeting, the former extending on through the following day.

At the opening meeting H. R. O'Brien, secretary, Ohio Corn Borer Control Committee, ably handled a subject of interest of the "Corn Borer Menace in Ohio." He stated that the European corn borer is the greatest menace to America's corn crop, and surmounts in its devastation any of the other denizens of the insect world. "Ohio is in more danger from the ravages of the borer than any other state. Congress has been asked to appropriate $2,000,000 for a national campaign against the borer," Mr. O'Brien stated, and that "the Ohio Legislature will be requested to appropriate $200,000 for a fight against the bug in the Buckeye state alone." He further stated that if the ravages of this pest go unchecked, the corn crop of Ohio will be destroyed and the result will be that the farmers will charge more for their milk and the distributors will have to make the consumers pay increased prices.

Carl Schaufele, director of the Ohio State Restaurant Association and president of the Columbus Restaurant Association, explained "Why Restaurants Serve Milk, Butter and Ice Cream."

A. Elliott Kimberly, sanitary engineer retained by the committee, spoke on "Progress of Work in Disposal of Dairy Plant Wastes." He gave an account of the means employed to avoid stream pollution.

J. H. Schindler, Cleveland, chairman, read the "Report of Committee on Dairy Plant Waste Disposal."

Milk to Prevent Disease.

At 12:00 o'clock the Dairy Products Association luncheon satisfied the "inner man" of a splendid number of attendants.

J. O. Winters, president, Greenville, O., presided.

Dr. Carey P. McCord, of the Industrial Health Conservancy Laboratories, University of Cincinnati faculty member, discussed "Milk for the Industrial Worker." He told of his investigation of milk as a preventive of certain occupational diseases. He further stated that investigations had shown that the drinking of a quart of milk a day by workers in factories where lead poisoning had been prevalent will reduce that danger very materially. Dr. McCord cited other occupational diseases which can be combatted by the simple process of having workers drink milk.

Miss Aubyn Chinn, Chicago, of the National Dairy Council, rendered "M'Dear, You're a Jewel!" She tribute to the cow as an asset to American life. She of the value obtained from wholesome exercise, air, restful sleep and proper food, which, she expla "included all dairy products."

The Secretary Speaks.

E. B. Krieger in giving an account of Mr. W worth's address, states: Oh, you beautiful lady! they left you at home! A dairy convention withc cow! "But here am I," spoke up W. Allerton W worth, tall, dark, smooth-shaven and sofe-spoken ecutive secretary to all the cows in Ohio and som Indiana and Kentucky. "The cows had to stay hon keep house so they sent me to speak for them. It unusual situation," he added. "Without the cow the farms we couldn't have a convention here; and the cows here we wouldn't have anything but the to talk about."

So really the cows did the best thing when they mitted Mr. Wentworth of Columbus to represent at the annual convention of the Ohio Dairy Proc Association. As executive secretary of the associa Mr. Wentworth knows lots about cows and their lems. He knows their records, too—how much milk gave in 1926 and every year before that since rec were kept; and how much of that milk went into bu how much into ice cream and how much went as a b age into the homes.

And what a death blow he dealt to that old wh about milk being all water!

"Milk is about 87 per cent water—the solver which the valuable life-giving products are held, said. "But what about your other foods? Do you k that beefsteak is 60 per cent water; potatoes 82 per water; eggs 85 per cent water and cabbage 90 per water?"

That isn't all, either. If we were as scientific a sometimes pretend to be we could sit down with a of milk and a dish of spinach and call it a meal.

The milk contains butterfat, milk-sugar, lime, ca and albumin—all dissolved or suspended in water. only other ingredient really needed for a meal is mineral content, obtained from spinach. If you baby-talk, you don't need the spinach. Only adult quire iron.

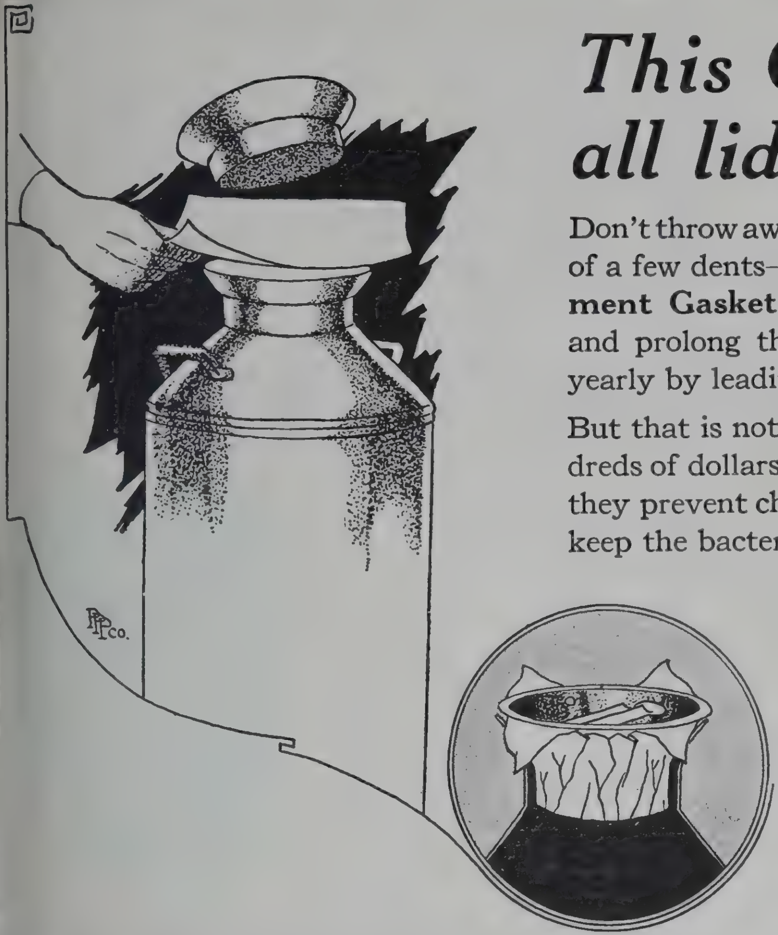
Millions for Dairy Products.

We Ohioans last year spent $140,000,000 for mil drink. Another $65,000,000 was spent by us for crear butter and $40,000,000 more for ice cream.

We're working our cows to the limit in order to that supply of dairy products. The number of cow Ohio has increased only one per cent during the last years. Yet the number of gallons of milk produce the state has increased nearly 25 per cent. The answ that the cows of Ohio have been educated to give average of 550 gallons of milk in 1926, as compare an average of 450 gallons in 1921.

"How was that done—are you growing bi cows?" the question seemed fair enough.

"Not at all," Executive Secretary Wentworth plied. "The cows have not changed in size. It's the creased attention they have received from the farm The farmers have been getting proportionately more milk than for some other farm products and, consequ



This Gasket makes all lids fit like new!

Don't throw away perfectly good cans or lids because of a few dents—use **Paterson Vegetable Parchment Gaskets.** They make all lids fit like new and prolong the life of every can. Millions used yearly by leading milk shippers.

But that is not all! Parchment Gaskets save hundreds of dollars worth of "spilled milk and cream"; they prevent churning of cream in the lid and help keep the bacterial count where it belongs.

Parchment Gaskets are easy to use. They come cut to size in packages of 1000. **Soak them thoroughly in clean water,** place over neck of the can and jam down the metal cover.

Samples and prices from your
Dairy Supply House or write direct

The Paterson Parchment Paper Co.
Passaic, New Jersey

SOLAR

MILK CANS

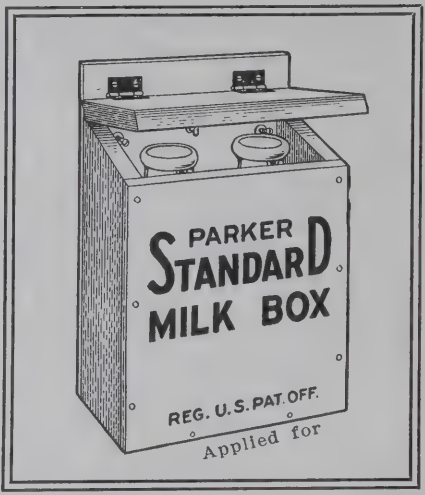
ALWAYS DEPENDABLE - - - - -

Each separate part chemically treated and cleaned, evenly and heavily coated with pure tin and then assembled by expert workmen. Quality is guaranteed—workmanship is guaranteed.

REMEMBER—when prompt shipment is imperative, you can rely on us.

SOLAR - STURGES MFG. CO.
MELROSE PARK • • • ILLINOIS

Protection for Your Milk



PARKER
STANDARD
MILK BOX

Every housewife likes to get her milk in a Parker Milk Box. It keeps milk from freezing in the winter and keeps it cool in the summer. It guards against theft and contamination.

Dealers who sell in shops and offices will find these boxes effective trade boosters. Employees gladly switch their trade to the dealer who furnishes them.

Write for quantity prices. Quick shipments.

Parker Standard Milk Box Co.
228 WARREN AVE. :: SAGINAW, MICH.

ly, have been paying greater attention to their c The Ohio State University Extension department rendered valuable service to the farmers in sho them what attention the cows are most likely to rec cate by giving more milk. Indirectly, good roads helped too. They have aided the farmers to marke milk more readily—and that is an incentive for farmers to give greater attention to their cows and increase the milk supply."

"It might be thought we might have reached saturation point" for milk. But the automobile m facturers thought that, too, until they just kept o creasing their output and found the "saturation po was a theory and not a fact.

We imagined we were great milk consumers in when the per capita consumption of milk in Ohio wa gallons a year. Now it is 60 gallons a year—the gre per capita increase in any food."

And ice cream! One would think we people lived on ice cream to hear Executive Secretary W worth quote figures showing how we like it. As a w the United States uses 4 per cent of all the milk su to make ice cream. In Ohio 12 per cent of all the consumed in the state is used in the manufacture o cream. The consumption of this food product has than doubled in ten years. In Cincinnati alone last 3,500,000 gallons were produced.

Ohio Eats Butter.

And butter—creamery butter! Five years ago 3, 000 more pounds of butter were made in Ohio than consumed in the state. Last year Ohio consumed 000,000 pounds more than they made, sending to o states for the difference. The Cincinnati productio butter last year was 12,000,000 pounds—the greate any city in Ohio—and Ohio consumed all that an 000,000 pounds more. So if they are eating butte the rate of twenty pounds a year per person, they're up to the 1926 quota.

At 4:15 p. m. all meetings adjourned to the ball of the roof garden of the hotel to witness a clever health lesson production put on under the auspices o Ohio Valley Dairy Council. The children of the oming Public School staged a "Health Circus." It a good lesson for those present to see that their chil get the right food, exercise and fresh air. The im tance of dairy products played an important part.

Miss Ada L. Lockhart gave an interesting rend of "The American Girl Beauty Products." A table taining carrots, spinach, milk, water, butter, etc., he to illustrate her talk upon how the American girl get to perfect beauty attainment.

Joint Banquet.

At 7:00 p. m. in the Hotel Sinton the association quet was held. The room was crowded to capacity. entertainment was first class; dancing followed.

At 8:30 p. m. on Wednesday, a smoker was give Heidelburg, across the river in Cincinnati, by the cinnati Dairy Products Industry who acted as hosts

Following the two-day meeting in Cincinnati, th tending Kentucky delegates, and many other deleg from Ohio and other states accompanying t journeyed on to Lexington, Ky., where a luncheon m ing of the Dairy Products Association of Kentucky held at the Phoenix Hotel. This meeting numb about 60 attendants. Account will be given elsew of this gathering.

Many ladies attended the Ohio Dairy Products A ciation convention and a very pleasant time they being taken care of entirely by a committee of ladie Cincinnati.

On Tuesday morning they enjoyed a sight-seeing through the Rookwood Pottery plant and other place

An Export BARREL for Powdered Milk

FIR STAVES

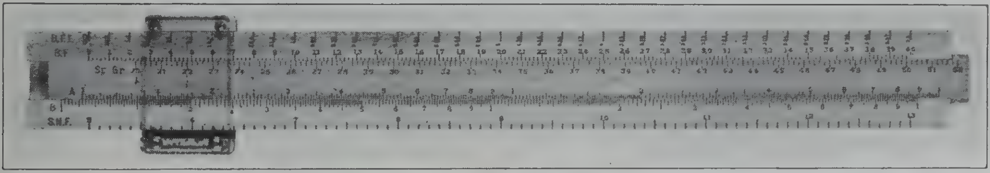
Let us tell you wherein it differs from other barrels!

WRITE TODAY

K. W. JACOBS COOPERAGE CO.

Largest Manufacturers of Powdered Milk Barrels in the Middlewest

1907 St. Paul Avenue . . . MILWAUKEE, WIS.



Quick - Accurate Figures!

THE
Dairyman's Slide Rule

$5.50

Mailed postpaid complete with case and self-teaching manual on receipt of remittance.

for Standardizing milk and cream. Computing butterfat. Estimating overrun in butter and ice cream making. Calculating the yield of cheese. Reducing pounds to gallons, and a great many other figures needed by dairymen every day.

GET ONE!

The Olsen Publishing Co. [*Distributors*]

501-515 Cherry Street
MILWAUKEE, WIS.

Please Mention The Milk Dealer.

interest, stopping at the Alms Hotel for luncheon.

At 7:00 p. m., Tuesday, they were entertained at the banquet and dance.

On Wednesday afternoon, they were treated to the very fine performance of "Craig's Wife" with Crystal Herne starring, at the Grand Opera House.

At 2:00 p. m. the Ohio Milk Distributors' Association 11th annual convention was called to order. J. N. Gibson, president, of Dayton, presided.

The report of officers and committees were given.

The "Ohio Better Milk Council" was given by Dr. R. G. Patterson, executive secretary, Ohio Public Health Association, Columbus, O. Some good work has been done by this council since the last Ohio meeting in Columbus in 1926, and rapid strides are being made toward the production of better milk in Ohio as a result of this council's good work.

The different sectional meetings of the Ohio milk distributors were held during the entire second day, and various subjects were discussed and many special speeches rendered.

Chairman E. J. Helbig, Canton, and Secretary Irving O. Koch, Columbus, took charge of a meeting for milk distributors in a conference on milk plant management.

"Cream Plug—Cause and Remedy," was given by H. E. Otting, Moores & Ross, Columbus.

"Creating Savings in the Plant, and Shrinkage from Receiving Vat to Final Package," was handled by Prof. R. C. Fisher of French Fros.-Bauer of Cincinnati.

F. J. Andre of the Akron Pure Milk Co., Akron, spoke on "Pasteurization."

"Effective Methods of Sterilizing Equipment and Plant Machinery, Sanitary Piping, Etc.," was conducted by H. D. Drain, Dairy Department Ohio State University, Columbus.

In another meeting at 9:30, presided over by Chairman W. D. Hunnicutt, Cincinnati, and Secretary F. M. Campbell, Salem, "Milk Production" conference was held.

F. J. Capouch, production manager of Bowman Dairy Co., Chicago, gave a "Report on International Milk Dealers Association Committee on Better Milk Supply."

"What Production Managers of Our Milk Companies of the State Can Do to Assist the Tuberculosis Eradication Campaign" was handled in a very interesting manner and illustrated with charts showing in what counties tubercular cattle showed up heaviest, and in what counties work had been done so far.

"There are eight areas in the state of Ohio that are free of tubercular cattle, and these areas are the centers of large milk supplies," Dr. Zimmer of the Ohio Department of Agriculture, Columbus, told the members of the association.

"Ohio is comparatively free of tuberculosis among milk cattle. The state within the last two years has spent $750,000 in paying for cattle which it had ordered killed because of symptoms of tuberculosis. The United States government has expended $800,000 in Ohio for this purpose. Most of the work of inspecting dairy herds has been with milk herds and not with beef cattle. The department is interested in increasing the economical conditions of the farms and in creating better milk conditions."

At a third meeting at 9:30 a. m., presided over by Chairman E. E. Foreman, Columbus, and Secretary Corwin L. Knowles, Portsmouth, a milk sales conference was held.

Milk in Industrial Plants.

"Stimulating the Sale of Milk in Industrial Plants," was handled by M. O. Maughan, National Dairy Co Chicago.

"Is papa grouchy when he gets home at night? he lie down and sleep after supper? Does he say, 'P go away and leave me alone?' when mamma wants automobile riding or to the picture show? That's a he isn't drinking enough milk," Mr. Maughan stat

"If a man will drink more milk he will become ter husband. It really isn't because he is lazy. It cause he is worn out when he gets home from work. way to keep him from arriving home worn out is t that he drinks milk is the middle of the forenoon again in the middle of the afternoon, while he work."

Mr. Maughan told of investigations made by national milk council to determine to what extent was being served in the larger factories of the cou In addition a questionnaire was sent to factory mana to learn their observance as to the results of that sys

"I may say that I practice what I preach about drinking—at least, I did this morning," Mr. Mau said. "The high water caused me to get in from Chi so late this morning that I had time only for a gla milk for breakfast. I might add that Mussolini say drinks only a glass of milk for breakfast every day, the captain of the navy football team drinks six gla of milk a day."

Among factories where morning and afternoon cesses are taken from work so the employees may and drink milk, the speaker mentioned a Milwa concern which permits representatives of two milk cerns to enter the factory at mid-forenoon and mid-a noon and sell milk to the employees. Of the 6,000 ployees an average of 2,000 a day buy one or more of milk daily. A St. Louis, Mo., plant has "tea wag for the distribution of milk through the plant. A tiac, Mich., plant sends fruit and milk wagons thro At an automobile factory in Highland Park a fift minute recess for lunch morning and afternoon res in the sale of 50,000 pints of milk daily in the plant al

"This permitting of the sale of milk to the emplo is of great benefit to them, because so many of then to work without much breakfast—you know you how great is the temptation to lie in bed until the minute," Mr. Maughan said. "As a result of the centrated nourishment contained in milk the emplo do their work with greater ease, with greater accu and there is less loss of time from work on accoun illness."

National Cash Register plants in Dayton were as examples, and officials of that company had incr the efficiency of its employees and created better he conditions and standards, was claimed by Mr. Maug

Others scheduled at this meeting were: Discus by Frank Moore, Moores & Ross, Inc., Columbus; Lindner, Milk Service, Inc., Dayton, and R. A. Lar Supreme Dairy Co., Alliance.

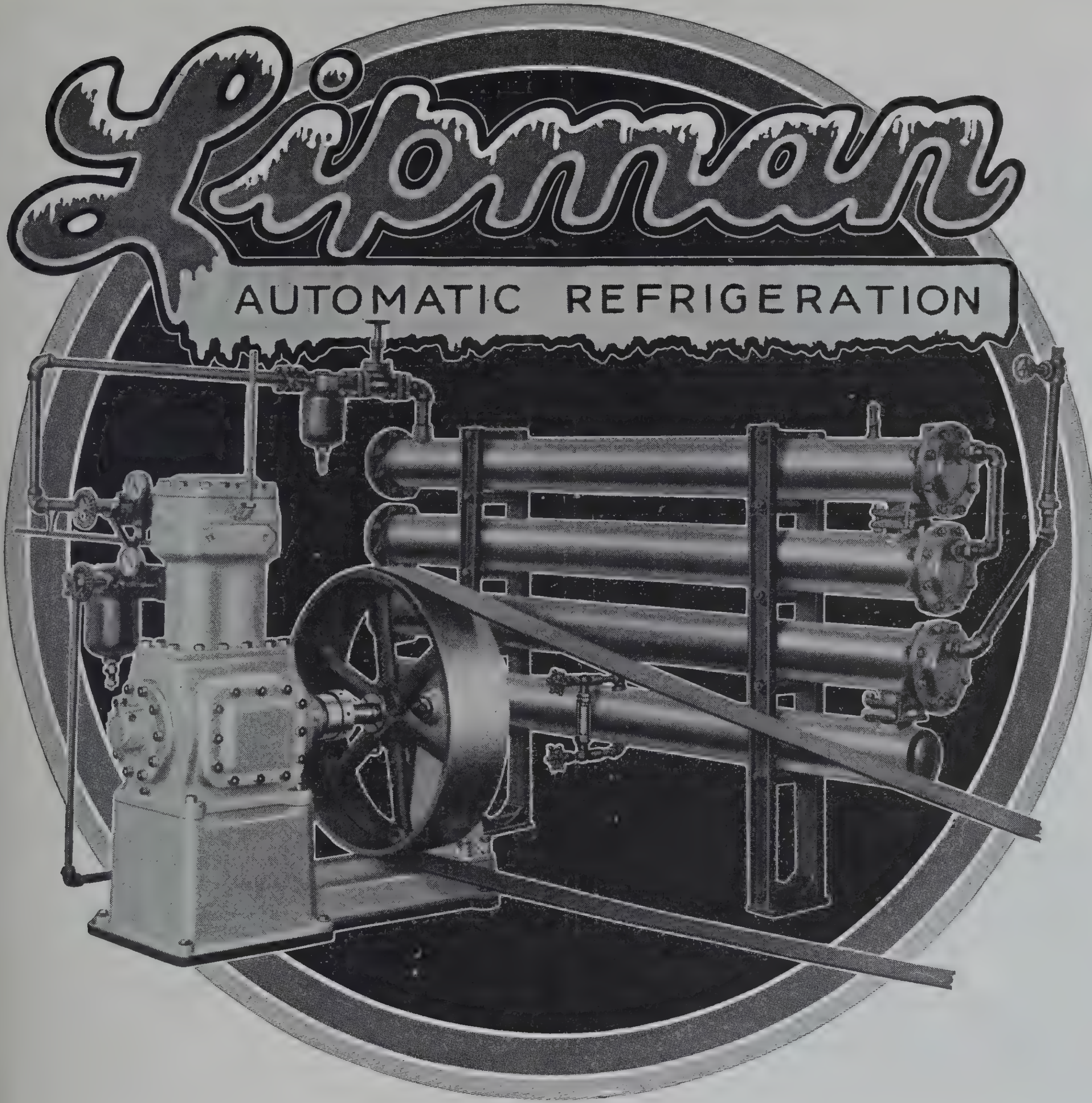
"Stimulating the Use of Milk in Schools," by Roueche of the Telling-Belle Vernon Co., Cleveland, also scheduled.

H. D. Hooge, Mathews Select Dairies Co., Cincin led a discussion.

Management Conference.

In the Milk Plant Management Conference div for the afternoon, the following were scheduled: " tion of Man in Plant to Promotion of Milk Sales," b O. Dreyer, Dairy Products Company, Dayton. "Fac Labor Problems," by John F. Kofron, Clover Mea Creamery Co., Cleveland.

The discussions scheduled were: "Methods of C



dvantages *of* Lipman Refrigeration

First, is the *time saved*. Milk dealers find that Lipman Full-Automatic Refrigerating Machines operate day-after-day, indefinitely, with the minimum of attention. That saves money in labor costs.

Then, the actual *operating cost*, in current and water consumed, is very low. Lipmans are most economical. That saves cash.

Finally, the *life of a Lipman* Machine is so long, thanks to high manufacturing standards, that they give good service for a very long time. That distributes the original investment, making a lower than usual capital cost when measured in terms of service.

There's a Lipman Sales and Service Station near you, available at all times. Get a demonstration. Write us for Descriptive Folders and booklets giving complete information.

General Refrigeration Company
116-194 **Shirland Ave.** **Beloit, Wisconsin**

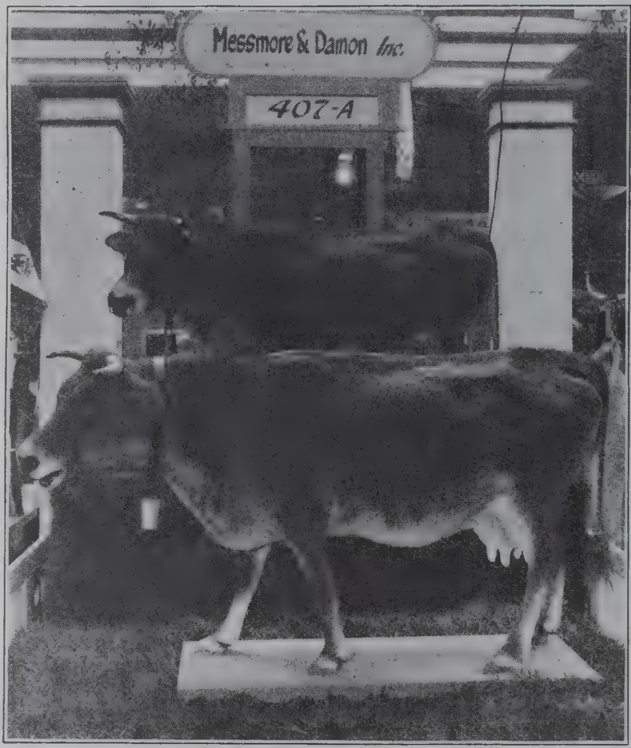
GR CO.

THE DRY, CONSTANT COLD OF THE MOUNTAIN TOP.

When writing to General Refrigeration Company *please mention The Milk Dealer.*

The Sensation of the Exposition!
—In Detroit

ANIMATED
Life-Like Cows
That Move Their Head, Eyes, Mouth and Tail



On display at J. L. Hudson's Department Store, Detroit, Mich. Between 6 and 7 P. M. over 3,200 people stopped to view these animals.

At the Exposition we have registered 500 representatives from the largest dairies and ice cream plants in the United States, Canada and Europe, making actual sales to these countries.

These cows will secure good locations for your displays. They will work for you night and day, bringing increased business and reputation.

If interested, write or wire for full particulars.

Messmore & Damon, INC.
404 West 27th Street New York

ing and Checking Finished Products," "Filter vs. C
fier," "Commercial Buttermilk," "Merits of Direct
pansion Coolers over Brine Coolers, if any," "Mea
ing Milk," "Factors Affecting Cream Line," "Conc
ing of Surplus Skim and Whey for Feed," "Experi
with Foam on Skim Milk Direct from Separator,"
"Handling of Frozen Milk at Receiving Platform."

In the Milk Production Conference afternoon m
ing the following subjects were handled: "The Met
and Results of Our Milk Buying System," by O. W.
man, Akron Pure Milk Co., Akron; R. C. Roueche,
ing-Belle Vernon Co., Cleveland; C. R. Kidd, Moor
Ross, Inc., Columbus; R. W. Babcock, Babcock D
Co., Toledo, and W. D. Hunnicutt, French Bros.-B
Co., Cincinnati.

"What Campbell County, Kentucky, Has Don
Improve Dairy Production Conditions," was given
Harry Link, district county agent director, Unive
of Kentucky, Lexington, Ky.

In the Milk Sales Conference afternoon meetin
the second day session, the following program was
ried out: "The Best Way to Develop Route Salesm
by C. B. Siddall, Akron Pure Milk Co., Akron.

A discussion was lead by Allen French, Towns
West Dairy, Cincinnati, and Harry Himes, Himes
Dairy, Dayton.

Horse Important Factor.

It seemed that Dobbin's job drawing the milk wa
is secure from a talk given by H. F. Meyer, Dairy P
ucts Co., Cleveland, on "Motorizing Milk Routes."
horse is still a much desired factor, in the milk indu
at least, and the picture of a horse hitched to a
wagon is one that will never fade, if the conclusion
Mr. Meyer can be taken as a criterion.

The horse still is an economical factor in delive
milk to customers over a prescribed route, altho
motor trucks are used where the route is large and
is served in bulk. "Old Dobbin still is an important
tor in delivering milk to customers," said Mr. Me
"we have found from experiments that the horse is
the most economical factor in delivering milk, an
present there is no adequate substitute for him.

"The cost of operating milk trucks for route d
ery is high as compared with the operation of h
drawn vehicles. The wear and tear of starting an a
mobile and stopping every few hundred feet to de
a pint of milk is not economical. Here is where
horse can surmount the automobile in efficiency; in
hauls automobiles are more economical."

The discussion was made by H. C. Moores, Moor
Ross, Columbus; B. A. Millikin, Youngstown San
Milk Co., Youngstown, and C. R. Billingslea, Kimb
Grove Co., Columbus.

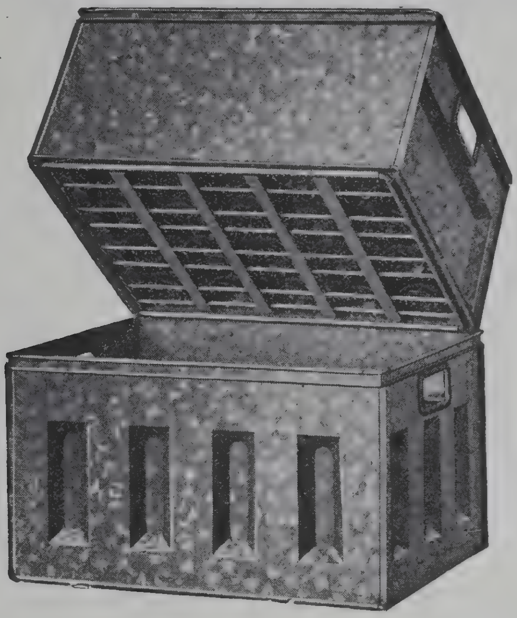
"Does it Pay to Use Novelties or Premiums wit
Retail Customers," was handled by Geo. B. M
Hiland Dairy Co., Newport, Ky.

A discussion was given by V. F. Trout, Purity
Cream and Dairy Co., Springfield, and E. C. Gre
Browning-Greiner Dairy Co., Zanesville.

The Ohio Milk Distributors' Association, after li
ing to good speakers discuss their problems, hear
nominating committee report on the election of of
for the coming year.

C. B. Alexander, Akron, was nominated for p
dent, B. A. Millikin, Youngstown, for vice-presiden
E. E. Foreman, Columbus, for treasurer. As the n
nating committee reported no opposition, these
tioned will undoubtedly be elected.

*f*OR Perfect Stacking



CLIPPER CASES

Clipper cases stack perfectly without the hazard of sharp projecting stacking irons. You can move high stacks of Clipper Cases without any danger of shift or sway.

The stack stays rigid, all of which avoids disastrous accidents that cause so much loss in broken bottles and product.

Furthermore Clipper Cases absorb no extra weight. They need no repairs. Their cost is an actual saving over many wood cases. And—

How they do Last.

You will never know until you try them.

These Jobbers Sell CLIPPER CASES

J. G. Cherry Co	Cedar Rapids, Ia. St. Paul, Minn.
Meyer-Blanke Co	Birmingham, Ala. Dallas, Tex. St. Louis, Mo.
Haines-Carpenter Dairymen's Co.,	St. Louis, Mo.
Miller-Lenfesty Supply Co	Jacksonville, Fla. Miami, Fla. Tampa, Fla.
N. A. Kennedy Supply Co	Kansas City, Mo.
Apothecaries Hall Co	Waterbury, Conn.
Teague Hardware Co	Montgomery, Ala.
Gowing-Dietrich Co., Inc	Syracuse, N. Y.
John W. Ladd Co	Detroit, Mich. Cleveland, Ohio Columbus, Ohio Cincinnati, Ohio
A. L. Davis' Son	Binghamton, N. Y.
Cherry-Bassett Co.	New York, N. Y. Syracuse, N. Y. Baltimore, Md. Philadelphia, Pa. Pittsburgh, Pa.
E. K. Owens Hardware Co	Susquehanna, Pa.
National Dairy Equipment Co	Utica, N. Y.
Hagan's Dairy Supply House	Greensboro, N. C.
Chester Dairy Supply Co	Chester, Pa.
M. G. Newell Co	Greensboro, N. C.
Oakes & Burger Co	Cattaraugus, N. Y.
Ft. Wayne Dairy Equipment Co.	Ft. Wayne, Ind.
Thompson-Bremer & Co.	1750 Carroll Ave., Chicago, Ill.
John Pico	New Orleans, La.

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION INC
ASSOCIATE MEMBER NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS

The Defiance Pressed Steel Co.

DEFIANCE, OHIO

Milk Plant's Experience With Cost Syster

How the Association System Has Made Routes Pay. Extracts from an Address at Detroit Convention of International Association of Milk Dealers

By J. D. DUNGAN*

HAVING known of the task undertaken by The International Association of Milk Dealers, that of the development and adoption of the Uniform Cost Accounting System, we decided to install the system during the year 1924.

Prior to this time we had at different periods employed the services of public accountants to recommend and install accounting systems particularly adapted to the milk dealer, and in our opinion based upon our experience of milk accounting procedure, were using what we termed a fairly successful system of accounting but were limited as to unit cost as well as detailed analysis.

When the general operation of the building of the Uniform System began we sent representatives to meet with the executive and preparation committees and were soon convinced that the Unit Cost System was just what we needed to more successfully manage and operate our plant.

Therefore, we purchased the Manual of the Uniform Cost Accounting System and secured the service of Mr. T. J. Bolitho who spent some three weeks with the accountants of our plant, laying out the necessary forms and outlining the proper procedure for the correct installation of the system.

On June 1st, 1924, the installation in the cost field was begun and cost figures which were rather crude at first were determined, and on July 26th, 1924, the first condensed product operating statement showing unit product cost was submitted.

The Uniform Cost Accounting System as far as the financial field was concerned was not installed until January 1st, 1925. This delay was not due to the fact that the financial field could not have been installed at an earlier date, but on account of the fact that departmental comparisons under the system then in use were considered desirable until the end of the year 1924.

Since January 1st, 1925, we have been operating the Uniform Cost Accounting System in its entirety. The figures submitted at first were crude but each succeeding month found them to be more and more reliable until at the present time we have the utmost confidence in the accuracy of the figures submitted.

Numerous investigations and tests have proven that the many accounting problems peculiar to the industry are being handled in the most logical and scientific manner under the operation of the Uniform Cost Accounting System.

This, no doubt, is a direct result of the foresight employed by our secretary, Mr. R. E. Little, and the accounting manager, Mr. T. J. Bolitho, who persistently insisted that the system should be built by the accountants within the industry.

This system is the means of furnishing the management with intelligent reports concerning all activities of the business. Through the information contained on our daily product reports we are enabled to reduce our product loss to a minimum. These reports have exposed several leaks which were quite expensive and of which we were entirely unaware.

This system provides balance sheets, both detail
condensed, in a form that will meet the requirements
the most exacting banker. And it provides for c
parative departmental reports which are of the utm
value in plant management and control. It provi
operating statements which reflect the actual results
operation. These operating statements we have fou
through actual experience can be compiled so as to ac
rately show the actual results sustained in any or
operations.

If, for any reason, special reports or statements r
tive to any department or to any phase of the busin
are desired the operation of the Uniform System
make this information available. The reports or sta
ments can be drawn in exactly the form desired,
matter how condensed or how detailed the requireme
may be. In fact, the system has no real limitations
those who know and understand its flexibility.

All these statements are necessary and vital to
management of a successful business, but the statem
from which we have derived the most benefit, the sta
ment which has caused us to effect the greatest savi
the statement which has given us the closest and,
believe, the most valuable control, is the Statement
Profit and Loss on Individual Routes.

It is presumed that all milk dealers who oper
routes know the gross sales on each of those routes.
know that milk dealers operating the Uniform Cost
counting System know their product costs, but we
know that this information, in itself, is not sufficient
effect a sales control.

We know that the products cost vary with each ro
We know the costs incidental to operation vary
each route, and unless we have these product costs
these operating expenses properly allocated to each ro
we cannot hope to know actual results sustained on e
route.

The Uniform System of Cost Accounting is such
it enables the operator to charge directly each r
with the cost of products sold; it enables the opera
to charge such expense as returned product loss, sa
men's salary and commission, vehicle expense and
debts directly to the route affected, leaving only s
supervision, advertising, etc., and administrative
pense to be distributed on an indirect basis. A car
analysis of this statement will reveal the effect of
or all conditions obtaining on each route.

It, then, becomes the duty of the sales executiv
locate the cause, if the cause itself is not indicated,
to immediately take steps to correct the condition.
may mean that the salesman is inefficient, or that
territory should be redistricted, or one of many o
reasons.

From this statement subsidiary operating statem
are prepared for each route, the subsidiary stater
shows only the figures affecting the route for which
are compiled.

The Sales Manager is then in a position to de
strate to the route salesman the reason and nece
for the demands made on the salesman by the man

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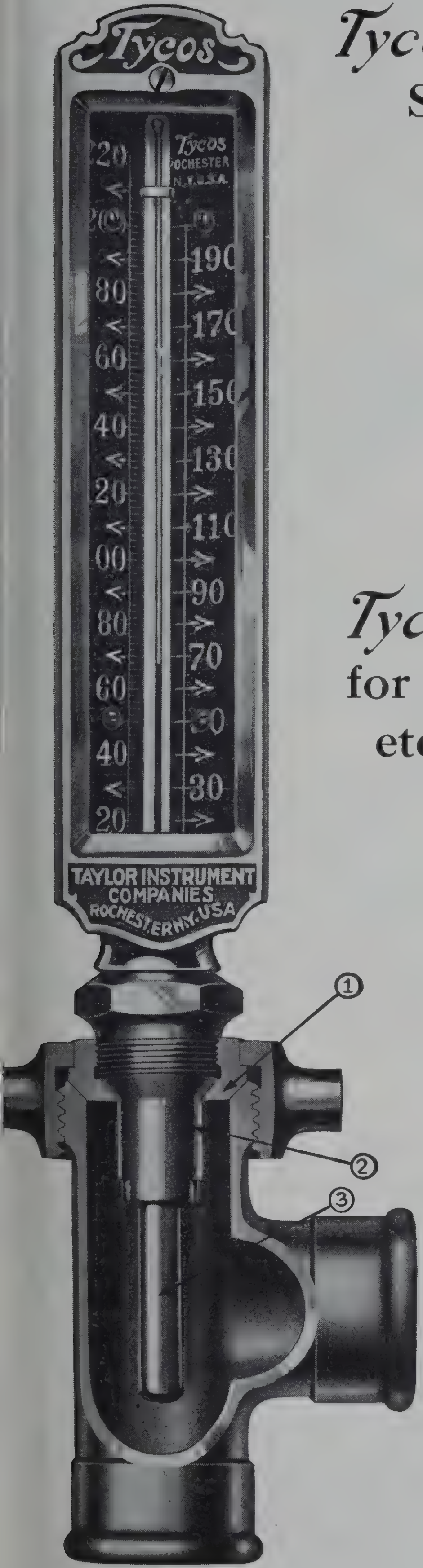
* Polk Sanitary Milk Co., Indianapolis, Ind.

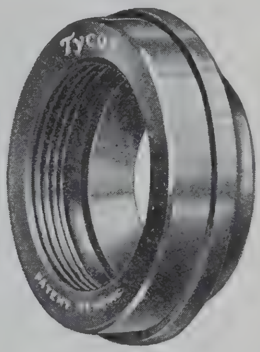


Tycos Industrial Thermometers with Sanitary Ferrule for Milk Lines

The dependability of ***Tycos*** instruments for use in the milk industry is well-known. To further their usefulness and to show a new standard of cleanliness and sanitation, the ***Tycos*** Sanitary Ferrule has been developed and placed on the market. It is another example of the thoroughness with which the ***Tycos*** engineers, with their knowledge of your industry, solve and anticipate your needs.

Tycos Sanitary Ferrule for Applying Thermometers and Regulators to Milk Lines

(PATENTED DEC. 7, 1926)



This Ferrule can be installed on all milk pipe lines. It is furnished for any size tee or cross of I. A. M. D. specifications.

All ***Tycos*** Indicating, Recording and Controlling instruments with connections for this sanitary ferrule are interchangeable in any size of ferrule.

The ***Tycos*** Ferrule has no thread to come in contact with the milk, consequently it offers no dead pocket for the propagation of bacteria. By its use the bulb of the temperature instrument is directly in the milk flow, where true temperature conditions exist.

Write for additional information on the **Tycos** *Sanitary Ferrule and for milk plant calalog No. 500-A.*

Taylor Instrument Companies

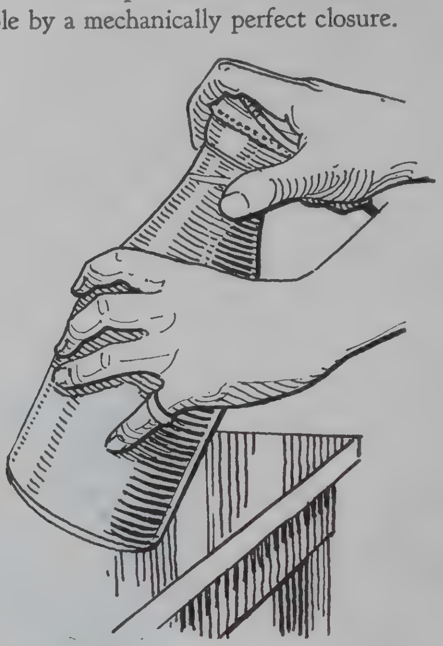
ROCHESTER, N. Y., U. S. A.

CANADIAN PLANT
TYCOS BUILDING
TORONTO

MANUFACTURING DISTRIBUTORS
IN GREAT BRITAIN
SHORT & MASON, LTD., LONDON

THE
DACRO
METAL CAP

Here at last is the perfect package of Milk or Cream, pure and sweet pasteurized IN the bottle! Made possible by a mechanically perfect closure.



Pure, sweet MILK—delivered under hermetic seal to the home. Handy openers supplied at small cost.

The Dacro Metal Crown—This remarkable cap is made on exactly the same principle as the famous Crown Cork which revolutionized the bottled beverage industry. The Dacro Crown is a hermetic seal. It automatically locks under the glass rim of the bottle. It is scientifically a perfect closure. Sealed with the Dacro Crown, Milk or Cream can be pasteurized in the bottle, an exclusive advantage of this seal. The Dacro Crown covers and protects the pouring lip. It KEEPS clean milk clean! No danger of contamination or tampering with pure contents. And the Dacro Crown can be replaced for temporary covering and seal after opening bottle.

PASTEURIZE YOUR MILK
IN-THE-BOTTLE

THE
Crown Cork & Seal Co.
BALTIMORE, U. S. A.

Inventors and originators of the famous "Crown Cork"

ment. He has concrete figures which he can subm the salesman to prove conclusively to him that th mands of the management are justified.

When the salesman, who has the interest of his ployer at heart, as well as the ambition to advanc own interest, is confronted with the figures showin existing conditions on the route in his charge, he at once realize the responsibility imposed on him exert his best efforts to the end of placing his rou a basis that will prove mutually profitable to both company and himself.

The Sales Manager receives many constructive gestions advanced by the salesman in the discussio conditions on his route. In many instances the through his own efforts, can make his route profit in others, the services of a solicitor or route fore working with the salesman can achieve the desire sults.

If, however, after exerting all means at his disp the Sales Manager finds that the conditions on the have not improved, and a careful survey of the terr indicates that the business cannot be increased or it would be unprofitable to increase business in locality, then redistricting may be considered. If redistricting is so planned that the service is not paired in any degree, then it serves as a very sati tory method of eliminating unprofitable routes.

The value of this statement in effecting the eco ical distribution of products should not be under mated. It is a safeguard against avoidable losses; when properly applied, the best assurance of main ing or increasing earning power and once used prove so beneficial to successful management that it become a permanest statement eagerly awaited by management.

The Uniform System of Cost Accounting has found to be economical, reliable and efficient in operation. It is the means of furnishing informatio which the milk dealer has long felt the need. It has stituted facts for conjectures, in that through its o tion the milk dealer is enabled to know his costs, with this knowledge to proceed in a more intelli manner.

It is, beyond a question of doubt, the greatest which accountants could place in the hands of thos gaged in the industry.

⁂

MILK AND GELATINE.

There are many people who, while they like find trouble in digesting it. Gelatine added to milk to prevent the formation of hard curds in the stor and increases the available nourishment and digesti of the milk.

Gelatine can easily be added to milk according t following formula:

1. Soak for ten minutes one level tablespoonf gelatine in one-half cup cold milk.
2. Place cup in boiling water and stir until ge is thoroughly dissolved.
3. Return dissolved gelatine to original qua milk.
4. For smaller quantities of milk reduce gelat proportion.

The addition of gelatine to buttermilk in the way produces a smoother and more palatable drink

Over 500 Dairies are using

KOKO-MALT

It's Making a Big Hit!

for their

Chocolate Malted Milk Drinks

HERE is a new product which is blended from a special Dutch-processed, double milled cocoa and pure barley malt extract with special flavoring to intensify the full chocolate flavor and absorb the bitterness of cocoa.

DAIRIES bottling chocolate milk should be interested in this new preparation. It means a great saving in your syrup purchases. The cost of one gallon of delicious chocolate malted syrup made from KoKo-Malt, which is sufficient to flavor 10 gallons of milk, is 75 cents.

We will be glad to send a sample of KoKo-Malt sufficient to make one gallon of syrup to those interested in this new hit.

THE DAIGGER CORPORATION
Manufacturers
WASHBURN'S PRODUCTS
413-415 Beethoven Place CHICAGO

When writing to THE DAIGGER CORPORATION *please mention The Milk Dealer.*

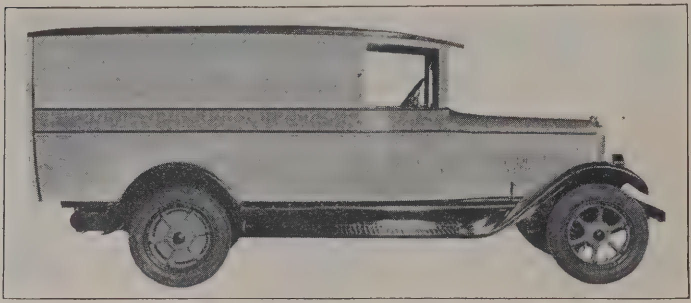
NOTES OF THE TRADE

News of Interest Concerning What Our Readers and Advertisers are Doing
to Develop the Industry. We Invite Correspondence Relative
to New Products and New Equipment.

NEW ONE AND TWO-TON TRUCKS.

Official announcement has been made by John Hertz, chairman of the Yellow Truck and Coach Manufacturing Company, that early in 1927 they will market trucks of one and two-ton capacity equipped with the over-head valve, six cylinder Buick engines. A complete line of these trucks were exhibited for the first time at the New York National Automobile Show. This news is the logical outcome of the amalgamation of the Yellow Truck interests with the General Motors.

These new one and two-ton trucks have had the most grueling tests at the General Motors proving ground, under the supervision of General Motors engineers.



Model T-20 Yellocab Express, one ton truck, with vestibule type driver's compartment.

They are built to meet present-day needs, according to Mr. Hertz, the six cylinder power plant insures maximum acceleration and flexibility. They are capable of operating at unusually high speeds and the braking equipment insures quick stops. The two-ton trucks are equipped with four-wheel brakes.

The new one-ton Yellocab Express and two-ton Yellocab Merchantman, which will be manufactured at the General Motors Truck Company, Pontiac, Mich., make their bow with a number of advanced features. All will be equipped with the Buick power plant, self-starters, extra heavy truck type of axles. and on the two-ton models four-wheel Bendix brakes.

The engineers had in mind in the construction of the new models these essentials—simplicity, ruggedness and economy of operation. At the same time every consideration was given to provide the driver with the utmost comfort. Care and attention was also given to the matter of appearance in both chassis and body—the lines are pleasing and one gets an impression of rugged simplicity. The new chassis will be sold with or without bodies. A full line of bodies is announced with the line.

The one-ton model T-20, with a chassis road weight of 2,750 pounds, will have a wheelbase of 132 inches. The two-ton model T-40, with a spiral bevel axle and pneumatic tire equipment, has a chassis road weight of 4,325 pounds and will be furnished in three wheelbases, 136, 150 and 162 inches. The two-ton model T-50, with a worm axle and solid tires, will have a chassis road weight of 4,630 pounds and will have the same wheelbases as the model T-40.

These three new models give this company a range of trucks from one to fifteen tons capacity.

* * *

AUTOMATIC CAUSTIC TEST.

Louis F. Nafis, Inc., Chicago, Ill., manufacturers of scientific glass apparatus for testing milk and its products, has placed on the market an automatic caustic test which is said to be indispensable to operators of automatic bottle cleaners. This apparatus helps the operator to determine and control the caustic concentrations of soaking baths used in chemical disinfection of glass containers, including milk bottles.

The Nafis test enables one to test the purity of washing powders and to determine the percentages of caustic soda and soda ash contained in the washing powder. It is claimed that a washing powder containing from 60 to 76 per cent of soda will be the most efficient and economical for use in dairies.

LENDERKING RETIRES AS PRESIDENT.

On January 31st W. R. Lenderking, president and
tor of The Purity Paper Vessels Company, Clipper Mill,
more, resigned all connection with the above firm. He has made no definite plans for the future, but his friends will hope that he will remain identified with the industry.

Mr. Lenderking is one of the pioneers in the field of containers for ice cream. He has been connected with the above company since its start, except for about 18 months that he spent in the navy during the World War. About three years ago, when the American Association of Paper Specialties Manufacturers was formed, Mr. Lenderking was made president. He is now at his home at Maple Ave. Dixon Hill, Mt. Washington, Baltimore, Md.

W. R. LENDERKING.

* * *

REPORT OF FINDINGS IN USING SEALED CONTAIN

The following interesting report is presented on th
vestigations made in Indiana by a bacteriologist of the
fant Can Company, on sealing milk, cream and cottage c
vs. the open container. The experiments were made i
dinary Mason jars. Section one shows experiments in
tage cheese; section two, sweet cream findings; section t
milk; section four, freshly separated sweet cream; an
summary, showing five strong points in favor of using s
containers.

Experiments in Sealed and Open Containers.

1. Cottage cheese:

From a well mixed vat of cottage cheese pint mason
were filled. In one set the jars were sealed and inverted
other set were not sealed with the rubber ring, but th
clamped on.

Temperature at which the cheese was kept was 80 de
F. Condition of cheese at start was good—inclined to
little dry.

Condition in 24 hours:
Open—No apparent visible change. Odor and taste go
Sealed—No apparent visible change. Odor and taste go

Condition in 48 hours:
Open—Spots of odium, yellow and green mold, and notic
undesirable flavor.
Sealed—No change. Odor and taste good.

Condition in 72 hours:
Open—Enlarged areas of odium, yellow and green
putrefaction starting as denoted by flavor and odor
Sealed—No apparent change, odor and taste good.

Condition in 96 hours:
Open—Putrefaction rapid; entire surface covered with
odor very undesirable.
Sealed—No apparent change, odor and taste good.

Condition in 120 hours:
Open—Molds dominant; extensive putrefaction; odor ve
desirable; cheese rotten; maggots hatched out. (
was no possible chance of inoculation of eggs fro

SPECIAL—NEW SIZE—CENTRIFUGAL

Milk Pump

Capacity—1000 to 2500 lbs. per hour.
Complete with ¼ H. P. Motor, 1 phase, 60 cycle, 110 volts.

Model "O" $65.00

Mfd. by

R. G. WRIGHT & COMPANY
BUFFALO, N. Y.

Write for Circular

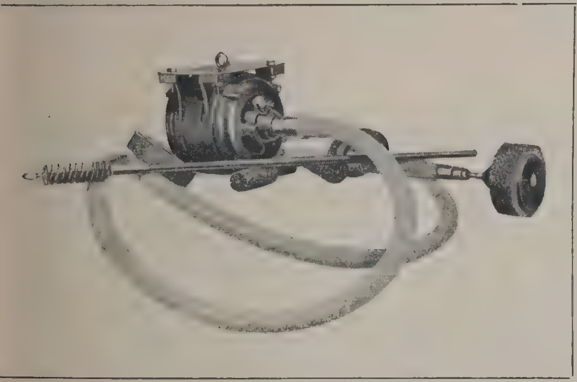
WILLIAM H. TIMM

CONSULTING ENGINEER AND ARCHITECT

PERRY BUILDING
Chestnut & 16th Sts.

PHILADELPHIA
PENNSYLVANIA

DAIRY AND ICE CREAM PLANT SPECIALIST
Consulting Service for By-Product Processes



The King Cleaner *vs.* Steel Wool and Harsh Brushes

RESULTS—Both will keep Sanitary Piping and tubular pasteurizing equipment perfectly clean,—but—the King Cleaner will not ruin the tubing, and requires far less time and effort for the work.

Send us diameters and lengths of tubing in your equipment and we will advise you size and price of Cleaner needed.

King Sanitary Pipe Cleaner Co., Inc.
SANDY HOOK, CONN.

DON'T lose any more money on the Manufacturing of Cheese

Our new processes give you absolute control of Temperature, Quality, Flavor and Texture. All Soft Cheeses taken out of the vat inside of six hours.

18% Sour Cream with solid heavy body for the Jewish Trade and Cultured Buttermilk with very fine flavor and smooth texture, finished and ready for the chillroom from 5 to 6 hours.

We teach your men at your own creamery, how to manufacture under our new process.

You Have Plant Problems—Let Us Solve Them.

Personal Service
Practical Demonstration

M. MESSCHER'S

Telephone: Whitehall 8670-8671
1 HUDSON STREET
NEW YORK

SCIENTIFIC INSTITUTE FOR THE CREAMERY AND ICE CREAM INDUSTRY

R&A introduces

R&A Little SOAKER-HYDRO BOTTLE WASHE

MANY owners of progressive smaller milk plants have looked with envy on the powerful equipment of the big plants—and hoped that someone soon would bring out a really worth-while idea in a hydro-soaker bottle washer for the smaller dairy—

Someone has!

R & A presents this little Soaker-Hydro with the firm conviction that, in size, capacity, efficiency, durability and price, *it meets your requirements as no bottle washer has ever met them before!*

It uses a most reliable adaptation of the hydro-soak principle, made doubly effective by the way the machine is timed, the position of the jets and the power of the washing units.

It is moderate in size; measures only 16 ft. over all, 4 wide model handles 24 or 32 bottles per minute; the 6 wide, 36 or 48 bottles per minute. Load and unload at one end.

It is a trouble-free washer: All mechanical operating units of simple design, and located on outside of machine. Instantly accessible. Easily maintained. Its two hydro pumps are operated by 5 H. P. Motor, which also drives the machine. The entire washer is guarded thruout by automati safety stops.

It is a fair-priced washer: Establishing a new standard for extreme high quality and service at a price well within reach of the smaller dairy—the 4 wide *costing less than $3500.00 fully equipped!* Tested—proved—ready for your call!

NO OBLIGATION

when you write for information.

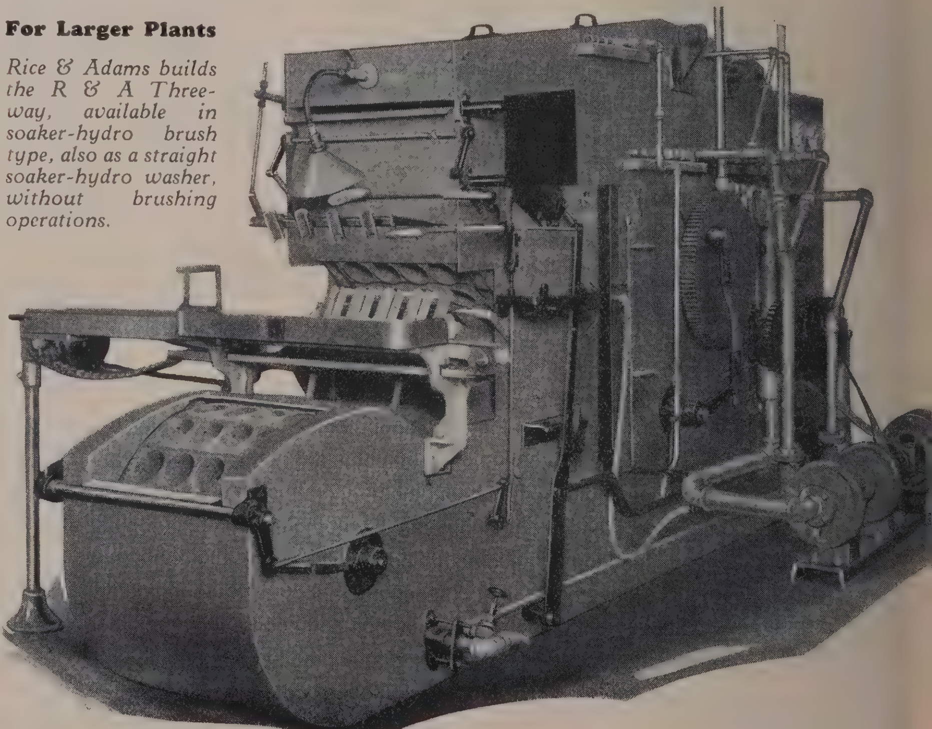
Do not hesitate to write for complete information on both the R & A Little Hydro-Soaker and the new R & A Cover-placing Can Washer. We'll send you complete details of their construction and operation just as soon as we get your letter—also exact prices.

Make the request today. The obligation will be all ours!

RICE & ADAMS CORPORATION
1144 Military Road
BUFFALO, N. Y.

For Larger Plants

Rice & Adams builds the R & A Three-way, available in soaker-hydro brush type, also as a straight soaker-hydro washer, without brushing operations.



When writing to RICE & ADAMS CORP. *please mention The Milk Dealer.*

two new washers

&A COVER-PLACING CAN WASHER

THE most economical, efficient, completely accessible and trouble-free can washer you have ever seen—

Equipped with a perfectly designed cover-replacer; the only one built which recovers *both* eight and ten gallon cans with equal ease and precision.

That's the new R & A Cover-placing Can Washer! *Built to do more for you at lower first cost and maintenance cost than any can washer ever offered you before.*

Right in your plant it will turn out up to twelve flawlessly clean, bone-dry cans and covers every minute of a 24-hour day if you wish—and do it for years into the future, with a minimum of labor.

It will automatically place the covers on the same cans with which those covers are fed into the machine.

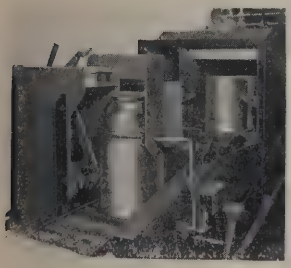
Entire washer operates automatically, and every mechanical part which might need adjustment is accessibly located on outside of machine.

You will like equally, the way it is designed, the way it is built, and the way it works.

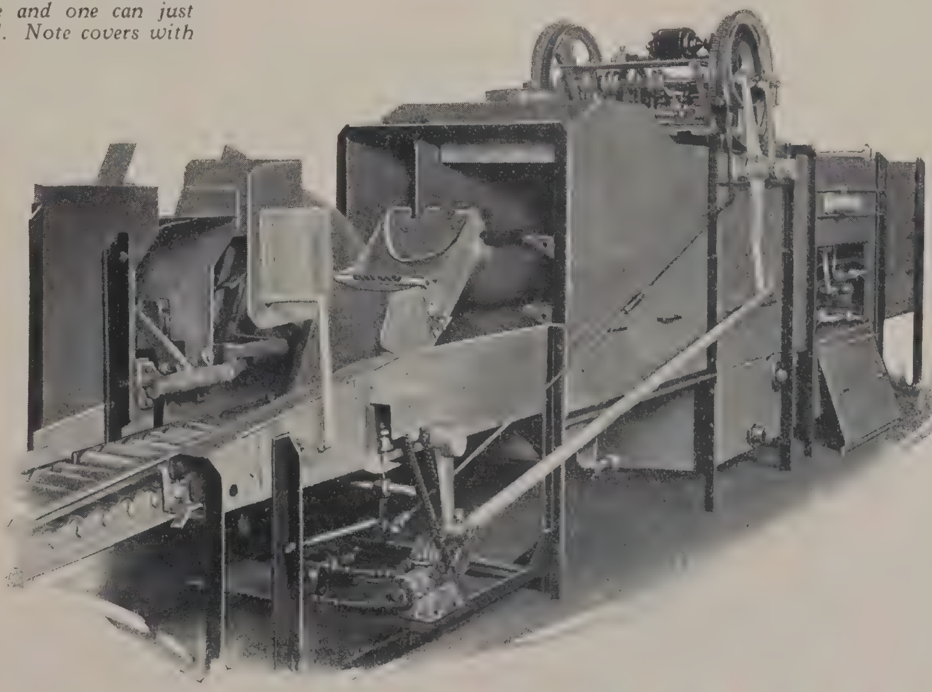
You will approve its first cost—and commend its operating cost.

As for the character of its service—that to you will be priceless!

One can at last position in washer, one can in uprighting cradle and one can just re-covered. Note covers with cans.



One can at last position in machine, one can at cover-placing position—just about to receive cover.



When writing to RICE & ADAMS CORP. *please mention The Milk Dealer.*

Sealed—Very slight change; taste just slightly off, but would be consumed by the average person without comment.

2. Sweet cream:

Bacteriological changes taking place in sweet cream stored in open and sealed containers when the cream is held at 70 degrees F.

Character of cream:

Raw cream testing about 46 per cent milk fat was obtained from a well mixed batch of cream (265 pounds) placed in sealed and open mason jars and placed in the 70 degrees F. incubator. (Mason jars sterile.)

Condition of cream at start:

	Per c.c.
Total bacterial content on standard agar	9,500,000
Total acid content on lactose agar	11,700,000
Putrefactive content (liquifiers of gelatine)	300,000
Yeasts	160
Molds	Less than 10

The acid bacterial content shows higher than the total, this being due to a more favorable medium for the growth of the lactic group.

Condition in 5 hours:

Counts in numbers per c.c.	Open	Sealed
Total bacterial content on S. N. A.	872,000,000	542,000,000
Total acid content on lactose	658,000,000	540,000,000
Liquifiers of gelatine	7,000,000	1,400,000
Yeasts	160	160
Molds	Less than 10	Less than 10

It will be noticed that the acid count is nearly equal to the total count, this showing the favorable conditions for their growth which in turn inhibit the liquifiers. Important because of rapidity of the reaction.

Condition in 24 hours:

	Open	Sealed
Total bacterial content on S. N. A.	453,000,000	255,000,000
Total acid content on lactose	80,000,000	38,000,000
Liquifiers of gelatine	110,000	80,000
Yeasts	160	160
Molds	Less than 10	Less than 10

Condition in 48 hours:

	Open	Sealed
Total bacterial content on S. N. A.	381,000,000	203,000,000
Total acid content on lactose	64,000,000	23,000,000
Liquifiers of gelatine	60,000	30,000
Yeasts	12,000	2,000
Molds	3,000	Less than 10

3. Value of shipping milk in sealed containers:

Character of milk:

after placement in jars, the inoculation having been accomplished during the manufacture of the cheese.

Mornings milk from a first class dairy—one-half sea in mason jars and inverted; the other half not sealed but clamped down. Incubation at 70 degrees F.

Condition of milk at start:

Acidity, per cent	.1
Count on standard nutrient agar	25,
Count on lactose nutrient agar	13,
Liquifiers of gelatine (putrefactors)	1,

Condition in 3 hours:

	Open	Sea
Acidity, per cent	.1692	.16
Count on S. N. A.	21,000	8,3
Count on lactose agar	19,900	8,8
Liquifiers of gelatine	3,000	2,4

The drop in count due to change of conditions and clu ing of bacteria. (Germicidal action.)

Condition in 6 hours:

	Open	Sea
Acidity, per cent	.1728	.17
Count on S. N. A.	87,000	85,0
Count on lactose	29,000	82,0
Liquifiers of gelatine	3,500	2,0

Sealing is favorable to the growth of acid organisms u a certain concentration.

Condition in 9 hours:

	Open	Sea
Acidity, per cent	.180	.
Count on S. N. A.	890,000	420,
Count on lactose	350,000	320,
Liquifiers of gelatine	20,000	8,

Condition in 24 hours:

	Open	Seale
Acidity, per cent	.270	.2
Count on S. N. A.	36,000,000	108,000,
Count on lactose	14,000,000	59,000,
Liquifiers of gelatine	400,000	100,

The flora of the sealed was nearly a pure culture of la organisms, while the flora of the open showed large numb of aerogenes and other undesirable organisms.

Condition in 48 hours:

	Open	Sealed
Acidity, per cent	.792	.7
Count on S. N. A.	542,000,000	790,000,
Count on lactose	490,000,000	1,010,000,
Liquifiers of gelatine (over)	1,000,000	200,

The flora of the sealed was nearly pure lactic, and wh is also shown by its dominance on the lactose media. Li

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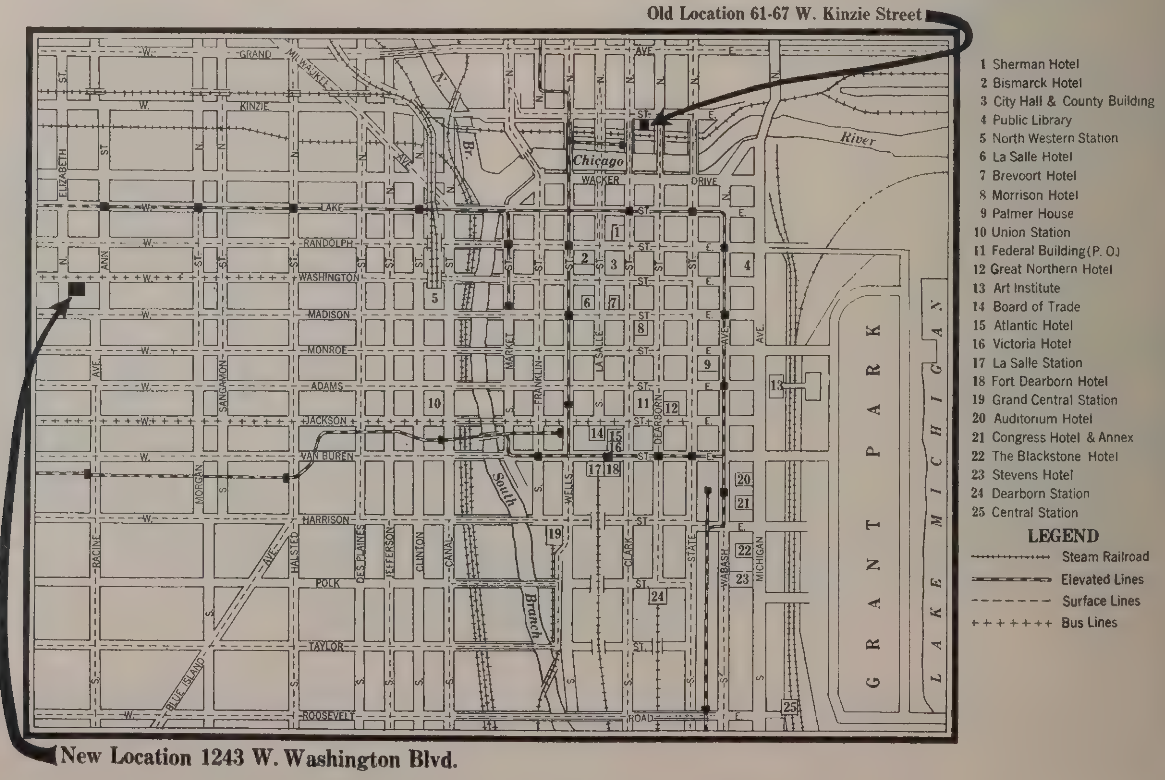
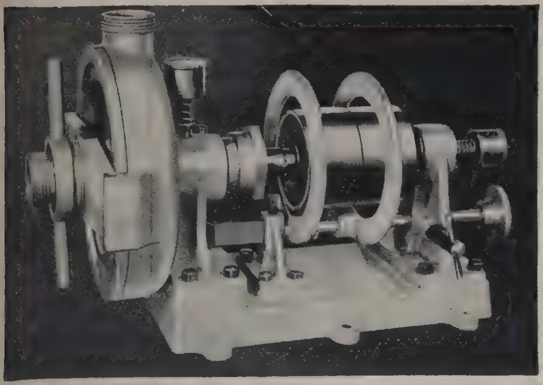
MAP OF CHICAGO'S BIG BUSINESS DISTRICT SHOWING THE OLD AND NEW LOCATION OF THE CREAMERY PACKAGE MFG. COMPANY


Old Location 61-67 W. Kinzie Street
New Location 1243 W. Washington Blvd.
GRAND
KINZIE
LAKE
RANDOLPH
WASHINGTON
MADISON
MONROE
ADAMS
JACKSON
VAN BUREN
HARRISON
POLK
TAYLOR
ROOSEVELT
ROAD
WACKER
DRIVE
Chicago
River
South Branch
ELIZABETH
ANN
RACINE
SANGAMON
MORGAN
HALSTED
DES PLAINES
JEFFERSON
CLINTON
CANAL
MARKET
FRANKLIN
WELLS
LA SALLE
CLARK
DEARBORN
STATE
WABASH
MICHIGAN
MILWAUKEE
BLUE ISLAND
GRANT PARK
LAKE MICHIGAN
1 Sherman Hotel
2 Bismarck Hotel
3 City Hall & County Building
4 Public Library
5 North Western Station
6 La Salle Hotel
7 Brevoort Hotel
8 Morrison Hotel
9 Palmer House
10 Union Station
11 Federal Building (P. O.)
12 Great Northern Hotel
13 Art Institute
14 Board of Trade
15 Atlantic Hotel
16 Victoria Hotel
17 La Salle Station
18 Fort Dearborn Hotel
19 Grand Central Station
20 Auditorium Hotel
21 Congress Hotel & Annex
22 The Blackstone Hotel
23 Stevens Hotel
24 Dearborn Station
25 Central Station
LEGEND
Steam Railroad
Elevated Lines
Surface Lines
Bus Lines



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The Pump that Gives Greater Satisfaction!

NO CHURNING—NO FOAM.

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SPECIALTY BRASS CO.

KENOSHA, WIS. ALBION, N. Y.

Preferred Corkboard

for

COLD STORAGE ROOMS

installed complete by

"UNITED"

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100% Pure

Corkboard

We will gladly submit an estimate on any kind of insulation work, of course without obligating you in any way.

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LYNDHURST, N. J.

Branch Offices in Principal Cities.

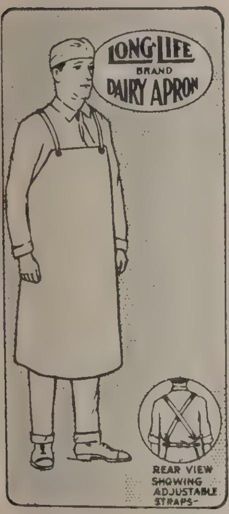
ACTUAL USAGE

Proves this IS

A

Long-Life

Dairy Apron



Special fabric, scientifically treated to resist the disintegrating effects of fats and acids about dairy plants, gives the Long-Life dairy apron an ability to render continued useful service long after other aprons have been discarded

A TRIAL ORDER WILL PROVE IT!

You Will Learn a New Item on Which to Save Money.

The M. F. Murdock Company

RUBBERIZED FABRICS

266 So. Main Street AKRON, OHIO

The Importance of Proper Coolers

The cooler is the governor on your milk line. It either speeds up or retards the whole process of running the milk through your equipment.

The necessity of an efficient cooler designed to facilitate the passage of milk is of utmost importance.

Unless you are informed on the latest

U. K. Coolers

their construction, capacity and the successful concerns using them, you may be hampering your plant efficiency.

Why not send for our illustrated folders and comparative prices?

Uhlmann-Kinsey Co.
Incorporated
PHILADELPHIA, PENNA.

fiers of gelatine in open container had completely liquified the 1-1,000,000 dilution, showing that their numbers were in excess of 1,000,000 per c.c.

4. Sweet cream:

From a well mixed vat of freshly separated sweet cream, 12 one-half pint mason jars were filled. Six were sealed and inverted while six the lid placed on and clamped but not sealed with the rubber gasket.

Temperature of incubation was 80 degrees F.

Initial acidity, per cent	.14
Total bacterial content on S. N. A.	9,200,000
Liquifiers of gelatine	600,000
Yeasts	100
Molds	10

Results expressed in numbers per gram of cream.

Condition in 24 hours:

Sealed cream slightly less viscous than that in open container.

	Open	Sealed
Acidity, per cent	.540	.560
Total bacterial content	21,100,000	31,000,000
Liquifiers of gelatine	300,000	110,000
Yeasts	600	110
Molds	10	Less than 10

Condition in 48 hours:

Physical—the sealed container's cream was considerably less viscous than the open. (Greater ease in sampling.)

	Open	Sealed
Acidity, per cent	.62	.68
Total bacterial content	Contaminated	24,900,000
Liquifiers of gelatine	1,000,000	5,000
Yeasts	51,000	Less than 10
Molds	3,800	Less than 10

Condition in 72 hours:

Some noticeable difference in viscosity.

	Open	Sealed
Acidity, per cent	.71	.73
Total bacterial content	66,000,000	82,000,000
Liquifiers of gelatine	100,000	100
Yeasts	210,000	40
Molds	4,500	Less than 10

The flora of the sealed was nearly pure lactic.

Condition in 96 hours:

No difference in viscosity.

	Open	Sealed
Acidity, per cent	.78	.86
Total bacteria	178,000,000	15,800,000
Liquifiers of gelatine	50,000	200
Yeasts	930,000	40
Molds	210,000	20

Condition in 120 hours:

No difference in viscosity.

	Open	Sealed
Acidity, per cent	.95	1.05
Total bacteria	76,000.000	4,600,000
Liquifiers of gelatine	50.000	Less than 100
Yeasts	1,300.000	40
Molds	290.000	130

Condition in 144 hours:

No difference in viscosity.

	Open	Sealed
Acidity, per cent	1.05	1.18
Total bacteria	16,800,000	1,200,000
Liquifiers of gelatine	40,000	100
Yeasts	300,000	40
Molds	800,000	150

Summary.

1. Sealing milk, cream and cottage cheese retards the growth of proteolytic bacteria and thereby enables the products to keep in good condition for a longer period of time.

2. Sealing milk and cream enhances the growth of the pure lactic type of organisms over the undesirable types, thereby giving cleaner and more desirable flavors.

3. Sealing cream retards the growth of yeasts and molds, which are destructive to flavors of desirable quality.

4. Sealing cream up to 72 hours decreases the viscosity of cream.

5. Sealing milk or cream causes a decrease in total numbers of bacteria up to a definite time which is dependent upon temperature.

REID JOINS ELECTROPURE SALES CORPORATIO

The Electropure Sales Corporation of Pittsburgh
nounces the appointment of A. E. Reid as district sales
ager with headquarters at Philadelphia.

Mr. Reid will represent the Electropure Sales Corp
tion in eastern Pennsylvania, New Jersey, Delaware, Maryland, District of Columbia, Virginia, North and South Carolina, Georgia and Florida. His temporary address is 39 Narbrook Park, Narbeth, Pa.

A. E. REID.

Mr. Reid's father was founder of the A. H. Reid Creamery & Dairy Supply Company. For more than 15 years A. E. Reid was associated with his father in the dairy machinery business.

After the death of his father, A. E. Reid, then secretary, treasurer and general manager, retired from the Reid company. Recognizing it as an opportune time to gain a broader knowledge of general business and the dairy business in particular, he entered the Babson Institute at Babson Park, Mass.

Mr. Reid's association with Electropure is the resu
exhaustive research. The study of reports of previous i
tigations conducted on the electrical treatment of mil
cluded those of The National Research Committee of
land, Robinson Laboratories, Michigan State Departme
Health, Cornell University, Rieck-McJunkin Dairy, North
lic Health Service, Massachusetts Institute of Techno
Pennsylvania State Department of Health, Dr. I. F. Hudd
of Michigan State College, Dr. C. M. Carpenter of New
State Veterinary College, and the National Certification
oratories.

* * *

H. J. LIEDELL IS YORK REPRESE ATIVE.

MR. AND MRS. H. J. LIEDELL.

H. J. Liedell, forn
Pacific Coast repres
tive for the Mojo
Bros. Co., is now pe
nently located in
York and is renewin
quaintanceship with
Atlantic Coast tr
whom he met some
ago.

Mr. Liedell knows
jonnier equipment
A to Z, not only ha
sold it for the past
eral years, but prev
ly having installed

Mr. Liedell grad
from Ohio State Un
sity some years
ranking high in
scholastic and at
honors.

Mr. and Mrs. Li
are now located a
Cottage Ave., Mt.
non, N. Y.

* * *

A NEW BOTTLE WASHER.

The A. H. Arnold & Company, 718 West Randolp
Chicago, has been appointed the sole distributor for
Ladewig-Soelch Super-Eight Bottle Washer. This new
chine has been designed by A. E. Ladewig and G. F. Sc
both of whom have had many years in designing and b
ing bottle washing machines. Some of the features

(Continued on page 126)

'HE USE OF GELATINE IN BUTTERMILK.

(Continued from page 36)

·hat it actually is. It is not really buttermilk."

ıe city of Cambridge, Mass., likewise endorses the f gelatine in buttermilk. Robert E. Bemis, Ph. C., tor, laboratory division, saying: "The use of gel- in commercial buttermilk, in our opinion, would addition to the food value and aid the appearance ə product as well.

Gelatine is not used extensively by milk plants in section. Some that have tried it out have discon- d its use, claiming that no advantage has been n. The value of it may be recognized more fully time in the future. It would be permissible to use ine in buttermilk because all cultured buttermilk labelled." The last sentence means, of course, cultured buttermilk is labelled "cultured butter- " and the inference is drawn that that would per- he use of gelatine without further disclosing what ntained.

oratio N. Parker, bacteriologist and chemist of the h department, Jacksonville, Fla., writes: "I would hat I believe that there would be no objection to ovided the bottles bore a statement of the amount ntained gelatine on the bottle cap. This would not ate against the sale of the product I am sure for ordinance of the city requires a statement of the oximate butterfat content of sweet milk on the so that our public is used to this sort of labeling." hat the question of gelatine in buttermilk has been ned" through the inquiries which The Milk Dealer addressed to these authorities is evidenced by the received from Theodore B. Appel, M.D., secretary ealth for the commonwealth of Pennsylvania, who es: "This is a new subject and I wish to confer the department of agriculture before making final sion. This I hope to do within a few days."

Iilk dealers in Chicago, our second largest city, evidently been slow in taking up this subject for lynamic commissioner of health, Herman N. Bunde- M. D., writes: "....no Chicago milk dealer has re- ted permission to use gelatine in commercial but- ilk, and we do not care to make a statement regard- this matter without thorough investigation." The that "no milk dealer has requested permission" e startling revelation contained in this epistle, for tine in buttermilk is a ripe, timely topic for con- ation of milk dealers for, as we shall show later, se has been proven to improve buttermilk in several s. Therefore, its use by milk dealers in America's ing city of PEP would seem imminent.

'Out where the tall corn grows," Iowa, although er acknowledging that the subject has not had too h consideration, is not unfavorable to the use of tine, for the department of agriculture, with the ature of E. L. Redfern, writes: "....pending fur- information and investigation on the use of a l amount of edible gelatine in cultured buttermilk, will offer no objection to its use."

very interesting angle to the question comes up letter received from a professor of dairying at one he large state universities in the East. He writes in his opinion it would not be right to use gelatine uttermilk if it were added to improve an inferior luct, or to make a product resemble one of higher ity. This, of course, is not at all the intention. The ermilk would be improved, in several ways, but ld not in any sense be an imitation of a higher qual- product. The use of gelatine in buttermilk does not n that a poorer quality product is to be manufac- d and "doctored" with gelatine but the highest

Improve the Quality of Your Buttermilk

and Prevent Wheying Off!

THE addition of a very small amount of good gelatine to commercial buttermilk effects a wonderful improvement. Gelatine prevents wheying off, softens the curd through keeping it finely divided, retards excessive acid, making a smoother, creamier product that will please your customers and bring them back for more.

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possible quality of buttermilk is to be improved by the addition of a very small amount of gelatine.

Bacteria, Food Value and Colloidal Action.

A. C. Fay, dairy bacteriologist of the Kansas Experiment Station, lends considerable light on the entire subject, writing: "My investigations on gelatine have been limited to a study of the bacterial content of the various grades of gelatine available to the ice cream maker. Although the bacterial content of the gelatines examined have varied between the extremes of 0 to 108 millions per gram, nearly half of them (48 per cent) contained less than 1,000,000 bacteria per gram. Pasteurization of 22 samples at 145 degrees F. for 30 minutes resulted in an average destruction of 98.8 per cent of the bacteria, although in some samples, containing very few bacteria, pasteurization failed to reduce the count, whereas in the gelatine containing large numbers of bacteria the efficiency of pasteurization was 99.9 per cent.

"The results of experiments at this station lead inevitably to the conclusion that so far as the number of bacteria in gelatine is concerned, it is an insignificant source of contamination in ice cream, especially if it is pasteurized. In view of the small per cent added to gelatinized buttermilk, the same conclusion is warranted.

"Although it is well established that the actual number of organisms added is not significant as to the kind of bacteria introduced, I believe the inocuousness of gelatine is well proven by the widespread use of this product in ice cream. If the product is manufactured under well regulated inspection I can see no justification from a bacteriological point of view for the objection to its addition to dairy products.

"From the standpoint of nutrition, the addition of gelatine to milk, no doubt, adds to its energy value. However, I am not in a position to say whether or not it supplies any of the amino acids which are deficient in milk. I question very much if milk needs any fortification of this sort as a food.

"On the other hand, it is perfectly reasonable to conclude from a very simple experiment that the protective colloid action of gelatine in milk renders the acid curd more finely divided, and, thereby, affords more surface for enzymatic action. Divide a sample of milk in two parts and add gelatine to one. Curdle both samples of milk with hydrochloric acid; in the gelatinized milk the curd is so finely divided that it will filter through three or four thicknesses of filter paper and give a cloudy filtrate. The other sample to which no gelatine was added will give a clear filtrate even through a single thickness of filter paper.

"This experiment demonstrates in a rough way the differences in the action of the gelatinized and plain milk in the stomach. The finer curd of the gelatinized milk would permit of more surface action for the gastric juice and thereby more rapid digestion, although I am not so sure it would necessarily result in more complete digestion."

A. C. Dahlberg, chief in research of the New York State Agricultural Station, writing about "the attitude which pure food officials should take concerning the addition of gelatine to buttermilk," says that the question has been raised in New York. "It was my first impression," says Prof. Dahlberg, "that since gelatine is a pure food product and is added to buttermilk to improve the product rather than to cheapen it, that the free use of gelatine should be permitted. After discussing this problem with individuals in inspection work I have come in agreement with them that any buttermilk containing gelatine should be labelled to show gelatine content. It is self-evident that the pres of gelatine in buttermilk is advantageous from standpoint of healthfulness of the buttermilk. On other hand, buttermilk does not normally contain g tine and it seems to be a recognized principle in inspection work that whenever any abnormal ingred is added to the product the label should clearly s that it has been done. For that reason buttermilk taining gelatine should be properly labelled to show gelatine content.

"The situation is not different from that which f the ice cream industry about 20 years ago. At that gelatine was not a normal ingredient of ice cream for that reason most pure food officials insisted tha cream containing gelatine should be labelled. W custom established that gelatine was and should constituent of ice cream then it no longer becomes n sary to label ice cream containing gelatine becau has been established that gelatine was a normal cream ingredient. If custom ever establishes that termilk does contain gelatine then at some future the gelatine label will not be essential."

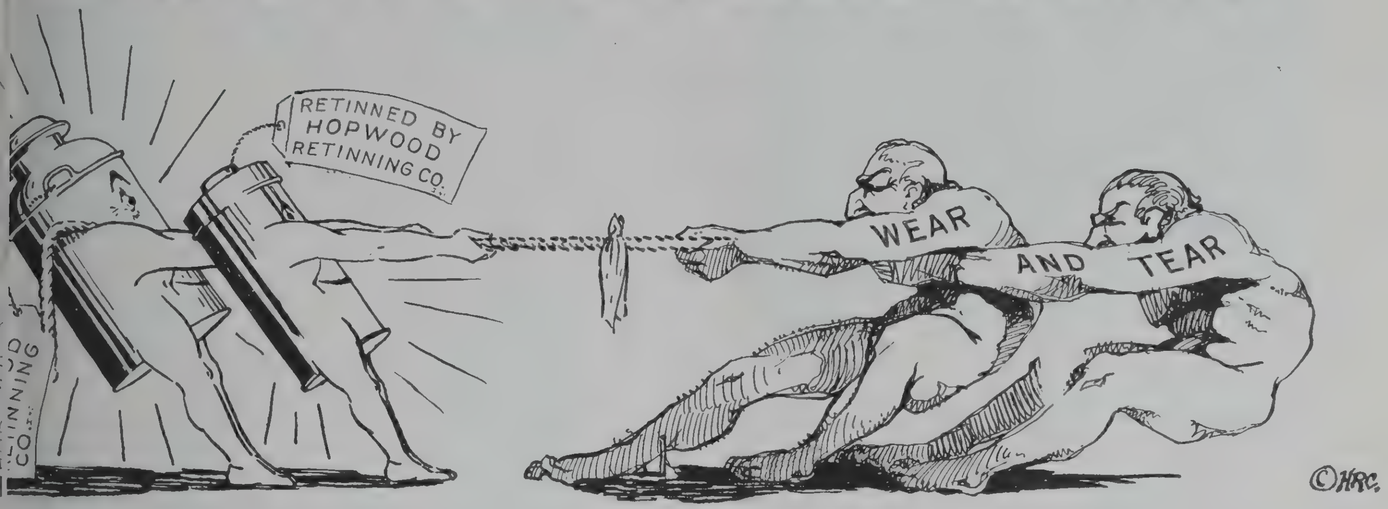
The facts are in favor of gelatine for improving termilk yet it is probably that the consuming, bu public will, as they did in the case of ice cream, not kindly to the buttermilk which bears a label saying gelatine has been used in its preparation, unless t is some publicity favorable to the use of gelatin buttermilk. It is true, of course, that the old, founded prejudice held against gelatine is dying, dying fast, but there is still much of it extant. It c be overcome by the milk dealer if, when he delive bottle of gelatinized buttermilk, he included a pamp or circular of some sort telling of the value of gela And gelatine manufacturers can do much to overc this natural handicap by broadcasting the remark intrinsic values of gelatine for human consumptio addition to telling of its cleanly production, its pu and the rigid law requirements which are met i manufacture.

C. D. Dahle, associate professor of dairy man tures at the Pennsylvania State College, also has s thing to say about gelatine in buttermilk. "I have interested in the practice of using gelatine in the ufacture of buttermilk," he writes, "but have not it commercially yet. We sell a considerable amou buttermilk and in some instances, possibly, could p by using gelatine especially in the summer months. far as the buttermilk sold directly from our sales is concerned, we seldom have need of gelatine to pre wheying off within a reasonable length of time. atine, therefore, is not necessary in that case. We sh not lose sight of the food value of dairy produc which gelatine is used. No doubt gelatine enhance food value of the buttermilk and certainly shoul be objectionable. I am not in favor of gelatine used to cover up slip-shod methods of making the mercial buttermilk."

Prof. Dahle brings out the important fact tha atine will retard the "wheying off" of buttermilk. fact has proven a series of experiments which are marized by T. G. Yaxis in a booklet entitled, The U Gelatine in Buttermilk, published by the Edible atine Manufacturers Research Society of America The summary and conclusions of these experi follow:

1. Churn or normal buttermilk will "whey regardless of whether it had been kept in or cold temperature. The addition of .25 per cent gelatine remedies this "whey off"

OLDING THEIR OWN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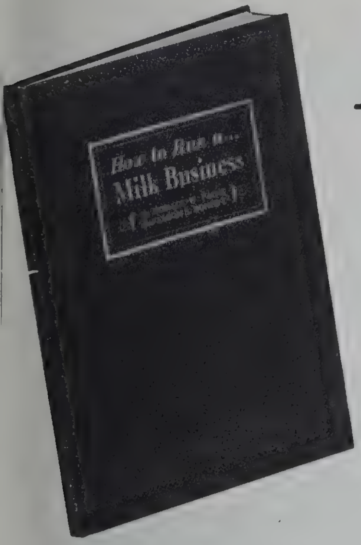

LEARN from the experience of others

Ways and means by which successful Milk Dealers have built up a prosperous business are for the first time told in this handy book. Much of the information herein has never appeared in print before.

No matter what the size of your business, this book will be worth many times its cost to you.

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Fifth and Cherry Streets MILWAUKEE, WIS.

dition and produces a smoother drink which is preferred by the consumer.

2. In artificial buttermilk, where a higher acidity is developed, there is some danger of using too much gelatine. Gelatine .25 per cent is sufficient to prevent "wheying off" for five days, provided the product is kept at a temperature of 40 to 45 degrees F.
3. It was observed that the addition of gelatine to artificial buttermilk retarded the development of acidity in the product. This is important from an economic standpoint because most consumers prefer buttermilk with a fairly low amount of acid, about eight per cent.

That the use of gelatine in buttermilk will increase its sale, is one of the interesting things advanced by M. Messcher, New York, who is head of the scientific institute by that name for the creamery and ice cream industries. His letter follows:

"I have run several experiments and find that the use of gelatine in buttermilk will be one of the main factors to make the public drink more buttermilk, for the gelatine improves the texture and especially the flavor of the buttermilk.

"I have given samples of buttermilk which contain gelatine to people who never liked buttermilk and after they tasted the gelatine buttermilk they wanted more and wished to know why they cannot buy buttermilk which has as pleasant a flavor. The only answer I could give was that the health department does not allow the use of gelatine in buttermilk.

"If the health departments of big cities would allow the manufacturing of commercial buttermilk containing gelatine, and have the can or package properly labelled, the public would drink more buttermilk; which is now in the flush season of the milk production, run into the sewer by thousands of pounds and is a big loss to creamerymen.

"You take, for example, the ice cream. If the health department would not allow the use of gelatine and sugar in ice cream, which is a dairy by-product, what would there be left of the ice cream industry?

"I have made experiments on cultured buttermilk and used gelatine and sugar. This buttermilk was the most pleasant drink and if a milkman would put up a drink of this kind properly labelled, he would sell all of his surplus milk in the form of buttermilk, **under a certain trade name**, and the health department could not forbid the sale of such product for it will be a pure food and up to the standards of the pure food laws, for edible gelatine or sugar and gelatine added to buttermilk will be an industry, different than the regular creamery and be a separate department, as the ice cream industry is today."

Something of the misunderstanding regarding gelatine is expressed in a letter to The Milk Dealer by W. E. Miller, general manager of Coignet Gelatines, who says: "As you know, there is a wrong impression in the minds of some people to the effect that gelatine is nothing more than a high grade glue made of all sorts of animal raw material.

"Edible gelatines offered on this market are made of the very highest class hygienically, clean calf skin, pig skin, and beef bones and the process of manufacture further sterilizes these materials, in fact, the hygienic conditions prevailing in the production of gelatine in the modern gelatine plants are on a much higher scale of cleanliness than the average in which milk is produced.

"Gelatine holds a very essential position in the human diet which is only just beginning to be appreciated. It has a very high colloidal value, in other words, it sesses the function of breaking up the contents of stomach into small units making them vulnerabl the action of the digestive juices thereby facilita the process of digestion.

"Gelatine cannot, under any circumstances, be sidered an adulterant which should be emphasize all literature issued on the food value of a product taining gelatine, especially to the technical author on same.

"The federal and state authorities have establi certain standards of purity for gelatine. The s of the makers of gelatine is expressed in the fact this product today not only complies with these st ards but generally is well within the specifications of

A strong note of endorsement of gelatine in bu milk and other dairy products comes from E. H. Pa dairy bacteriologist in the department of dairy bandry at the Purdue University Agricultural Ex ment Station, who writes:

"I can see no reason why food officials should o to the addition of gelatine to buttermilk unless believe that the quality of gelatine used will be l than the quality of gelatine used in ice cream manu ture. A good grade of gelatine aids in the diges of casein and also adds some food value. The officials may think that the addition of gelatine to termilk may lessen the precaution of the butter manufacturer in care of selection of starter, pasteu tion and cleanliness of the equipment in which the termilk is made, for it is known that some of the tors that influence the wheying off of buttermilk cleanliness and purity of the starter and the typ contamination. I have discussed this question several other members of the department and they, myself, have no reason to offer that gelatine should be added to buttermilk.

"If we are to believe the experiments that have carried on at Mellon Institute, where such conclu evidence has been shown that gelatine is a neces product in our diet, there is every reason to expec increased consumption of buttermilk due to the that it has been gelatinated."

The gelatine manufacturers and the milk deale seems evident, have an opportunity to be mutually iceable in broadcasting the merits and the value purity of gelatine, while at the same time increasin sale of gelatine and of buttermilk, from which would make additional profit.

The question of gelatine in buttermilk is j coming before milk dealers and gelatine manufactu

* * *

UNIFORM SYSTEM FOR MILK GRADING

Health officers from all over the state, milk pr ers and representatives of breeders' associations peared at the hearing held at the request of leade the movement for better milk before Commission Markets Edward Nordman, Madison, Wisconsin.

The following committee was appointed to dev milk grading plan: Math. Michels, department of kets, chairman; H. H. Bryant, Gridley Dairy Co., waukee; D. Wayne A. Munn, Janesville; P. C. Burc Wisconsin Dairymen's Association; Milo K. Swa Madison Milk Producers' Association; A. H. Kr Kennedy Dairy Co., Madison; C. F. Dineen, Milwa Milk Producers' Association.

It is probable that a grading system that will b form throughout the state, without being compu will be adopted.

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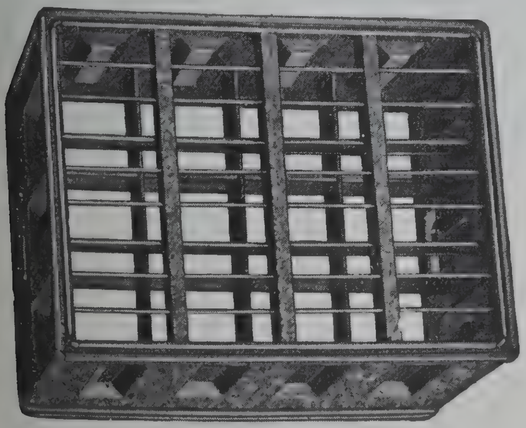

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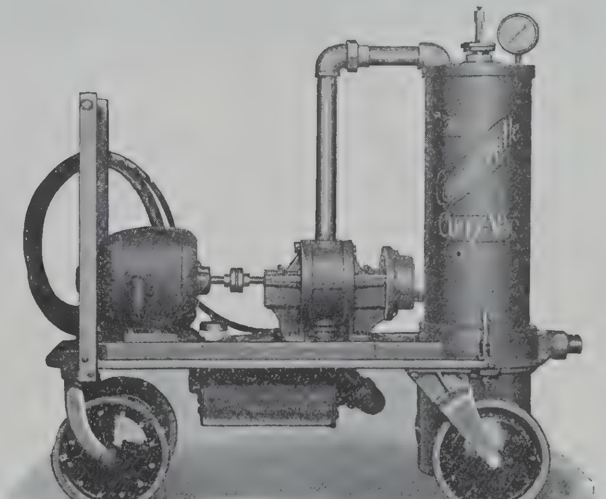

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Chicago Bottle Exchange Holds Annual Banquet and Frolic

"A good time was had by all," said Bill Jones, milk dealer of Chicago, as we were making our exit from the Gold Room of the Hotel LaSalle, Chicago, on the night of January 18, after attending the seventh annual banquet of the Milk Dealers' Bottle Exchange.

And Bill Jones "knows his stuff." A grand and glorious time was enjoyed by the seven hundred odd persons and personages who attended this annual festival of fun and enjoyment, for, besides a bounteous and pleasant repast, entertainment of interesting and diverting character, the crowd included only a gang of good fellows well met. And the handshakes, the greetings and the introductions were genuine and warm. Good fellowship prevailed.

There was much singing of songs; lusty voices raised to the nth degree to reach the high notes and to hold the harmony at the end. There was much banter, many jokes, and some stories were told.

SEVENTH BANQUET
MILK DEALERS BOTTLE EXCHANGE

The Seventh Annual Banquet of the Chicago Milk Dealers' Bottle Exchange.

Howard Greene, lively manager of the Brook Hill Farm certified acidophilus milk organization, pulled off his usual stunt to attract publicity. This "stunt" being nothing more than having himself loudly paged from the stage so that all in attendance might hear his name and see him in person. The stunt has been worked before and, needless to say, Howard was severely censured by Secretary R. E. Little of the International Association of Milk Dealers. It is hoped he will not try the stunt again, but we understand it is a habit of such long standing that its breakage will be well nigh impossible. Howard "got away with it" nicely, though he did hesitate a little too long in getting up.

The only speechifying was done by Judge Ernest C. Reniff, whose remarks occupied about 62 seconds and during which brief interval he paid tribute to the milk dealers, saying that their monuments would be the healthy faces and bodies of their surviving humans, made possible by the health-producing milk they are handling. Many who read this will recall that this is the same Judge who acts in that judicial fashion at the annual picnics held at Brook Hill Farm.

Though this was a Chicago affair, several of the milk dealers from Milwaukee were in attendance and they, together with the Chicago dealers who originally hailed from the Badger's habitat, joined in singing "On Wisconsin" so enthusiastically that we, a Badger strayed from his home lair, were momentarily overcome.

This little episode was counteracted, however, and no doubt fortunately, by the immediate singing of "Illinois" and we, having resided in the Sucker State l
enough to acquire the status of being in fact one,
again to go through the emotional strain of hearing
song of the Prairies sung with much gusto.

Who was Who, at the Banquet, would actually
a big book on milk dealers, so we shall mention c
Tom Palmer, who was passed about freely and wh
burnt offerings offered savory soothings. He was v
received and but few passed him by without accept
his hospitality.

The entertainment included songs and dances, st
telling, and a splendid lot of songs rendered most bea
fully by Chicago's Celebrated Police Octette.

A LATE PICTURE OF LOTON HORTON.

One of the latest pictures of Loton Horton, wh
sudden death in December shocked his friends all c
the world, was one taken in Munich, Germany, while
was touring Europe with Mrs. Horton. We are indel
to E. A. Evans of the United Dairies, London, Engl
for the photo. Mr. Evans and Mr. Horton were w
friends.

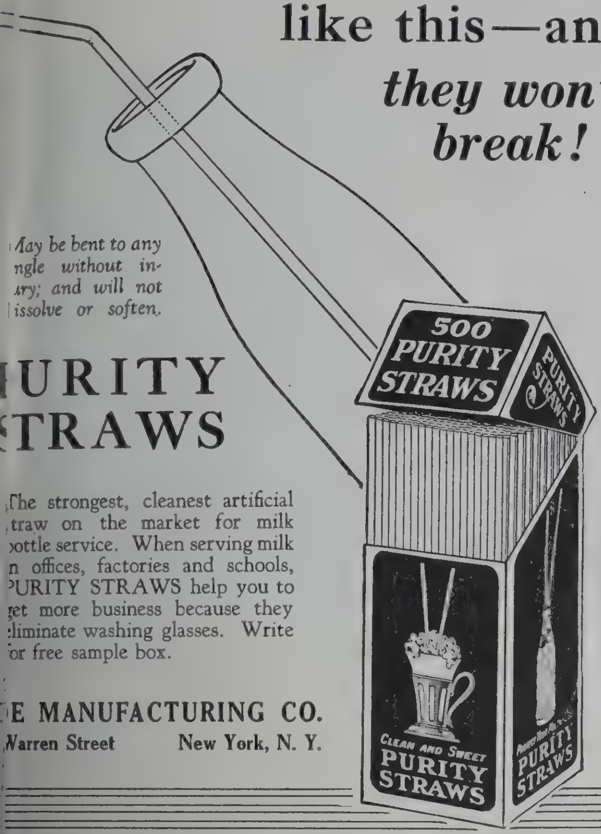
Dr. Spicker. E. A. Evans. Loton Horton

Reading from left to right in the picture we find
Spicker of Munich, Mr. Evans of London and Mr. I
ton, deceased.

* * *

I think that saving a little child and bringing hi
his own, is a durned sight better business than loa
around a throne.

u Can Bend Purity Straws like this—and *they won't break!*



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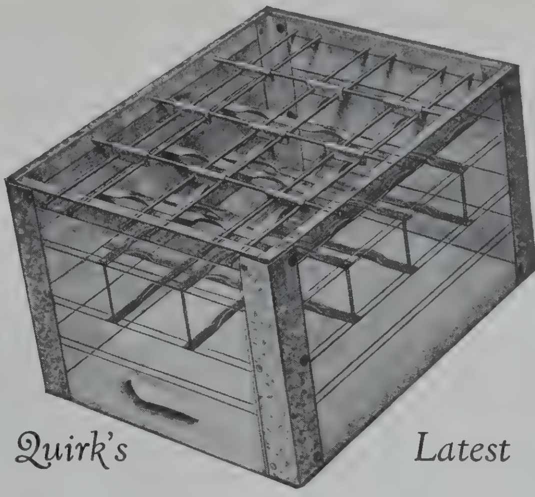

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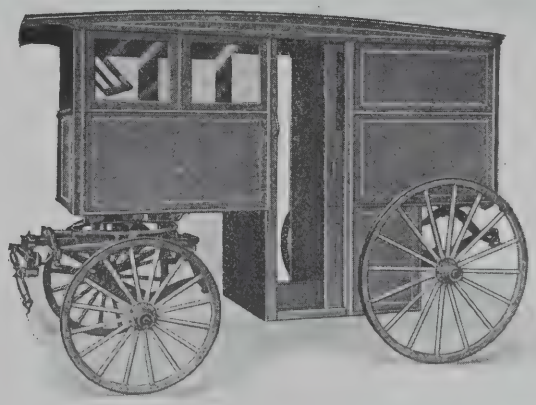

We have built milk wagons for over 25 years and fully understand the needs of the dairyman in this line. We make a specialty of installing equipment for carrying cases in any of our wagons.

Send for our No. 48 free catalog showing eight styles and many sizes of gear from which to make selections

Special Wagons Built to Order.

DeKalb Wagon Company
300 Garden Street DE KALB, ILL.

HEALTH CHAMPIONS DRINK MILK.

By M. O. Maughan, Secretary, National Dairy Council.

Two young ladies and one young man were selected in December as being the healthiest children in Amercia. They were proclaimed the 1926 champions.

Health champions have been selected each year during the past several years at the time of the International Live Stock Show in Chicago.

These children are carefully examined and their health habits are noted and in practically all cases the children selected as champions are found to be strict observers of the rules of health, which call for the drinking of milk, eating of fruits and vegetables, the brushing of teeth and other fundamental rules.

Alberta Hoppe. Warren Greffin. Jeanette Rushing.

Two years ago, in 1924, the healthiest boy and girl each reported drinking a quart of milk a day, and a year ago, 1925, the same was reported on the part of the young man and the young lady who were selected as champions. However, in the contest held last December, covering the year 1926, an exception to this general practice was noted. Two young ladies tied for first place, each scoring 98.6 out of a possible 100 points. One of the young ladies drinks a quart of milk a day and observes the health habits, whereas the other young lady does not drink milk at all, observing, however, the other rules of health. She does not drink any tea or coffee, whatsoever.

The young man chosen champion for the year 1926 drinks two quarts of milk each day, and believes this is one reason why he was so successful in the contest in competition with the other boys and girls from every state in the Union.

There are approximately seven hundred thousand boys and girls who are members of the 4-H Boys' and Girls' Clubs, the health contest being one of the activities of these clubs.

No definite information has as yet been secured regarding the use of butter, ice cream and cheese, by young lady not drinking milk, but it is believed tha is a very liberal user of these products.

It is well known that exceptions occasionally o and this is one of those exceptions. As stated, all vious champions have been liberal users of milk an may expect that other champions to follow will be users of the "King" of all foods—MILK.

An interesting and most inspiring sight was rea when milk was drunk by every boy and girl who att ed the Boys' and Girls' Club banquet given at the man Hotel, and attended by approximately fifteen dred of these splendid young men and women. I had waited to see a large group where 100 per cent of t in attendance drank milk. This was a realizatio that hope.

May the movement spread rapidly.

MERGER OF FOUR MILK COMPANIES IN INDIANAPOLIS, INDIANA.

Capitol Dairies, Indianapolis, Ind., was incorpo on February 1st, with an authorized capital of app mately $1,000,000. This company is a consolidatio four of the largest and best known milk compani Indianapolis, namely the East End Milk Com Schaefer Bros. Inc., Ryan Bros., Inc., and the Wi Bros. Milk Company.

The organization of the new company was the r of long effort spent in investigating not only the p cability of consolidating a certain class of dairies in city, but also in ascertaining how many of the lea dairies in the country have succeeded in marketi superior product in the congested centers of popula

It was announced by the new company that a the best practices and equipment of the leading da of the United States are to be adopted by Ca Dairies, Inc., and that many improvements in service quality of the company's products already have bee cluded in the company's plans of improvements.

Lowell H. Wilson of that city, and vice-president general manager of the Indiana Condensed Milk pany, and a nationally known expert in the dairy i try, is the president of Capitol Dairies, Inc. Other of of the company are: George C. Forrey, Jr., preside the Fletcher American Company, vice-president; Th S. Hood, secretary of the Fletcher American Com secretary-treasurer. These officers, with Charles B. mers, Indianapolis capitalist, and John P. Collett, stitute the board of directors.

"We have approached the task of consolidating milk companies and of building up a new organizat Mr. Wilson said, "fully aware of our responsibili the householders of Indianapolis. Milk is a basic product and upon its quality rests in no small d the health of the community. For that reason we consolidated into this new company such dairies tha equipped and have been delivering an excellent q of milk to their customers. In organizing Capitol Da Inc., we did not strive for size, but for quality."

RECOMMEND STANDARD EXPORT BUTTER

The Western Ontario Dairymen's Association, held its annual convention at London, Ontario, Jan 13, 1927, passed a resolution that the adoption of a s ard export butter box, 12½ by 12½ inches, and enough to hold 56 pounds of unsalted butter, be re mended to the Canadian Dairy Commissioner, s Trade Commissioner Lynn W. Meekins in a report t Department of Commerce.

IT'S AMAZINGLY SIMPLE TO CONTROL WASHING SOLUTIONS

by regular use of the new

Nafis Automatic Caustic Test!

Shows percentage of

Total Alkalinity.

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Introductory price only $10, F. O. B. Chicago.

Write for illustrated circular.

Specify NAFIS GLASSWARE to your Supply House. Do not accept substitutes.

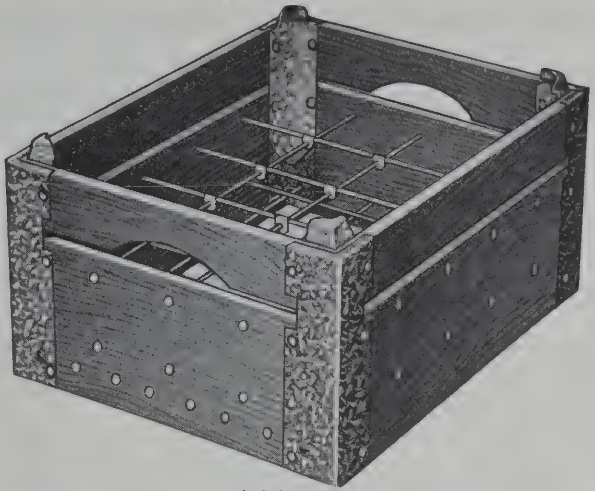
Pat. Applied For

LOUIS F. NAFIS, INC.

Specialists in Testing Glassware for the Dairy Industries.

17-23 N. Desplaines St. Chicago

Ask the Men Who Use It.



(PATENTED)

"The STANLEY"

SATISFIES!

Heavy galv. corner irons overlapped at top and bottom.
Long galv. stacking irons riveted through corner irons.
Strong — Durable — Yet light in weight.
Bottom runners if desired.
Will stack on any standard size cases.
Simplest and strongest construction — lowest in price.

WRITE FOR PRICES BEFORE YOU BUY AND REMEMBER ***STANLEY'S*** SATISFY.

THE STANLEY MILK CASE CO.

Front, Second and Lawrence Sts. CINCINNATI, OHIO

Your Business Depends on Cash "Turnover"

There is no waiting for acounts to come in when you use —

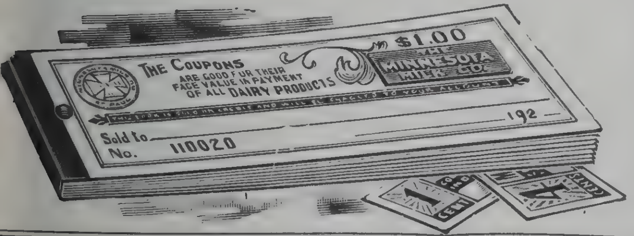
National Dairy Coupons

You can gauge your cash requirements to actual receipts and avoid the danger of counting on those many, many dollars on open account that never come in.

Let us send you some samples and explain to you how other milk dealers use them.

National Checking Co.

St. Paul, Minn.


THE COUPONS ARE GOOD FOR THEIR FACE VALUE IN PAYMENT OF ALL DAIRY PRODUCTS
$1.00
THE MINNESOTA MILK CO.
192
Sold to
No. 110020

An Absolutely FOOL-PROOF VALVE

New Type—Straightway Valve

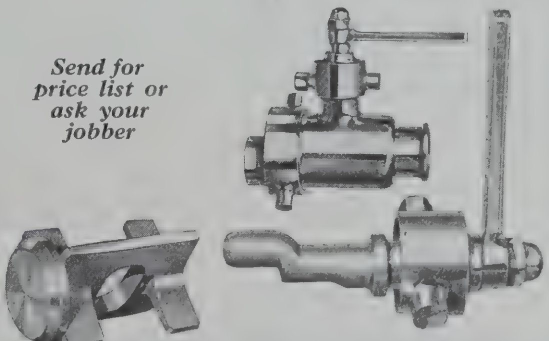
New in design. Positive in action. Cannot leak. Has no packing or stuffing box. Only two parts to assemble. 100% sanitary and adaptable to many places where other types of valves are not practical.

Tri-Clover Machine Co.

Kenosha, Wisconsin

Makers of Tri-Clover Fittings

Send for price list or ask your jobber



Pat'd Sept. 1, 1925, Other Pats. Pending

Please Mention The Milk Dealer.

Fluid Milk Market Report for United States for Jan., 1927

By Bureau of Agricultural Economics, Market News Service, United States Department of Agriculture.

Table I—Producers' Prices for Standard Grade Milk Testing 3.5% Butterfat, Delivered F. O. B. Local Shipping Point or Country Plant.

Prices which appear in this report are secured through the co-operaton of milk distributors, producers' associations and municipal officers. Dealers' buying prices unless otherwise indicated, represent prices applying to all milk delivered by producers. For cities where a "surplus plan" is in effect, the prices reported in table III are for "basic" quantities. All per cwt. buying prices have been converted to a 3.5% butterfat basis for comparative purposes.

Sections	Range of January Prices		Prices Compared for Same Markets			
	Number Local Markets	Prices per Hundredweight	Number Local Markets	1927 Average for Jannary	1926 Average for December	1926 Average for Jannary
New England	9	$2.77–$3.82	9	$3.37	$3.47	$3.49
Middle Atlantic	15	2.55– 3.15	15	2.85	2.85	2.75
E. North Central	22	2.05– 3.19	20	2.61	2.61	2.58
W. North Central	20	1.75– 3.10	18	2.35	2.35	2.31
South Atlantic	14	2.80– 5.81	13	3.90	3.91	3.95
E. South Central	5	2.35– 3.39	5	2.70	2.70	2.64
W. South Central	7	1.93– 3.04	6	2.73	2.71	2.87
Mountain	5	2.15– 3.20	4	2.56	2.56	2.52
Pacific	8	2.00– 3.13	8	2.72	2.67	2.87
United States	105	1.75– 5.81	98	2.86	2.85	2.89

Above prices include "basic" prices where a surplus plan or pooling plan is in effect. Cities where prices are based upon current butter quotations not included.

Table II—Prices for Special Grades of Milk and Certain Milk Products.

The following table shows the wholesale and retail prices reported for "special" and "certified" milk and certain other products delivered at wholesale buyers' places of business and at the home of retail customers.

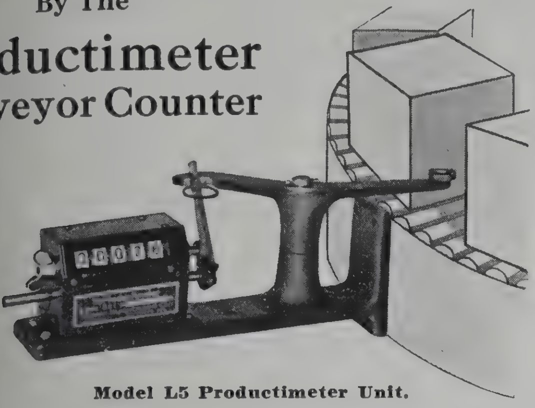
Cities	Special Milk	Certified Milk	Cultured Buttermilk		Cottage Cheese		Light Cream 18-25% B. F.	
	Retail Price per Quart	Retail Price per Quart	Wholesale Price per Gal.	Retail Price per Quart	Wholesale Price per Lb.	Retail Price per Lb.	Wholesale Price per Gal.	Retail Price per ½ Pt.
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	$	Cts.
Akron	15–18	20	20	6–8	8	10	1.30–1.50	16
Albany	18	..	..	10	..	..	1.60	17–20
Albuquerque	..	..	..	..	18	..	1.75	15
Allentown	18	..	36	13	9	14	2.00	17
Altoona	15	22	25	10	..	..	1.35–1.45	12–15
Asheville	19	25	..	..	15	15*	2.00	20
Baltimore	..	..	44	14	7–10	15*	1.70	16
Birmingham	20	25	25	10	..	..	1.50–1.70	15–20
Boston	17½	26	..	10	..	..	1.17–1.79	..
Buffalo	14	26	24	10	10*	12*	1.44–2.00	19–22
Chicago	17	25	..	10–20	..	15*	1.30–1.80	16
Cleveland	19–20	25	..	12–13	12–14	15	1.26–1.87	15–22
Colorado Springs	17	..	15	6	..	..	1.20	11
Columbus	17	25	35–48	12	10	12	1.45	12–15
Dallas	24	..	20–25	8–9	..	..	1.50	11–14
Des Moines	14–25	..	20	9–11	10	14	1.45–1.55	14
Detroit	..	25	..	35	..	..	..	16
Duluth	14	25	13	8	10*	15*	1.35	17
El Paso	18	..	25	10	15*	20*	1.40–1.50	14–16
Evansville	15	..	25	9½	12*	15*	1.60	14
Harrisburg	..	..	36	12	..	..	1.50	14
Hartford	18–25	25–35	..	..	..	..	1.40	18
Indianapolis	16	..	25–35	10–12	10–16	20	1.10–1.75	12–13
Jacksonville	25	..	30–35	10–12	20	30*	1.65–2.50	20–30
Kansas City	15	25	25	10	14	20*	1.80–1.90	10–15
Lincoln	14	20	20	10	12	15	1.25	10
Long Beach	..	28	25–45	10–15	10	15	1.60–1.80	17
Los Angeles	..	28–30	25	10	..	..	1.60	17
Louisville	17	24	..	13	..	..	1.00–1.62	16
Memphis	..	30	15–20	6–7	15	20	1.10–1.40	14–15
Miami	30–35	35	50–60	20–22	30	..	2.25–2.50	25–30
Milwaukee	14–18	25	16–18	6	7	9–10	1.30–1.65	14
Minneapolis	..	22	..	13	10*	12*	1.30–1.44	14
Nashville	18	..	22	10	17	20	1.50	16
New Orleans	18	31	40	14	..	..	1.08–1.50	17
New York	30	28	28	11	..	..	1.96	..
Omaha	15	20	20	10	10–12	15	1.30	11
Philadelphia	15–16	30	28	9–13	8–9	12–15	1.56–1.72	14–17
Pittsburgh	..	25	25	10	..	..	1.40–1.50	17
Portland	15–16	..	30–35	12	..	..	1.25–1.50	15
Richmond	16–18	..	25	8	..	..	1.20–1.30	14
Rockford	..	..	..	..	..	..	1.40	15
Salt Lake City	15	..	15	..	10	12½	1.35	14–15
San Francisco	..	25	..	14	..	20	1.70–2.50	20
Scranton	18	25	20	8	..	..	1.40	20
Seattle	..	20	50	20	12	15	1.30	14–15
Sioux City	..	25	15	6	10	10*	1.20	10
Spokane	18½	18½	20	..	10	15	1.55	15
St. Louis	18	25	..	10–18	13	15	1.26–2.00	17
Trenton	17	30	38	13	..	..	1.76	15–16
Trinidad	15	20–25	25	10	20	25	1.25	10–15
Washington	18–23	30	52	15	13–15	15–20	2.00	20
Wilmington	20	..	..	10	..	13*	..	17

* 12 oz. package

unted As They Pass

By The

ductimeter
iveyor Counter



Model L5 Productimeter Unit.

roductimeter Model L5 Conveyor Counter provides a easy, and accurate means of getting the count of boxes, , or packages as they pass along the conveyor. Assures hanically accurate count and saves a man's time and . Unit consists of a standard 5B1 Productimeter ped with a special mounting bracket and counting arm, and complete for attachment to any conveyor. Counts 99 and is easily reset to zero by a turn of the wing nut.

Send for special bulletin, giving details on this unit, and catalog describing 57 standard models of Productimeters for various applications, such as bottle counters, can counters, filling and sealing machine counters, etc.

DURANT MFG. CO.

uffum St. Milwaukee, Wis.

Nutting
Milk Case Truck

Only for Milk Cases

This patented truck is the handiest thing you ever used for moving stacks of milk cases.

You simply grab and go. An adjustable hook slips into the hand hole of the bottom case. The rack helps to support and balance the load.

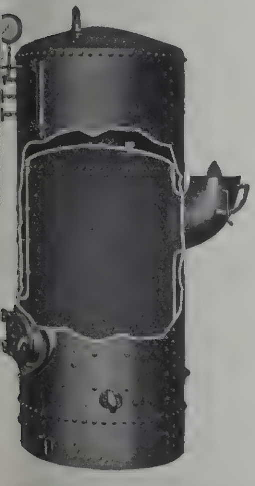
It's the quick, easy, flexible way for moving cases anywhere. Ask your jobber or write for Catalog C.

NUTTING TRUCK CO. 1286 Division St. Faribault, Minn.
Floor Truck Specialists Since 1891

The Famous Flueless — Boiler —

Famous as a Quick Steam Producer.
Famous as a Fuel and Repair Economizer.

BOILER is regularly constructed with extension to form ash pit, but can be furnished with cast iron base, in all sizes up to and including 48 in. diameter, without extra charge. Boiler comes complete with fire door and frame, ash door, grates, elbow and damper, hand hole plates complete. Steam trimmings include safety valve, steam gauge and syphon, water gauge, gauge cocks, blow-off valve, injector complete with check and feed valve. All constructed to comply with the A. S. M. E. code for 100 lbs. working pressure and tested to 150 lbs. hydrostatic pressure.



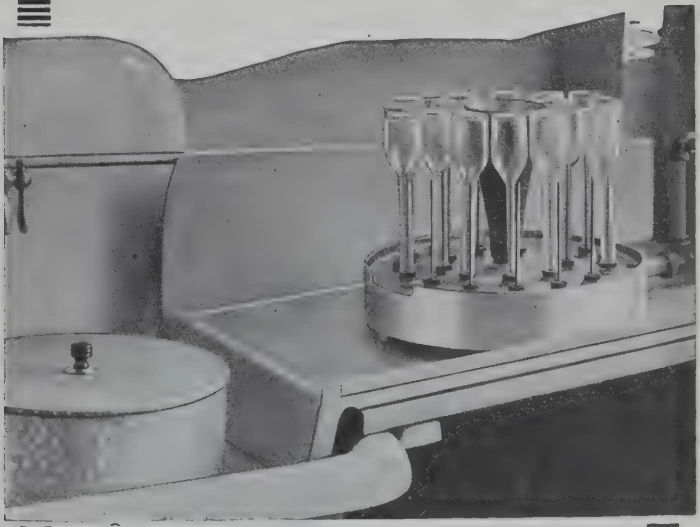
Boilers carried in stock at all times.

See your nearest jobber for further particulars.

Schwab Boiler & Machine Company
16th & Canal Streets
MILWAUKEE, WIS.

Wilson
Test Bottle Washer

A Steam and Hot Water Pressure Washer



Simple to Install—Washes Quick and Clean.

Made in 2 sizes to wash 24 or 36 Milk or Cream Bottles—*and it does it in 2 to 3 minutes.*

No Brushing — Stops Breaking of Bottles.

Send for Leaflet explaining operation.

Stout Mfg. Co., 610 Sycamore St. Milwaukee, Wis.

Table III—January Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat Test of Milk Sold
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5-20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
ALABAMA—							
Birmingham	3.42–3.90	Flat to 4.2%	45	14	17	14–17	4.0
ARIZONA—							
Phoenix	....	..	32	9½	10–14	10–15	..
CALIFORNIA—							
Fresno	Butter Market Basis		35	11	13	12–13	3.8
Long Beach	3.26–3.33	9.3–9.5	43–43.3	13	15	15	3.6–4.
Los Angeles	3.15–3.33	9–9.5	43.33	13	15	..	3.6–4.
Oakland	2.82	2.9+	33.33	9	12	10	3.6–3.
San Francisco	3.11–3.21	2.9+	41.3–41.6	12–14	14	13–14	3.6–4.
Santa Barbara	3.33	9.5	40–45	..	15–16	15–16	3.8–4.
COLORADO—							
Colorado Springs	2.45	6	30	9	11	11	3.4–3.
Pueblo	2.38	6.8	30	9	12	10–12	3.9
Trinidad	....	..	35	10	10–13	10–12	3.2–3.
CONNECTICUT—							
Bridgeport	4.22*	4	48	14	16	..	3.6
Hartford	4.22*	4	46–48	12–14	16	15–16	3.9–4.
New Haven	4.22*	4	50	14	16	16	3.7
DELAWARE—							
Wilmington	3.23*	4	44	..	..	13	3.7–3.
DIST. OF COLUMBIA—							
Washington	3.60*	7	44–48	12–13	15	12–13	..
FLORIDA—							
Jacksonville	4.53	10 to 4.2%	55–60	18	20–21	20–21	4.0–5.
Miami	6.34*–6.75*	Varies	80	22	25	23–25	3.5–4.
Tampa	5.81	Flat	60	..	18–25	22–25	3.5–4.
GEORGIA—							
Atlanta	2.80	8	50	..	..	..	4.0
IDAHO—							
Wallace	....	..	50	12½	15	12½	4.0
ILLINOIS—							
Chicago	See Table II		32–38	13	14	14	3.5–3.
Peoria	2.60	5	36	11	13	13	3.7
Quincy	....	..	30	8	10	10	3.5
Rockford	2.55	6	28	9	11	11	3.6
Springfield	2.63	5	36	12	14–28	14–15	3.8–4.
INDIANA—							
Elkhart	....	..	30	7½	10–12	11–12	3.8–4.
Evansville	2.45	7	34	11	12½	12½	3.7
Fort Wayne	....	..	40	11	13	12–13	3.8
Indianapolis	2.10–2.27	6–8.5	28–32	10–10½	12	11–12	3.6–3.
South Bend	2.40–2.65	4	32	10	12	11–12	3.8–4.
IOWA—							
Burlington	2.55	4	30	8	10	10	..
Davenport	2.35	5	30	9	11	10–11	3.6
Des Moines	2.65*	5	32	9	12	10–11	3.5–3.
Fort Dodge	2.75*	5	38	10½	12	12	4.0
Iowa City	2.45*	7	30	9	12	11	3.5–3.
Ottumwa	2.25	5	35	10	12	12	3.5
Sioux City	2.30	5	30	8	10	10	3.6
KANSAS—							
Kansas City	2.44	2.9+	..	..	..	...	..
Topeka	2.10–2.20	4	30	8	10	10	4.0
Wichita	2.10–2.35	3	35	10	12	12	3.5
KENTUCKY—							
Lexington	3.00	Flat	..	..	15	12–15	..
Louisville	2.54–2.59	4–5	32	11	13	13	3.8–4.
LOUISIANA—							
Alexandria	2.91	Flat	40	10	15	12	4.0
New Orleans	3.04	4	35	12	14	14	4.0
MARYLAND—							
Baltimore	3.55*	5.8	44	14	14	15–16	4.1
Cumberland	4.05	5	40	13	15	15	4.0–4.
MASSACHUSETTS—							
Boston	3.62*	B. M. Basis	39	11½	14	12	3.7
Easthampton	....	..	46	12	14	14	3.5
Fall River	....	..	..	..	14	13–14	..
Lawrence	4.09	4.65	48	12½	15	13–14	3.7–3.
Lynn	4.42	Flat	..	12½	15	..	..
Pittsfield	2.94	4	36	11	14	14	..
Springfield	3.49	Flat	40	12	15	10–12	3.7

—COUPONS—

Facilitate the delivery of milk and collections.

Coupon Books of Our Manufacture are

LOW IN PRICE

ACCURATE IN COUNT

SHIPPED ON TIME

Write for Prices and Samples.

Kansas Bank Note Co.

"The Best in the West"

Fredonia - -[redacted]- [redacted] Kansas

Leffel CREAMERY BOILERS

Save Time Labor Fuel

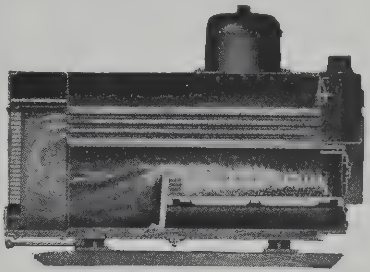
A tremendous saving in fuel costs at your plant, can be effected by using Leffel Creamery Boilers, because they get double service from every pound of coal used.

The hot gases are **compelled** to travel twice the length of the boiler through water surrounded passageways.

Even the ash pit is surrounded by water, thus utilizing every possible heat unit to produce steam.

Because of this highly efficient application of heat, owners save 30 to 50% in fuel costs.

In all sizes 6 to 150 H.P.—workmanship and quality guaranteed—will meet all state boiler laws.



Full description and prices on request.

The James Leffel & Co. BOX 330 SPRINGFIELD, OHIO, U. S. A.

SAVE 25%

Fire and Tornado Insurance

SAVE 20%

Workmen's Compensation, Automobile, Teams and Plant Public Liability Insurance.

CASH SAVINGS

Returned to Policyholders

$5,000,000.00

Surplus and Reserve

$4,600,000.00

Loss Adjustment Service Everywhere

BRUCE DODSON & CO.

ESTABLISHED 1900

28th and Wyandotte Sts. Kansas City, Missouri

FLAV-O-LAC CULTURES

FLAV-O-LAC

FOR BUTTERMILK

Producing a uniform unexcelled product in aroma, body and keeping properties.

$2.00 per Qt.

BULGARIAN MILK

For making pure Bulgarian Milk or for use with Buttermilk Culture for **Double Cultured Buttermilk.**

$2.00 per Qt.

SOUR CREAM

A special culture designed to produce a distinctive flavor and a very **viscous product.**

$2.00 per Qt.

BUTTER and CHEESE

Special cultures designed for aroma and those characteristics most desirable in these products.

$2.00 per Qt.

Our New Package

One Syringe of Any Variety of Culture $1.00

The Oldest Concern in the United States Specializing in Liquid Lactic Cultures

The DAIRY LABORATORIES

Chemists "The Home of Liquid Culture" **Bacteriologists**

2300 LOCUST STREET PHILADELPHIA, PA.

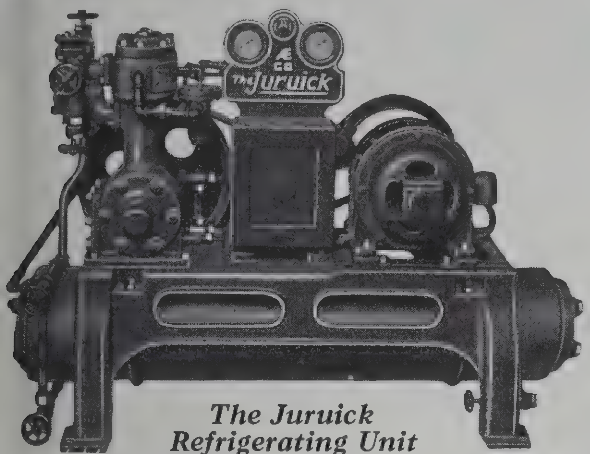
Branches: New York Baltimore Washington

Table III—January Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat Test of Milk Sold
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5-20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
MICHIGAN—							
Battle Creek	2.80*	4	36–40	10	12	12	4.0
Detroit	3.00*	5	..	..	14	14	..
Grand Rapids	2.48*	4	30	8–9	9–12	9–12	3.5
Kalamazoo	3.00*–3.20*	4 to 4%	38	11	13	13	3.5–4
Lansing	2.25	Flat	30	8	10	10	..
MINNESOTA—							
Duluth	....	..	30	10	12	..	3.7–4
Minneapolis	2.70*	5	32–34	8½	10	9–10	3.5–
Northfield	2.37	5	32	9	10	10	3.7
St. Paul	2.70*	5	34	9½	11	..	..
Winona	3.10	Flat	35	9.58	11	11	3.6
MISSISSIPPI—							
Meridian	....	..	40	12½	17½	17½	4.9
MISSOURI—							
Kansas City	2.73	3.5	40	10–11	13	10–13	3.8
St. Louis	3.00	3–4	35–38	11	13	13	3.5–
MONTANA—							
Butte	2.60	10	30–35	11	13	13	3.5–
Lewistown	....	..	30	10	12½	12½	3.0
NEBRASKA—							
Lincoln	2.10	6	28	8½	10	10	3.0
Omaha	2.35	5	28	9	11	11	3.4–
NEW JERSEY—							
Atlantic City	....	..	48	..	15	..	..
Camden	....	..	38	..	13	..	..
Hoboken	....	..	34	10½	15	15	3.
Trenton	3.41*	4	38	11	13	14	3.7–
NEW MEXICO—							
Albuquerque	3.20	5.8	40	12–12½	15	15	4.
NEW YORK—							
Albany	3.07*	4	38	15	15–17	16–19	3.
Buffalo	2.85*–2.90*	4	36–40	11–11½	13	11½–13	3.5–
New York	See Table II		40	14	15	15	3.
Rochester	2.85	4	40	11	12½	13	3.
Utica	3.02*	4	32	10	12	12	3.
NO. CAROLINA—							
Asheville	3.80	4	48	14	17	17	4.
Biltmore	3.80	4	48	14	17	17	4.
Greensboro	3.70*	6	50	14	16	18	4.
NO. DAKOTA—							
Jamestown	2.30	4	30	9	11	11	3.
OHIO—							
Akron	3.40*	5	40	11	13	13	3.5–
Cincinnati	....	..	..	..	14	12	..
Cleveland	3.50–3.60	5	42–44	11–12	14–15	10–15	3.5–
Columbus	....	..	38	11	12	12–13	3.5
Toledo	2.50*–2.60*	3–5	35–36	10½	12	12	3.5–
OKLAHOMA—							
Oklahoma City	2.10	6	..	10	12	12	..
Tulsa	2.45–2.80	7–8	40	11	15–20	10–20	4.0–
OREGON—							
Portland	2.30–2.35	5	25–35	8–9	11–12	10–11	4.
PENNSYLVANIA—							
Allentown	3.16*	4	36	11	13	13	3.
Altoona	3.16	4	36–42	9–11	13	13	3.8–
Harrisburg	2.80	4	34	11	12	12	3.7–
Philadelphia	3.49*–3.52*	4	38–40	12–13	13	13	3.25–
Pittsburgh	3.90*	5	39–44	14½	15	..	3.5–
Scranton	3.10	4	38	12–13	13	12–13	3.5–
RHODE ISLAND—							
Newport	....	..	..	13	15	15	3.
Providence	3.62*	B. M. Basis	..	..	..	14½	..
SOUTH DAKOTA—							
Sioux Falls	2.75*	5	30	10	12	12	3.
TENNESSEE—							
Chattanooga	2.80	8	45	12	18	14	4.
Memphis	2.58–2.73	4.5	32–40	10–11	15	12–14	4.2–
Nashville	Butter Market Basis		38	12	14	14	4.
TEXAS—							
Dallas	2.60	4	35	11–12	13	11–13	4.
El Paso	3.00–3.10	5	35	11	14	13–14	3.6–
Houston	3.15	9	..	..	16	..	4.

* Basic prices for fluid milk.

Juruick
REFRIGERATION



The Juruick Refrigerating Unit

Juruick Electric Refrigeration increases dairy profits because it is the surest, safest way to cool milk . . . . because it *automatically* maintains exactly the right temperature . . . . because it runs only when necessary to keep down the temperature . . . because it requires no attention.

Juruick Refrigeration is electric refrigeration at its best. "Just turn the switch."

Send for Juruick Folder

American Engineering Company
2417 Aramingo Ave., Philadelphia, Pa.

ARCUS COUPON BOOKS

"Fill the Bill"—100%

Good paper stock. Workmanlike printing and binding. Clear, accurate numbering.

And Arcus SERVICE is so faultless that our customers stay with us and swear by us.

It Pays to Tie to Arcus

Send samples for our quotations

The Arcus Ticket Company
348 N. Ashland Avenue CHICAGO, ILL.

Increase Your Sales
BY USING A
"Cream Line" Pasteurizer

Every user of a "Cream Line" Pasteurizer has increased his sales at least fifty per cent in less than a year after installation of our equipment. Many have changed from raw to pasteurized milk without their customers knowing of the change.

There must be Good Reason for this. It will pay you to investigate.

BUILT IN SIZES
From 50 Gallon Up

Fort Wayne Dairy Equipment Co.
1600 Winter Street
FORT WAYNE INDIANA

BOILER VALUES

DEPENDABLE, economical boiler service. That—plus safety and long life—is what you get when you specify BROWNELL riveted steel boilers. Seventy-two years of boiler building experience and a world wide reputation for boiler dependability stand four-square behind every unit built.

Brownell Boilers comply strictly with A. S. M. E. and all state codes.

Brownell engineers located near you ready to consult on your needs. Bulletin B-3 ready to mail.

!

Creamery Boilers

Write for information on Brownells specially suited to Creamery requirements.

The Brownell Company
Dayton, Ohio

BROWNELL BOILERS

Table III—January Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat Test of Milk Sold
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5-20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
UTAH—							
Salt Lake City..........	2.45	7	28–30	9–9½	10–11	10–12	3.5
VIRGINIA—							
Newport News	4.20	6	50	15	17	18	3.8
Richmond	3.93–4.05	5	44	13	14	..	3.9–4
WASHINGTON—							
Everett	....	..	30	8	10	10	3.9
Seattle	2.78*	7.2	32	9½	12	11	4.0
Spokane	2.35–2.50	5	34	10	12	12	4.0
Tacoma	2.70*	5	35	10	12½	11–12	3.7
WEST VIRGINIA—							
Clarksburg	3.25	5	40	13	15	16	3.8–4
WISCONSIN—							
Beloit	2.50*	5	30	8	10	10	..
Kenosha	3.00	4	40	11	12	12–13	3.6
Madison	Butter Market Basis		36	9	10	10	3.7
Milwaukee	2.90*	4	30	9½–10	11	10–11	3.5–3
Oshkosh	Butter & Cheese Market Basis		..	9	10	10	4.0
Sheboygan Falls	Cheese Market Basis		..	10	11	11	3.5
Wausau	2.40	3	..	9½	11	11	3.8

* Basic prices for fluid milk.

Table IV—January Cost Prices of "Standard Grade Milk" 3.5% B. F. for Cities Where Part of the Supply Purchased Through Country Stations.

Cities	Prices Paid Producers per cwt. raw Milk (Flat prices of 3.5% B.F. basis)		Freight Zones to Which Country Station Prices Apply
	F. O. B. City	At Country Stations	
New Haven, Conn................	$4.22*	$3.70*	28c rate.
Washington, D. C................	3.60*	3.02*	35c 10-gal. can.
Chicago, Ill.	Unavailable	2.50	All.
Baltimore, Md.	3.55*	2.97*	35c rate.
Boston, Mass.	3.62*	2.88*	181-200 mile zone.
St. Louis, Mo....................	3.00	2.35–2.40	34c rate.
Trenton, N. J....................	3.41*	2.85*	41-50 mile zone.
Buffalo, N. Y....................	2.85*–2.90*	2.57*–2.62*	28c rate.
New York, N. Y..................	Unavailable	3.00*–3.05*	201-210 mile zone (53c rate).
Cleveland, O.	3.50–3.60	3.12–3.19	All.
Philadelphia, Pa.	3.49*–3.52*	2.91*–2.95*	51-60 mile zone.
Pittsburgh, Pa.	3.90*	3.15*	All.
Scranton, Pa.	3.10	2.80	30c rate.
Dallas, Tex.	2.60	2.20	All.

* Basic prices for fluid milk.

NOTE: At all places in the above tables where prices are not shown, the information was either not reported or not available.

GROUP INSURANCE FOR EMPLOYEES.

The Ann Arbor Dairy Company, Ann Arbor, Mich., has furnished its employees with group insurance protection under an arrangement with the Metropolitan Life Insurance Company, whereby the dairy company pays the entire cost of protection.

Establishing life insurance in excess of $45,000, the schedule provides each employee on the dairy payroll less than a year with $500 life insurance, while those with longer service are insured for $1,000 each.

In addition to creating death benefits for an employee's family or other dependents, the life insurance provides the employee himself, with a temporary fixed income if he becomes totally and permanently disabled before the age of 60. Should such a condition dev the full amount of his life insurance will be paid to in monthly installments.

In addition to paying the entire cost of the insur program the dairy company, through an arrange with the Metropolitan, offers the services of a tra visiting nurse to sick or disabled employees.

BUTTER ALMOST A LUXURY IN BRAZIL.

A short time ago the residents of Rio de Jan Brazil, paid as much as 15 milreis per kilogram, or a $1.02 per pound, for butter, the highest figure rep there in several years. The average price of butter t is about 5 milreis, or approximately $.65 per kilogra

HERE IT IS--*At Last*

Just What You Have Been Waiting For—

AN *Extensive and Authoritative* *Experiment with Children to Prove the Wonderful Value of Milk*

Up to the present time, practically all experiments to prove the value of milk have been conducted on animals, and it has been necessary to try to persuade the housewife that if milk made animals grow then it would make children grow. Now, however, information is available showing what milk actually does for children.

The Medical Research Council of London, conducted an experiment on 220 boys. Their findings are given in a popular way in this little six page folder—actual size shown here.

You can now secure these folders for your own use in any quantities desired. Your name can be imprinted on the back page if you wish at a slight additional cost ($1.50 per M; 10,000 or more $1.25 per M).

These valuable circulars suitable for enclosing with your monthly statements, for distribution through your driver-salesmen, and of great worth in many other ways, will cost only—

$5.00 per M for 1,000 to 10,000
4.50 per M for 10,000 or more

Your order will be filled promptly.

What Milk Did For 41 Boys

Experiments conducted by the Medical Research Council of London, England, prove the necessity of Milk in the diet of growing children.

Don't overlook this opportunity. Every customer and prospective customer should know of this wonderful experiment on children.

National Dairy Council

910 So. Michigan Ave. Chicago, Illinois

TEAR OFF HERE AND MAIL

Please send me............copies of "What Milk Did for 41 Boys."

Imprint on the back...................................

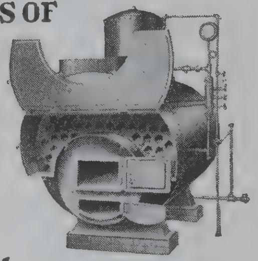
....

Signed...

Address..

When writing to NATIONAL DAIRY COUNCIL *please mention The Milk Dealer.*

RETINNING
Ice Cream and Milk Cans
GALVANIZING
Ice Cream Lids Galvanized Outlast Lids Retinned
Sanitary Tinning Co.
3753-63 E. 93rd St. Cleveland, Ohio



MURRAY IRON WORKS COMPANY
BURLINGTON, IOWA
INCORPORATED FEBY 1,1870
STEAM BOILERS OF ALL STYLES AND SIZES
The cuts show vertical and horizontal boilers requiring no brick work
We build also Water-Tube and Tubular Boilers to be set in Masonry

READY NOW!
Kunsman Milk Talks
Series No. 2
57 Educational Talks upon the food value of Milk. Planned to cover a year's advertising and to promote an increased consumption of milk in your locality.
Only one dealer in a town can buy these talks. Order promptly and BE THAT ONE.
Make Checks Payable to
KUNSMAN AD SERVICE
29 Reed St. Reading, Pa.
Price Only $5

The Gaulin HOMOGENIZER
Guaranteed to Stand the Test of Years!
FOR 15 YEARS
Gaulin
Manufacturing Exclusively Emulsifying Machinery
"Only Gaulin can Build a Gaulin"
MANTON-GAULIN MANUFACTURING CO.
BOSTON MASS., U.S.A.

NOTES OF THE TRADE.

(Continued from page 108)

the manufacturers claim for this machine are: Compact with fewer parts; occupies less floor space; pre-rinsin bottles, followed by complete submersion and pressure w ing; one man can operate the machine as the clean bo come out at the feed-in end; capacity is from twenty to bottles per minute, no working parts inside the mach perfect temperature control. It is also claimed that machine sells for considerably less than other washer equal capacity. No adjustments for various sizes of bo are necessary, half-pints, pints and quarts can be run thr together.

* * *

A NEW CHERRY TRAVELING REPRESENTATIVE.

The J. G. Cherry Company of Saint Paul announce the appointment of Leonard W. Olson as their representative in the northeast Wisconsin and Upper Peninsula of Michigan territory.

Mr. Olson has been in the employ of the J. G. Cherry Company at St. Paul for the past five years, having served in the office billing, order and sales departments.

The trade will find him to be a young man of pleasing personality, well versed in the supply and machinery business.

Mr. Olson has not as yet established permanent headquarters.

LEONARD W. OLSON.

* * *

BENNETT GOES WITH SOLAR-STURGES.

The Solar-Sturges Mfg. Co., Chicago, announce the pointment of Earl D. Bennett to represent the company the Pacific Coast. Mr. Bennett is an "old timer" in the d ice cream and creamery supplies game and he goes West equipped to serve the company's friends there. He succ P. N. Kasson who resigned to go with a Chicago candy m ufacturer.

* * *

WACHO STEEL-LINED MILK TANKS.

A new milk tank for use on trucks has recently been on the market by the Wacho Manufacturing Company, waukee, Wisconsin. This tank is lined with sheet ni which, by a new process, is so welded to the steel that two metals become one solid mass. The manufacturers c great durability and indefinite life for these tanks. guarantee that the nickel will not peel or separate from steel under any conditions of usage. These tanks are m in sizes for all truck bodies, ranging from 500 to 1,500 lons capacity.

⁂

THEY GET A FREE BATH.

"Mike" Adams, well known to all the dairy t as the Waukesha Specialty Company brains and bra believes in treating his friends right for he has tre several of them to a real milk bath free of charge. the exhibit hall of the Michigan Allied Dairy Associa held recently at Jackson, Mich., Mr. Adams was trea the visitors to a running exhibition of milk throug small container and which was causing the by-stan to wonder how the supply got back into the buc when the pump or motor went "pflooey" and tre our friend "Mike" and his interested visitors wit beauty milk bath. We found him there and sent hi the dry cleaners of Jackson to recuperate.

HADLEY 1288 M. C. OLDHAM, MGR.

HE PHENIX DAIRY
PASTEURIZED MILK
WHIPPING CREAM, PLAIN CREAM,
BUTTERMILK
POLK & SMITH STS.
HOUSTON, TEXAS

February 2, 1927.

on Engineering Co.,
Cleveland, Ohio

tlemen:

Regarding the Bestoval
tle Washer we purchased
m you and installed in
new plant on November
,1926, wish to say that
s machine is performing
y satisfactorily in fact
er a few minor adjust-
ts when installed we have
no trouble with it.

The bottles discharged
m it are sparkling and
ar and we would heartily
ommend this type machine
anyone in the market for
arge size bottle washer.

Yours very truly,

:K THE PHENIX DAIRY.

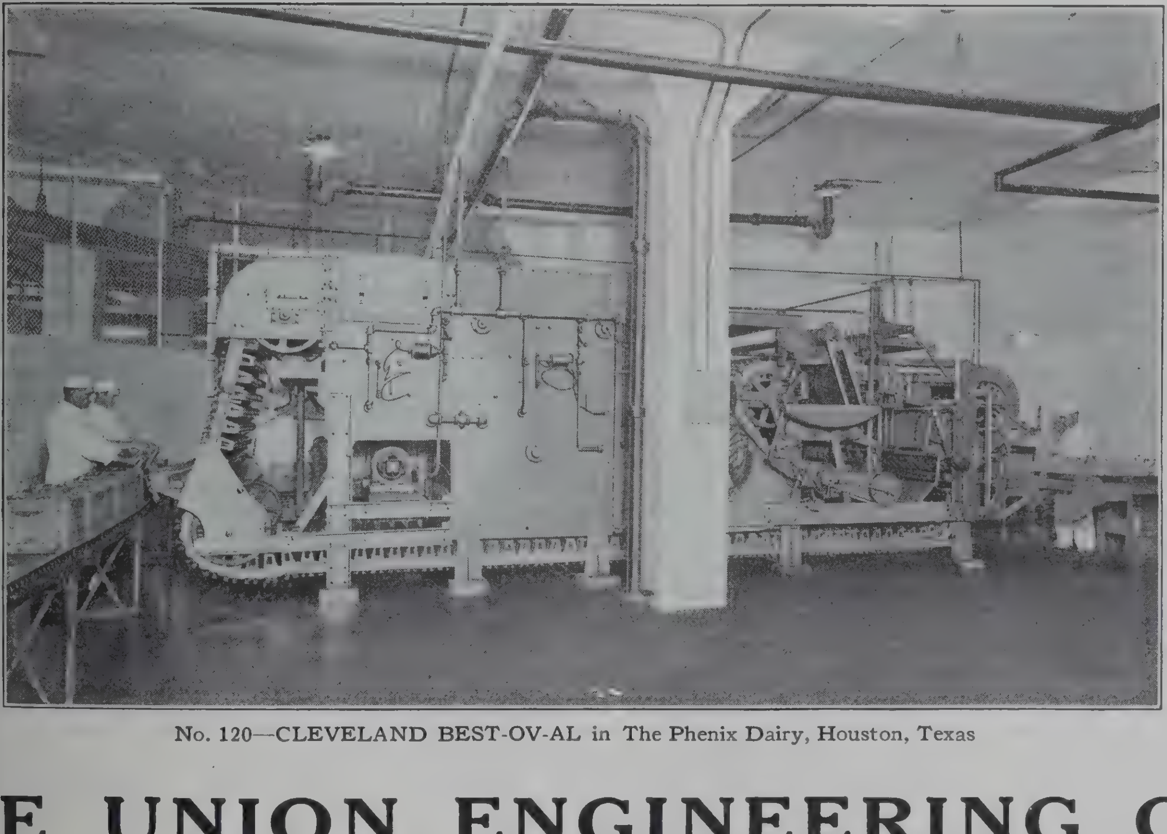
MORE PROOF!

of the SUPERIORITY of the

CLEVELAND BOTTLE WASHER

MR. OLDHAM of the Phenix Dairy, Houston, Texas, after having carefully studied all makes of bottle washers for more than three years, decided on the **CLEVELAND** for his new plant, which is one of the largest and most up-to-date in the South.

He was thoroughly convinced that the **Cleveland Method of Pressure and Dormant Soaking in Conjunction with Clean and Sterile Brushes** would give him the cleanest and most sterile bottles to match his unexcelled product. Furthermore he knew that the Cleveland Bottle Washer was the machine for service due to its rugged construction and simplified design and this has been conclusively proven by the fact that **The Phenix Dairy erected and put their bottle washer into operation themselves without the assistance of any representative of the Union Engineering Co.**



Guaranteed Cleaning Efficiency 99 9/10%

Clean and Sanitary Soaking Solutions with from 30 to 50% Less Alkali.

Clean and Sterile Brushes.

No. 120—CLEVELAND BEST-OV-AL in The Phenix Dairy, Houston, Texas

HE UNION ENGINEERING CO.

CLEVELAND, OHIO

AGENTS:

HERRY-BASSETT CO.
lphia, Baltimore, Pittsburgh,
cuse, New York City, N. Y.

MEYER-BLANKE CO.
St. Louis, Birmingham, Ala.
Dallas, Texas

BESSIRE & CO.
Indianapolis, Louisville, Memphis,
Columbus, Atlanta

WRIGHT-ZIEGLER CO.
Boston, Mass.

MILTON DAIRY SUPPLY CO.
Cincinnati, Ohio

MILLER-LENFESTEY SUPPLY CO.
Tampa, Florida

E. F. MANGOLD
Dayton, Ohio

When writing to THE UNION ENGINEERING CO. *plaese mention The Milk Dealer.*

THE INTERNATIONAL COST ACCOUNTING SYSTEM.

(Continued from page 27)

at the same time, reveals the elements of strength also. It is just as important to know the elements of strength in your business so that you may keep them alive, as it is to know the elements of weakness, which you should remove. If you don't pay any attention to the strong elements of your business, the chances are that they will be running along without recognition and there will be no bar to the entry of elements of weakness; even the strongest among us may become weak if we are not sufficiently nourished.

Profitable management is the goal of the executive. We all want to increase profits. The real and ultimate object of cost accounting is, therefore, to increase profits. I won't even say that negatively, and say that the object of a cost accounting system is to reduce costs. Of course that is true. But the object of a cost accounting system is more than to reduce costs. The object of a cost accounting system is to introduce into your industry, the best elements of control over your business, a more efficient management of your plant, of your distribution problems and of your entire business structure. Now, if cost accounting accomplishes all these things then one may say that the real object is to increase profits, because all of these efficiencies will increase production, will stop leaks and will lead to a better control of your personnel.

The greatest object of cost accounting is, therefore, profitable management. There are a lot of people who oppose cost accounting, and cost accounting systems. Who are they? I won't name individuals or classes. But I can say this—the opponents of cost accounting are the indolent, the inefficient, and the selfish. This indictment is applicable almost universally because it is generally one or more of these traits that always come to the fore when opposition to a cost system exists. Indolence and inertia, it seems to me, are the greatest opponents of progress. People like to say to themselves, "Well, we are getting along all right, why not leave good enough alone?" That is the kind of philosophy that has always stood in the way of progress. That is the kind of philosophy that made people satisfied to believe that the earth was flat and prevented them from accepting the truth even after it was discovered.

It is so much easier, isn't it, to go along the accepted channel, the accepted road, to simply go along the lines of least resistance. But there is no progress in that. The man that wants to build muscle, has got to struggle. He must fight against odds. The man that wants to develop himself at all, has got to overcome problems in which mental exercise is involved. The man that wants to succeed in business, is the man that is able to face all unusual situations in business and overcome them. And he cannot face those unusual situations in business, unless he fully arms himself to meet them as they come up.

I believe that one of the best weapons that you can use in the game of progress, is the weapon of knowledge. The weapon of knowledge, expressed in accounting, is just exactly what you people have developed in your own organization here—your uniform cost accounting system. That is the knowledge. Cost accounting is knowledge, and it is expressed in the language that you all understand. I am very glad that you developed this system by your own initiative, through your own conference and out of that co-operative spirit, which apparently is so strong in this organization. You are bound to succeed.

I think you should commend very strongly the work of your secretary, and the work that Mr. Bolitho has done in connection with this really monumental work for your association.

I have had occasion to look over the entire system for this organization, and for the ice cream manufact I have had occasion, I think, to look over some 5 uniform cost accounting systems, and I must say t have not seen any that is more complete, or that is expressive of the things which should be expressed, your own system. That is probably due to the fac you were not foolish enough to hire somebody from out your organization to do all of the work. The cost accounting systems are those that have been oped from within an organization.

I don't know what your association is doing a present time in order to spread this gospel of un cost accounting. I do not, therefore, care to mak recommendations, because, not knowing what yo doing, I might make recommendations which things that you are already doing. I have found one of the most successful methods of spreadin gospel of uniform cost accounting, is to have re meetings. Your organization is probably large e to have such regional gatherings of your cost g there to discuss problems of practice in particular ties.

All that I can say, in closing, is that you have life to an infant in your organization which you a dealers should know how to nourish. You must that infant filled with good milk and cream and sure, that if you do, much cream will find its wa your surplus account.

WHEN THE CREDIT CUSTOMER STALL

Nobody but a professional collector knows the a infinite number of "stalls" given by delinquen tomers. I am sure that the stalling customer, no how original, has no conception of the possible ex We in the collecting game get accustomed to them. are everyday matters. Let's list some of them. " get all about it." "I did not receive the bill." called to pay, but the clerk didn't know anything it." "My pay check was late this month." "I sick mother in the East, and have to support her. gave the money to my husband and he forgot t you." "I am saving money for a vacation, and so has to wait." "I have been sick and unable to down and pay." "I voted for the owner of the at election, and I think I'm entitled to a favor."

Added to these are many others. One woma me that, at a spiritualist meeting, a spirit told h to pay the bill — giving no reason. She was ca out orders!

Some stalls are sincere; others aren't. The enced collector becomes expert in instantly sizing excuse. What should the creditor do when he the customer is lying?

Almost never should he reveal his knowledge pose" the petty deceit.

Usually, I act just as though I believed every s the stalling customer is uttering. If only a minor was involved, and I feel there is no danger in the tion, I let the customer "get away" with the st concede.

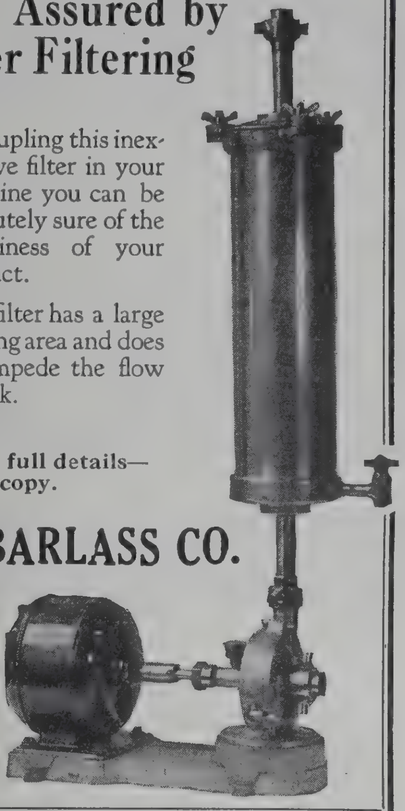
At the same time, however, I arrive at a defin derstanding as to when the customer will pay. T the main thing—getting the money in a pleasant m

Of course, in a case of stall after stall, there is n but firmness to exercise. Sick uncle or not, the co must emphasize the imperative nature of the obli He won't reveal, usually, the fact he knows the is just that—not a legitimate fact and reason.

To most stalls be an appreciative listener— time figuring skillfully just how and when you wil your collection.

CLEAN MILK

Is Only Assured by Proper Filtering



By coupling this inexpensive filter in your milk line you can be absolutely sure of the cleanliness of your product.

This filter has a large filtering area and does not impede the flow of milk.

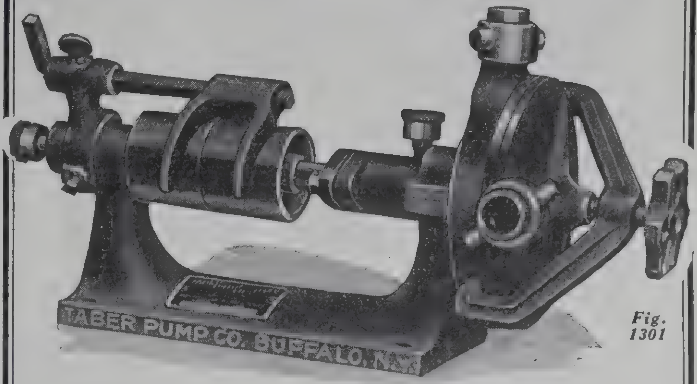
The hicago ilter

Our circular shows full details—send for a copy.

RTHUR T. BARLASS CO.

32 W. AUSTIN AVENUE
CHICAGO, ILL.

5 BIG FEATURES and a LOWER PRICE



Belt driven single suction Taber Centrifugal Milk Pump equipped with tight and loose pulleys and belt shifter.

THAT new milk pump you have been thinking of installing—can be bought now at a lower price.

We offer very favorable prices on Quality Taber Milk Pumps. Non-foaming, sanitary, open impeller type, easy to clean. Bronze construction, completely tinned. Tell us what you want the pump to do and we will send complete information.

Write for Bulletin 23C Now!

TABER PUMP CO. - BUFFALO, N.Y.
BUILDERS OF REGULAR AND SPECIAL PUMPS - SINCE 1859

HUNDING DAIRY COMPANY
HUNDING'S BEST MILK

SILENT WAGONS

These new Guedelhoefer low down milk wagons have

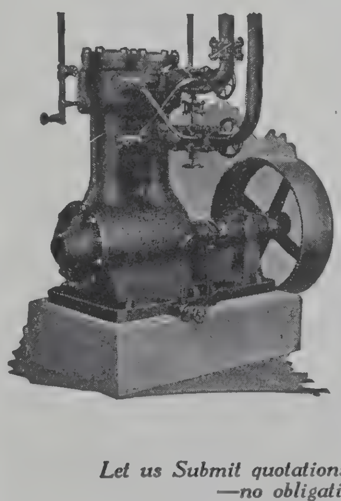
Timken Bearings and Rubber Tires
That Outlast Steel!

They handle large loads conveniently, silently and with extremely light draft for the horse.

Let us tell you more about these wagons and their cost.

ohn Guedelhoefer Wagon Co., Inc.
2-220 Kentucky Ave. INDIANAPOLIS, IND.

Vilter Enclosed Type Ammonia Compressor



An ideal ice machine for the moderate size plant. Modern in design, made of high grade materials and thoroughly inspected and tested. Let us send a copy of our Bulletin No. 29R to you. It tells of the force feed lubrication to the piston pins, the easily operated Vilter plate valves, the oil sealed stuffing box and gives other information of value.

Let us Submit quotations on your requirements—no obligations to you.

The
Vilter Manufacturing Company
ESTABLISHED 1867
875 Clinton Street Milwaukee, Wis.

WHO IS DRIVING YOUR MOTOR TRUCKS?

(Continued from page 28)

ceeding to the garage the truck struck and killed a pedestrian.

In this case, in holding the motor truck owner **not** liable it is important to observe that the court said:

"It will thus be seen that there is absolutely no evidence of any authority given to the chauffeur to depart from his assigned route to the garage from the store with his empty truck, for the purpose of taking a friend a mile to the north. Whatever argument might be given as to his authority to take fellow employees on his truck....there is no evidence which can be possibly held to authorize his departure from his route to take such employees to their homes far away from his path of duty. The taking aboard his truck and conveying to his home of another employee, under the circumstances shown here, must be held to constitute an abandonment of the employer's business and an engagement on a private and unauthorized undertaking of his own. For the results following such an undertaking the defendant (owner) is **not** liable."

In another case, Tyler vs. Stephans, (174 S. W. 790), the court explained the circumstances, in holding a motor vehicle owner **not** liable for damages, and said:

"Beyond the scope of his employment, a servant is as much a stranger to his master as a third person. In every such case the proper inquiry is, Was the servant engaged in serving his master? If the act be done while the servant is at liberty from the service and pursuing **his own needs exclusively, the master is not responsible.** * * In this case the uncontradicted proof shows that the chauffeur....had performed all the service that he was then required or expected to perform. * * Instead of following directions....and returning to the garage, he took the machine and set out on a journey that had no connection whatever with his master's business. * * The facts show that the chauffeur had no authority, either express or implied, and the trip was not taken for the purpose of furthering the business of the defendant (owner)."

In Cohen vs. City of New York, 213 N. Y. S. 710, decided within the past few weeks, it was disclosed that the owner of a vehicle was held **not** liable, because it was proved that a pedestrian was killed while the driver of the vehicle was in the act of driving more than 30 blocks out of the direct route to the garage, after being instructed to go directly there.

In still another case of Slowacky vs. Sheffield Farms Co., 134 Atl. 674, the Supreme Court of New Jersey handed down a decision in which a vehicle owner was held not liable for the death of a boy who was hire helper by the chauffeur against the orders of the

The facts of this case are that the driver was ex ly forbidden to hire anyone to help him in the disc of his duties, and, in addition, notices to that effec conspicuously posted at the place where the d called for their trucks.

The lower court rendered a verdict against the for $6,000 damages, but the higher court reverse decision and said:

"We are confronted with the unchallenged sit that the driver's act in that regard was unauth and in defiance of express orders of defendant (o not to engage in such practice, and, furthermore the defendant was unaware of the practice in dis ence of its express orders....An equal bar to rec is the undisputed fact that the plaintiff's decedent was running for the truck and was aware that i not slackening its speed but was going fast....nev less, he made the attempt to board it and succee obtaining a momentary foothold, when he either s or fell off through the ordinary movements o vehicle."

Thus it is evident that the owner of a vehicle liable in damages effected while a driver is acting a instructions.

On the other hand, the deviation from the instru must be material, or the employer is liable.

For instance, in the recent case, Fleischmann C Home, 280 S. W. 496, after the driver of a motor had completed a delivery....instead of going di to his employer's place of business, he deviated o block to go by his father's home to get some mone

While making this slight deviation he struck seriously injured a pedestrian.

The court held the employer liable for $1,610 ages, and said:

"It is the contention of the company that Sc (chauffeur) had abandoned the employment of the pany at the time of the accident, and was engaged trip entirely for his own benefit, and....says.... where the servant is engaged on business of his and is acting wholly outside of the scope of his em ment and on no business of his master, the master i responsible for the torts of the servant....There distinction in legal effect between a deviation an abandonment in these cases. If the chauffeur in t stant case had merely deviated from the most course, but had not **wholly** abandoned the business master, the master **is** liable. The question, therefor Did the chauffeur abandon the service of the mast merely deviate from it? The generally accepted as expressed in the many opinions of courts throu the country, makes the master liable for injuries inf by the chauffeur, where the departure from the ma business was but temporary, amounting to no more a deviation....The chauffeur in this case was m returning....by a route a block or two longer tha necessary, but he was on the way to the place o business of his master in pursuance of his dutie Under the facts and circumstances of this case, it w seem clear that the driver of the truck had merely ated from the direct course which would have led back to the place of business of his master to take a more circuitous route to the same place, but that i ing so he did not completely abandon, even for a mo the service of his master, and, not having done s acts were the acts of his master, and his master is for the injury."

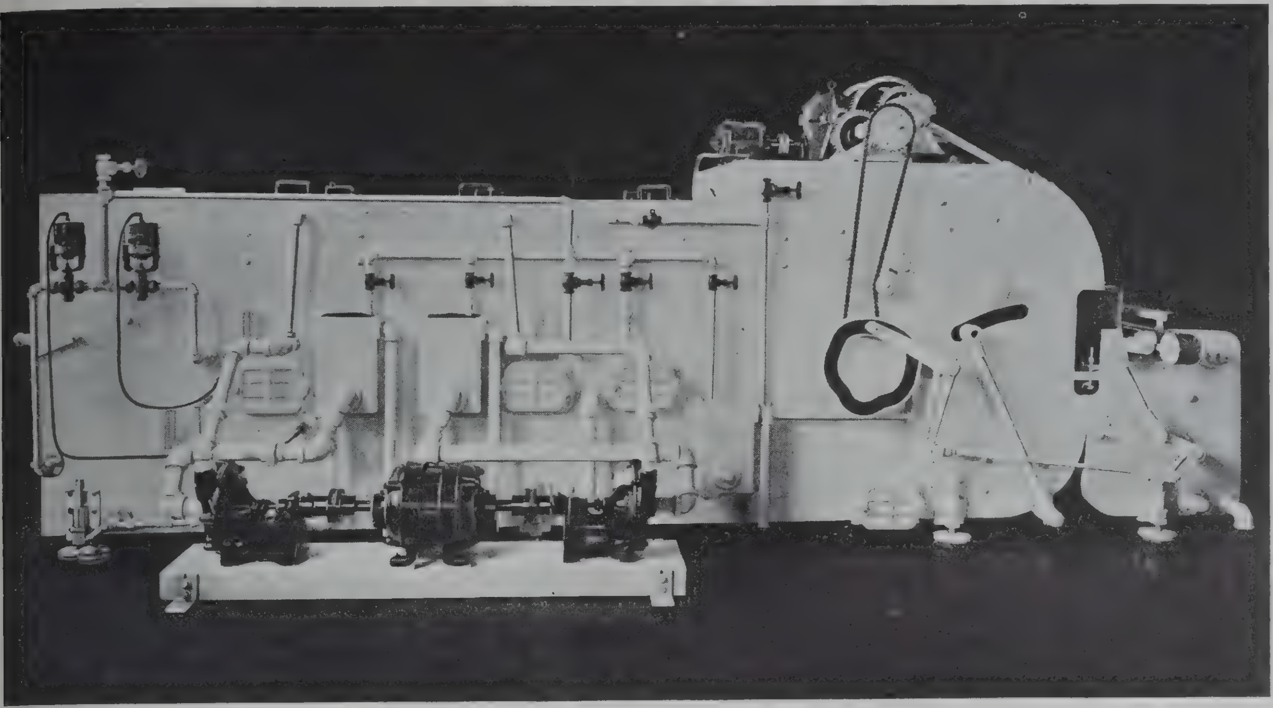
Keeping Up the Quality of Milk Products

is very much a matter of keeping down the bacteria that cause Sour Milk, Ropy Milk, Low Score Butter, Odors, Mold, Stinky Cheese, etc. For surest and most successful control of bacteria—

Use B-K in Your Plant

B-K Bacili-Kil

RECOMMEND TO DAIRYMEN
Write for Bulletins
General Laboratories
Dept. 13B MADISON, WIS.



These Savings Are Yours

with the LADEWIG-SOELCH SUPER-EIGHT BOTTLE WASHER

Saving No. 1

Simplicity is the keynote of this remarkable machine. Fewer parts in the general assembly and a great many less moving parts almost eliminate mechanical attention and any possibilities for replacements.

Saving No. 2

The entire machine is compactly built. It requires about one-third less floor space than any other machine of equal capacity. It saves floor space for small milk plants as well as the larger ones.

Saving No. 3

The hydraulic principle of washing is employed. The bottles are first pre-rinsed, then soaked by complete submersion and then pressure-washed inside and outside at the same time. No bottles need ever be sent through the washer the second time because of faulty washing.

Saving No. 4

This Ladewig-Soelch Super-Eight is a one-man machine. The clean bottles come out at the feed-in end. This eliminates one man from the pay roll.

Saving No. 5

Capacity is from 20 to 60 bottles per minute and can be regulated to any filler and capper. The height of the discharge end is the same height as that of the filler. No blocking up is necessary.

Saving No. 6

There are no working parts inside of the machine and every part on the outside is easily within reach. This means a big saving in time and labor. The entire machine is built low down and no ladders or steps are necessary. All moving parts are driven by a ¾ H. P. motor which is a further economy.

Saving No. 7

Perfect temperature control eliminates bottle breakage. This saving over a year's time represents a worth-while profit. No adjustments for various sizes of bottles are necessary. Half pints, pints and quarts can be run through together.

Saving No. 8

The Super-Eight sells for considerably less than other washers of equal capacity. Quality in materials and efficiency in design has been maintained throughout the entire machine, yet the first cost of a Super-Eight represents an important saving.

The A. H. ARNOLD & CO., 718 W. Randolph Street, Chicago, Illinois

When writing to A. H. ARNOLD & CO. *please mention The Milk Dealer.*

Attendance Records Fall at Jackson Meetin

Michigan Allied Dairy Association's State Convention Goes Over Beyond Expectations
Banner Meeting Held In Jackson, Michigan, On February 7 to 11 Inclusive

JACKSON, MICHIGAN, during the week beginning February 7th, extended hospitality to the Michigan Allied Dairy Association when it opened its forty-third annual convention and exhibit in the Administration Building at the Jackson fair grounds.

The convention continued for four days and brought to the city representatives of seven affiliated groups, as well as exhibits of numerous dairy products and of all kinds of machinery used in the milk industry.

The city of Jackson proved to be a royal entertainer, and a very cordial invitation was extended the association to make Jackson the permanent location of its show and convention.

Delegates to the convention were sincerely welcomed by Lewis Atherton, secretary of the Employer's Association of Jackson, and he spoke in behalf of the Chamber of Commerce. Mr. Atherton said he took great pleasure in welcoming the association to Jackson, and remarked that, judged by the good fellowship displayed, the delegates seemed to be glad to be in Jackson. He expressed his belief that such conventions are of great benefit to those in attendance as they assisted in advertising the communities from which they come.

Martin Seidel of Bay City, Mich., president of the association, made the response. He took occasion to thank the Chamber of Commerce for its co-operation in bringing the convention to the city and in working out in detail plans for the exhibit. He made especial mention of the work done by Bert Reed of the Fleming Ice Cream Company of Jackson, and president of the Michigan Association of Ice Cream Manufacturers.

Mr. Seidel emphasized the excellent accommodations provided by Jackson, saying the organization has never before had such a large and convenient exhibit hall placed at its service and he expressed the association's sincere gratefulness for this feature.

A fine display of exhibits brought to the hall during the week a larger attendance of dairy people from the state of Michigan than any previous convention of its kind has every brought. Up to Wednesday night, the attendance equalled the highest attendance ever produced at any other show in Michigan held by this association, and Thursday's and Friday's number of visitors registered brought the attendance mark past the highest ever attained. The exhibit hall was open from 8 a. m. until 6 p. m., with the exception of Thursday, when it remained open until 7 p. m.

The annual meeting of the Michigan Association of Ice Cream Manufacturers opened on the afternoon of February 9. Bert Reed of Jackson was again re-elected president; A. E. Williams, Saginaw, vice-president, and Ralph Sullivan, Battle Creek, secretary. The board of directors are: Nelson Dessert and H. A. MacDonald, Detroit; Roy McColgan, Saginaw; John Kelly, Grand Rapids; LeRoy Wilson, Port Huron; V. G. Piper, Kalamazoo; Homer Freeman, Flint, and Hilton Piper of Muskegon.

At the annual meeting of the butter unit, Charles Hack of Saginaw was elected president; Walter Brown, Alma, vice-president; C. H. Parker, Saginaw, treasurer. The following directors were elected: M. Seidel, Bay
City; H. A. Aberill, Ravenna; C. O. Tuttle and
Shedd, Detroit. Director at large, M. Seidel, Bay

The Michigan Allied Dairy Association banquet
held on February 9th, and was attended by a gathe
of 300 people, the banquet hall being crowded bey
capacity, and some could not be seated. A splendid
gram held the attention of the visitors from beginnin
end. The speaker of the evening was W. Russell Gr
advertising expert of Hires' Root Beer Company of
adelphia, and he chose for his subject, "The Rom
in Your Job."

Declaring the economic or business phase to be
most important in human existence today, Mr. G
ably discussed the romance in your job. He stated
there are two ways of looking at your job, one bein
regard it as a bread and butter proposition and the o
to see the romance in it and so achieve success. "
behind your job," the speaker said. "There is rom
in every man's job if he will but look for it. This
of coffee, for instance," the speaker paused and tu
his after-luncheon cup in his hands. "Back of this
of coffee are the people producing the coffee, growi
in Brazil, curing it and shipping it, the crews on b
the vessels bringing it to this country. Visualize
back of your cup of coffee and the drink becomes s
thing more than just a little stimulant."

"This piece of bread," holding a piece of ro
his hands, "was made from wheat flour that was gr
probably in Minneapolis, maybe here in this city.
wheat was grown in billowing fields, mile upon mi
fields in the northwest hard-wheat region. The sho
ing used by the baker, the sugar he employed, all
ingredients of this piece of bread have a romanc
them. The man who has made a success baking
most likely saw the romance back of a crust of bre

In discussing advertising methods and ways
means of building up a successful business, Mr. G
vividly pictured the triangle of business. He stated
the base of the triangle must be the product. Ma
worth while. Know that it is worth boosting. No am
of advertising will bring success to a company or
ness that does not have a real product as the basis o
activities.

Personnel is Important.

He further stated that one arm of the triangl
business is the personnel of the organization. "B
it up. You employers know what it means to have
proper sort of men on your payroll. Make it worth t
while. Seek to instill in them a pride in your busi
On the other side of the triangle I would put ser
Give the best of service to your customers. Let t
know that they are receiving your consideration in e
business deal—one of the biggest things that makes
the success of that little word, 'service.' And so m
are failing in that respect. The employer is failin
serve his employees; the employees fail to serve t
employers; and both are failing to take advantag
the opportunity to serve themselves and the public.

Mr. Green emphasized the fact that too many o
are looking for the soft snaps in the world, and
there is a dangerous doctrine slowly permeating Ame

SANS, Meaning *Without!*

Without

Extra Advertising
Extra Salesmen
Extra Manufacturing Expense
Extra Packaging Expense
Or Better Milk

You can secure a 50 per cent increase in your cottage cheese sales. Learn our method of making *flaky, creamy, low-in-acid* cottage cheese.

The largest and best dairy companies report a 50 per cent increase after learning our method.

Without obligation to you, we will be glad to send full details.

Write us about it TODAY!

Flake Cream Cottage Cheese Co.

601 MILWAUKEE AVE. CHICAGO, ILLS.

ie doctrine that the ideal situation is the situation in ch one does not have to work.

Prof. Reed Speaks.

Prof. O. E. Reed of the Michigan State College also ressed the banquet audience and traced the gradual wth of the industry from its crude beginning to the e of major importance it now holds in the world. declared dairy supply houses had done much to hasten development of the work.

Reminiscences.

E. A. Haven of Bloomington, Mich., president of the ociation 20 years ago, called to mind many amusing dents and stages of dairying which have taken place he progress of the industry during the past 20 years. "History of Early Dairy Association" was enjoyed, especially by many of the old timers present.

Musical Program.

A splendid musical and specialty dance program was dered in between the speakers' time and this, as usual, s enjoyed by all. Bert Reed and his quartet singing e dear old numbers was especially enjoyed. Harry cDonald rendered "On the Road to Mandalay," and usual brought down the house.

The Boosters' Dance.

On Thursday night, the Michigan Dairy Boosters held ir annual dancing party and from 9 to 12, at the ex-it hall, several hundred people thoroughly enjoyed mselves tripping the light fantastic. A corsage bou-et was presented each lady present.

Credit Goes to Leaders.

The credit for this splendid meeting and convention due to the committees for the 1927 convention. The

As Economical As It Is Efficient

HOOVER'S
45
Milking Machine and Dairy
DISINFECTANT
NON-POISONOUS
ACTIVE INGREDIENTS
*Chloramine T 65%
**Inert Ingredients 35%

"Hoover 45's is a highly efficient disinfectant, deodorant and cleansing agent, prepared especially for use in dairies, creameries; ice cream and cheese factories, etc. It is very powerful, yet is *non-poisonous* and is therefore an ideal preparation for flushing out milking machines, washing milk cans, cleansing milk vats, ice cream cans and other equipment of a similar nature. It is *safe to use, thorough in its action, and at the same time very economical.*

One 10-oz. bottle of "Hoover's 45" (it comes to you as a white powder soluble in water) will make 475 gallons of powerful solution that is chemically permanent. Large quantity production enables us to offer very attractive prices.

Let us quote you prices covering your requirements for a disinfectant and cleansing agent of this nature.

The
UNIVERSAL MILKING MACHINE COMPANY
Dept. M **Waukesha, Wis.**

program was carried through without a hitch from start to finish, and was acclaimed by one and all the best and largest Michigan Allied Dairy Association gathering ever held in history. The officers, Martin Seidel, president; Bert Reed, vice-president, and D. W. Shiel, secretary, are to be especially commended for their untiring efforts to make this meeting the success that it was.

The Michigan Dairy Boosters.

On Tuesday, February 8, the first of the branch sessions of the forty-third convention and exhibit of machinery and supplies of the Michigan Allied Dairy Association, was held when the Michigan Dairy Boosters' Association held its annual business meeting and banquet in the Hayes Hotel, Jackson, Mich.

The entertainment program in connection with the feast was a feature of the evening and was in charge of E. G. Weed of Jackson.

C. J. W. Smith, Detroit, for many years connected with the Creamery Package Company, and the secretary and treasurer of the Michigan Dairy Boosters, was presented with a Masonic ring in honor of his faithful fulfillment of that position, by the association Mr. Smith was unable to respond as he was so touched by the sentiment of his fellow club members in this display of appreciation of his services.

The banquet was attended by about 150 boosters.

It was suggested that Jackson be chosen for the next two years as the convention city of the Michigan Association, but an amendment made later changed this to one more year. A further meeting in March will be held to decide definitely upon the location of the 1928 meeting and exhibition.

The new officers are as follows: President, D. W. Shiel, Shiel Mfg. Co., Hillsdale, Mich.; vice-president, J. A. Wise Westerlin & Campbell Co., Detroit; secretary-treasurer, Verne Harris, Berney-Bond Glass Co., Detroit.

The six directors chosen were: Lester Sedine, Barber-Goodhue Co., Muskegon Heights, Mich.; C. J. W. Smith, Creamery Package Co., Detroit, Mich.; Claude Grove, J. W. Ladd Co., Hillsdale, Mich.; Mr. Conklin, J. B. Ford Co., Grand Rapids, Mich.; D. F. Brown, De Laval Separator Co., Columbus; E. G. Weed, Foote & Jenks, Jackson, Mich.

⁂

HOLT UNANIMOUSLY ELECTED PRESIDENT MILK PRODUCERS' ASSOCIATION.

At the annual meeting of the Milk Producers' Association of the entire Chicago district, which includes Kenosha county, held in Chicago, Ill., more than 400 delegates from milk producing districts of Illinois, Wisconsin and Indiana registered.

Frank T. Holt of Kenosha, Wis., was unanimously elected president of the association. W. J. Kittle of Crystal Lake, Ill., was elected as secretary. Other officers elected were: Eugene Wilson, Lake Villa, first vice-president; William F. Buhr, Lake Zurich, second vice-president; Robert Oman, Huntley, treasurer.

President Holt stated that he would start immediately upon a campaign to rebuild the organization to its former influence in the various communities where it is established.

R. B. Swift, a former president of the association and now a state senator in Illinois, and Frank McCarthy of Elgin, also a member of the Illinois legislature, made the chief addresses of the meeting. Both stressed the importance of co-operation.

WASHINGTON — MAINE

Notes From Far and Near

CALIFORNIA — FLORIDA

Renfrew, Ont., Can.—The following officers of the Eas
Ontario Dairymen's Association for the coming year
President, Alex. McGruer, Bruston; first vice-president, J
F. Gibbons, Renfrew; second vice-president, M. W. Sheph
Bradley Creek; treasurer, James R. Anderson, Mountainv
secretary, T. A. Thompson, M. P., Almonte.

Colfax, Wis.—The stockholders of the Colfax Crean
Co. are discussing expanding the present plant.

Longmont, Colo.—Libby, McNeil and Libby of Chic
Ill., are considering the establishment of a milk conden
here, according to representatives of the company.

McRae, Ga.—Dodge County Creamery has been re-ope
and reorganized. It is under the management of Per
and Rawlins.

Ames, Ia.—A new dairy will be erected here soon acc
ing to the unfinished plans of the architects, Proudfoot, R
son & Souers of Des Moines, Ia.

Chicago, Ill.—The Acme Butter Corp. has changed
name to Belmont Products Corp. The address of the c
pany is 189 N. Clark St.

Chicago, Ill.—One of the finest bottling plants in
world will be the Eich Dairy Co.'s new $250,000 hom
3507 Ashland Ave., this city.

Highland, Ill.—The Highland Dairy Farms Co. are
owners of the new milk powdering plant which is soon t
built here.

Kewanee, Ill.—The Richards Dairy Co. are contemp
ing the erection of a new building not to exceed the cos
$35,000.

Lena, Ill.—The Sullivan Milk Company of Chicago
purchased the Lenn Casket and Supply Company build
here and will move their milk receiving station into t
building. The building will be equipped to concentrate m
for tank shipment from Lena.

Wakarusa, Ind.—George Louk has bought the interes
Harvey Detweiler in the Schlosser Creamery here. I
Weldy also has an interest in the creamery.

Camden, N. J.—Supplee-Wills-Jones Milk Co. are plann
extensive alterations in the Eighth and Market Sts. plant,
work has already begun. A large amount of new equipm
will be installed.

Freehold, N. J.—Samuel Davidofsky has just built a la
roomy milk house in the rear of his dwelling on Center S

Newark, N. J.—Dairymen's League, Inc., are planning c
siderable alterations at their newly acquired plant on El
beth Avenue, formerly known as the "Inter-State plant."

Roys Crossing, N. J.—Bellewood Dairy have installed
pasteurizing equipment during the past season.

Trenton, N. J.—Wm. S. Townsend of Collingswood,
has just completed twenty-five years' service as a milk
food inspector for the state health department, was tendere
testimonial dinner by his associates. Frank Yates acted
toastmaster and presented an appropriate gift to Mr. Tow
end on behalf of his fellow inspectors.

Oskaloosa, Kans.—Arrangements are being completed
the installation of equipment at the new Meyer milk stat
here, which will open in March or April.

Midland, Mich.—Plans are in progress for a new c
densery and powder plant to be built here at the cost
$200,000, according to the announcement of Albert Ka
Inc., Detroit architects.

Edina, Minn.—Chris. Hanson, proprietor of the La
Harriet Dairy, announced that he suffered a loss of ab
$10,000, due to fire which destroyed the milk and ice ho
of his plant.

Duluth, Minn.—The officers elected at the annual me
ing of the Duluth Milk Dealers' Association are G. H. Da
president and manager, and J. E. Singleton, secretary.

Shakopee, Minn.—P. W. Hauer recently purchased
Frank Huber place in East Shakopee and will deal in m
and milk products.

Minneapolis, Minn.—The following officers and direct
were elected at the annual meeting of the Franklin Co-ope
tive Creamery Association, this city: H. I. Nordby, pre
dent; C. E. Sherman, vice-president; T. A. Eide, secreta

NAPACANS
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COTTAGE CHEESE

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COTTAGE CHEESE
THE PAGE DAIRY CO.
TOLEDO — OHIO

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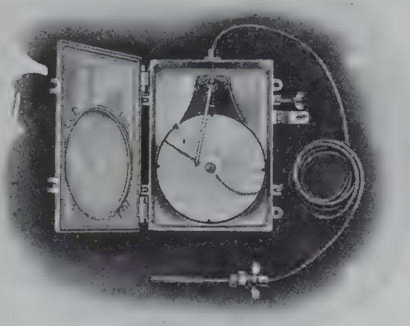


Don't Guess—
at Your Pasteurizing
Temperatures

The quality of your product and its *safe* pasteurization is too important to be guessed at. The only way to be certain and sure that your cream is held for the right length of time at the proper pasteurizing temperature is to use a

Bristol
Dairy
Recording
Thermometer

With this instrument you can tell exactly how long and at what temperature your cream was held for each day. It makes a permanent record for every batch run through. This enables you to keep a close check on pasteurizing. Bristol Recording Thermometers are also made for the hardening room and accurately record the exact temperature at all times. Write for further information.

BRISTOL'S—The most extensive line of recording instruments, including — Pressure, Liquid Level, Temperature, Electricity, Motion, Speed, Humidity, etc. Ask for our catalogs.

The Bristol Company *Waterbury, Connecticut*
FOR 36 YEARS — MAKERS OF
BRISTOL'S RECORDING INSTRUMENTS
Ask Any Technical Engineer

FREE **Booklets**

"Soft Cheese Manufacture"

Tells how to make SWEET COTTAGE CHEESE using
HANSEN'S CHEESE RENNET
as a coagulant and
HANSEN'S LACTIC FERMENT CULTURE
to give the Finest Flavor.
Don't pay high prices for a coagulant with a secret formula.

"Starters and Cultured Milk"

gives directions for making Starters and Commercial Buttermilk.

CHR. HANSEN'S LABORATORY, INC.
Milwaukee, Wis. LITTLE FALLS, N. Y. Toronto, Can.

HANDYCAP
Milk Bottle Opener and Cover

TWO IN ONE
HANDICAP
The Old Way
REVERSE SIDE
The Handy Cap Way
HANDYCAP

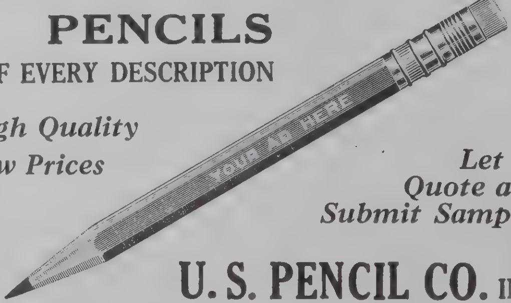
Good Housekeeping has approved the Handycap. It's a real convenience to the housewife and an excellent means of advertising for the milk dealer.

Ask Your Advertising Specialty Dealer to Show You Samples.

THE HANDYCAP CO. *Sales Office* **Irvington, N. J.**

ADVERTISING PENCILS
OF EVERY DESCRIPTION

High Quality
Low Prices



Let Us Quote and Submit Samples

U. S. PENCIL CO. INC.
487 BROADWAY, NEW YORK, N. Y.

MISSOURI DAIRY

ALLOVA Work Suits **3.25 each**
Less, in Quantities

Here's a "he-man" work suit built for long wear and sturdy service—made in attractive colors and *lettered with the individual name or trademark* of Wearer!

Cut big and roomy. Every seam stitched to stay. Pockets reinforced with double thickness of material. All buttons covered. Made in solid blue, solid white, solid khaki; blue and white striped; and blue and khaki striped. Sizes 34 to 56.

Equip your men at these wholesale prices:
12 suits . . . $3.00 each
25 suits . . . 2.88 each
50 suits . . . 2.75 each

Sizes 46, to 56 are ten per cent in addition.

We embroider names or trademarks in fast colors for 25 cents per garment. Choice of red, blue, black, white, green, etc. Our factories are equipped to give 24 to 72 hour delivery on this work.

ORDER FROM YOUR JOBBER

Motor Suit Mfg. Co., Dept. 287
701 Central St. Kansas City, Mo. **327 So. Market Chicago, Ill.** **107 No. Austin Dallas, Tex.**

and Carl N. Norlander, treasurer; directors, Joseph Flor, E. Sherman and T. A. Eide.

Tupelo, Miss.—The Carnation Milk Products Co. are m ing arrangements for the establishment of a branch plant this city.

Columbia, Mo.—The Centray Dairy Co. have let a c tract for the erection of a dairy building to cost $25,000, t city. The building will be a two story one, 50x120, and v be constructed of tile and terra cotta.

Kansas City, Mo.—The Sweet Springs Dairy Co. has be incorporated here with a capital of $4,000. The incorpo tors are Frank H. Sweet and others.

Neosho, Mo.—Architects are drawing plans for the er tion of a milk condensing plant to cost $500,000, this ci The owner is the Pet Milk Co., according to the announ ment by Adolph Meyer, secretary of the concern.

Springfield, Mo.—Caldwell & Son., architects, are dra ing the final plans for the new creamery which is to be bu here by J. T. Woodruff. The new building will be of br and reinforced concrete and will be erected at the cost $100,000.

Elgin, Neb.—The Western Produce Co. of Neligh, opened a new plant here, with Frank Benner of Elgin manager.

Hastings, Neb.—Manager H. S. Abbott announces t the Blue Valley Creamery Co. has just completed the instal tion of new equipment at the plant worth approximat $8,000. New vats with nickel lining for holding cream ha been put in to replace the old vats of copper tin. The of also will be remodeled to accommodate the large volume business.

Brooklyn, N. Y.—The W. M. Evans Dairy Co. and Cliston Corporation here have consolidated.

Brooklyn, N. Y.—A new dairy corporation under name of Brudno Brothers, was incorporated here with capital of $10,000.

Fort Plain, N. Y.—N. A. Van Son has sold the Van Dairy to the Queensboro Dairy Company, Inc., which co pany took possession of the plant on January 26.

Glen Falls, N. Y.—Plans are being finished for the er tion of a dairy building by the Adirondack Dairy Co. wh is to cost about $60,000. The new plant will be built on corner of Ridge and Sanford.

Madrid, N. Y.—The Alpha Milk Corporation has been corporated here with a capital of 5,000 shares of comn stock, with no par value. The incorporators are W. E. G fith, W. M. Talcott and L. H. Handlin.

Manhattan, N. Y.—The Rosedale Dairy Co. has been corporated here with a capital of $25,000.

New York, N. Y.—The Empire State Milk Products Co with a capital of 1,000 shares at $100 each, and 4,000 sha of common stock with no par value.

Oriskany Falls, N. Y.—The Oriskany Falls Milk & Cre Co. has been incorporated here with a capital of $10,000. L. Green, F. J. Jetten and J. A. Kalk are the incorporat

Kenton, O.—Harold Eddy of this city has purchased business of the Paul R. Andrews Dairy and will continue run the business under the present name for the time bei

Oxford, O.—The milk condensing equipment of the Sh Condensing Company is on the market for sale. The c pany has discontinued its milk business.

Portsmouth, O.—The new plant which the Leichner Jordan Co., 1641-45 Tenth St., this city, is building, is pected to be finished some time in March. The company sell milk, manufacture cottage cheese and ice cream in t new plant. The officers of the company are Albert F. Lei ner, president; H. Glenn Duis, secretary, and John W. Snyd treasurer.

Wellington, O.—The following officers of the Welling Local of the Ohio Farmers' Milk Co-operative Associat were elected at the annual meeting of the association: Rowland, president; Lee Johnson, secretary-treasurer; Jo Barbor, vice-president, and Charles Murray, councilman.

Bethlehem, Pa.—The school board has instituted a p whereby milk will be given to school children during sch hours. If the plan proves successful at the Stevens Sch Fountain Hill, the plan will be extended to other schools the borough.

Liberty, Pa.—The Dawn Dairy Company has been inc porated here with a capital of $5,000.

Philadelphia, Pa.—The milk department of the Bre Ice Cream Co. has been taken overy by Supplee-Wills-Jo Milk Co.

Philadelphia, Pa.—The directors of the Kelly-Lester M Co., this city, have voted to consolidate Burdan Bros., I Colonial Ice Cream Co. and their company. A special me ing will be held soon to obtain the consent of the sto holders.

Fayetteville, Tenn.—Work on the new $500,000 pl being constructed here by the Borden Milk Condensing has been begun.

luenster, Tex.—The Farm Labor Union are completing ngements for the erection of a $12,000 milk cooling sta- and storage plant here. The plant will have a capacity aring for 1,000 gallons of milk daily.

helbyville, Tenn.—The Borden Milk Co. will take over local creamery on May 1. A great many improvements to be made in the way of enlarging the creamery and machinery is to be installed.

orsicana, Tex.—A new company has been incorporated which is known as the Pasteurizing Milk and Creamery The incorporators are R. I. Williams and H. F. Hood.

arland, Tex.—A new creamery is to be erected here by Southern Products Co., Inc., of Dallas, in which they will t a branch plant in this city, according to the announce- t by H. C. Vandervort, district manager. The new fac- will be a modern, up-to-date one and is expected to cost 000.

ierre, S. D.—Articles of incorporation were filed with secretary of state today for Beresford Creamery Co., with pital stock of $50,000.

arron, Wis.—The whole sweet milk department of the on Co-operative Creamery, built at a cost of $30,000, opened on February 1.

alesville, Wis.—A plant is being erected here for the ufacture of buttermilk, according to announcement by Hyter.

THE SUPPLY HOUSE.

What house do you patronize when purchasing your plies?

Do you buy from wholesale drug, paper and hardware ses as well as from your dairy supply house?

Have you ever stopped to consider the advantages to in confining your patronage to the recognized dairy ply house? Probably not, for it has not been brought our attention in the right way.

The established dairy supply house is just as much a t of the dairy industry as you are. The recognized se is lending its support to **your** industry, and its rests are as closely allied with the industry as are rs. The dairy supply house is supporting your asso- ion and is keenly interested in its activities, for your ess means success in just the same proportion to the ry supply house with whom you are doing business.

When you buy from the drug, paper or wholesale dware house your money is going outside the dairy ustry. Those houses have no interest, aside from ting your order, in you, your association or the indus- as a whole. They will not support your association, ier financially or morally, for it means nothing to m—their interests are essentially bound up in the in- try with which they are associated.

Isn't it logical and fair that you should confine your ply purchases to the recognized dairy supply house, ich institution is interested in what you are doing and lerstands your problems? We believe it is.—Cherry cle.

ILK DEALERS TO CELEBRATE BIRTHDAY.

The next convention of the International Association Milk Dealers will be held in Columbus, Ohio, on Octo- 19, 20, 21, 22, 1927.

The Neil House will be convention headquarters.

The coming convention will be in the nature of a thday Party, the event marking the 20th birthday of International Association of Milk Dealers.

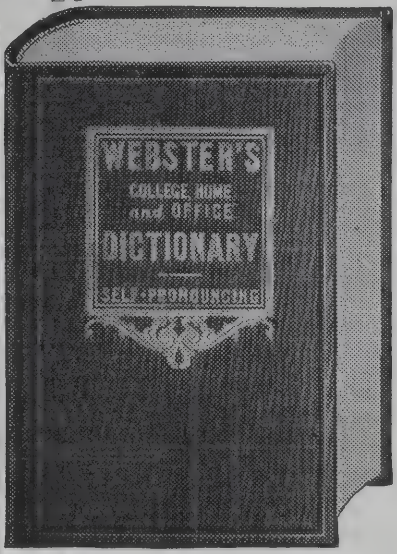
That means a specially prepared program and the t attendance in the history of the association.

FRED WEHMILLER DEAD.

Just as we go to press with the last pages of this gazine news comes of the death of Fred Wehmiller, sident of the Barry-Wehmiller Machinery Company, Louis.

A Large, Up-to-date

Dictionary



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Sent postpaid anywhere on receipt of remittance.

Over 1000 pages

Hundreds of Illustrations.

Illustrates latest Radio Hook-ups and defines Radio Terms.

These alone are worth the price of this book.

Gives clear definitions to thousands of words.

Shows how to correctly divide words into syllables.

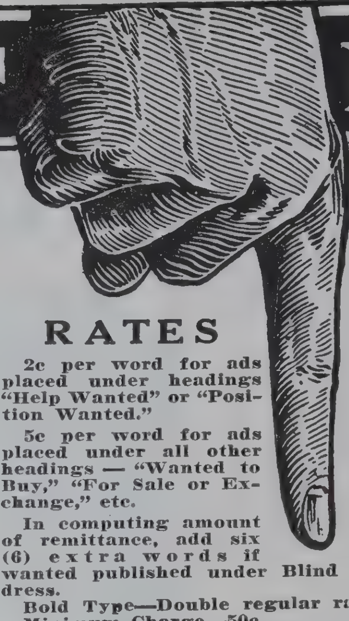
Tells how to correctly pronounce the thousands of words in these 1000 pages.

Send for a copy TODAY!

The Olsen Publishing Co.

501-15 Cherry Street Milwaukee, Wis.

WANT DEPARTMENT



HELP WANTED
(Rate: 2c per word)

SALESMAN WANTED—An unusual opportunity awaits an experienced salesman who is thoroughly familiar with the dairy industry. We want a salesman with proven ability to introduce our products to the dairy trade. Our products are backed by our large national organization, which has a world-wide reputation. Reply with full details. All replies will be treated confidentially. Address: D-6, The Milk Dealer. 2-27

HELP WANTED—An experienced manager for retail milk department of large ice cream plant. Must have $15,000 to invest. Address: D-94, The Milk Dealer. 2-27

WANTED

Sales Director of proven ability for old established Company with national distribution. Applicant must have executive qualifications and experience in, and wide acquaintance with the Dairy trade.

Address: D-80

The Milk Dealer

HELP WANTED—Experienced production manager for retail milk business who knows commercial buttermilk and cottage cheese. Can secure good position if he can take $10,000 in stock. Address: D-96, The Milk Dealer. 2-27

WANTED—Peppy roadman by creamery in territory where competition is very keen. Must be able to buy raw material and sell finished product. Recommendations necessary. State salary. Address: D-87, The Milk Dealer. 2-27

HELP WANTED—Salesman calling on dairies to sell our bottle crate on commission. Liberal proposition. American Box and Crate Co., Louisville, Ky. 2-27tf

WANTED—Real opportunity for high class man familiar with Midwestern dairy trade. Give experience, age and photo in first letter. Address: D-64, The Milk Dealer. 2-27

POSITION WANTED
(Rate: 2c per word)

POSITION WANTED—As field manager or plant superintendent, Twelve years experience, three years in agricultural college, just before the war. Experience includes work as bacteriologist and plant inspector, certified milk dairyman, plant superintendent, and plant manager. In present position six years, as manager of co-operative plant. Understand the market milk business thoroughly, and have had considerable experience with butter and buttermilk. Prefer charge of production with a larger company. Can give excellent references. What have you to offer. Address: D-52, The Milk Dealer. 2-27

RATES

2c per word for ads placed under headings "Help Wanted" or "Position Wanted."

5c per word for ads placed under all other headings — "Wanted to Buy," "For Sale or Exchange," etc.

In computing amount of remittance, add six (6) extra words if wanted published under Blind Address.

Bold Type—Double regular rates.

Minimum Charge—50c.

Blind Address — EXTRA — 25c in U. S. only; 65c Foreign — To cover postage in sending out replies from this office.

REMITTANCE MUST ACCOMPANY ORDER.

IT PAYS TO ADVERTISE

NOTE: Names and addresses of advertisers using blind addresses cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of this paper.

NOTICE

The publisher disclaims any responsibility for the reliability of parties advertising in the Want Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting suspicious dealings.

We reserve the right to refuse to accept advertisements which we believe are detrimental to the dairy industries.

Want Ads are accepted up to 7th of month preceding date of issue. Forms close on that date.

POSITION WANTED—By a dairy man. Five years experience at pasteurizing milk, making soft cheese, butter and commercial buttermilk, also development of culture. At present employed, getting $45 a week, worth more. Jersey state preferred. Address: D-100, The Milk Dealer. 2-27

POSITION WANTED — By milk plant manager, college graduate, 37 years old, married, with life-time experience in the dairy industry. In present position almost four years. Can handle men and get results. Nothing but good position considered. Address: D-79, The Milk Dealer. 2-27

POSITION WANTED—As sales manager of drivers on milk dairy or manager of small milk plant, by married man, 30 years of age with six years experience in building routes and training drivers to produce. In answer give size of dairy and amount of routes. Address: D-49, The Milk Dealer. 2-27

POSITION WANTED—As superintendent of milk plant. Over 20 years practical experience, also technical training in sanitation and operating to produce low count milk. Can guarantee economical operation. Have a first hand knowledge of every part of the business, from the weigh can to the finished product, bottled milk, butter, cultured buttermilk and cottage cheese. Can handle men to get most economical results. Address: D-81, The Milk Dealer. 2-27

POSITION WANTED—In milk sales department with firm wishing to grow. Will go anywhere. Experienced both as business and sales manager, also educational worker. Address Louise Maier, 1205 Belknap, Superior, Wis. 2-27

To give up one job before you have another is poor business. Advertise under a blind address in The Milk Dealer want ad columns; somebody may be looking for a man just like you.

FOR SALE or EXCHANG
(Rate: 5c per word)

BUSINESSES

**FOR SALE—Milk receiving and ship
plant in northern Illinois, on direct
road line, 110 miles from Chicago.
tested territory, good location, prop
excellent condition. Cheap for cash.
dress: D-704, The Milk Dealer.**

FOR SALE—Half interest in comb
tion milk and ice cream plant of dece
partner. Will require $35,000. Locate
Illinois. Good proposition to right pa
Address: D-90, The Milk Dealer.

FOR SALE—Combination ice cream
milk plant in most progressive city in
Middle West. Fully equipped and
established. Owner retiring. Will s
closest investigation. Address: D-91,
Milk Dealer.

FOR SALE—Completely equipped d
in fast growing, prosperous, healt
city in N. E. Penna. Population of
and nearby towns, 75,000. Milk cost
—sells for 14c retail, 12c wholesale.
ness on present basis net approxima
$12,000 annually. With some effort
ness of 2,500 quarts daily output ca
doubled and net gain increased pro
tionately. Present owner very succe
stock market operator desiring additi
capital for stock market operations.
dress: D-67, The Milk Dealer.

MACHINERY AND SUPPLIES

**FOR SALE — Refrigeration Machin
Used**—We have several used and new
chines of nationally known make, w
we can sell at a big saving to you.
erect and guarantee the plants fully.
dress: Erecting Engineers Company.
West Lake St., Chicago, Ill. 2

FOR SALE — 90-lb. Challenge b
printer and boxes; set York double
ammonia condensers, ten pipes high,
feet long; 100-gal. viscolizer; 150
Cherry pasteurizer; Elliott addres
machine. Harper Creamery Co., Ha
Kans.

FOR SALE—One C. P. Liberty ver
pasteurizer No. 4, direct connected
5-h.p. motor, 120 volt, 3 phase, 12,000
per hour capacity. In A-1 condition.
less than 3 months. Cedarburg Dairy
495 13th St., Milwaukee, Wis.

FOR SALE—One C. P. continuous
concentrator, 3x4, capacity 4,000 lbs.
hour, concentrates at ratio 3 to 1.
chine just overhauled, guaranteed
as new. Will furnish man to install
teach how to operate. Cedarburg
Co., 495 13th St., Milwaukee, Wis.

FOR SALE.

One B. & W. double surface milk he
used 4 months, in good shape.
One No. 34 De Laval separator us
months, in No. 1 condition.
One 50-gal. Junior viscolizer, used
months, good as new.
This machinery was all bought ne
viscolize milk but as I have stopped
colizing I have no further use for
For price and particulars, write
Carver, 131 So. Chestnut St., Boyert
Pa.

FOR SALE—De Laval clarifier No.
capacity 8,000 pounds per hour,
driven, perfect condition. Insuffi
capacity for our use. Ready for ship
Levengoods' Dairies, Pottstown, Pa.

FOR SALE—One 5-h.p. Lookout ve
boiler, good as new. Used about 60
$100.00. American Box and Crate
Louisville, Ky. 2

NTED TO BUY
(Rate: 5c per word)

WANTED TO BUY—Second hand tu
cooler, capacity from 5,000 to 8,000 lbs
hour. Wisconsin Milk Products Co.,
Mills, Wis.

WANTED TO BUY—Two 300-gal.
teurizers; 15-ton ice machine and
side. Harper Creamery Co., Harper,

**WANTED—Quotations on four per
milk, 36 per cent skim and 40 per
cream, f. o. b. Jacksonville, from
culin free territory. Carload lots.
have highest quality product sho
good color and cream line. Wire. D
881, Miami, Florida.**

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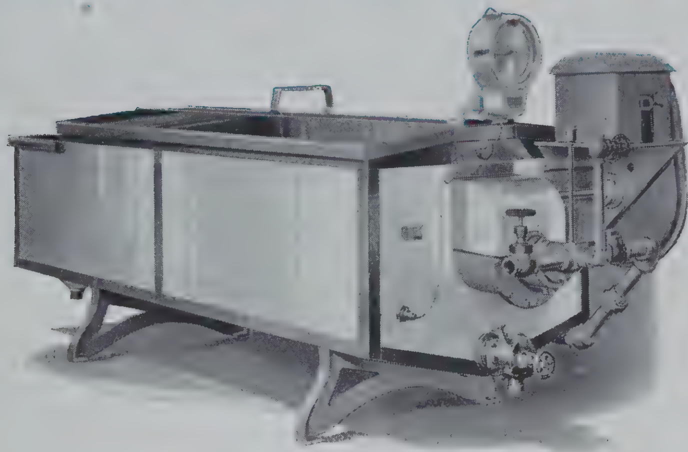
The Standard System of Pasteurizing Milk

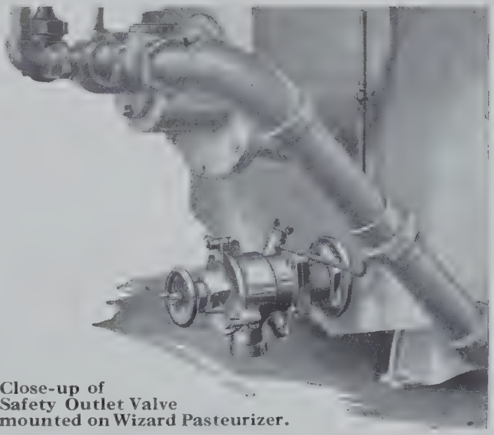


We use the word "standard" in its dictionary meaning. Its value is fixed and certain. A census of the milk pasteurizing plants would doubtless show more of them using coil vat pasteurizers than any other system. There must be a good reason. There is. Coil vats fit the requirements of the growing business. It is a simple, flexible, efficient system.

The Wizard Pasteurizer is a standardized machine. It is kept up-to-date. Recent improvements meet the newer requirements squarely. The Wizard Safety Outlet Valve — a flush valve with leak detector and automatic sterilization — guarantees that no unpasteurized milk gets into the bottles.

Any standard Wizard, new or old, can be fitted with this new outlet valve at small expense. It is an example of the fact that an investment in Wizards is safe.

A new bulletin No. 1144 describes the Wizard and the Safety Outlet Valve. Send for a copy.



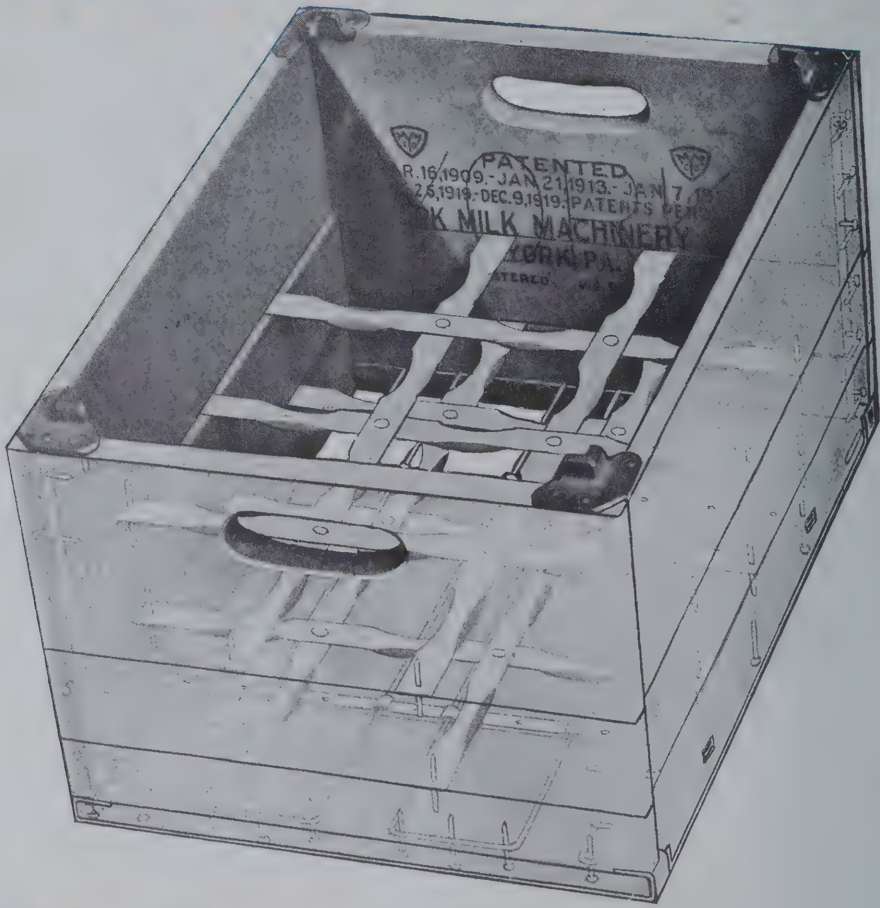
Close-up of Safety Outlet Valve mounted on Wizard Pasteurizer.

THE CREAMERY PACKAGE MFG. COMPANY

SALES BRANCH OFFICES (Write Nearest One)

Atlanta, Ga.,	58-68 Nelson St.
Boston, Mass.,	138 Washington St. N.
Buffalo, N. Y.,	14-16 Ellicott St.
Chicago Ill.,	1243 W. Washington Blvd.
Denver, Colo.,	1649 Blake St.
Jersey City, N. J.,	122 Morgan St.
Kansas City, Mo.,	1408 W. 12th St.
Los Angeles, Cal.,	2461 Porter St.
Minneapolis, Minn.,	318 Third St. N.
Omaha, Nebr.,	113 S. Tenth St.
Philadelphia, Pa.,	1907 Market St.
Portland, Ore.,	6-8 N. Front St.
San Francisco, Cal.,	699 Battery St.
St. Louis, Mo.,	508 N. Second St.
Toledo, Ohio,	119 St. Clair St.
Waterloo, Ia.,	406 Sycamore St.

York Crates


PATENTED
R.16,1909.-JAN 21,1913.-JAN 7,1
25,1919.-DEC.9,1919.PATENTS PEN
K MILK MACHINERY
YORK,PA.

Save Bottles---

¶ More money is wasted through bottle breakage than is saved by buying cheaper crates. ¶ YORK CRATES are fitted with metal strips to protect the bottoms, and corners are double nailed thru zinc angles. ¶ The flanged cross bars inside the crates are riveted together. ¶ There is no chance for any support to break or bend. ¶ We welcome comparative tests with YORK CRATES on bottle breakage, durability or any other point.

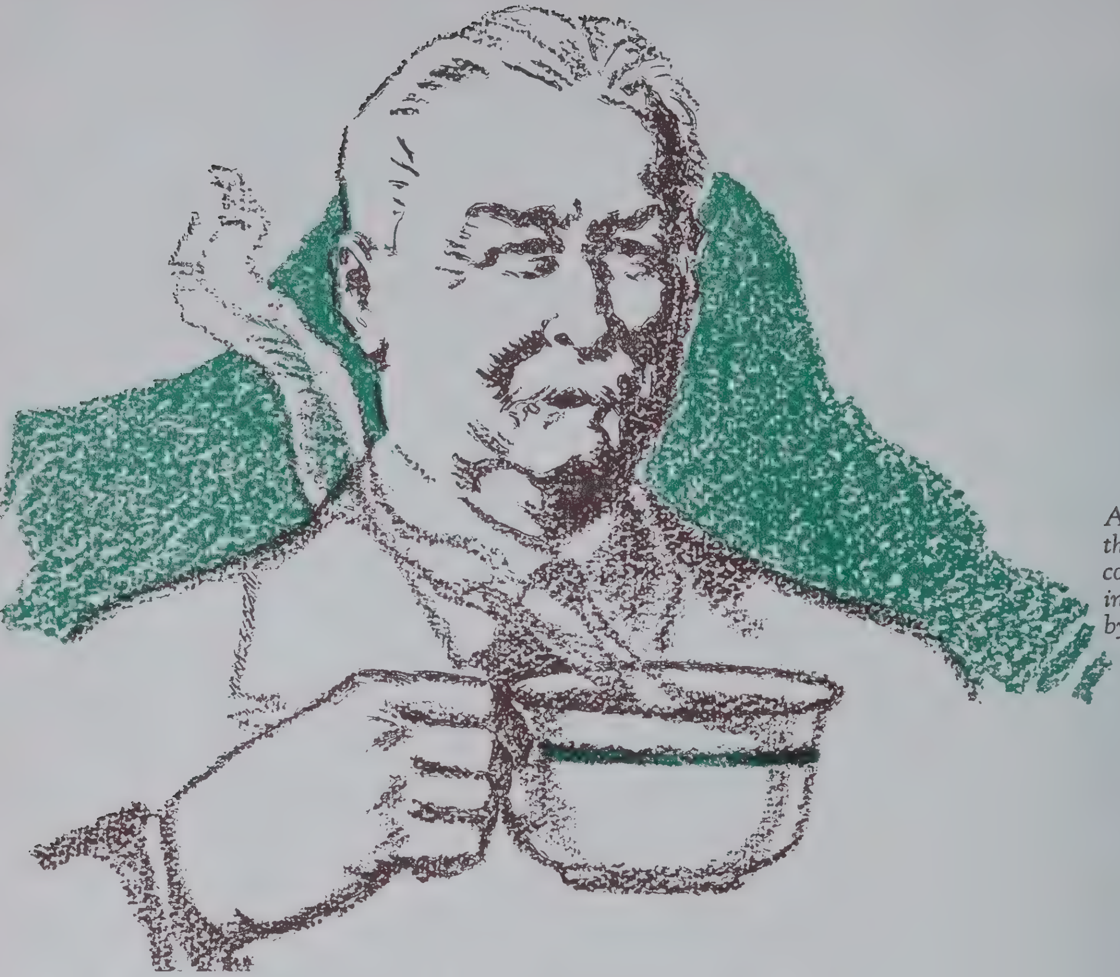
For further information or prices, write

YORK MILK MACHINERY CO.
Manufacturers of Milk Handling Equipment
York, Penna.

THE MILK DEALER

Degerma·VOLLMILCH VORZUGS BUTTERMILCH
TRINKT
CREFELDER MILCHHOF G.M.B.H.

Volume 16 March, 1927 Number, 6



A new milk drink with the invigorating tang of coffee; zippy and refreshing; wholesome and liked by everybody.

A New Milk Drink to Boost Your Sale

Every day will bring you dozens of new customers for COFFEE-MILK in offices, shops, stores and homes.

HERE is one of the finest business-boosters ever offered to Milk Dealers—COFFEE-MILK, the tasty new milk drink. Everybody likes coffee. That's why Coffee-Milk, with the true tang of coffee, made by mixing Arabian Brand Coffee Syrup with milk. Please your old customers and add new ones with Coffee-Milk.

Made from full flavored, fresh roasted coffee, highly concentrated in syrup form. Easy to mix with milk; no equipment necessary. Never settles at bottom of bottle; no sediment. Write for prices and sample.

D. ABELSEN & SON, - - Providence, R. I.

Central States Representative: M. C. DRESHFIELD, 405 East Main St., Kalamazoo, Mich.

To insure prompt reply when writing for samples or information, address direct to factory.

ARABIAN BRAND

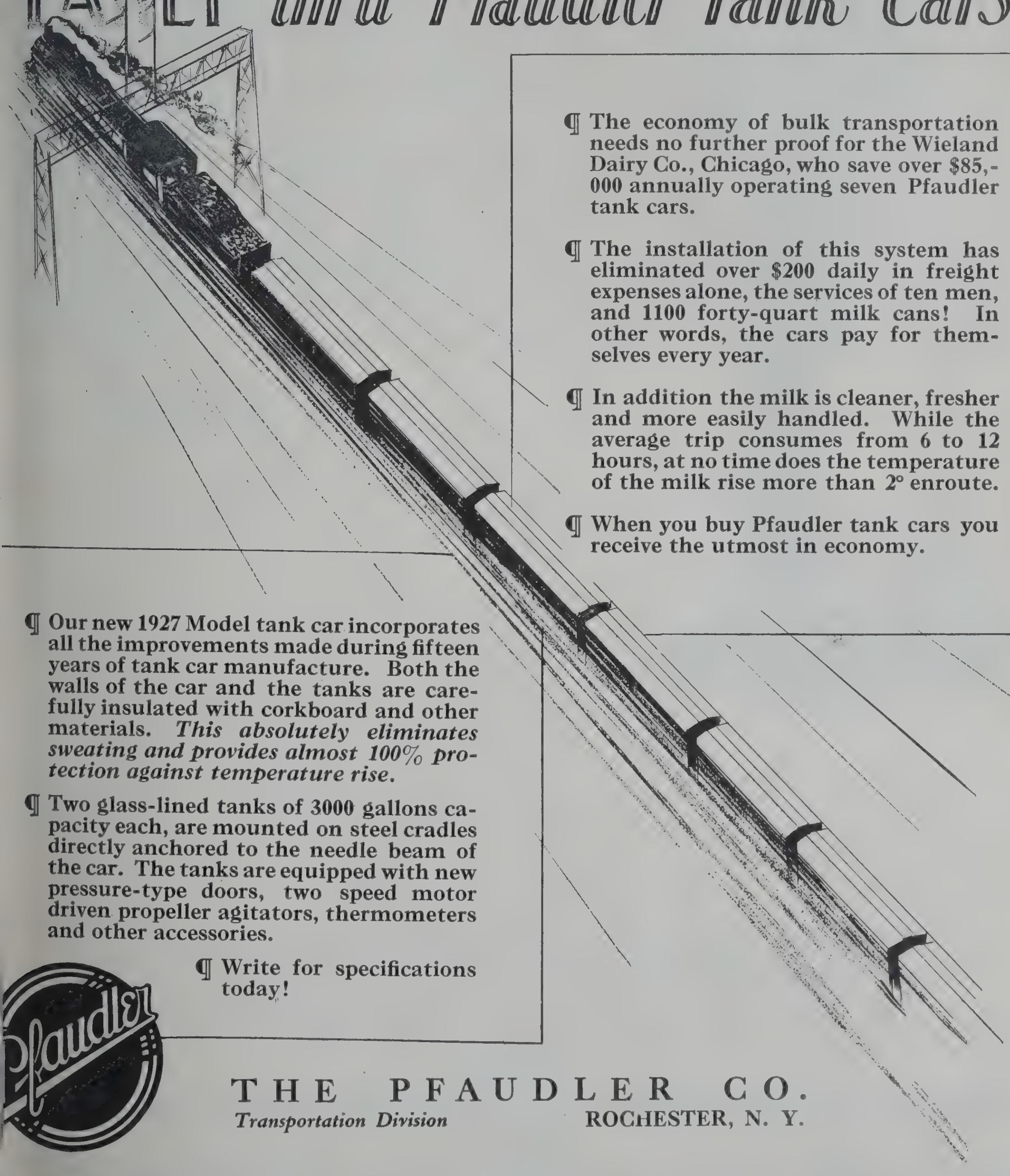
COFFEE SYRUP

Sold in 12 oz. and 16 oz. bottles for home use and in one gallon and ten gallon jugs for milk dealers.

HE WIELAND DAIRY CO. SAVE

$85,000

EARLY *thru Pfaudler Tank Cars!!*



¶ The economy of bulk transportation needs no further proof for the Wieland Dairy Co., Chicago, who save over $85,000 annually operating seven Pfaudler tank cars.

¶ The installation of this system has eliminated over $200 daily in freight expenses alone, the services of ten men, and 1100 forty-quart milk cans! In other words, the cars pay for themselves every year.

¶ In addition the milk is cleaner, fresher and more easily handled. While the average trip consumes from 6 to 12 hours, at no time does the temperature of the milk rise more than 2° enroute.

¶ When you buy Pfaudler tank cars you receive the utmost in economy.

¶ Our new 1927 Model tank car incorporates all the improvements made during fifteen years of tank car manufacture. Both the walls of the car and the tanks are carefully insulated with corkboard and other materials. *This absolutely eliminates sweating and provides almost 100% protection against temperature rise.*

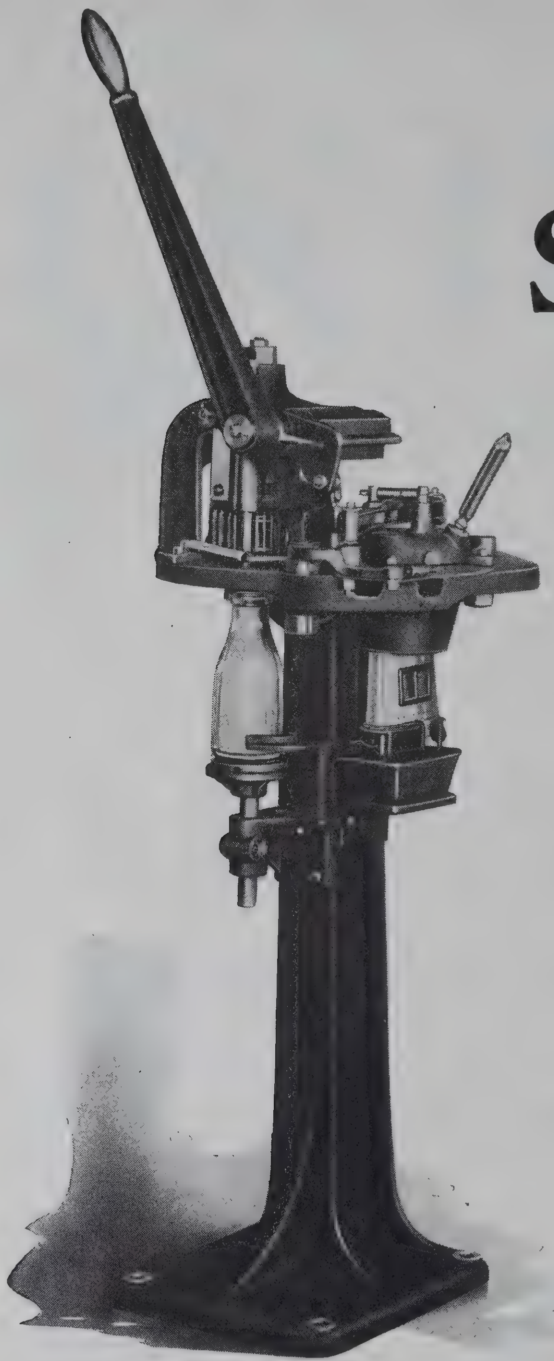
¶ Two glass-lined tanks of 3000 gallons capacity each, are mounted on steel cradles directly anchored to the needle beam of the car. The tanks are equipped with new pressure-type doors, two speed motor driven propeller agitators, thermometers and other accessories.

¶ Write for specifications today!

Pfaudler

THE PFAUDLER CO.
Transportation Division ROCHESTER, N. Y.

When writing to THE PFAUDLER COMPANY *please mention The Milk Dealer.*

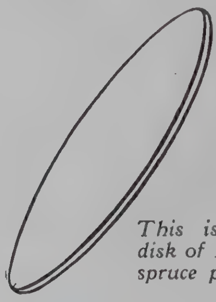


The AMF Hand Milk Bottle Sealing Machine.

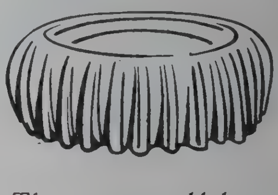
Seal *by hand*

THE Westlake one-piece, non-resealable Sanative Seal may be applied by means of this hand-power machine. The five-ply spruce paper disks are softened, moulded to a tight fit over the lip of the milk bottle, and cooled to shape in the hand machine just exactly as they are treated in the large automatic AMF Bottle Sealing Machine which was exhibited at the recent Dairy Industries Exposition at Detroit.

The resulting seal is the same as was demonstrated there—a completely protective, tight-fitting cover which guards the contents of the bottle against contamination. There are no wires or other equipment of any kind required to keep it in place. A simple turning and lifting movement enables the customer to remove the seal easily. It can then be replaced as a dust cover, but cannot be retightened and used again as a seal without instant detection.



This is the disk of 5-ply spruce paper.

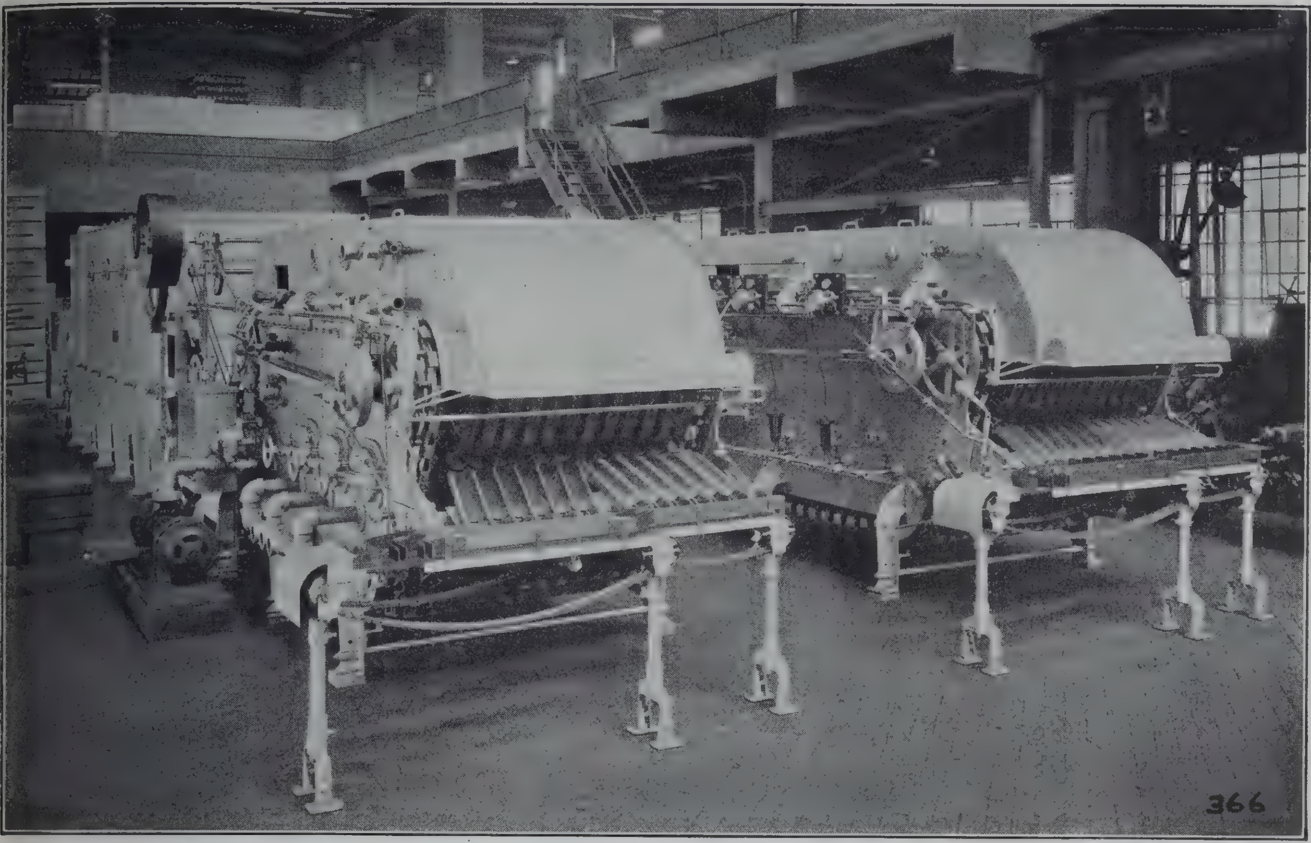


The cap, moulded to shape from the disk, and covering the entire lip of the bottle.

Write for complete descriptive literature and prices.

The Lakewest Corporation
Division of
American Machine & Foundry Co.
5502-5524 Second Avenue - - - - BROOKLYN, N. Y.

When writing to AMERICAN MACHINE & FOUNDRY CO. *please mention The Milk Dealer.*



The "ARISTOCRAT"

OF BOTTLE CLEANERS

APTLY NAMED BECAUSE IT IS IN A CLASS BY ITSELF

Above cut shows TWO large ARISTOCRAT units consisting of independent 5-COMPARTMENT SOAKER connected to our latest hygienic BRUSHLESS WASHER with Sterilizing and 3-Compartment Cooling attachments. Photo was taken on the assembly floor of our large modern factory.

These units are now being installed in that new wonderful plant of SIDNEY WANZER & SONS, INC., CHICAGO, ILL., where the best was the main consideration. Write us for full particulars. Our engineering staff belongs to you. 26 years experience.

Sheffield Farms selects Barry-Wehmiller Bottle Washers, Soakers and Sterilizers for their *new Jamaica*, Long Island Plant. After using 2 Barry-Wehmiller machines for more than 2 years in their New York City Plant, 2 more at the Brooklyn Plant, 2 more at the Harlem Plant, and 2 more at the Bronx Plant, all of 6 to 8 compartments in size, they have for the *fifth time ordered 2 more for their new Jamaica Plant.*

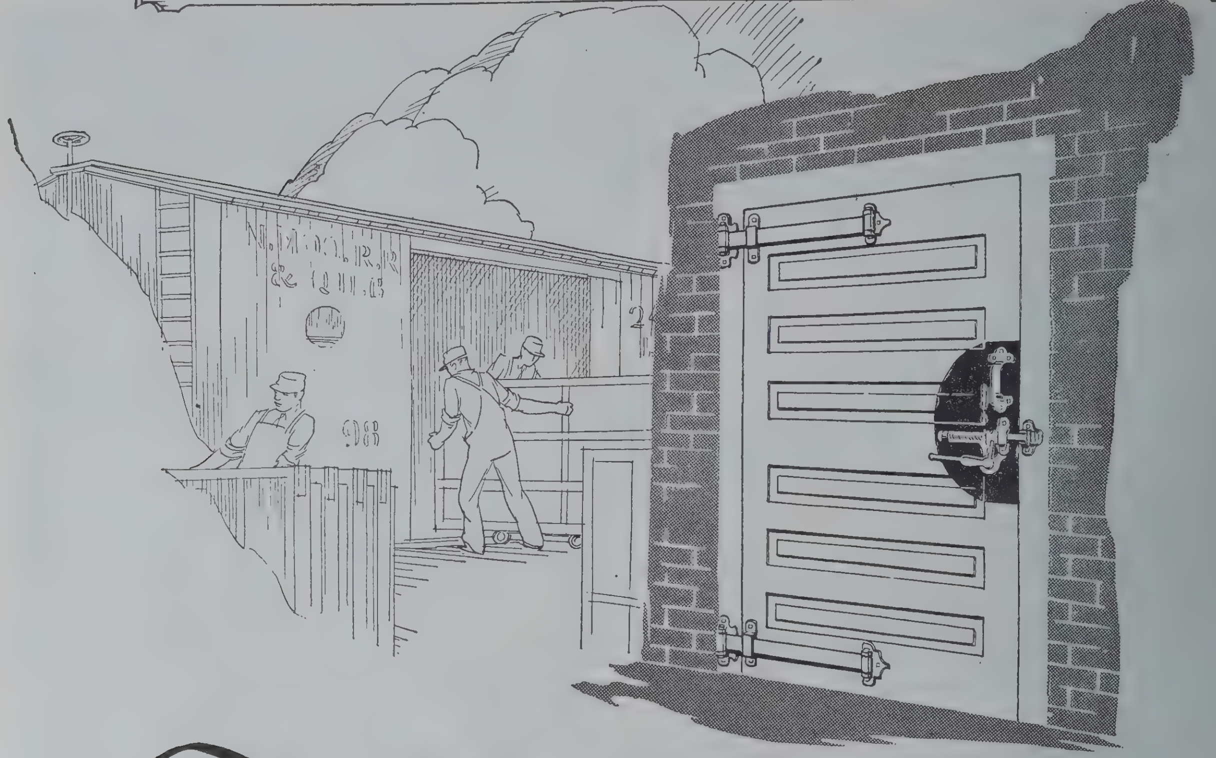
Barry-Wehmiller Machinery Company

Pioneers of Bottle Cleaners and In-the-bottle Pasteurizers

4660 W. Florissant Ave., St. Louis, Mo., U. S. A. **New York Office: 18 West 25th St.**

When writing to BARRY-WEHMILLER MACHINERY COMPANY *please mention The Milk Dealer.*

FACTS ABOUT COLD STORAGE DOORS ~ *No. 3 of a Series*



The Doors you need ~ *are ready to ship*

Jamison Doors
JAMISON COLD STORAGE DOOR CO

Send for new Jamison Catalog No. 13. Contains complete description of Cooler and Freezer Doors, Ice Chutes, and other cold room equipment. Also tables of "Standard Sizes."

GET your plant overhauled on time this year, by letting Jamison help you. No need to wait and wish for prompt deliveries of the cooler and freezer doors you require. No use risking being caught unprepared.

Order from Jamison, and you'll get your doors right on time. They'll leave our plant, not in a few days, a week, or a month—but immediately.

To meet the constantly growing demand for prompt shipments, we are carrying this year larger stocks of fully assembled doors than ever before.

Right now, our huge stock houses are full to the roof. We've planned ahead and operated our plant at full speed for months, to make up stock for the spring months, when plants everywhere are being overhauled. We are ready for any demands.

Check up your plant for needed replacements. Then wire or mail your door order to Jamison. You'll get your doors when you want them. Your plant will be ready on time.

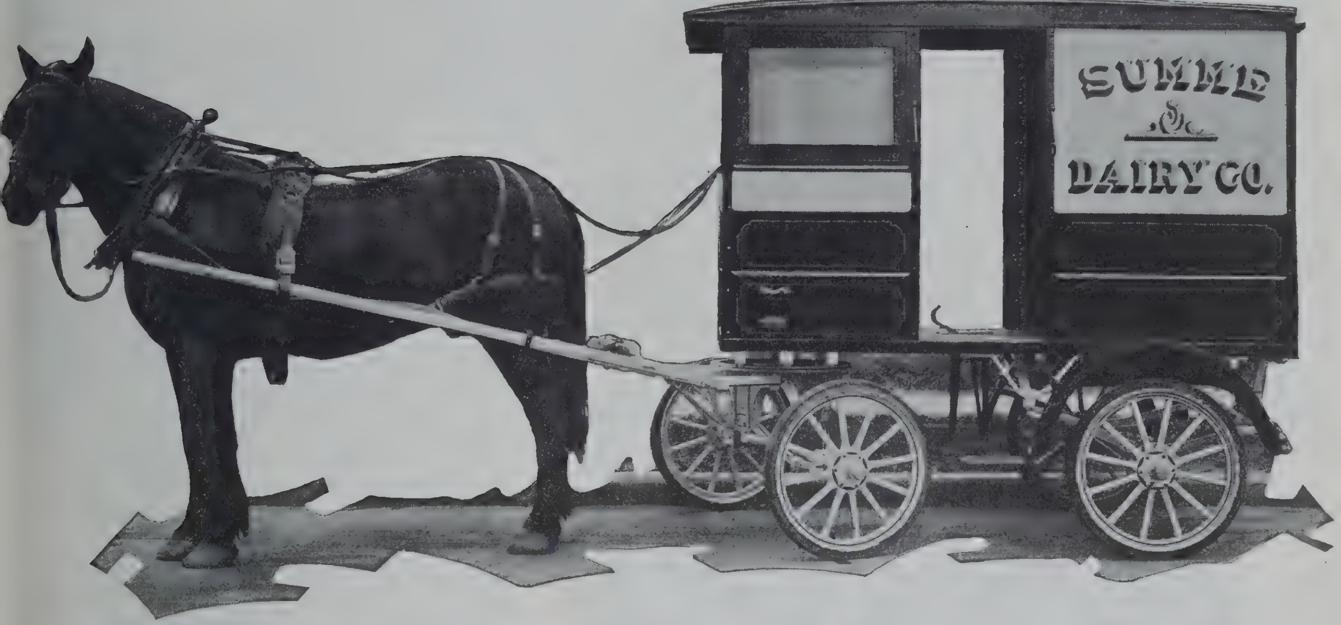
Jamison Doors

Jamison Cold Storage Door Company
Hagerstown, Maryland, U. S. A.

When writing to JAMISON COLD STORAGE DOOR COMPANY *please mention The Milk Dealer.*

The HESSE AUTOWAGON

"The Modern Milk Wagon"



In 1500 lbs. Capacity—THE STRAIGHT SILL STYLE—or 2500 lbs. Capacity
24 CASES **Also made in the Drop Sill Style** **42 CASES**

o you realize that the only way the public—those who are your istomers and those whom you want as customers—has of judging our plant operations and the manner in which your business is onducted is by their daily contact with your delivery equipment?

Do YOUR wagons reflect the modern methods employed in your plant?
Do YOUR wagons reflect the up-to-date sanitary conditions in your plant?
Do YOUR wagons reflect the modern appearance of your plant?

ead what Mr. A. J. SUMME of the SUMME DAIRY of Kansas City thinks of HE HESSE AUTOWAGON

"Since putting the Hesse Autowagon in service nearly two years ago we have kept close tabulation of the results as com-red to our old style of equipment. We have found this wagon far superior in every respect. Our horses are much better king and easier kept. Our drivers have become salesmen and are much better satisfied because of the comfort of this low d easy riding wagon. And foremost of all, these up-to-date wagons have gained us much favorable publicity and confidence the public, reflecting as they do the up-to-date methods employed in our plant to give them A1 product and service.

We would not consider any other type of equipment."

SEND FOR FURTHER INFORMATION. WE'LL BE GLAD TO TALK THIS OVER WITH YOU.

THE HESSE MANUFACTURING CO.

LEAVENWORTH, KANSAS

"WAGON BUILDERS FOR 65 YEARS"

When writing to THE HESSE MANUFACTURING CO. *please mention The Milk Dealer.*

PHONE HADLEY 1288 M. C. OLDHAM, MGR.

THE PHENIX DAIRY
PASTEURIZED MILK
WHIPPING CREAM, PLAIN CREAM,
BUTTERMILK
POLK & SMITH STS.
HOUSTON, TEXAS

February 2, 1927.

Union Engineering Co.,
Cleveland, Ohio

Gentlemen:

Regarding the Bestoval Bottle Washer we purchased from you and installed in our new plant on November 7th,1926, wish to say that this machine is performing very satisfactorily in fact after a few minor adjustments when installed we have had no trouble with it.

The bottles discharged from it are sparkling and clear and we would heartily recommend this type machine to anyone in the market for a large size bottle washer.

Yours very truly,

MCO:K THE PHENIX DAIRY.

MORE PROOF

of the SUPERIORITY *of the*

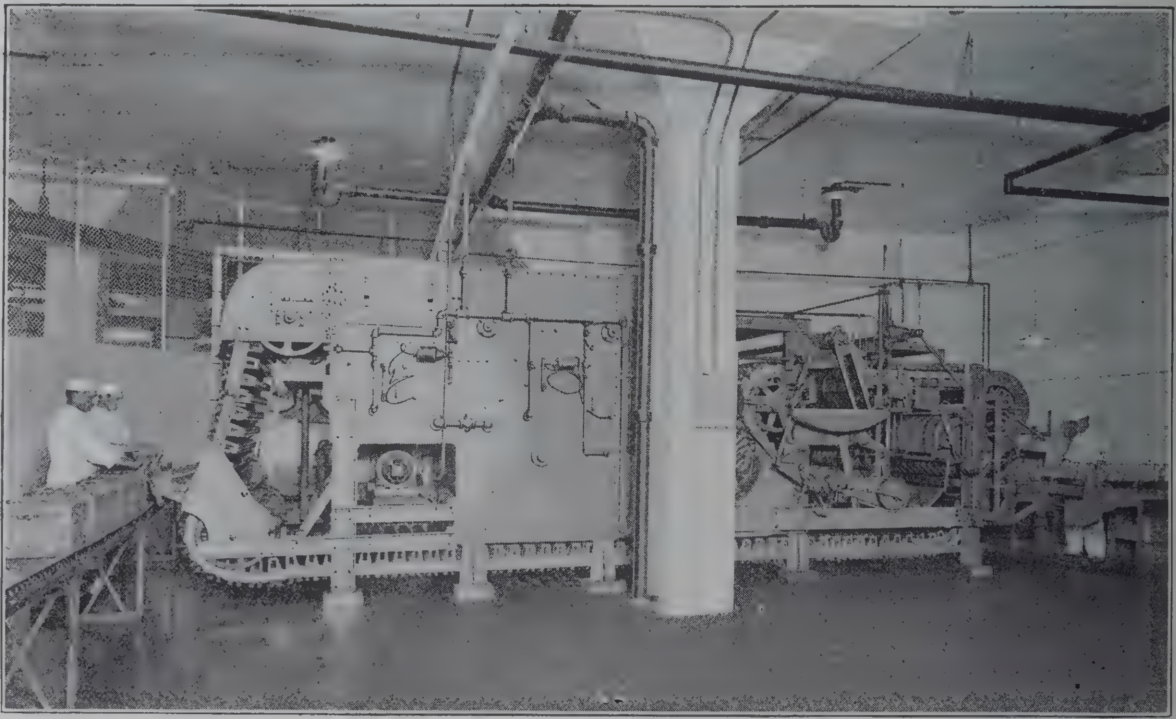
CLEVELAN

BOTTLE WASHER

MR. OLDHAM of the Phenix Dairy, Houston, Texas, after havi carefully studied all makes of bottle washers for more than thr years, decided on the **CLEVELAND** for his new plant, which is o of the largest and most up-to-date in the South.

He was thoroughly convinced that the **Cleveland Method of Pressu and Dormant Soaking in Conjunction with Clean and Sterile Brush** would give him the cleanest and most sterile bottles to match his unexcelli product. Furthermore he knew that the Cleveland Bottle Washer was t machine for service due to its rugged construction and simplified design a this has been conclusively proven by the fact that **The Phenix Dai erected and put their bottle washer into operation themselves wit out the assistance of any representative of the Union Engineering C**

The Cleveland Bottle Washers are Built in All Sizes and for Every Requirement!



No. 120—CLEVELAND BEST-OV-AL in The Phenix Dairy, Houston, Texas

Guara-
teed
Clean
Efficien
99⁹/10

Clea
and
Sanita
Soaki
Solutio
with fr
30 t
50%
Less
Alka

—

Clea
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Steri
Brush

THE UNION ENGINEERING CO

CLEVELAND, OHIO

LIST OF AGENTS

Americo Dairy Supply Company	Cincinnati, Ohio
Bessire & Company	Indianapolis, Indiana
Cherry-Bassett Company	Philadelphia, Pennsylvania
Illinois Creamery Supply Company	Chicago, Illinois
Jensen Creamery & Supply Company	Oakland, Califor
Meyer-Blanke Company	St. Louis, Misso
Wright-Ziegler Company	Boston, Massachuse
Hughes Sales Company	Seattle, Washing

When writing to THE UNION ENGINEERING CO. *please mention The Milk Dealer.*

p's Motors Are All Wet

TRADITION
PROGRESS

'Look, Lad—

here's something I've found out—we've een too blamed careless in the plant by let- ng steam and water slosh around. Here I t a report this morning that three motors ropped out of service this week, due *abso- tely* to damp conditions. You'll have to find *me* way to get rid of all this dampness. It's sting us too much for repairs."

"No, Pop—

it's easier, cheaper, quicker, surer and better to get rid of the motors.

Let them die and don't repair them—*replace them.*

You've seen the picture of the Linc-Weld motor actually running under water.

Now look at why this is possible. (Of course it's due primarily to a super-insulation, but more about that later.)

Don't you see how, in your motor, the insulation doesn't even come up TO the slots?

Then on the Linc-Weld see how it goes clear INTO the slots.

No wires are exposed at all—so no dampness can get in.

Isn't that better than trying to put through an 18th Amendment in an attempt to make our process DRY? The cost of enforcement is too high and the results:? ?

Better get a motor that can take it or leave it alone."

The Lincoln Electric Co., Dept. 25-3, Cleveland, Ohio

MA-5

"Linc-Weld"

LINCOLN MOTOR

When writing to THE LINCOLN ELECTRIC COMPANY *please mention The Milk Deal-r.*

ALWAYS SANITARY

American MALLEABLE Nickel 99% +

FREE FROM COBALT

SPECIFY this better metal if you would have your plant equipment of the utmost cleanliness, purity and long life. There is no purer metal obtainable and it is free from cobalt.

May we send you the names of the equipment builders who use and recommend this better metal?

AMERICAN MOND NICKEL COMPANY
CLEARFIELD PENNA.

HERE IT IS--*At Last*

Just What You Have Been Waiting For—

AN Extensive and Authoritative Experiment with Children to Prove the Wonderful Value of Milk

Up to the present time, practically all experiments to prove the value of milk have been conducted on animals, and it has been necessary to try to persuade the housewife that if milk made animals grow then it would make children grow. Now, however, information is available showing what milk actually does for **children**.

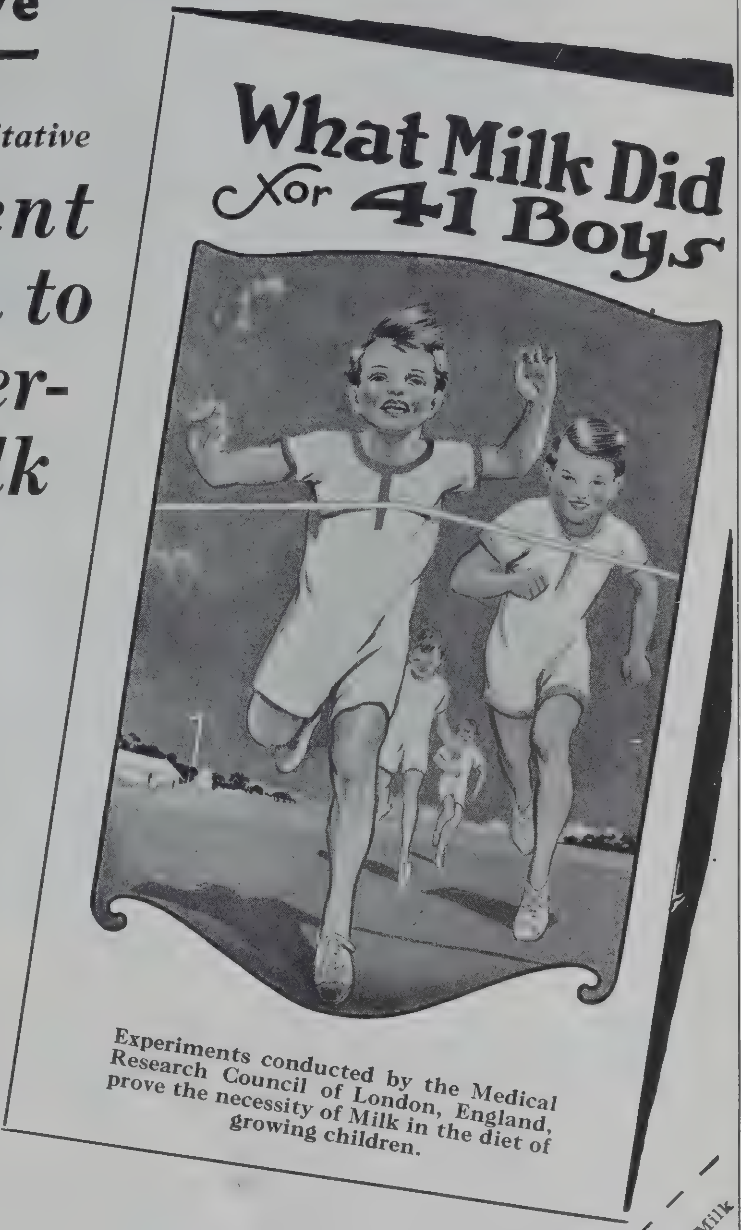
The Medical Research Council of London, conducted an experiment on 220 boys. Their findings are given in a popular way in this little six page folder—actual size shown here.

You can now secure these folders for your own use in any quantities desired. Your name can be imprinted on the back page if you wish at a slight additional cost ($1.50 per M; 10,000 or more $1.25 per M).

These valuable circulars suitable for enclosing with your monthly statements, for distribution through your driver-salesmen, and of great worth in many other ways, will cost only—

$5.00 per M for 1,000 to 10,000
4.50 per M for 10,000 or more

Your order will be filled promptly.



What Milk Did For 41 Boys

Experiments conducted by the Medical Research Council of London, England, prove the necessity of Milk in the diet of growing children.

Don't overlook this opportunity. Every customer and prospective customer should know of this wonderful experiment on children.

TEAR OFF HERE AND MAIL

Please send me..........copies of "What Milk Did for 41 Boys."

Imprint on the back..........

Signed..........

Address..........

National Dairy Council

910 So. Michigan Ave. Chicago, Illinois

When writing to NATIONAL DAIRY COUNCIL *please mention The Milk Dealer.*

Lipman
AUTOMATIC REFRIGERATION

For Steady Dependable Service

For steady dependable service there's nothing like a Lipman. They're made to keep right on running. Lipman Full-Automatic Refrigerating Machines are built with brains, and backed by a manufacturing experience as long as the industry is old. Lipmans are tested and proven. They give *excess* service, the kind that asks no quarter, takes a minimum of attention and costs less to run than seems right.

For the details, write us to send you our Free Illustrated Folders. Do it now and you'll get them sooner — and the serviceable facts they contain.

General Refrigeration Company

116-194 Shirland Ave. Beloit, Wisconsin

THE DRY, CONSTANT COLD OF THE MOUNTAIN TOP

When writing to GENERAL REFRIGERATION COMPANY *please mention The Milk Dealer.*

"When the surface of the copper is covered by tin practically all of the objections against copper are fully met"

PROFESSOR HARDING *on* TINNED COPPER

In a recent issue of his "Bulletin" to milk plants, Prof. H. A. Harding of the Frederick C. Mathews Company, has revised a number of his views on the use of tinned copper in connection with the pasteurization of milk. The article is a long one, but we quote from the summary as follows:

"Tinned copper is the basis of the larger part of our present dairy equipment, particularly where the transfer of heat is concerned.

"Copper is admirably adapted to heat transfer, but along with this it has a marked tendency to form milk stone and casein deposit, largely through the co-agulation of the albumin of the milk."

(NOTE—Where Cherry Coil Pasteurizers are involved this does not apply as one of the most outstanding features of Cherry Coil Pasteurizers is their freedom from casein deposit.)

Prof. Harding continues: "Copper is constantly present in milk as it comes from the cow. It is likewise present in practically all our vegetable foods. Consequently the fear which is sometimes expressed that the copper from the milk may accumulate in the body, eventually producing undesirable results, is probably without adequate foundation in the case of milk.

"Under some conditions sufficient copper may be present to reduce the Vitamin C in the milk, but evidence is lacking as to how frequently and to what extent this actually occurs.

"When the surface of the copper is covered by tin, practically all of the objections raised against copper are fully met. Measurements are lacking from which to conclude as to the amount of copper which may become exposed in various types of apparatus before retinning is desirable.

"There seems to be nothing either in practical experience or in technical data which should lead us to abandon the use of tinned copper for sweet milk utensils until *some other metal* is shown to have even more desirable qualities."

J. G. Cherry Company

Cedar Rapids, Iowa

St. Paul, Minn. Tama, Iowa Peoria, Ill.

When writing to J. G. CHERRY COMPANY *please mention The Milk Dealer.*

NINETY NINE % NICKEL

The one Ideal Metal for DAIRY EQUIPMENT!

FABRICATED to unexcelled standards of workmanship, 99% Nickel Containers offer you a real investment in permanence and sanitation.

99% Nickel Containers are—

1. Easy to clean
2. Impervious to rust or corrosion.
3. Stronger than steel.
4. Excellent for Pasteurizing, etc.

SALES OFFICES
Detroit
1226 Bagley Ave. Bldg.
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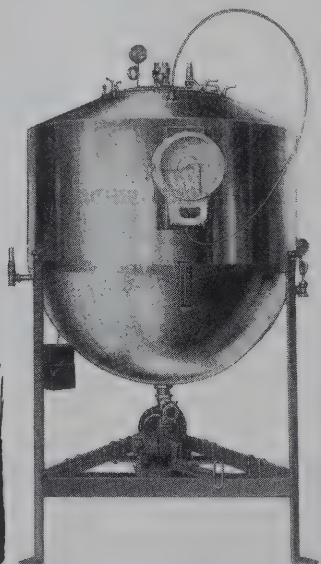
Chicago
718 Crilly Bldg.



SALES OFFICES
Philadelphia
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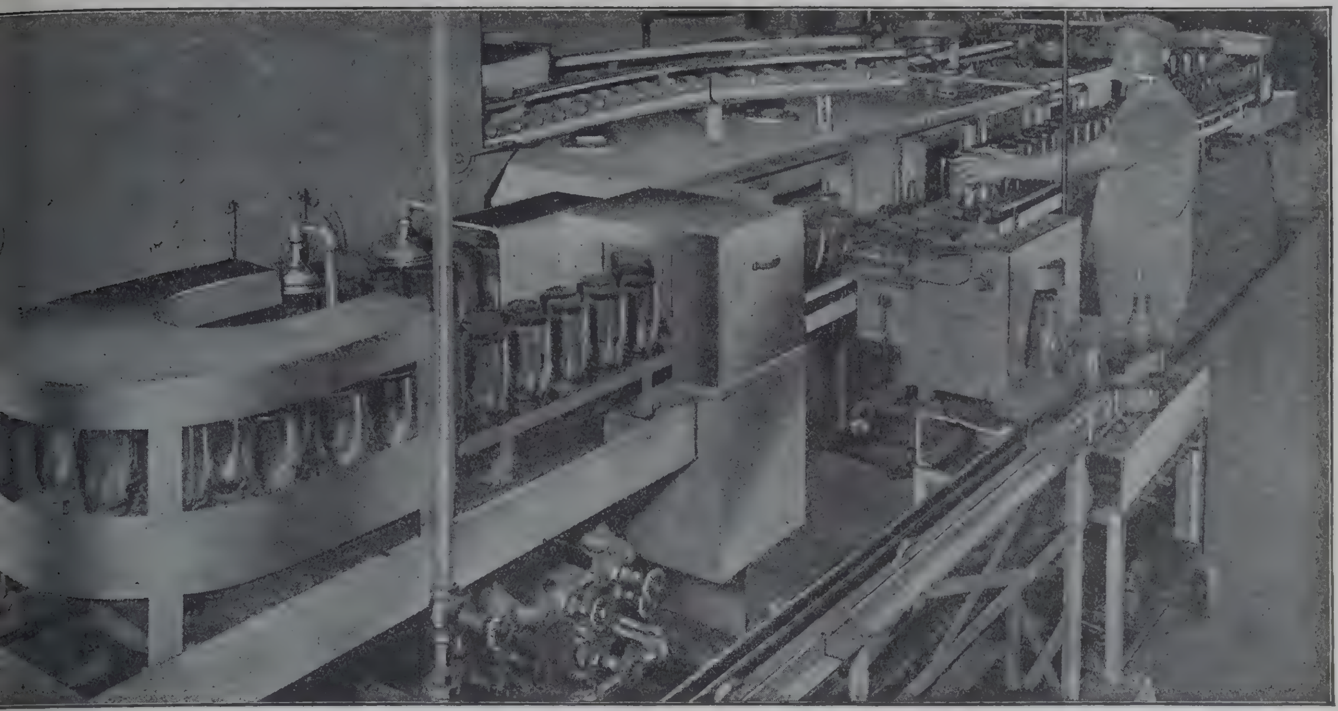
New York
1512 Borden Bldg.
Canandagia, N. Y.
113 Park Ave.

Nickel Fabricating Corporation

PHILIPSBURG, PENNSYLVANIA

When writing to NICKEL FABRICATING CORPORATION *please mention The Milk Dealer.*



View of Miller-Hydro at the Roseland Dairy, Chicago, Ill.

The Great Step Forward in Bottle Cleaning Methods

IN every large dairy the Miller Hydro will save several thousand dollars in salaries alone during the first year of its operation. It will completely eliminate bottle breakage and wastage even in handling an output of 2500 cases a day.

Figure what these savings will amount to in your own plant. Then consider along with the savings that over 3500 dairies, breweries and bottling plants of enormous capacity have pronounced the Miller Hydrostatic way of sterilizing bottles superior to any brush washing method that has ever been devised.

You can do away entirely with brush contamination, broken bottles and expensive replacements by installing a Miller Hydro. No other bottle washing machine made can equal its performance. It will pay for itself in your plant before you make the last payment.

Let us show you the many advantages of sanitation and economy that the Miller Hydro holds for you. Write today for complete information and list of large users.

THE MILLER MANUFACTURING CO., Bainbridge, Ga.
Chicago Office: 1305 Monadnock Block
New York Office: 105 West 40th Street

The MILLER-HYDRO
Bottle Washer and Sterilizer
ONE CONTINUOUS OPERATION
rom
irty
to
Clean

When writing to THE MILLER MANUFACTURING CO. *please mention The Milk Dealer.*

Where all 'round efficiency and quality of product is the chief consideration the selection results in an installation of

MORTENSEN
Automatic Pasteurizing and Cooling Equipment

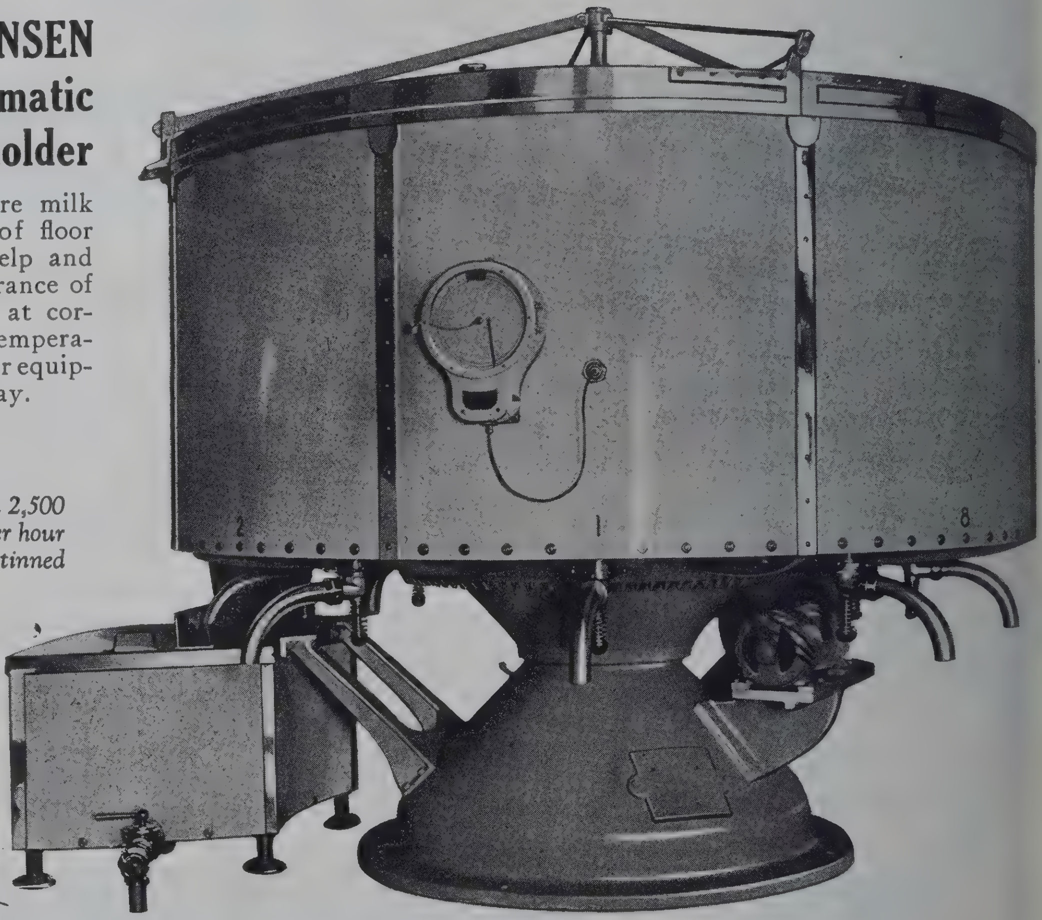
The MORTENSEN Positive Automatic all Nickel Holder

will pasteurize more milk in a given area of floor space with less help and with absolute assurance of positive operation at correct pasteurizing temperatures than any other equipment available today.

Made in sizes from 2,500 to 20,000 pounds per hour in pure nickel or tinned copper.

Our Milk Plant Engineering Services are always under my personal supervision.

C. Mortensen

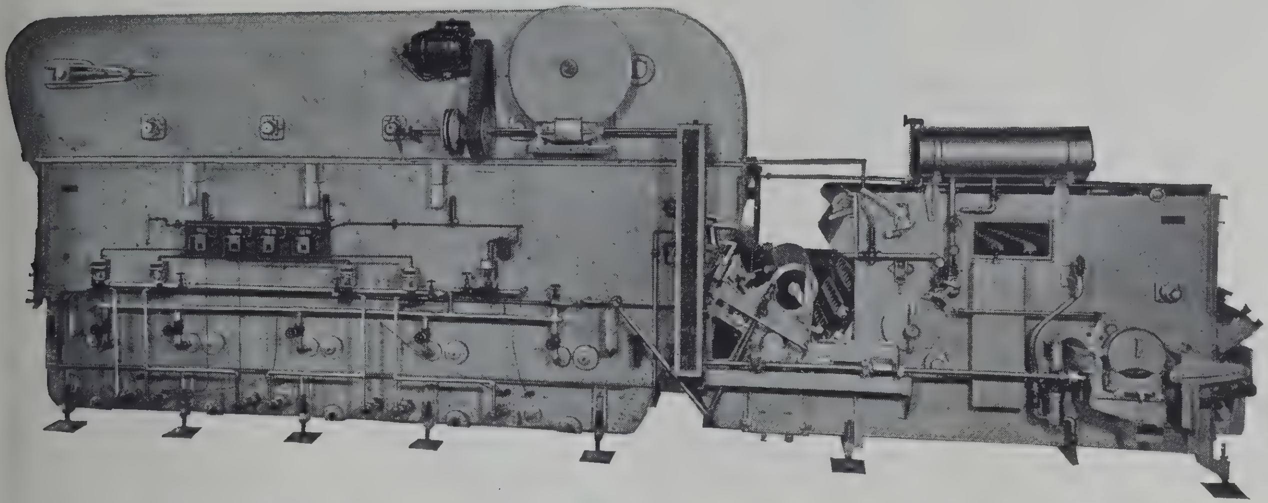


Standard Milk Machinery Co.
INCORPORATED

LOUISVILLE, - - - KENTUCKY

When writing to STANDARD MILK MACHINERY CO. *please mention The Milk Dealer.*

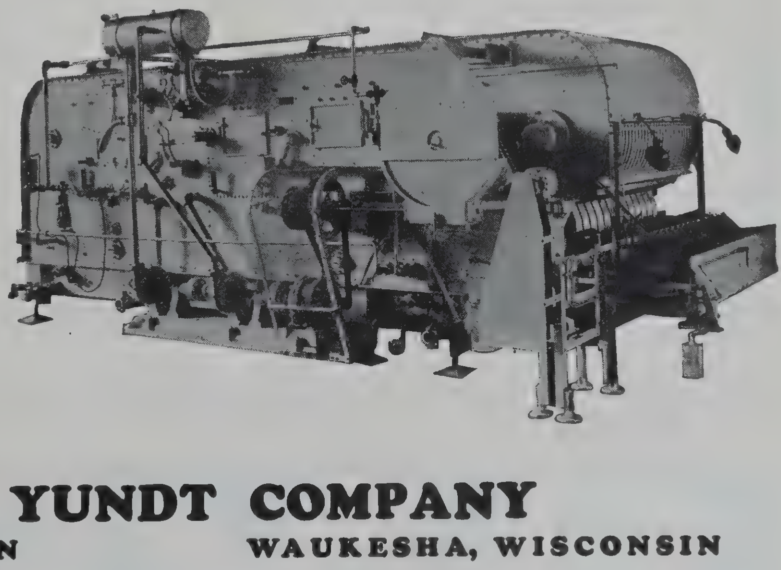
Built for a Lifetime



YUNDT MILWAUKEE
Air-Brush
Milk Bottle Washer

ECONOMY in operation and dependable performance
day in and day out—these are Yundt Milwaukee Air
Brush Milk Bottle Washer features. Compared point
point, it offers greater value in sturdy materials, and
ger life in perfected design. Capacity is 30 to 160 bottles
minute. Can be synchronized
h any automatic filler. Bottles
ne out sparkling clean, cold
bacteria free.

The machine below is a smaller type — capacity 30 and 60 bottles per minute. This Yundt comeback Type Junior Air Brush Milk Bottle Washer is a one man machine. Feed and discharge at same end. Write for Bulletin No. 110.



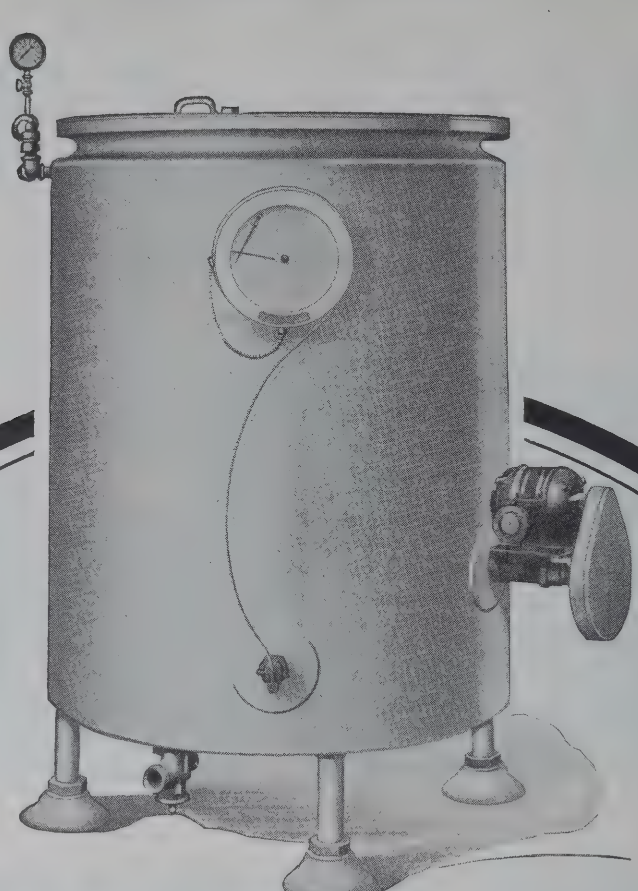
:e for descriptive bulletin No. 109
ng how the Yundt Air Brush Milk
:le Washer will conserve your dollars
lower your washing costs.

's the AIR BRUSH — If you
on't know about it, ASK US.

MICHAEL YUNDT COMPANY

MILWAUKEE, WISCONSIN **WAUKESHA, WISCONSIN**

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION, INC.



New-Type SJ

THIS new Special Type SJ was designed to provide a thoroughly high grade unit at a price as low as can be made on a quality job. Nothing can beat in on High Glaze glass lining and excellence of construction and fittings. Use it as a pasteurizer, aging, cooling or storage tank.

the lowest priced fully equipped glass lined Tank on the market

A Few Details

One inch cork insulation. Welded seams with air tight seal. Special flush valve. Leak detector and steam attachment. Motor driven agitator. Insulated tinned copper cover. Either recording or angle stem thermometer. 200 and 330 gallons capacity.

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GLASCOTE

When writing to THE GLASCOTE COMPANY *please mention The Milk Dealer.*

Look for

Seal of Safety

Look for

the Seal of Safety

MANY companies deal fairly....The nearly 200 companies of this Association have ***declared*** adherence to a published code of honest selling. That "the customer is always right", is fallacy—but that the customer should have security in making tests, comparisons and purchases is business sense.

Many are the requests from plants in the great dairy products industries for the names of those companies which ***declare*** adherence to this philosophy and business practice—for the list of houses which may and do display the Association symbol which is ***your*** Seal of Safety!

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION, INC.

1328 Broadway - - - - New York City

Look for

e Seal of Safety

Look for

the Seal of Safety

When writing to the DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION, INC., *please mention The Milk Dealer.*

THE
MILK DEALER
PUBLISHED THE FIFTEENTH OF EACH MONTH BY
THE OLSEN PUBLISHING COMPANY
H. P. OLSEN, President and Manager
LESTER S. OLSEN, Vice-President
E. K. SLATER, Secretary and Editor
Also Publishers of
"BUTTER, CHEESE & EGG JOURNAL" and "THE ICE CREAM REVIEW"
FIFTH AND CHERRY STS. MILWAUKEE, WISCONSIN

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Entered as second-class matter December 1st, 1911, at the Post Office at Milwaukee, Wis., under the act of March 3rd, 1879

Requests for CHANGE OF ADDRESS must be received not later than the 10th of the month to insure delivery of that particular month's issue at New Address. **Old Address** as well as **New Address** must be given us as all records carried by us are "Geographically arranged" and not "Alphabetically arranged."

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Payable in Advance.

OFFICIAL ORGAN OF
The International Association of Milk Dealers
Dairy Products Association of Kentucky, Inc.

MARCH, 1927

BULLETIN *of* EVENTS

Dairy Products Association of Kentucky—Final meeting of the spring and summer season will be held in Cincinnati, O., on Wednesday, April 21, at the Gibson Hotel. Carlton Ball, 206 Republic Bldg., Louisville, is general secretary.

American Dairy Science Association—Annual meeting to be held at the Michigan State College, East Lansing, on June 22, 23 and 24, 1927. Secretary-treasurer, G. C. White, Storrs, Conn.

Dairy Industries Exposition—The second annual exposition of the Dairy and Ice Cream Machinery and Supplies Association will be held at Cleveland, Ohio, on October 24-29, inclusive.

International Association of Milk Dealers—Twentieth annual convention to be held in Columbus, O., on October 19, 20, 21 and 22, 1927. The Neil House will be convention headquarters. Secretary, R. E. Little, 139 N. Clark St., Chicago.

Pacific Slope Dairy Show—Seventh annual exposition to be held from November 14 to 19, 1927, at Oakland, Calif. Secretary-manager, Robert E. Jones, 1404 Franklin St., Oakland, Calif.

WHILE driving to the office one morning recently we encountered seven milk wagons within that many blocks. The snow was deep and it was difficult driving. All the drivers of these wagons were busy delivering milk while their patient horses kept the exact center of the street. As we passed or met each one we had to take to the deep snow. Of course, we reverently lifted our hat as we did so, but we wonder what the automobile driver, who has no more reverence for a milk wagon than for a coal truck, thinks or says under the same circumstances?

◆

IT DOESN'T take a smart business man to pick a fight with a competitor. The smart fellow pays no attention to the competitor who is spoiling for a fight. He uses all his energies and capital to build up his business.

SOME men in the milk distributing business are n ly collecting and delivering milk. They collect it the farm, bottle it and deliver it to the consumer. T buying problems and delivery problems take up all time and effort. They don't have any time left to milk. Plant problems, under which may be include of the thousand and one details that call for atten must be attended to. Everything else can wait, an problem of selling milk is one of these. The cust gives his or her order for milk and the amount is s low as actual need will allow.

The lady of the house plans on how little milk can get along with instead of how much she can p ably use. The result is just as low a gallonage fo dealer as his customers can possibly make it. We made the statement before in these columns that selling problem is the biggest one confronting the distributor, and yet it is the one given the least a tion by many men in the business. Even when ma these men give attention to sales, they think onl terms of customers. To them doing more business m taking on more customers. Inducing their custome use more milk doesn't seem to enter into their c lations.

We all know that the average city milk consum getting wonderful value when he buys a bottle of but the consumer doesn't know it, at least not to extent that he should.

◆

ON ANOTHER page we discuss the results of cent survey covering cottage cheese manufa and sales. The fact stands out that too many milk tributors make and sell cottage cheese just because feel that they are forced to do so.

Cottage cheese is a valuable food product. It dairy product and the ideal way of getting it int homes of consumers is to leave it there along wit day's supply of milk and other milk products.

Which prompts us to say again that the city mil tributor enjoys a distinct advantage over most business men that he often fails to take advantag His agent makes daily calls at the homes of his tomers. How many other business men have su contact with their customers? Not even the groce cause he goes only when he is called.

Successful business men believe in advertising. spend big sums of money to get their sales messages the hands of their customers and prospective custo When they resort to direct mail advertising they pay mailing and postage costs.

On the other hand the milk distributor has d contact with his trade and yet he fails to take adva of it as he might. Of course, this is not true with They are getting their sales messages into the h but the number that are doing so to the profitable are indeed few and far between.

ODERN machinery and improved methods in the milk distributing industry have just about revo- onized it, making market milk a safe, dependable cle of merchandise, but it is still impossible for a er to sell high grade milk unless he buys high le milk from the men who produce it. In other ds quality starts on the farm, and the milk distribu- who forgets that fact is on the wrong track.

The job of producing milk, as it is produced on the age farm, is not an easy task. The farmer earns y cent he gets. He puts in long hours and, in many s, does not have sufficient capital to properly handle business. He works so hard for so little net profit he often feels that he is not getting credit for what- effort he makes to improve the quality of the milk ells.

The milk distributor who starts out to get better milk p against a real job. His easiest refuge, of course, e law. He can, in most cases, force the farmer to better methods, but that doesn't improve the situa- as it might be improved.

Milk distributors in some sections have proven that possible to get the co-operaton of their producers in r efforts to improve quality. Farmers will listen to on in spite of the claims of some folks to the con- y. They can be made to understand that when the er can sell better milk they will profit along with

t's a mistake for the dealer to take the position that s not concerned with the farmer's problems. The inspector can accomplish just so much; the rest t be done by the dealer.

⁂

EN in the business who have given the subject careful thought are of the opinion that losses due arelessness in extending credit and in making col- ons are responsible for the bad way in which the distributing business finds itself in some parts of country. In some places profits are entirely wiped on account of bad accounts and the cost of collecting 1. While few are ready to say that the milk dis- iting business is prepared to go upon a strictly cash s, the majority are of the belief that the time is and when business should be very largely on a cash s and the opinion is virtually unanimous that what it is extended must be done very carefully. It is a ity poor policy to take business away from the other w on the basis of freely giving credit, and then lose our profits and some of your capital besides.

⁂

MILK plant can at least be clean. Some dealers make the mistake of getting so busy that they n't time to keep the plant looking attractive. ple like to associate milk and its products with abso- cleanliness. They may not be able to appreciate y of the things you do to make your plant efficient, they can appreciate cleanly conditions. Cleanly, active appearances accelerate the consumer's appe- for milk. The reverse is also true.

SOME men in business seem to be afraid to give free rein to the boyish impulses which lie more or less dormant in all red-blooded men. They seem to be afraid that their dignity is going to suffer. We believe such men are unduly and unnecessarily cautious. They are missing a lot of good things of life and gaining nothing in return. Somehow or other we just cannot get close to the fellow who can spend all day at a picnic and never get his hair mussed up. We may respect his dignity but we pity him. We notice right in this milk business that when the really big men in the business get together they have a lot of fun besides talking over serious business problems. There are always a few, of course, who stand around the edges, afraid to risk their dignity, out they don't seem to get very far, either in having a good time or in gaining the recognition as real leaders. It's a mistake to be afraid to play when it is time to play.

⁂

THERE is no line of business where outside appearances count for more than in the milk distributing business and in this connection the appearance of the inside of the plant comes under the head of "outside appearances," for it is the impression that people from the outside get of your plant, both within and without, that counts. If any place in your plant needs painting you can't economize by putting off the expense; if your delivery trucks need working over, nothing is to be gained by waiting; if your windows need washing—well, of course, one should never wait for that to happen Cleanliness not only is next to Godliness but it's mighty good business—especially in the milk business.

⁂

THE constructive work that has been carried on by the International Association of Milk Dealers, looking toward better business methods in the plants of its members, is having widespread influence. It is reaching far beyond the confines of the milk distributing industry. Men in other lines of business associated with the dairy industry are influenced by it. Others entirely apart from the dairy business are talking about it. This shows what a real trade organization can do, not only for its members, but for business in general. We wish there were more of them in the dairy industry like the International Association of Milk Dealers.

⁂

THE magnitude of the milk dealer's job is better understood when we search out comparative figures. In weight there is more milk consumed in a large city than flour, bread being the nearest to milk in volume of weight, after which follows sugar, of which every inhabitant consumes about 90 pounds a year. Other important food products are potatoes, onions, spinach and grapefruit. The weight of the milk consumed being greater than any of these.

⁂

SOME milk dealers talk knowingly of their "sales" department when, as a matter of fact, they have none. What they are talking about is their delivery department.

Special Displays For Milk Exhibits

New Department Created by the National Dairy Council to Assist Milk Dealers in Putting on Displays at Fairs, Etc.

WITH the establishing of a department in the National Dairy Council organization for the handling of special displays and exhibits the council is equipped to supply dealers' and producers' organizations throughout the country with a non-profit service, combining art and education in displays for health shows, conventions, fairs, milk windows and other exhibitions.

Under the direction of a trained art director, Chas. E. Sommer, the dairy council has established a special studio and work shop in its Chicago office where plans are outlined and exhibits created. Special displays showing the food value of milk, butter, ice cream and other dairy products in their relationship in the diet will be featured.

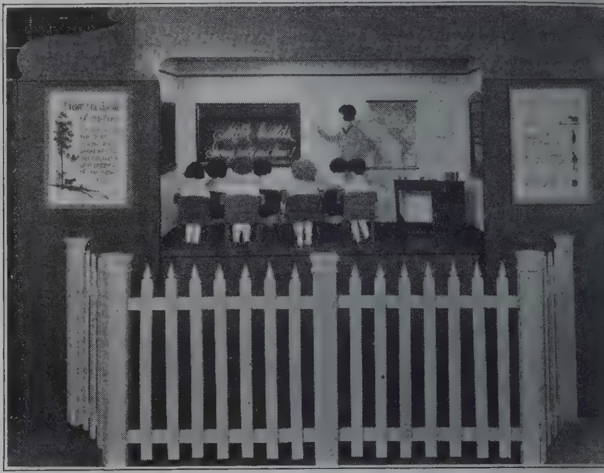
A display to be most effective in the view of the dairy council's exhibit department must be attractive enough to be seen by the public; it must command attention sufficient to be read; it must be convincing enough to be believed and it must be forceful enough to create action. With this basic policy of displays created by the dairy council, it will combine the educational and artistic characteristics with which to make them of the most value to the dairy industry.

Through this new service the dairy council is making available the scientific knowledge of foods in a practical manner for the entire dairy industry. During recent years the council has been called upon frequently to arrange special exhibits for educational conventions and during the past year many dealers have requested these exhibits for local use. The new department is the result of a demand for a nation-wide service which would make these educational displays available for the entire dairy industry on a cost basis.

Dairymen who are planning to use definite space in a food show or convention are urged to make use of the facilities of the dairy council organization. In cases where the shows are planned months in advance and the amount of space to be used in the exhibit is known, the council will be in position to arrange special displays to meet particular requirements.

For example, if a dealer writes to the National Dairy Council, 910 S. Michigan Ave., Chicago, stating the size of space which he wishes to fill and the type of audi
that he wants to interest, the dairy council can selec
material, posters, bulletin boards, or mechanical de
operated by electricity, in an artistic display and
send the dealer a complete layout with his mate
This will make it possible for a dealer at very little
than the cost of the material to rent or purchase a
ished display which can be set up by following the d
tions, requiring no specially trained person.

One corner of the studio and work shop where Dairy Council displays are planned and built by trained artists.



Educational exhibit created and built by the new displa
department of the National Dairy Council, showing typi
cal schoolroom studying Dairy Council literature.

DETROIT CREAMERY CO., ASSETS, $10,017,2

In the consolidated balance sheet of the De
Creamery Company and subsidiary companies, inclu
the Pontiac Dairy Company, Pontiac, and White
Cream Company, Flint, submitted to the Detroit S
Exchange, total assets of $10,017,220.74 are presente
December 31, 1926.

Current assets totalled $2,212,138.58, with cu
liabilities of $2,129,382.72. Fixed assets, after wr
off $2,944,997.03 as reserve for depreciation, are
praised at $7,471,088.91. Deferred charges were $
915.32 and good will is given a valuation of $157,07

Liabilities, besides $221,519.60 in land contracts
able, included $240,000 in dividends payable, $224,3
in reserves, $6,000,000 in outstanding capital stock
$1,201,979.49 in surplus account. A contingent lial
of $141,364.33 for notes receivable discounted al
listed.

CITY MAY HAVE TWO GRADES OF MILK

As a result of a meeting held in Tiffin, O., by
dairymen, together with the city board of health,
grades of milk may be sold in that city.

The two grades of milk suggested are: Pasteu
milk, and Grade A whole or raw milk produced e
sively from regularly inspected dairies.

The exclusion of all milk except pasteurized
was urged by representatives of the two larger d
serving the local retail trade while the proprieto
the smaller dairies favored the admittance of Gra
whole milk as well as pasteurized milk.

Selling the Quality Idea to Readers

How Certain Milk Dealers Use the Local Newspapers to Emphasize the High Quality of Their Products

OCAL certified milk tests, as well as general city inspection tests, provide excellent advertising material for those dairies fortunate to win high hon- Consider Adohr Creamery Company, Los Angeles, example.

Of 22 certified milk contests, held by the Los Angeles Health Department since 1918, Adohr has won 18. wonderful record—and wonderful advertising ma- al.

The newspaper reader may think of the one-time ner of contests that merely good fortune has attend- t. Of a single concern winning 18 contests out of however, no such surmise can be conjectured. It es nothing to believe but a remarkable uniformity xtraordinary excellence.

Adohr Creamery Company uses display advertising apitalize its victories. A sample advertisement was columns by ten inches. Lettered in heavy black he top was, "Adohr Wins Again!" There was a e reproduced bottle—the wording set out very clear- upon it. Text told how in the most recent contest, hr Guernsey certified milk had won with a score of per cent. It was explained that the award was ed on surprise samples, picked during the six months n January to July.

There is a twin idea associated with high quality in x which, for advertising purposes, clever advertisers quently turn to. Why should quality milk be pur- sed—milk with which extraordinary pains have been en to insure purity? One of the big reasons, in thou- ds of cases, is the baby, or small child, who will con- e the milk. Appeal to safety enters.

Abbotts Alderney Dairies, Inc., of Philadelphia, and er cities, featured the safety thought in a heading, n followed with the quality idea.

The space unit was three columns by ten inches. A e panel, oval with modifications in shape, occupied upper half of the advertisement, in center. On seven s in this, heavy black type, was the heading, "You not buy Safer Milk for Your Children at any price!" A mother was shown with nursing bottle in hand, koning to a wee tot running with outstretched hands ard her. The copy, quoted below, combined both ty and quality thoughts.

At the advertisement foot was a signature of Ab- ts "A" milk. One feature of this was a sketch show- a woman, with microscope, examining a test tube. slogan was given, too: "Tuberculin Tested Milk eguarded by Science."

Mutual Creamery Company of Salt Lake City, ad- tising, reproduced the complete milk samples report a single month. The list was put in bold faced type, the head of a three columns by sixteen-inch adver- ment. Bringing out the high standard of Mutual amery Company milk, the name, fats and solids per- tages, and bacterial count were placed in bold face e of a larger point than that of other distributors. In body type below the superior standing of the npany's product was pointed out.

Purity arguments in dairy products advertising di- e into two classes—general and specific.

An excellent illustration of the specific, full-of-facts e comes from Des Moines, Ia., employed by the Flynn ry Company.

A sample advertisement is three columns by fifteen inches. The title is, "Laboratory Tests Insure the Purity of Flynn Quality Ice Cream." Two illustrating halftones are a distinctive feature.

One of these, at the top, has the explanatory caption, "View of one of the six units in our complete bacteriological laboratory—the only one maintained as an integral part of an ice cream plant in the state of Iowa." This half-tone was approximately three inches by four inches. At the advertisement foot was a second halftone, showing a laboratory worker engaged in tests. Explained the caption, "Another of the big units of our complete bacteriological laboratory, which absolutely assures healthfulness in Flynn quality ice cream."

Advertisement text, while brief, concentrated on the single theme. "The cream used in Flynn quality ice cream," it was said, "was tested in our complete bacteriological laboratory for every element affecting purity and health. It comes to you abounding in Nature's own richness, high in food value, while especially appealing to the palate with the delectable flavor of pure fruit juices and extracts.

"Try Flynn quality ice cream and you will say it is the smoothest, finest you have ever tasted."

The photographs, of course, were the heavy material of the presentation. While the advertisement did not go into detail concerning them, the reader was interested. The impulse to examine the photographs closely was stimulated. They made concrete, specific, the "laboratory tests" appeal. What was a laboratory, anyway? The question was answered for the reader the instant it came.

Incidentally, this advertisement illustrated a very effective border plan. Surrounding the text was a border approximately three-fourths of an inch in width, which was, except for inside and outside narrow rules, wholly black. Against this appeared, up and down the side, many white milk bottles. These were about one and one-fourth inches high. Across top and foot were dishes of ice cream. Within a large circle in the center of the topmost border was presented a charming child's face. Large reverse plate circles at bottom corners, featured, reverse plate style, effectively a carton of ice cream and a brick.

Specific stuff commands a premium in advertising to get quality and purity across. General statements have been overworked by practically all advertisers. They are trite in their sound, too. A sophisticated public is skeptical of them.

An advertiser can trot out a general statement claiming splendid quality. Only the dairy with the goods can talk of specific things constituting proof.

All this dictates that quality advertisers able to give the specific facts do so. And analysis will usually show that such specific information exists and can be transferred, with real effectiveness, to the printed page.

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FOOTBALL PLAYERS DRINK MILK DAILY.

According to Football Coach George Gauthier, of Ohio Wesleyan College, he has prescribed the drinking of a quart of milk a day to his sixty players.

Gas Coupe Aids in Selling Milk

Wider Territory Covered and Outlets Increased Thereby. Keeping Personal Contact With Your Customers

By E. J. CLARY*

IN ORDER to increase their outlets, and extend their territories, many Eastern milk dealers are experimenting with the gasoline coupe, sending out their salesmen to open up quantity users of milk in the retail, hotel and restaurant and institutional trade, and in addition to selling, giving a frequent and valuable contact with customers which is of the greatest value.

In some instances, the domestic field is being covered in this way by men especially qualified to create good will toward the plant and its product.

These salesmen have proved their ability to pay their way and to accomplish a great deal more than the route man can accomplish, whose working hours are better spent in servicing the plant's accounts.

I have at hand some interesting figures on the cost of such a selling organization for the milk dealer which may number as many units as the business justifies.

One milk salesman, working for a New England plant, averaged 45 calls a day covering 50 miles and the cost of the operation to the milk dealer per car proved to be $3.25 per day.

It is further claimed that the cost per call on the commercial milk trade is nine cents per call within a mileage cost of ten cents. Considering the value of this kind of co-operative contact, the gasoline coupe would seem to be a good investment for the milk dealer especially where a large commercial business is done in a widely scattered territory.

In a great many instances where the plant has no regular selling force, this plan may appeal as combining as it does a good will proposition with an active selling one. Transportation, either because of its slowness when public conveyances are concerned, or through its cost when horse drawn vehicles are concerned, has had much to do to reduce the employment of salesmen working exclusively on sales and good will in the trade.

Good for Commercial Business.

While ordinarily, plant managers feel that domestic trade with its small sales units and the high cost per call, scarcely warrants a flying sales corps of this kind, though in territories which are thickly populated as in the larger cities, even that field will warrant frequent calls on the part of trained men who understand what the plant has to offer.

It requires surprisingly few mobile men when the gasoline coupe is concerned to contact the customers of even the large metropolitan plants, 50 calls a day meaning that a plant with 1,000 outlets in the commercial field can depend upon a contact about once each month even though only a single coupe is in service. By doubling the number, a call can be made twice a month which does much to offset the inroads of competition.

One trouble the small city plant experiences is the distance from its customers, not in the matter of mileage but in the infrequent and spasmodic personal contacts only that it is possible to secure. Where the tr has undertaken the employment of special salesmen this type, transport becomes the all important point asmuch as the number of calls per day is the key to situation.

That route men need to be checked up at interval pretty well agreed upon. The product of the indus must be sold as all products consumed by the pub must be sold and in addition to creating new outl the salesman using a gas coupe is able to keep the plan customers satisfied, settle complaints and create a feel of good will that might otherwise be lacking to the c pany's disadvantage.

But the management of any plant will wish to tablish the profits direct or indirect that may result fr investment of money in a gas coupe and a salesman use it before entering into any such plan.

What May Be Expected.

Figures show that in one instance, the result o six months' effort was as follows on a single gas cou

COST OF OPERATING COUPE SIX MONTHS.

Depreciation of vehicle	$120.00	
Insurance, taxes, etc.	36.00	
Gasoline	105.00	
Oil	32.00	
Repairs, parts	20.00	
	311.00	
Salesman's salary	1200.00	
	$1511.00	$1511
This is for six months—or, at the rate of about $3,000 a year.		
Now for the results:		
Gross of new business opened up in commercial field	14,000.00	
Estimate of value of good will through contracts on customers.	5,000.00	
	$19,000.00	$19,000

This is getting business at the rate of about ten cent which is not a high selling cost, volume consider

It is not probable that all salesmen could produc gross volume of business so large as a result of the fi six months, for the total for the year would run arou $30,000, though a portion of it must be estimated in form of good will created which is indirectly getti business.

The plant may feel that the addition of a selling c of ten per cent to its present high delivery costs a the estimates for selling costs through present chann is too much but when it is considered that this is bu ness building the matter takes on a new meaning.

It is almost indispensable that the modern plant gage in some such form of selling especially in th fields where purchase for resale or service utility and consumption is concerned. Outlying retailers, hot restaurants and soda fountains trade must be watch with increasing care and there is no method of keepi watch better than by the employment of high grade ict men able to make frequent calls with intelligent ment of customers.

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* Merchandising consultant.

Delivery a Separate Matter.

ny such sales force equipped with gasoline coupes d be divorced from the delivery service of the plant he route man freed from any responsibility in this ect. Two men in small cars can do all the selling e commercial field that the plant having 1,000 out- requires.

he result of such a plan is also found in the im- ement of delivery service under such circumstances. ne plant manager in Boston told me that the service render showed a decided improvement among their rtant customers when they contacted them by s of special representatives using street cars, buses even taxis but the transportation costs proved too and the average number of calls daily too few to ant the expense. This plant is now trying out the gasoline coupe and keeping track of costs and results. So far they are satisfactory.

Selling cost must come out of gross and to increase the selling cost in the trade is often fraught with danger—results may justify every dollar spent and this is true of almost any business where service enters into costs as an important matter.

If the plant can find a way to reduce the selling costs below ten per cent as a result of this gasoline coupe idea, the thing will have to be done by getting bigger sales volume and keeping the salesmen up on their toes at all times. Otherwise, ten per cent might be a serious drain on the revenue of the plant.

The disgruntled customer in the trade often never gets a chance to air his complaints to the management and undoubtedly a lot of business is lost through having no adequate provision to maintain and build up good will. Route men are not prone to report conditions as they exist when trouble brews and this inside track on the situation furnished by the man in the coupe is offered as one solution.

More Cities Require Safe Milk

Results of Survey Conducted by Officials of the United States Department of Agriculture Indicate Growing Interest in Ridding Dairy Herds of Tuberculosis

XTENSIVE interest of cities in the nationwide campaign against tuberculosis of livestock is seen in results of a survey recently conducted by the ed States Department of Agriculture. A total of 874 and towns have ordinances requiring the tuberculin ig of cattle furnishing milk for consumption. Offi- reports indicate that with the exception of about er cent the ordinances are fairly well enforced.

he action of such cities as Chicago, Cleveland, De- and Louisville in promulgating tuberculin-test re- ments has stimulated recent interest in this subject. survey showed, however, that the smaller communi- also are fully as active in safeguarding their milk lies.

addition to the 874 cities having tuberculin-test ances, 375 provide an option between tuberculin ig and pasteurization. Thus a total of 1,249 munici- es have taken positive steps to safeguard their milk lies from possibility of disease transmission.

ourteen states also have enacted laws or have issued ations authorized by law requiring the tuberculin ig of cattle. Though varying in details, the laws the same general purpose—to safeguard the whole- ness of milk supplies. In all cases tuberculin tests be applied by approved graduate veterinarians.

s a basis for skilled tuberculin testing in which the c may have confidence, the federal and state veteri- officials have prepared lists of "accredited" and roved" veterinarians. These terms apply to private itioners who have satisfied federal and state authori- s to their qualifications.

n examination of the forms of supervision over the culin testing of cattle supplying cities with milk s the large extent to which cities have accepted the lled uniform plan of testing. This plan provides al and state indemnities for cattle which prove to iberculous and which are removed from the herd slaughtered. The plan is followed by 634 cities. s that rely on municipal inspection alone number 498, while 117 other cities and towns use a combination of the two safeguards or make some other provision for tuberculin testing.

A study of reports from the various states explains the rather general adoption of pasteurization as an additional safeguard even when the cattle are tuberculin tested. Proper pasteurization, as is well known, destroys any infection from other disease-producing organisms that may be present. It also gives double assurance that no living tubercle bacilli are present.

Some states, of which Florida is a typical example, receive large quantities of milk from other states. Florida does not have a statewide tuberculin-testing law, but the city of Miami, for instance, requires pasteurization in addition to tuberculin testing. Much other milk received in the state is also pasteurized since its origin, outside of the state, is beyond the jurisdiction of local inspectors. In several small towns tuberculin testing of cattle is conducted in response to a demand of patrons, though no official ordinance requires such tests.

These sidelights appear to show the strength of public opinion and the extent to which milk consumers demand safety with respect to their milk supplies. The condition appears to be especially true in states to which tourists and home seekers go for their health.

Several states have issued educational literature dealing with bovine tuberculosis, the evidence of transmission to human beings, plans for eradication, and laws and regulations for suppressing the disease.

Besides this means of stimulating interest in safe milk supplies, various state officials have drafted sample milk ordinances based on successful ordinances elsewhere. In these are embodied effective and practical provisions for dealing with the tuberculosis problem.

Some cities have taken more definite action than others, but evidence is abundant that city "fathers" are becoming more and more concerned in guarding the milk consumed in their communities.

Net Profit or No Profit

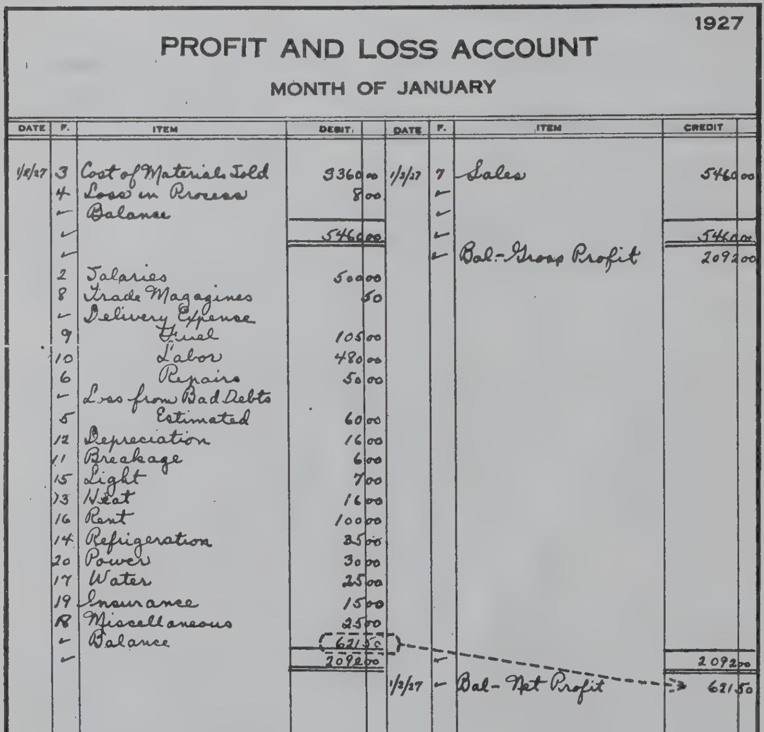
A Few Accounting Suggestions for Handling Costs in the Small Dairy

By F. M. BRUGLER*

THE purpose of any business enterprise is in the last analysis that of making a profit, and a knowledge of costs is indispensable to that purpose. No matter what the size of the business, cost is the impartial and common denominator. Each business has its individual fraction to solve, and the old junk collector may have a relatively larger margin of profit than the United States Steel Corporation.

The small dairyman who has from 500 to 1,000 customers is in business to make a profit. His accounting problems, however, lack the detail which confronts the larger distributor and, owing to their apparent simplicity may, as a result, not receive the attention they deserve.

His accounts are less numerous; the products he distributes are less varied; but the main principles of cost and their relation to net profit are quite as significant as to the operator who serves 10,000 or more customers. The small dairyman has just as much right to stretch his feathers over the margin of profit he obtains, provided his system of accounting gives him a true story of past performance. A system which tells the dairyman the whole truth is based on an intelligent handling of costs.



1927

PROFIT AND LOSS ACCOUNT

MONTH OF JANUARY

DATE	F.	ITEM	DEBIT	DATE	F.	ITEM	CREDIT
1/2/27	3	Cost of Material Sold	3360 00	1/3/27	7	Sales	5460 00
	4	Loss in Process	8 00		✓		
	✓	Balance			✓		
	✓		5460 00		✓		5460 00
	✓				✓	Bal.-Gross Profit	2092 00
	2	Salaries	500 00				
	8	Trade Magazines	50				
	✓	Delivery Expense					
	9	Fuel	105 00				
	10	Labor	480 00				
	6	Repairs	50 00				
	✓	Loss from Bad Debts					
	5	Estimated	60 00				
	12	Depreciation	16 00				
	11	Breakage	6 00				
	15	Light	7 00				
	13	Heat	16 00				
	16	Rent	100 00				
	14	Refrigeration	35 00				
	20	Power	30 00				
	17	Water	25 00				
	19	Insurance	15 00				
	18	Miscellaneous	25 00				
	✓	Balance	621 50				
	✓		2092 00		✓		2092 00
				1/3/27	✓	Bal.-Net Profit	621 50

The above is a suggested profit and loss form for the small dairy operator. By carefully observing the principles outlined in this article, the small dairy plant should be able to establish an accounting system which will extract a true evaluation of net profit from the tangle of the month's transactions. It is to be emphasized that the dollar figures given above are entirely hypothetical, and are not presented as financial standards.

The Two General Divisions of Cost.

Cost may be broken down into two general divisions which follow the line of a product's advance from raw material through fabrication and on to the consu
Cost finds first expression in the amount of money w
is paid for raw material and is to be designated as "
terial cost."

The conversion of raw material and the distribu
of that product to the consumer have costs which
to be included under "manufacturing and distribu
cost." The above classification is by no means stand
rather, it is resorted to for the purpose of simplicit
explanation and with an eye to the particular circ
stances of the small dairyman.

When material cost (price paid the farmer for w
milk) is deducted from total sales, the resulting
represents a definite evaluation of spread, which ter
used to designate the relation between material cost
selling price. In order to simplify subsequent expl
tion, this item will be called "gross profit." Under r
refined accounting methods, gross profit has a bro
application, but in this article the term will be used
in its application as defined above.

In order to obtain a true gross profit, the da
man must receive daily the amount of whole
received from the various sources and keep an
curate record from day to day of accounts re
able and cash receipts. It is the better part of
dom to enter the above items daily on record
convenient form, summarizing them monthly.

Not Approximately, But Exactly.

A check should be kept on the amount of
lost through leakage and spillage, with the thou
of eliminating this condition as much as poss
The dairyman should know exactly the numbe
pounds of milk which he receives daily, chec
this against the number of pounds which go to
customers. The difference between the pounds
ceived and the pounds ready for distribution g
the amount of loss during process. A notatio
such loss at various intervals may throw just
suspicion on equipment or labor.

The step from material to manufacturing
distribution cost marks a transition from simpli
to complexity. A varied array of items fall u
the latter, and it is a dangerous likelihood
many will be neglected when the cost roll is ca
at the close of the month. It is indeed a fictit
net profit to be pocketed when manufacturing
distributing costs are accounted for only in part
The composition of such cost is presented in the
lowing general divisions:

1—Administrative Expenses.

Under this heading falls cost of directing the busi
such as: salary of proprietor and assistants, trade m
zines subscribed to, and trade association fees. All i
of labor in the dairy would fall in this division, fo
small dairyman can generally handle the work invo
by adding to his own efforts those of an assistant or

2—Sales Expense.

Under this head fall expenses which result from ssity of directly distributing the product from the y to the consumer, such as, delivery expense and loss n bad debts.

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* Credit department, The Pfaudler Co., Rochester, N. Y.

3—Depreciation and Breakage.

The gradual depreciation of machinery and equipt, the breakage of bottles, and the continual wear on very equipment are just as much items of cost as are erials purchased. By recording such costs from th to month, and charging them to the current opion of the business where they should be allocated—burden of replacement is considerably lightened. The s for charging depreciation on the various types of hinery and equipment is a matter of the dairyman's erience and judgment in addition to estimates of the of the various units which make up the dairy equipt.

4—Overhead.

Under this head fall all other expenses which cannot placed in any of the above three divisions, such as: t, heat, rent, refrigeration, power, water, and insure.

When the expenses included under the above four dings have been deducted from gross profit, a true re for net profit is obtained. The items listed are of f concern; the values under debit and credit are ed at random in order to complete the illustration.

TEL CLEVELAND FOR MACHINERY AND SUPPLIES HEADQUARTERS.

The hotel headquarters of the Dairy and Ice Cream chinery and Supplies Association throughout the od of its second inclusive Dairy Industries Exposi—which will occur in the $6,000,000 Cleveland PubHall and connecting new large West Annex, October o 29, inclusive,—will be the modern Hotel Cleveland ch stands at one corner of the famous Cleveland lic Square. From the Hotel Cleveland the Public l is reached by a brief walk.

The National Association of Ice Cream Manufacturannounced not long ago that its headquarters for the iod of its annual convention in Cleveland, October to 27, inclusive, will be the Hotel Hollenden, ch is even nearer to the Public Hall than the Hotel veland.

Other Cleveland hotels which, the association annces, can be recommended to dairy industries visitors exhibitors are:

Statler, Winton, Olmsted, Colonial, Fern Hall, New nsterdam, Murphy's, Alcazar, Allerton, Bolton are, Devon Hall, Fenway Hall, Park Lane Villa and stlake.

INTRODUCE MILK IN SCHOOLS IN SCOTLAND.

The Scottish Board of Health has inquired of the nmittee on physical instruction and health of the nburgh education authority regarding an investiga into the nutritive value of milk for school children.

It was proposed in Edinburgh to have four groups of y or sixty children between 8 and 9 years of age, to om certain quantities of milk and biscuits would be plied during school hours, for a period of about eight nths. Records showing the gain in height and weight these children would be taken under the supervision a woman medical officer appointed by the Scottish rd of Health who would provide the funds for the intigation. The proposition was met with approval by educational authority of Edinburgh, provided the sent of the parents would be first obtained.

JUDGING CONTESTS FEATURE CALIFORNIA MEETING.

The annual meeting of the California Dairy Industries' Association was held at the University Farm, Davis, February 17, on the last day of the dairy industry short course. The following were elected officers for the year 1927: H. E. Torgerson, Dairy Products Laboratory, San Francisco, president; I. N. Voorhees, Knudson Creamery, Los Angeles, vice-president; C. A. Phillips, University of California, Davis, secretary-treasurer. The executive committee (members at large) are: L. R. Quinn, San Pedro Creamery, San Pedro; Ella M. Peterson, Dairy Products Laboratory, San Francisco, and E. A. Stevens, United Creamery Association, Arcata.

Competitive judging contests in market milk, butter, cheese and ice cream were held in connection with the meeting. The following were announced as winners:

MARKET MILK.

1. H. Davies, Mountain View Dairy, Long Beach.
2. R. Farr, Brookside Dairy, Redlands.
3. F. Vogelsang, O. J. Weber Co., Los Angeles.
4. C. Robertson, Los Angeles County, Santa Maria.
5. L. R. Quinn, San Pedro Creamery, San Pedro.

BUTTER.

1. J. J. Foley, Maid of California Cry. Co., Vallejo.
2. E. Barlow, United Creamery Assoc., Arcata.
3. E. A. Stevens, United Creamery Assoc., Arcata.
4. L. R. Quinn, San Pedro Creamery, San Pedro.
5. G. Lallemand, Frasier Valley Milk Prod. Assn., Sardis, B. C.

CHEESE.

1. A. H. Boies, San Fernando.
2. R. Farr, Brookside Dairy, Redlands.
3. E. Biles, State Inspector, Stockton.
4. F. Kopp, Golden State Milk Products Co., San Francisco.
5. C. L. Cairns, U. F. Creamery, Davis.

ICE CREAM.

1. G. Lallemand, Frasier Valley Milk Producers' Assoc., Sardis, B. C.
2. E. A. Stevens, United Creamery Assoc., Arcata.
3. P. Manny, Riverdale Creamery, San Francisco.
4. J. L. Cooksley, Geo. Hass Co., San Francisco.
5. F. Harrild, Sacramento.

SWEEPSTAKES TROPHY.

Ross Farr, Brookside Dairy, Redlands.

The prizes which were awarded at the annual banquet were donated by The California Milk Distributors' Association, California and Southwestern States Ice Cream Manufacturers' Association, California Creamery Operators' Association, California Cheese Association, Taylor Instrument Companies, Geo. W. Prising Company, Creamery Package Manufacturing Company, Western Confectioner, Pacific Dairy Review, The Olsen Publishing Company, and the J. B. Ford Co.

Annual subscriptions to the Olsen publications were awarded as follows as prizes:

Harry Davies, Mountain View Dairy, Inc., Long Beach, Calif.: One year's subscription to "The Milk Dealer."

J. J. Foley, Maid of California Creamery Co., Vallejo, Calif.: One year's subscription to the "Butter, Cheese & Egg Journal."

E. F. Boies, 142 Hubbard Ave., San Fernando, Cal.: One year's subscription to the "Butter, Cheese & Egg Journal."

Geo. Lallemand, Frasier Valley Milk Producers' Assn., Sardis, B. C.: One year's subscription to "The Ice Cream Review."

290,000,000 POUNDS OF WHOLE MILK REQUIRED TO PRODUCE MILK CHOCOLATE CONSUMED.

According to figures issued by the Department of Agriculture, Washington, more than 290,000,000 pounds of whole milk were used in manufacturing milk chocolate, the consumption of which has increased tremendously in the United States during the past few years.

Trade Associations and New Competitio

The Weapons of the New Competition. Co-operative Advertising Is One of the Greatest of These

By O. H. CHENEY*

GENTLEMEN, at the outset I wish to assure you that I have come here on a mission of peace and good-will. Before I have finished talking you may rise up in wrath and smite the man sitting next to you with your soup spoon. You may think that he is your friend and has been your friend in this Forum for several years. I shall disillusion you. He is your deadly enemy—at this very moment he has plans which, if they were really successful would ruin the industry you represent and thus leave you without a job. He is your secret enemy—so secret that he doesn't know it himself. No, the man sitting next to you "don't mean you no good," as they say of the villain in the melodrama—and I wouldn't blame you if you hurled yourself at him with blood in your eye.

How It Happened

In Chicago there is a splendid organization, known as the Chicago Business Secretaries Forum. It is just what its name implies. Secretaries of trade associations make up its membership. R. E. Little, secretary of the International Association of Milk Dealers, is president of the Forum. In commenting on Mr. Cheney's address, Mr. Little said: "Mr. Cheney's address is a very liberal contribution to the literature of trade association work, and to the effectiveness of the work of the trade associations represented in this Forum."

We are giving it space in full and commend it to the careful attention of every reader of The Milk Dealer.

But I am here on a mission of peace and good-will. Please spare the man at your side until you hear all. There may be others in this room who are even worse enemies. When I am finished you may think that a free-for-all fight is the only sane action to take.

Perhaps you represent the proprietory medicine industry. The man next to you may represent the rubber industry—and there is a bitter feud between you because one is trying to keep the feet of the people dry so they won't catch cold while the other is making his living by curing colds. Perhaps, however, you represent the lumber industry. On your right is the secretary of the brick association, on your left the executive of the cement association and over there are representatives of the hollow-tile trade and the cut stone industry. Which of you is going to beat the others in supplying materials for this years's new homes?

Do you represent the millinery trades? The man at your side may serve the fur industry, and by promoting the style of big fur collars on women's coats he is ruining the hat business by forcing women to wear small and inexpensive hats. You may be interested in the ankles of the fair sex—I mean, you may represent the silk hosiery industry. You have two brave rivals who are ready to fight to the death—to spend millions in the fight—for the glory of those ankles—the leather industry, which has suffered from the low shoe vogue, and the fabrics manufacturers, who yearn for the good old days when skirts were skirts.

If you represent the plumbing and heating business, you are the mortal enemy of the textile industry, because warmer homes means lighter clothes. If you represent the printers, how can you shake hands with the radio equipment man? If you represent the retail clothiers, can you speak a friendly word to the automobile trade representative—the man who is encouraging your tomers to sink their salaries in installments on new c

Defines Types of New Competition.

These are really only obvious forms of what I h called the new competition. The old competition that between the members of each trade organizat One phase of the new competition is that between trade associations themselves—between you gentle who represent those industries. Inter-commodity com tition is the new competition between products used ternatively for the same purpose. Inter-industrial c petition is the new competition between apparently u lated industries which affect each other or between s industries which compete for the consumer's dollar— that means practically all industries.

If your trade association represe retailers and you pass a resolut against manufacturers who through house-to-house canvassi you are dealing with another ph of the new competition—intra-ind trial competition—or, if you pre inter-distributor competition. It the competition between the vari factors in an industry to take o each other's functions in the line production and distribution.

I shall not take up more of y time in further describing the n competition. If you want more amples, I am sure that you can "r your own". I would like, rather, discuss the position of the trade as ciation in this new competition. D the new competition mean m power or less to the trade asso tion? What can the trade associat do for its industry in fighting its b tles in the new competition? H can the association executive a himself to lead his members in this gigantic econon warfare?

Where Did It Originate?

Let us first study the causes, the origins, of the n competition as we face it today. If we search d enough, we shall find that the real causes of the new c petition are in the most fundamental tendencies of economic life of this country and of the world.

One of the forces most active in the new competit is what I have called "distributive pressure." It is pressure of goods for outlets and also the suction of o lets for goods. This pressure may express itself in str ing for greater volume of sales—or it may express its in seeking more direct channels of distribution betw producer and consumer. That is, it may attempt to crease sales by developing new markets through adv tising or it may result in cutting out the wholesaler the retailer. The pressure of outlets for goods is just powerful and insistent. Drug stores sell thousands items which cannot be called "drugs"—cigar stores s—department stores sell both and in some cases sell automobiles and real estate. The meat packers, ugh their sales organizations, are disposing of a huge me of butter and eggs and other foods.

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* Vice-President, American Exchange Irving Trust Co., New York, N. Y., before the Chicago Business Secretaries Forum, February 16.

'his distributive pressure is the result of growing uctive capacity on the one hand and growing mar- on the other. New industries spring up and grow t—old industries grow greater. Their plant ca- ty increases—many industries have never reached ndred per cent of the capacity developed during the and post-war booms. The machines must be fed if ndustries are to survive.

Vaiting for the production of these industries is a ılation with the greatest buying power ever known orld economics—the greatest buying power and the est standards of living. Nothing appears to be too l for Americans. And in spite of the lamentations he higher-browed novelists, in no country in the d is taste less standardized than here. There is room ılmost every kind of product to find a market. And e is enough margin between subsistence and income he majority of families to encourge freedom of . The American pocketbook has the world to choose ı. It may not always choose wisely, sanely or artis- ly, but it is in that constant choosing that we find origin of the new competition.

Must Use New Weapons.

'he weapons of the new competition are not the ons of the old—the old weapons have been modern- and made more powerful, and new ones have been d. Co-operative advertising is one of the greatest has been growing greater every year. But adver- g and merchandising, even with all their manifold urces and their new methods, are not the only ons in the armament of the new competition. The competition, like the old warfare was a matter of lry charges or infantry marches. Now we have air- es, submarines, tanks and poison gases and propa- la. War isn't in the open, nor is the new competi- Methods are more indirect and more sweeping.

nstallment selling is simply one phase of the new etition. It is not a simple and isolated phenomenon e studied as an economic freak. When it first be- e widespread it was used more or less unconsciously was simply a blind method of increasing volume kly. But now it is being used more deliberately— those who have used it have begun to realize why working out as it is. It was not simply an accident it developed in such an extraordinary way in the mobile industry first. It was not simply that the mobile industry was ahead of the others in mer- dising technique. Installment selling was the only ible answer of the rest of the automobile industry e price challenge of Henry Ford. He attempted to an automobile within the financial reach of almost one. The others had to do the same and they used nstallment plan recognizing that in the psychology e average American, the future is a long way off the down payment counts most. Ford met the chal- e with a $5 down plan and more liberal installment s—but had to give it up. Now his idea seems to be op selling automobiles and to sell transportation in- —he plans to take old Ford cars and rebuild them flat rate of sixty dollars. How will the other auto- ile manufacturers meet this? And where will this kind of competition lead?

Drags Government Into Fray.

very state legislature and every government depart- t in Washington, are the battle-ground of the new etition. Legislation, regulation, rate-making and arch are all weapons in the new competition and many industries owe their prosperity to the strategic use of them. To help them in the new competition, the farmers are invoking federal aid. What did federal and state highway aid mean to the automobile and construction and road materials industries? What is the demand for price maintenance legislation and "truth-in-fabrics" legislation? What were the local ordinances against house-to-house canvassers sent out by direct-selling manufacturers? What are the elaborate freight-rate hearings before the Interstate Commerce Commission but the new competition between different sections of the country? What are tariffs?

Some of these weapons are old, of course, but we have learned a great deal in using them in the last few years. I cannot overestimate the gigantic and vital problems they present to trade associations. Most associations have committees, legislative committees, committees on research and on publicity. But I need not tell you how ninety-nine per cent of such committees work. Until the trade associations see the new competition as a whole and see these various weapons in their proper relation to the struggle, there will be many defeats.

What is the good of your overwhelming the country with co-operative advertising if a competing industry manages to obtain legislation against you? What is the good of developing a cost-accounting system if a competing territory manages to obtain more favorable freight rates.

The Trade Association's Problem.

How can the trade association meet the new competition? Perhaps it would be simpler to answer this question if we analyze the new competition into its main types and study the problems which each type presents to industries and the trade associations which represent them.

Inter-commodity competition is, of course, the most spectacular of all. It is the one which seems most of all to have caught the business imagination of the country. More and more business men are beginning to appreciate what inter-commodity competition means to them. More and more they are calling up their trade associations to help them—because inter-commodity competition cannot be fought single-handed.

Take the great war on the dining-room table, for instance. Three times a day practically every dining-room table in the country is the scene of a fierce battle in the new competition. Shall we have prunes for breakfast? No, cry the embattled orange-growers and the massed legions of pineapple canners. Shall we eat sauerkraut? Why not eat green olives?, is the answer of the Spaniards. Eat macaroni as a change from potatoes, says one advertiser—and will the potato growers take this challenge lying down?

The doctors and dietitians tell us that a normal hard-working man needs only about two or three thousand calories of food value a day. A banker, I suppose, needs a little less. But what am I to do? The fruit-growers, the wheat raisers, the meat-packers, the milk-producers, the fishermen—all want me to eat more of their products —and are spending millions of dollars a year to convince me. Am I to eat to the point of exhaustion or am I to obey the doctor and let the farmer and the food packer and the retailer go broke? Am I to balance my diet in proportion to the advertising appropriations of the various producers? Or am I to balance my diet scientifically and let those who over-produce go bankrupt? The new competition is probably keenest in the food industries because there we have a very real limitation on what we can consume—in spite of higher incomes and higher living standards, we cannot eat more than we can eat.

(Continued on page 140)

Are You Courting Court Expense

By

PHILIP L. SNIFFIN

Motor Truck Advisory Engineer

You are Responsible If Your Driver Causes Damages To Others On the Public Highway. When To Insure and When To Carry Your Own Risk.

THREE months ago, a jury and court in an Eastern state awarded damages of $20,000 to the widow of a man who had been killed in an automobile accident.

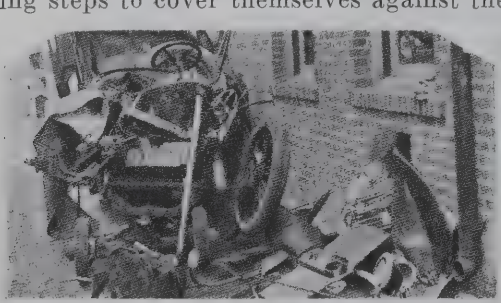
The man who was killed was a passenger on a delivery truck. He had "thumbed" a passing delivery car and the chauffeur had obligingly stopped and taken him in. A short distance down the road, the truck met with a serious accident. The passenger was killed and the chauffeur was seriously injured. The court held the owner of the truck must pay.

Legal technicalities are things that few of us know a good deal about. We know the difference between right and wrong and our sense of justice guides us fairly well along the road of life. But now and then we bump up against some point of law that we did not know about and the experience proves a costly one. Perhaps we do not agree with the justice of it. It may be something new that we had not heard about. Maybe we feel grievously wronged, but we have no redress. The court holds that ignorance of the law excuses no one.

You Are Responsible!

With the increasing city traffic problems the city milk dealer holds himself probably more liable to legal difficulties in his delivery department than in any phase of his business. Here he has a number of vehicles on the road or public highway, liable to countless breaches of the law, and here his fate is in the hands of drivers for whose actions while in the performance of duties, he is legally bound. The driver is his agent, paid by him, and he is responsible for whatever the driver does while acting in this capacity and within the scope of this employment.

The larger city milk distributors have only recently recognized the full importance of this. They are taking steps to cover themselves against the possibilities of big losses. Even at the expense of considerable time and money, they have found that it is worth their while to keep posted on their liabilities and to protect themselves as far as they can.



The incident mentioned in the beginning of this article is typical of the sort of thing for which you should look out. It is one of those cases where the head should rule the heart. The many court decisions in cases of this kind make it very plain that where a plaintiff has been caused damage at the hands of any individual, any property or any equipment, employed or owned by person or firm, that person or firm is held in strict count for the amount of the damages.

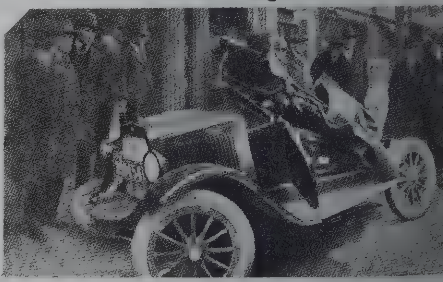
The biggest and most frequent cause of troubl the case of accident with damage to the person property of others. Here, where the fault is with driver, you are plainly held for damages and c costs. Several cases have come within the writer's servation where a driver has left a truck on a hill, brakes have become released and the truck has r down the hill with resulting damages. In a case of kind, even though it could be proved that the drive ercised due care in setting his brakes, even though us say, a chld had climbed into the driver's truck released the brakes, the owner of the truck is held sponsible for all damage.

Fines and suspended or revoked licenses for t violations also cause a lot of trouble for the owne delivery trucks. Every business has a certain am every year, charged off to delivery costs for court f Suspensions of licenses are also quite frequent and means, of course, that the driver must be discharged and a new one employed, involving considerable pense and inconvenience in breaking in a new man. in all, as will be discussed later in this article, it is p able to take good care in hiring drivers and to see they are instructed to obey traffic laws. One con has this sign in large letters prominently posted i garage:

> OBEY ALL TRAFFIC LAWS. THIS COMPANY IS IN FULL ACCORD WITH EXISTING TRAFFIC REGULATIONS. REGARDLESS OF YOUR PERSONAL OPINION, THEY **MUST BE OBEYED.**

"Meeting the Traffic 'Cop.'"

The garage superintendent of a New York City concern told me recently that he believes a g many milk dealers are being taxed considerably for the impertinence of their drivers. Perhaps you know from your own experience that the average police officer responds better to a gentlema diplomatic attitude than he does to a hot-tempered gumentative one. Truck drivers are too apt to fo this. Their first natural instinct is to "stick up for t side of it" and to somehow make a case for themse I have talked with many traffic officers and they



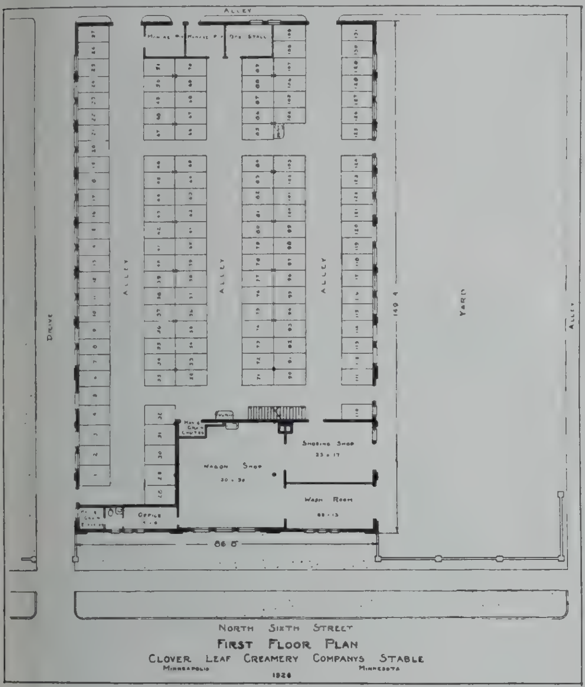
(Continued on page 48)

A Stable That May Become a Garage

Big Minneapolis Milk Company Builds a Stable and Work Shops Building That is a "Thing of Beauty" and at the Same Time Most Practical

WHILE in the Flour City one day recently it was the privilege of a Dealer representative to visit and carefully inspect the fine new stable and k shops of the Clover Leaf Creamery Company.

The front is two stories and basement in height and fireproof construction. This section contains boiler n and storage room in basement, wagon repair shop, se shoeing shop and wagon washing space and office first floor. The second floor contains storage space about two carloads each of baled hay and feed.



Chutes for hay and grain drop to the first floor at a venient location for distribution to the stalls. There lso a well equipped harness making and repair shop he second floor.

The rear portion is one story in height and contains ls for 131 horses, a box stall and two manure pits. se pits are separately ventilated through turbine ven- tors placed in the roof. The stable proper is ven- ed by five large disc fans placed in special housings on the roof, controlled separately from switches below.

The water troughs consist of five-foot white enamelled bath tubs set up on concrete bases.

Floor of entire stable, including the stalls, are of an asphalt mastic, eliminating all wood plant floors and the attendant unsanitary spaces underneath.

Partitions between stalls are of plank with open spaces between for ventilation and also arranged for easy removal for replacement when damaged. Windows throughout are steel sash. Windows in stable proper are placed close to ceiling and are hinged at the bottom to swing in. This provides the maximum of light and readily controlled ventilation. The exterior walls are of brick and hollow tile, the face brick being used on all sides of the building. The ornamentation is of cast cement and was designed and cast specially for this building.

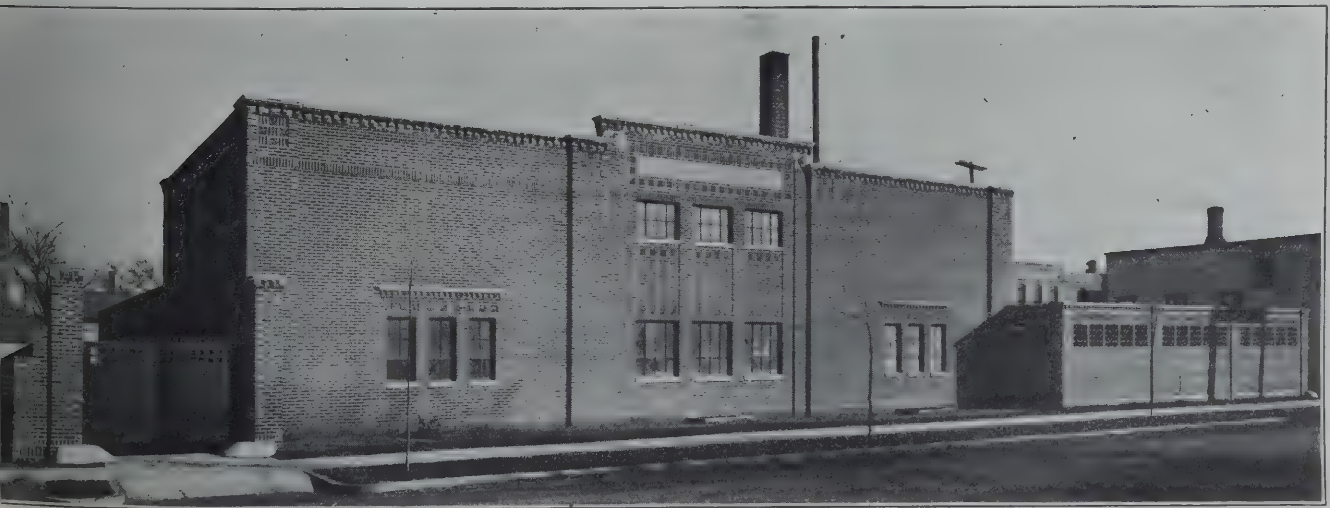
As the building is located in a residential district it was the aim of the owners and architect to erect a building that would be somewhat out of the ordinary in design and not have the appearance of a stable. The wall at the right is about 12 feet high and conceals the wagon yard.

Trees have been planted in the boulevard and shrubbery will be placed against the building in the spring.

As the roof over the stable is absolutely flat and constructed with only one set of joist it was felt necessary to provide the best possible insulation, against the extreme heat generated by the sun on this large roof expanse. The entire ceiling of the stable proper is lined with cork board 2 inches thick nailed directly to the underside of the joist. A coat of portland cement plaster is applied to this. This has proven very effective both against heat in summer and heat loss in winter. The roof covering is a five-ply pitch and gravel carrying a 20-year guarantee.

The construction of the one-story part is such that should it ever be advisable to discontinue the use of horses for delivery and use trucks instead, the stalls and all wood posts could be removed leaving only two rows of steel columns down the center of the building, allowing ample space for storage of trucks.

The building was designed and erected under the personal supervision of Arthur Dahlstrom, architect, located at 1200 2nd Ave., So., Minneapolis, Minn.



Street View of Stable and Workshops Building.

Teaching the Public to Like Milk

"Here's to a Glass of Good, Cold Milk and May We Live Long and Prosper---By Drinking It!"

By THURMAN B. RICE, M. D.*

THE prosperity of everyone connected with the milk industry—and I find as I look at the advertising pages of THE MILK DEALER that the range is far wider than one would suppose—is fundamentally dependent upon the willingness of the public to buy milk after it is produced at the dairy, put through all the various processes, and finally delivered on the front step.

Therefore it is up to the dairyman, the milk dealer, and the manufacturer of milk handling machinery and supplies to keep constantly at the task of the education of the public to a practical realization of the fact that good milk is the best of all foods. There has been a great increase in milk consumption in recent years, but we are still far from the ideal of a quart a day for each child, and a pint for adults that is held up before us by nutrition experts. As one goes along the streets and sees bottles sitting out it is evident that we are falling far below such an ideal—at most houses one quart, at a considerable number two, and very rarely three quarts. My own family—two adult and three children—uses three or four quarts a day, and the milkman regards the fact with amazement. A few days ago he suggested that we had "better get a cow."

How can the public be induced to use more milk? The superior food qualities of milk must be kept constantly before the public; the value of vitamines and mineral salts should be stressed—but that is another story than the one we are proposing to spin on this occasion. We have in mind the problem of winning over to the use of milk those folks, of whom there are not a few who say, "I don't like milk" or "milk doesn't a with me."

Rather careful analysis of the reasons why folk not like milk reveals the fact that most of the objec can be removed when they are once understood. better for the milk dealer if the dislike can be overc and it is infinitely better for the individual, becaus or she needs milk as food, and may in case of ce diseases be put upon a milk diet by the physician man who dislikes milk is out of luck in such a tingency.

One of the most prevalent causes of dislike for is found in those folks—nearly always adults, of co —who have helped in the production of the family ply of milk in the early days when they were "bac the farm." They do not like the odor of milk, an course the taste is very like the odor. Milk to the closely associated with the cow stable. They do know that dairy cattle and dairy barns are very di ent in these times than in the times when they were on the farm. As young folks they had to get up e and go milk the cow in the cold and dirty barn. It a most unpleasant task and they still hold a gru against milk because of it.

These folks need a visit to a modern dairy farm. if they cannot have that they need pictures showing handsome, well-lighted barns, cleaner than many ho Pictures illustrating improved modern methods gradually get the idea across that the milk of toda not the milk of yesterday.

Milk that has been heated to pasteurization tem ature in a vat that will allow the escape of vapors then cooled over open brine pipes will of course lo large part of the objectionable odor. The milk de should try to keep out of his supply such milk as h definite odor of some food that the cow has eaten as whiff of such is sufficient to undo the effort of mont building up an appetite for milk. Invalids and folk a milk diet are particularly "finicky" about odors— odors so faint that other folks cannot detect them.

Heat has the effect of increasing odors, while chi decreases them. Milk that is ice cold has quite a ferent odor and taste than milk that is warm. In connection should be mentioned the fact that odors c come from the icebox in which foods are kept. On fish, muskmelon, cucumbers, pickles and other hi aromatic foods will give the corresponding scent to milk in the same icebox. Stale, moldy, or spoiled is also bad in this respect.

If one wishes various desirable flavors may be g the milk by the addition of extracts of different s It is perhaps better if we learn to like milk "strai but if folks prefer it doctored up in some way the no serious objection and the whim should be sati if possible. A touch of cinnamon or nutmeg, a s tang of lemon or vanilla will certainly detract not from the food value of a glass, but will make it palatable for some.

A great many folks do not like cream, excellent though it is. In such case they may not like whole because of the cream which it contains. Skim mil

(Continued on page 59)

A STORY OF MILK ON WHEELS.

Flynn
The Best MILK
PERFECTLY PASTEURIZED
Flynn
MILK
DES MOINES
Flynn
The Best MILK
61

This is the Way a Des Moines Milk Company Advertised to the Natives.

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* Assistant Professor Sanitary Science and Hygiene, Indiana University School of Medicine, Indianapolis, Ind.

DE LAVAL DE LAVAL

Do you doubt this?

The New Series De Laval produces very heavy cream with less loss of butter-fat than was ever before possible and is particularly efficient in re-skimming gathered cream.

—from a recent De Laval advertisement.

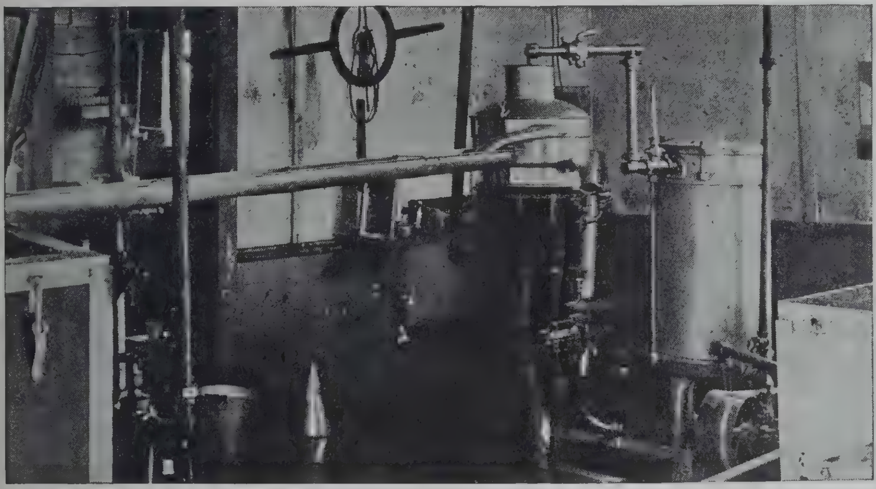
Then read this —

The Augusta Creamery Company, of Augusta, Wis., recently installed the No. 71 New Series De Laval Separator shown in the illustration. In a recent letter they say:

"We are very well pleased with its operation. We are re-skimming gathered cream and find it economical and a very close skimmer."

New Series De Lavals skim clean at any reasonable working temperature and do it when run at their full rated capacity. Regardless of whether it is more economical for you to separate with milk at pasteurizing temperature or many degrees lower, or whether you want cream testing 10% or 60% butter-fat, a New Series De Laval will save you money.

Write for full information.



DE LAVAL DE LAVAL

The DeLaval Separator Company

NEW YORK CHICAGO SAN FRANCISCO

When writing to THE DE LAVAL SEPARATOR COMPANY *please mention The Milk Dealer.*

DO Your Customers Like Cottage Cheese

Are You Making It An Important Product In Your General Sales Program, Or Are You Just Supplying Whatever Demand Exists?

SOME milk distributors are content to make just enough cottage cheese to supply the occasional customer who asks for it. Others even go so far as to educate their milk customers to make cottage cheese in the home.

The latter figure that if the housewife can be trained to make good use of any surplus milk she may have from time to time that she will be more liberal in her milk purchases. We are not prepared to say what results in increased milk sales follow this latter policy.

But we are convinced that the dealer who supplies cottage cheese only on demand is making a mistake. It doesn't pay to do anything half heartedly and we strongly advise either making cottage cheese an important product in your sales program or leaving it entirely alone.

According to a recent survey made by us there are many dealers who are making nice money in pushing the sales of cottage cheese. They are not content with supplying whatever demand exists. They go out and stimulate demand.

This survey shows, however, that these men are in the minority. The great majority of dealers make cottage cheese, but comparatively few really appreciate the possible profits in the business.

The very few who do not make cottage cheese might well adopt the policy of one big Eastern firm that spends money to teach its milk customers how to use the surplus milk in the home by suggesting the making of cottage cheese. That firm emphasizes the ease by which it can be made in the following recipe:

How to Make Cottage Cheese.

When milk is sour and thick put in shallow pan, set in warm place; either on back of stove, warming shelf or in oven, leaving the door open. Let stand until it separates. Put in cheese cloth. Be sure the bag has been wrung out. First let it drain all night, then add a little salt and pepper.

It's just a case, we believe, of doing a job well, or not doing it at all. It is a mistake to just supply demand, because in doing so there is the temptation to kill whatever demand exists. A poor quality product is usually the result of a half-hearted sales program. The effect on organization morale is dangerous.

Why don't you folks who are making and selling cottage cheese as a side issue profit by the experience of those dealers who are making real money in big s of this product? Surely the palates of your custon are not so different.

Possibly you have tried pushing cottage cheese s and failed. If so, did the quality of your cottage ch measure up to the quality of your other milk produ Did you try to see how good you could make it or cheaply you could make it? Did you really believ your sales program or were you ready, right from start, to give up easily? Did you put on a real ad tising campaign?

We don't expect you to give us the answers to t questions. It will be sufficient if you will just ans them mentally. In these answers you may find the sons why you failed.

Just for the information of the dealer who may to go out after a real cottage cheese demand we are ing to publish a number of recipes that are being cessfully used by milk dealers who have built up a demand in their communities. These recipes are nished to their milk customers in printed form an other ways known to the successful sales manager.

Here are some samples:

Cottage Cheese Sausage.

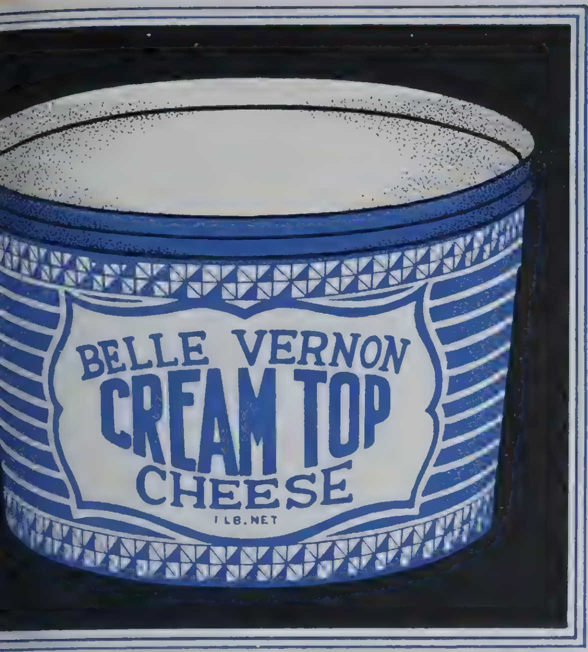
1 cup cottage cheese.
1 cup dry bread crumbs, or ½ cup cold cooked rice, and ½ cup bread crumbs.
¼ cup peanut butter, or 2 tablespoons savory fat.
¼ cup coarsely chopped peanut meats.
½ teaspoon powdered sage.
½ teaspoon thyme.
1 tablespoon milk.
1 teaspoon salt.
¼ teaspoon pepper.
⅓ teaspoon soda.

1 to 2 tablespoons finely chopped onion.

The bread crumbs may be made from left-over corn, barley or other quick breads.

Cook the onion in the fat until tender, but not brown. Dissolve the soda in the milk and work into the cheese. Mix all other dry ingredients thoroughly with the bread crumbs. Blend peanut butter and onion with the cheese, and mix the bread crumbs with them. Form into flat cakes, dust with bread crumbs or corn meal, and fry a delicate brown in a little fat in a hot frying pan.

(Additional cottage cheese recipes appear on page 107


BELLE VERNON
CREAM TOP
CHEESE
1 LB. NET

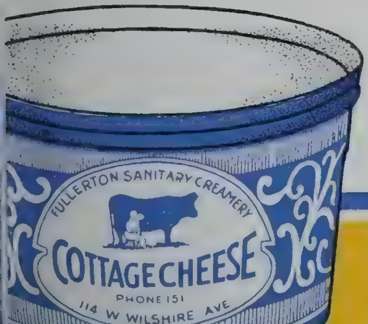
Comparative tests prove this package to be the best seller for Cottage Cheese

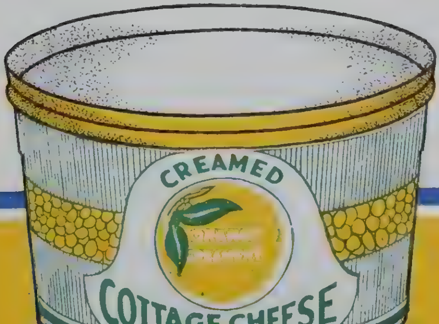
The sales creating value of this package is easily determined. A simple sales test will convince you that your present market will yield more business. Place the KLEEN KUP in competition with any other package — the results will be in favor of this distinctive appearing, well made, snow-white paper package—they always are. Used by the leaders in the dairy industry for sixteen years.

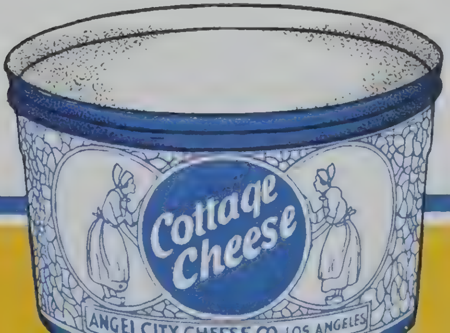
KLEEN KUP

The Package That Sells Its Contents

Mono Service Co.
NEWARK NEW JERSEY


FULLERTON SANITARY CREAMERY
COTTAGE CHEESE
PHONE 151
114 W. WILSHIRE AVE


CREAMED
COTTAGE CHEESE


Cottage Cheese
ANGEL CITY CHEESE CO. LOS ANGELES

FOREST HILL DAIRY
COTTAGE
CHEESE
PASTEURIZED DAIRY PRODUCTS
1647 UNION AVE.
MEMPHIS, TENN.

This package trul represents the "best quality" Cottage Cheese –

The package that best represent quality is the package that create the largest sales volume. Th KLEEN KUP is the highest attainment in a package for Cottag Cheese. The strong constructio and close fitting lid keeps th cheese fresh and clean. Th snow-white paper, heavily waxe neither imparts taste or odor. Size holding one ounce to ten pound Ask for new low quotations.

KLEEN KUP

The Package That Sells Its Contents

Mono Service Co.
NEWARK NEW JERSEY

Green's
PERFECTLY PASTEURIZED
Creamed
Cottage Cheese

TILTON'S CITY DAIRY
DAIRY
MADE
SWEET BUTTER
ASBURY PARK
NEW JERSEY
PHONE

R&H
BRAND
CREAM CHEESE
MADE BY
RAIL & HARBOR MILK & CREAM Co
ELIZABETH, N.J.
1/2 LB. NET

TS OF VERBIAGE, BUT AN INTERESTING DECISION AS WELL.

here is a law in Wisconsin which prohibits discrimi-
n in prices paid for milk. The attorney general of
tate was asked to give an opinion in a certain case
lawyer that he is, he used many words but his deci-
is of interest just the same. Here it is:

Harry Klueter,
and Food Commissioner,
ol.

ear Sir:—You ask for an official opinion with respect to
actions affected by the provisions of sec. 133.09 of the
nsin statutes. You have narrated the facts concerning
ansactions of two companies as follows:

A company which we will designate as A owns and oper-
manufacturing plant at a city we will designate as Z
milk is purchased and manufactured into various
odities. This company pays $2.20 per hundred for
testing 3.5 per cent milk fat, plus a ten cent hauling
ance, to all milk producers whether they deliver their
to the plant at Z themselves or whether they have it
d there. In other words, if they haul their own milk
receive ten cents a hundred for hauling it and if they
their milk hauled by another individual this ten cents
undred goes to the milk hauler. This same company
tes a receiving station at Y where milk is received,
and sent to the plant at Z where it is manufactured
arious commodities. The cost of transporting the milk
Y to Z is twenty cents per hundred. At Y this com-
pays $2.05 per hundred for milk testing 3.5 per cent
k fat or twenty-five cents per hundred less than it pays
which twenty-five cents represents the handling and
orting cost of milk incident to getting it delivered to
anufacturing plant at Z from its receiving station at Y.

company which we will designate as B owns and oper-
manufacturing plant at a city which we will designate
where milk is purchased and manufactured into vari-
ommodities. At X this company pays $2.25 per hun-
for milk testing 3.5 per cent milk fat delivered to their
This company also operates a receiving station at
er city which we will designate as W where milk is
ed and later transported to the plant at city X to be
factured into various commodities. At the plant at
V Company B pays $2.25 per hundred for milk testing
r cent of milk fat. The cost of handling milk at W and
orting it from W to X is approximately the same as
es for similar services from Y to Z."

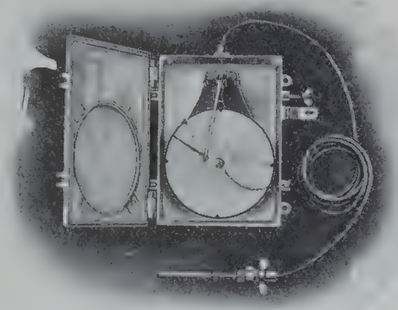
c. 133.09, subsec. (1) provides as follows:

ny person, firm or corporation, foreign or domestic,
ed in the business of buying milk, cream or butterfat
e purpose of manufacture, that shall discriminate be-
different sections, communities, towns, villages or cities
s state, than is paid for the same commodity by said
y of this state, by paying for such commodity at a
price or rate in one section, community, town, village
, or to any person, firm or corporation in any locality
s state, than is paid for the same commodity by said
, firm or corporation, foreign or domestic, in another
, community, town, village or city, or to another per-
rm or corporation in any locality of this state, shall be
of unfair discrimination, which is hereby prohibited
eclared unlawful; provided, that it shall be a justifica-
or such a discrimination in price if the difference is
commensurate with an actual difference in the quality
ntity of the commodity purchased or in transportation
es or other expense of marketing involved in said pur-
"

is statute prohibits unfair discrimination in the pur-
of dairy products, but contains a proviso that it shall
justification for the discrimination in price if the dif-
e is merely in the transportation charges.

ter carefully considering the transactions narrated by
believe that the statute has not been violated, because
ifference in price in each case was in transportation
es, and this the statute expressly gives as a justification
discrimination. It is true that Company A has a dif-
system than Company B, while Company B takes care
transportation charges and pays the same price in both
ies for milk, Company A makes a difference in the price
pays and makes the patrons of each locality stand the
f transportation.

der the wording of this statute I believe this is justi-
This is a criminal statute and must be strictly construed
t the state.



SAFE-GUARD
YOUR CREAM
LINE

Don't run the chance of over-pasteurizing your milk. Too much heat reduces the cream line and imparts a disagreeable burnt taste. The one way of being sure of your pasteurizing temperatures is to install a

BRISTOL'S
Recording Thermometer

It gives you correct and positive information that enables you to keep temperatures exact. Install the sensitive bulb inside of the holder and mount the instrument on the outside of the machine, or on the wall where it can be seen most readily.

There is nothing to get out of order with Bristol's Recording Thermometer. Construction is rugged and simple. Bristol charts are accurate and dependable.

BRISTOL'S—The most extensive line of recording instruments, including — Pressure, Liquid Level, Temperature, Electricity, Motion, Speed, Humidity, etc. Ask for our catalogs.

The Bristol Company Waterbury, Connecticut
FOR 36 YEARS MAKERS OF
Ask Any Technical Engineer
BRISTOL'S RECORDING INSTRUMENTS

Clean Cans an Aid to High Quality

Sterile Cans Pay Big Dividends. Clean Utensils are the Keystone to Improvement and It Must Start on the Farm

By J. J. PUGH*

THE distributors of market milk have for several years recognized the importance of clean, dry cans at the farmer's barn for the collection of fluid milk. At the time our health boards began organizing milk inspection departments and records were made of the bacterial count of milk, distributors of market milk or fluid milk were astonished to find that their bacterial counts were running into the millions, and their milk was not in a satisfactory condition when it reached the plant. A great deal of money was spent in installing machinery in these plants for the purpose of pasteurizing or the killing of bacteria.

When the plant owners became more accustomed to the idea of bacteria and what it meant to their industry they went further in their investigations and soon decided it was a great deal better to keep the major portion of bacteria **out of their milk** than it was to depend entirely on pasteurizing equipment to reduce the count. They also found that milk of high-acid content or a poor product to start with made a very poor finished product and that sour milk was a total loss as far as the fluid milk plants were concerned.

A Typical Creamery Installation.

A large amount of money was then spent through the agencies of fieldmen, who were sent out to instruct the farmer how to properly produce his milk, care for his cows and cool the milk after it had been put in the can. This, of course, helped a great deal, but this did not do as much for them as they thought it would.

Cans Are Source of Contamination.

Upon looking for further causes of high bacterial count in the milk received they found that the milk cans which they were sending back to the farmers were a source of contamination as great as any other one thing. They immedately began looking around to see what they could do to overcome this condition. It was found to be practically impossible under ordinary factory conditions to have a man hand-wash cans and keep up with the work of getting the product into the plant anc the kind of a job that he would have to in order to nish a sterile can. Consequently mechanical can w ing equipment came into prominence, with the result quality was materially improved.

The butter industry is now going through the s thing that the milk men had to contend with a nur of years back. Modern methods of manufacture are upon the cream after it is received in the plant, and m an off-score is taken because the cream was in poor dition when it was received at the station, and dirty are causing a great loss to the butter industry all the United States, because the importanec of clean, cans is not recognized as it should be. The hand tank is a great source of contamination in the creame The cream that is gathered often, and near the plan in very fair shape. Cream taken in at stations shipped some distance to a centralizing station is alv very high in acidity. If cans from both classes of t are washed in the same hand tank, cans which brou in cream of high acidity or any can that has develo an off-flavor or odor through bacterial growth, cont inates the hand wash tank that it is washed in. temperature of such water is not high enough to kill teria of this type so that cans which are in a reason condition when put into this same wash tank pick large number of such bacteria. The steaming treatm as ordinarily used, is not severe enough to reduce bacteria that are added to the can through the wasl just mentioned; consequently when the can is relid sealed and returned to the patron it has one of the prolific starters in it of undesirable bacteria.

The average farmer is not equipped to properly his can when he receives it at his home. He simply ri it with cold water (some times not even doing that) starts putting in his gathering of each day. By the he has filled the can and started it back to the sta the cream has in turn multiplied the bacteria many, m times and an undesirable mass is the result. High ity in itself is very undesirable, as it causes exce neutralization which hurts the body and keeping qu of butter. It also causes high temperature to be in pasteurization which often causes a mealy butter.

A Magician Might.

With all the modern appliances in vogue in the ent butter manufacturing plant it is an impossible t to do when you try to make a good product out poor raw material. It can not be done any more suc fully than an expert workman could make a first- suit of clothes out of a shoddy piece of material. quality is not there and it will not stand up. Bu manufacturers are realizing that these conditions and are harmful to their finished products and are idly realizing that the receiving room and wash r of their plant is as important to them and the pro they put on the market as the churn room and refrig tion.

As an illustration of this point, the writer rece called on a manufacturer of butter in one of the Mi West states and was shown through a new plant very proud manager. We made a complete tour o

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* Lathrop-Paulson Co., Chicago, Ill.

Send for your
FREE COPY*!*

This little Booklet has saved thousands of dollars in interior painting

MANY plant managers are cynical about the claims made for interior paints. No wonder—in view of their costly experiences with paints that yellow—paints that flake—paints that get dirty and can't be washed!

It is difficult to prove in a short advertisement that any paint overcomes all these objections and yet actually *costs less* when applied.

But we believe that our booklet, shown above, contains facts and honest testimony of actual users, which do prove that Barreled Sunlight resists yellowing, will not flake, washes like tile, and can be applied at the lowest cost per square foot covered.

The manufacturers of Barreled Sunlight have been specialists in the industrial white paint business for over 20 years—long enough to know most of the problems and also long enough, if thousands of satisfied customers mean anything, to solve those problems pretty completely.

The coupon will bring you a copy of the booklet and a sample panel painted with Barreled Sunlight.

U. S. Gutta Percha Paint Co., 9 Dudley Street, Providence, R. I. Branches: New York—Chicago—San Francisco. Distributors in all principal cities.

Barreled Sunlight
Reg. U.S. Pat. Off.
THE RICE PROCESS WHITE

U. S. GUTTA PERCHA PAINT CO.
9 Dudley Street, Providence, R. I.

Please send us your booklet "More Light," and a sample panel painted with Barreled Sunlight.

Name ....

Street ....

City .... State ....

When writing to U. S. GUTTA PERCHA PAINT CO. *please mention The Milk Dealer.*

spection, starting at the office and going through the churn room, refrigerating room, boiler room and so on. It was a very pleasant sight to see the many pieces of sanitary equipment, the daylight factory, hard finished walls, perfect floors with good drainage and in fact everything to make a modern butter manufacturing plant. As we went along the writer made a mental account of the approximate prices of the machinery which we passed and on returning to the office remarked to the manager that he had a very wonderful plant and that he must have spent at least $60,000.00 in this building in order that he might turn out a good piece of butter for his trade. He very proudly assured me that his machinery, and the installation charge on it, had cost his company $71,000.00 to set the plant up as I saw it and assured me that every dollar was spent in order that he might manufacture a good grade of butter.

One thing I had noticed and immediately called it to his attention. Out of the great sum of money he had spent to build the modern plant to process the cream after he had received it, he had not spent over twenty dollars in his can washing room for a wash tank. This made it impossible for him to send back a clean, sterile package to his patrons, enabling them to send him a better grade of cream to start with. I think this illustrates my point very fully.

Can Washers Relatively Inexpensive.

A number of manufacturers recognize the importance of clean and dry cans for their patron but look at the first cost of such an installation and allow it to frighten them out of this very necessary investment. A number of other manufacturers make personal excuses to themselves by saying that they are too small for mechanical can washing equipment, when really the cost per can is ridiculously small, taking as a basis a can washing machine that would cost $1,250 in a plant washing 200 cans per day. Supposing that the can washer will only last five years and at that time be a total loss, we would find that it would cost him about 34/100 of a cent per can washed during the life of this machine.

So much for the cost of the equipment to do the work. The operating cost is not any greater, placing the running time of a machine to handle 200 cans an hour and figuring that it would consume approximately 20 boiler horsepower in steam in this length of time, taking coal at $6.00 per ton, we would find that it would cost three hundredths of one cent per can washed. This would make a total of 64/100 of a cent per can, figuring the coal consumption and the life of the machine on a five year basis as stated.

I am sure that there is not a manufacturer of butter in the country who would not be willing, on the basis of 200 cans a day, to spend $1.28 for machinery and operating cost in order that he might have a clean, dry, sterile can to send out to his patrons, and thereby greatly improve the condition of the cream which he receives in his plant. There are very few operators who do not spend many times this amount each year for improvements in their make room and refrigerating room, trying to get a better grade of butter, but they are putting the horse behind the buggy in cases of this kind as the damage is done to the cream before it arrives at the plant. It should be protected at its source instead of trying to make the improvement after the damage is done. There are very few plants where it is not possible to save a great many more dollars in the actual labor incurred by hand washing than the cost we have mentioned of mechanical washing.

The fact that a mechanical can washer will use
15 to 20 boiler horsepower per hour in steam in
shows the severe treatment to which the cans are
jected in mechanical washing. The water in whic
cans are washed and rinsed carries temperatures o
degrees or better; the steam jets are enclosed
hooded machine so that large openings at high pre
can also be used which is the only proper way to ste
the can. Then last, and best of all, a treatment o
dry air is blown into the can, carrying out the mois
that has been left by the steam jets so that whe
bacteria have been reduced to the minimum they ar
nied moisture or food, checking their growth and
count in the can remains very low. In fact, they
practically sterile until the cream is added; then i
patron cools his cream as all creameries have instru
their patrons to do, it is bound to be very much low
acidity when it is received at the cream station th
possible under the old method of hand washing.
temperature of water used in mechanical washers ca
be obtained in a hand wash tank because an ope
could not stand to work about it.

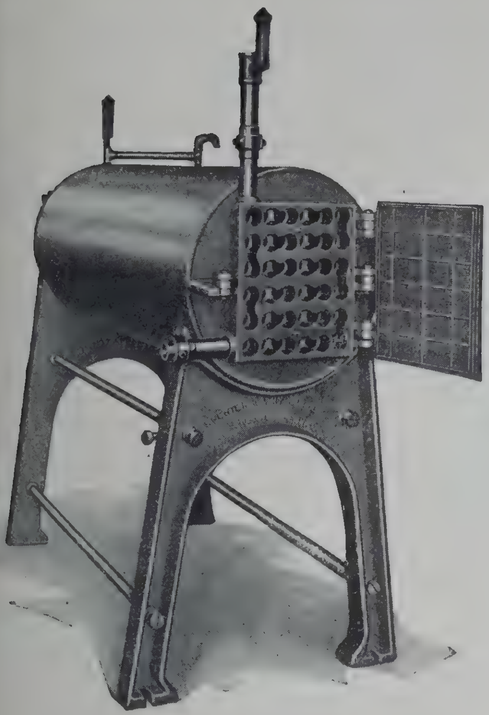
The same amount of steam that is used in a
washing sterilizer jet could not be used in a crea
over an ordinary open jet as the room would be flo
with steam. When a can is once entered into a c
can washer it will receive the exact treatments tha
can passing before and coming behind it will rec
The operator can not slight the can as he can in
washing them, so that it will protect the creamery o
against careless help.

We know of one of the largest manufacturers of
ter in this country that has his can washing equip
built with a specific timing device upon it so that
plant superintendent may lock the mechanism of the
chine when it is set to a certain number of cans per
put the key in his pocket and go about his business
know that each can put through the machine will re
the exact number of seconds or minutes of treat
that he insists upon. It might also be well to me
that the quality of butter this particular company m
always brings two or three or more cents on the ma
than any other manufacturer of butter in the cou
This is not due to any secret method of manufa
but is due entirely to the fact that this particular
gives a great deal of thought and study to getti
better grade of cream into their plant.

If each plant operator would check over his
plant, total up the number of dollars he has spent in
chinery and equipment to make a good piece of bu
then total up the number of dollars he has spent tr
to get a good quality of cream into his plant and
upon which side the balance lies, there is but little
tion that the conditions would soon be remedied reg
ing their can washing operations.

ANOTHER EXAMPLE OF THE VALUE OF MIL THE PERFECT FOOD.

Professor R. A. Peters, in an address at the Sc
Masters' Conference at Oxford, Eng., stated that
certain number of orphan boys who had been dr
to the Navy one pint of milk per day was given, i
dition to their basic food. In a specified period the
who were fed on the ordinary diet increased in w
by 3.85 pounds, but boys on a supplementary milk
increased in weight by 6.95 pounds. The latter boys
increased in height to a greater extent than the fo



The Hoosier Condensed Milk Co.

Bluffton, Ind.

Use

THE CHESTER BARREL HEATERS

By the installation of a 20,000 lb. per hour Chester Barrel Heater the Hoosier Condensed Milk Company have effected a saving in coal consumption of about 15%. All the milk going into the hot wells in this condensing plant first goes through the barrel heater and is brought up to a proper temperature which eliminates the necessity of condensing steam in the milk while in the hot wells. This eliminates the cost and time consumed in recondensing this condensed water out of the milk again.

Many condensed milk plants are using this type of installation with the best of success and we would be pleased to give you complete information concerning the installation of such a machine in your plant if you will advise us what your conditions are.

WRITE FOR CATALOG

CHESTER DAIRY SUPPLY CO.
Ninth and Hyatt Streets
CHESTER PA. U. S. A.

The Sign of Service

When writing to CHESTER DAIRY SUPPLY CO. *please mention The Milk Dealer.*

The Universal Milk Bottle

Milk Distributors in Southern California Find a Big Saving in Using the Same Bottle. Members of Their Association Must Use Universal Bottle Exclusively, and No One Else Can Use It

AT THE Oakland convention of the Southern California Milk Dealers' Association, Harry A. Walsh, secretary, reviewed the experience of his association for the past year in dealing with the bottle question. He said:

"At your meeting last year, my predecessor, Carl E. Winkley, addressed you, giving a full detailed statement of the adoption and use of the Universal bottle. At that time the Universal bottle had not been in use sufficiently long to prove its complete success, but after another year's trial, we have found it to be a great help in reducing an excessive bottle expense, both in the quantity of new glass bought and the bottle exchange cost.

"To give you a short resume of our method of handling the Universal bottle: All new bottles are purchased on requisition of the association and from bottle manufacturers who are licensed to make them. Each member is required to furnish us a record monthly of all bottles used and by comparing the number purchased with the number used, we are able to establish the number each dealer should buy to maintain his average and to carry on his business.

"The record is very necessary, as it is absolutely essential that each member buy his proportion of the whole, otherwise one member will be buying more than his share and others less. If any member consistently buys less than his share, he is in danger of losing his license to use the bottle.

"We have observed standard specifications as nearly as possible in the manufacture of our bottle and we use a number two cap seat. A good feature of this is that it has eliminated the different size caps and when the Universal bottle enters the filling room, there is no danger of a wrong sized cap going on the bottle.

"After compiling a year's figures we find that the average trippage has very materially increased over that of the privately owned bottle and that we get an average of thirty-three trips to the bottle. This includes three classes:

Combination Distributors.
Retail Distributors.
Wholesale Distributors.

"The man doing only retail business shows a very high trippage, this being due to his better control of his customers' returns, while the wholesale shows the reverse. The average retail trippage is forty-three and six tenths, while the wholesale shows only twenty-four and one-tenth.

"The Universal bottle bears the symbol of the Southern California Milk Dealers' Association, a series of dots around the neck, and a double cross on the bottom. It is easily distinguished in a case. The bottle is registered in the state and county, and the bottle exchange has full authority to prosecute any person using it who is not licensed to do so. Our members in turn are not allowed to use an outsider's bottle and they strictly conform to this ruling.

"The benefits from the Universal bottle to our members can not be listed in cold figures, because aside from the material gain, we have obtained a better understanding between our members. Many long, dry hours of
cussion and argument had to be gone through befo
unanimous workable plan to suit everyone could
established.

"Credit should be given to those men who evol
the idea of the Universal bottle and for the many sa
fices, both in time and money, which our members h
unselfishly made for the welfare of their associatio
a whole.

"We hope to reach a point where members' dri
will pick up only Universal bottles, the object of
move being to reduce sorting and handling expense

"Recently we have had to decline several appl
tions to join our association from dealers who have b
in the business several years. Our association is not s
ing any more members at this time for the reason
we do not wish to widen our bottle territory too f
This move on our part is not to make a closed shop
our association but we are proceeding slowly attend
to first things first and any widening of our bottle te
tory at the present time might entail a prohibitive su
vision cost.

"We do not wish to leave an impression that we
self-contained or selfish, but we wish to preserve
which we have built with a lot of effort. When we
over the names of our members, every one, without
ception, in our organization was a pioneer in the l
field, and his business success is the result of hard w
and long hours, on his part, every day in the year.
is entitled to the benefits that may come his way.

"The Los Angeles territory is well equipped
creamery plants, both old and new, for several y
to come.

"While the population in our locality was grow
faster than it is now, the bottle cost reached high fig
to take care of saturating new territories with bott
but with the showing up of new arrivals and the un
mous use of the Universal bottle, our members can
expect and look forward to a fair return for their lab

The address by Mr. Winkley, to which Mr. W
refers, was delivered at a previous convention of
association and explains the plan of using the Unive
bottle in detail. We quote from his address as follo

"The milk dealers of southern California decided
their bottle expense was excessive, and at once entered
plan to reduce the expense. A bottle charge of one cent
in effect, and the number of bottles recovered from the
dumps was increasing each month. A flat amount was
to those in charge of the principal dumps, and they so
out as many bottles as they could and turned them ove
the bottle exchange. There were large numbers of bo
that were not recovered, principally because of the low va
tion placed upon them by the dealers.

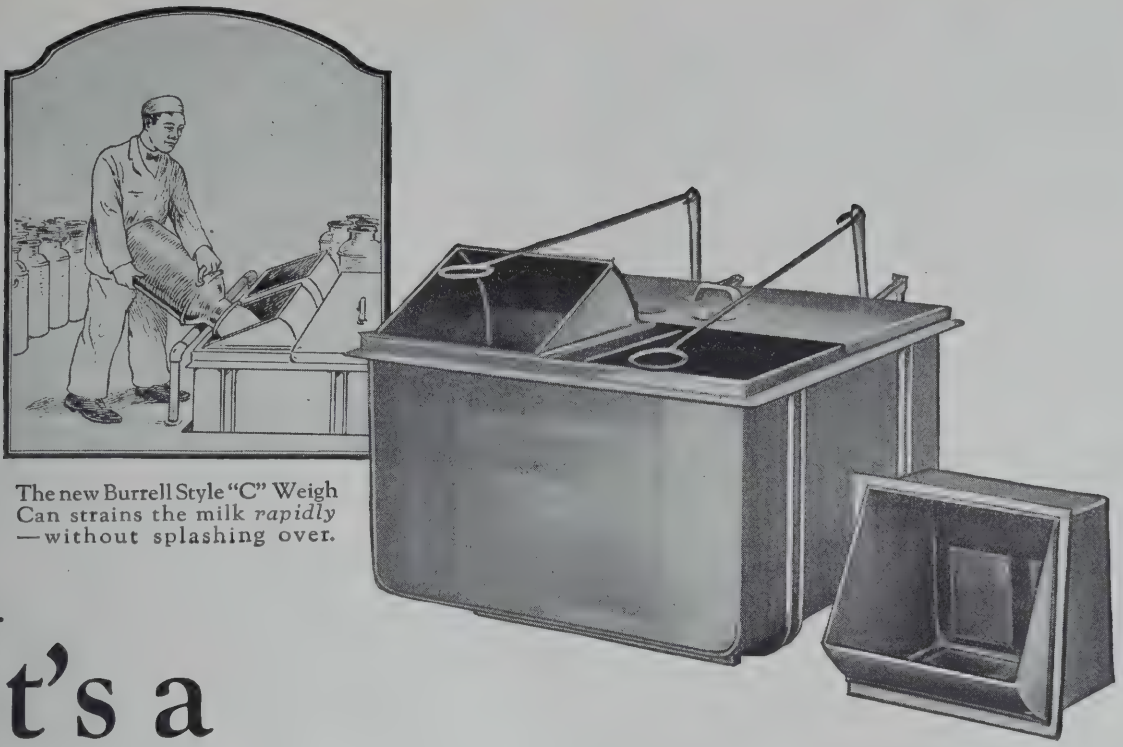
"About this time the Universal bottle was suggested
solution to the bottle problem, and a committee of Los
geles dealers was appointed to study the bottle question.

"The committee's efforts were directed primarily to
practicability of a bottle charge more in keeping with
actual cost, believing that if all who come in contact
milk bottles were brought to a realization of their va
that they would be more inclined to keep them movin
their proper channel.

"The principal factors to be considered in establishi
bottle charge are:

"First: The deliveryman.

(Continued on page 42)



The new Burrell Style "C" Weigh Can strains the milk *rapidly* —without splashing over.

It's a New Weigh Can!

lower in cost
better in design

HERE'S the weigh can you have been looking for—brought out at e last Dairy Show.

he new Burrell Style "C" Weigh Can not only sturdy and strong but is of an nproved design which combines impornt new features and at the same time ermits reduced manufacturing cost. arge sales have already proved that it eets a wide-spread demand.

he strainer is of the inclined box type. arge straining area and especially inlined surfaces permit rapid dumping—ithout splashing. The *increased pitch* of the bottom, together with the 4-in. gates in the 1000-lb. size and over, saves time in draining.

The channels and angles of the frame are of welded steel and the gate flanges are braced from this rigid frame. The gates are standard porcelain lined. Vertical plug outlets are also available. The covers are of solid aluminum—strong, yet light and easy to handle.

Style "C" is designed with either double or single compartments, and is built of 6X tinplate, 24-oz. copper, or pure nickel. Write for prices and information.

D. H. BURRELL & CO. INC. **LITTLE FALLS, NEW YORK**

TRADE MARK REG. U. S. PAT. OFF.

BURRELL

SIMPLEX

Dairy Creamery Cheesery and Milk Plant Apparatus

When writing to D. H. BURRELL & CO., INC., *please mention The Milk Dealer.*

"Second: The wholesale customer which includes the grocer, the cafe and restaurant man.

"Third: Transient trade such as workmen on buildings and construction gangs.

"Fourth: The housewife.

"Of all those mentioned I believe the transient customer as designated, is the worst offender of all. Some of the reports that come to our attention of bottles being thrown in sewer and drainage ditches and of bottles lost and broken in buildings under construction, have caused us to feel certain of this. The bottle that is used by the housewife for other purposes than for milk service has some chance to be released and returned to the proper service, but the bottle that is broken or buried is gone forever. We therefore were agreed that our bottles should have a higher value.

"As the records of the bottle exchange showed an increasing number of bottles at the city dumps, and as the individual records of the dealers showed a continual shortage, it was evident that there was a large number of bottles out of regular service which must be brought in. This was done by paying the drivers an extra cent for all bottles over on their routes and extended for thirty days.

"The results were very satisfactory and the city was well cleaned up of stray bottles preparatory to the inauguration of a higher bottle charge.

"On a certain date a charge of three cents became effective on all wholesale trade. All bottle transactions are now recorded on the sales tickets, the same as any other merchandise sales, and apply to charge and cash business alike. The use of bottle deposit tickets for the retailer is recommended but is not compulsory with our dealers.

"One of the principal reasons advanced at this time in favor of a Universal milk bottle was the necessity of finding some way to reduce the expense at the bottle exchange. Formerly each dealer was using his own registered bottle and the turn-over of bottles through the exchange was expensive. By having one registered bottle that could be used by many plants, it was expected that a large proportion of this expense could be eliminated; and it has since been proven that such is the case.

"By this I do not mean to say that the bottle exchange can be eliminated by the use of a Universal bottle. A service of this kind is necessary in a metropolitan center where millions of bottles are handled each month, and in addition the necessity of picking up and returning cans and cases and ice cream equipment is of sufficient importance to require this service.

"At the time the Universal bottle was considered, there was an average of 1,070,208 bottles turned over to the exchange each month by the dealers in southern California. Last month the number was 759,912 or a decrease of thirty per cent. This was a saving, not only in the expense of hauling and sorting that number of bottles, but it reduced the normal breakage and chipping entailed in unnecessary handling.

"As the number of Universal bottles in circulation increase, the number of bottles going to the bottle exchange decrease, for the reason that there is a considerable number of branded bottles still in circulation that are sorted out daily by the dealers, and turned over to the exchange for return to their rightful owners.

"Every time a dealer's branded bottle is lost to service through loss or breakage, a Universal bottle replaces it. Our last survey of the number of our dealers' branded bottles still in service showed them to be approximately ten per cent. When the number gets down to five per cent or thereabouts, the remaining branded bottles will be taken out of service as the expense of sorting will offset any service value they have if they are still used.

"The saving in the plants, by the use of the Universal bottle, is considerable. The dealers in southern California for many years have been obliged to maintain sorting crews who have picked out all bottles bearing the brands of other dealers, and have turned them over to the bottle exchange. Under the present plan our forty-four dealers, doing ninety per cent of the business, all using the same bottle, reduced the number of bottles sorted thirty-seven per cent in the past year. The dealers also reduced their breakage and had the use of considerable storage space otherwise used for exchange bottles.

"We have several well defined provisions which govern the use of the Universal bottle. They are contained in a license agreement which specifies that all bottles must be purchased on requisition of the association, and from bottle manufacturers who are licensed to make them; also each licensee is required to furnish a record of the number of bottles used by him each month. By comparing the number purchased with the number of bottles used, we establish the number each dealer should buy to maintain a fair proportion of the bottles required in his business.

"This is very necessary and unless some check is made, it would be possible for one dealer to buy less bottles th his proportion, at the expense of other dealers.

"This record is closed every three months and a balar is shown that establishes the standing of each dealer, a if any discrepancies occur, an accounting is asked for and adjustment is made.

"We tried to observe standard specifications as near possible in the manufacture of our Universal bottle. It h a number two cap seat and the height and weight of t respective sizes follow.

Size	Height	Weight
Half pints	5½ inches	11 ounces
Pints	7¼ inches	16 ounces
Quarts	9¼ inches	26 ounces

"The bottle is registered in the state and county and bea the symbol of the Southern California Milk Dealers' As ciation. So that it can be readily picked out in a case, eith when filled or empty, we have a series of dots encircling t neck which can be easily seen and make the bottle stand o prominently when placed alongside other bottles. The b tom is well marked for convenience in sorting in the plan and at the bottle exchange.

"The bottle exchange has full authority to prosecute a person using the Universal bottle who has not a license use it, and likewise has power to prosecute our own me bers if they use bottles other than their own or the Univers bottle. This is all well understood by the dealers of sou ern California, and most of them are observing the law.

"There is considerable advantage from the manufactu ers' standpoint in using a bottle of this kind. They are e abled to make continuous runs of the one bottle witho frequent changes of moulds, and their expense of maki and maintaining a large selection of moulds is eliminate Their stocks of finished bottles, too, are more easily reg lated by having the one principal brand.

"Our September report, based on the total number bottles used by the forty-four dealers, shows that the avera number of trips per bottle was 40.7. Those having an exc sive retail business went beyond the average and those havi exclusive wholesale business fell below, and the plants doi both retail and wholesale run close to the general average.

"This record convinces us that we are making some pro ress in reducing bottle expense in Los Angeles, and we expe to reduce it still further as we continue with our program.

"To those who are interested in establishing the use of Universal bottle, we would admonish them not to expect have it in operation too quickly. There was a time when thought ninety days was sufficient to replace most of t branded bottles with our present bottle. It is true that the end of each ninety-day period, the results begin to felt, but it will take at least a year before the real saving made.

"The larger the group, the greater will be the saving using a bottle of this kind, and while we are not advocati the enlargement of our group at present, the time will con I believe, when all reputable dealers in our section will given an opportunity to enjoy its benefits.

"To summarize, then, the advantages to be gained using the Universal bottle, we find

"First: The manufacturer is well pleased because he c standardize his production.

"Second: The distributor enjoys a saving in his sorti expense, lower cost of exchange service, and eliminates cessive breakage due to duplicate handling.

"Third: The driver has no difficulty in collecting his b ties now as they all are of the same value and mostly of t same brand.

"Fourth: The wholesale customer likes the plan becau he can accept all bottles from his trade and there is no fr tion between him and the driver in the charge or credit empties.

"In conclusion, let me say, that co-operation, above all, the one thing that makes a movement of this kind possib A fine spirit of co-operation is always manifest by our deale and we feel that with this spirit existing, we can go far the solving of the problems that are always to be met with the dairy industry."

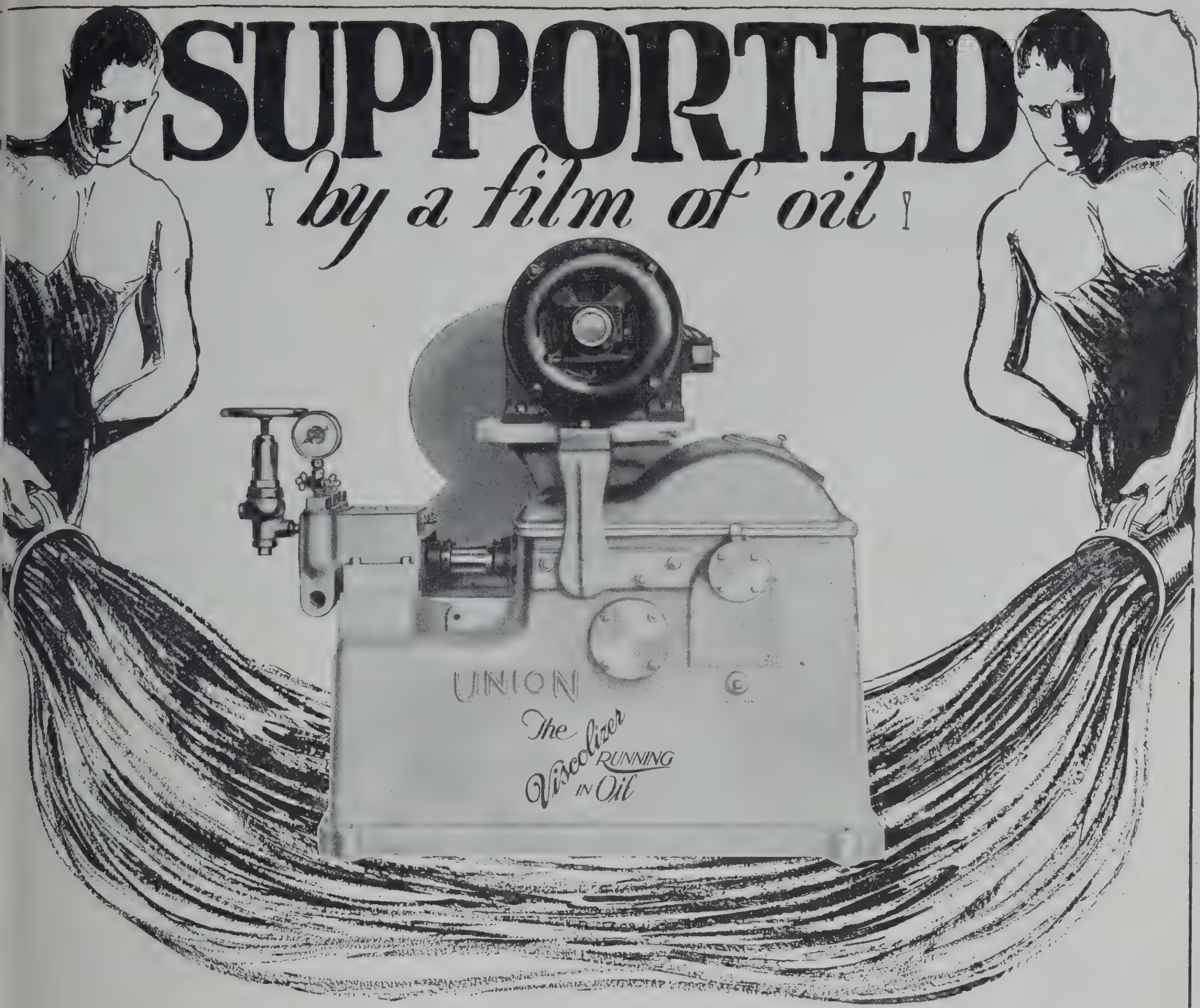
* * *

MILK AND MILK PRODUCTS GAINING FAVOR.

Dr. Roy F. Leslie, chief of the bureau of meat a dairy inspection, announced that the average milk co sumed in the city of Cleveland, O., daily is 108,973 ga lons. At the same time 3,316 gallons of cream and 2,8 gallons of ice cream are sold. These amounts are near double the quantity sold in 1920.

SUPPORTED

by a film of oil


UNION
The Viscolizer RUNNING IN Oil

The *Viscolizer* Running In *Oil* is virtually SUPPORTED by that Great Friction and Noise Reducer—OIL. OIL takes the burden of Wear and Tear off the machine. OIL eliminates WORN OUT PARTS—

The Viscolizer RUNNING IN Oil

Gears, bearings, chains, cams,
and all moving parts enclosed,
submerged **and** *running* **in Oil.**

The Viscolizer RUNNING IN Oil

DISTRIBUTION DIRECTED BY

JOHN W. LADD CO. CHERRY-BASSETT CO.

AND SOLD BY LEADING DAIRY SUPPLY HOUSES EVERYWHERE

When writing to JOHN W. LADD CO. *please mention The Milk Dealer.*

Efficiency Sticking Out All Over

California Milk Bottling Concern Adopts Labor Saving and Cost Reducing Methods to Push Sales and Handle Its Products

By JAMES V. MURRAY

QUIETLY, without flare of trumpets, yet steadily and according to the best business practice, has the milk and cream business of the California Milk Company, Inc., of San Francisco, grown until, within the short space of fourteen years, the concern has built up a fleet of 40 trucks, delivery and cargo, owns a large dairy of its own, with a fine herd of cows, at Alvarado, in Alameda County, and owns an entire city block of territory in the site where is located the present-day plant. This large property investment was made, although the plant now only occupies and needs half of the land for its business, with an eye to extension in the near future, and the buildings not now in use by the milk company are rented out to others on short leases.

The business is as closely knitted together an organization and layout as can be found in any line of food products receipt and distribution in the city, the company operating from its center at 529-567 Bay Street to cover the large Latin Quarter, without scattering delivery effort to distant portions of the city on an uneconomical hauling basis.

By reason of making most of its deliveries "close to home," with each driver doing intensive work on his route to try and get EVERY milk user and distributor in this quarter to patronize the California Milk Company, the concern uses for retail and small-store deliveries, for the most part, a fleet of 25 Ford delivery wagons which, despite their low value, to the "man in the street," the way they are kept up, seem to be among the best "milk wagons" traversing the city.

These little wagons are small because they never get far away from their base, and can quickly return for more milk, cream, butter, eggs and certified milk; the company handling all of these dairy products, chiefly of their own raising or manufacture; and get back on their routes handily and economically.

These delivery wagons are painted maroon, with the bodies open on both sides and the rear, and are equipped with chained stakes for holding the cases of bottled goods in place, with their low beds making them easy to load. There is a great deal of white appearing in the painting of the body, and above the roof is a long, white sign carrying the company name in large letters, the color scheme being blue lettering, flashed with gold, against a white background.

The trademark of the company is shown on all equipment, even the heavy trucks running supplies over to the city from the farm in Alameda County, across-the-bay. It consists of a baby nursing a milk bottle and the same figure appears in every form of advertising used by the company, including the colored slides thrown on the screens of movie houses, found to be a good means of advertising in San Francisco, especially on a product like milk.

For heavy hauling there is a fleet of trucks of local manufacture, ranging from two to four tons, and for the daily haul to the city depot from the dairy and depot at Alvarado, there are two 5-ton trucks.

With its own repair shop on the premises, and a force of mechanics to attend to repairs and replacement of parts, all of the automotive upkeep is undertaken by the milk company itself.

With the fleet "in" at the depot at around three each
afternoon, using a lubricating oil and a gasoline, ha
truck, buggy, a shopman goes through the fleet gi
service of oil and gasoline each evening, so that no t
is lost in the morning in obtaining these necessities.
the same time the shopman does more than this! Wh
a truck or delivery wagon has been reported faulty, a
servicing all of them, he attacks the "innards" of
offending unit of the fleet and endeavors to make an
the-spot adjustment, replacement or repair. If una
to do this, the vehicle is reported out of order and ro
over to the "bone-yard" as the shop is called, for at
tion of the mechanics at leisure.

At the same time, the management makes the ne
sary adjustments of delivery routes, or puts on
country run one of the 4-ton store delivery trucks
that the burden of hauling and distribution is equali
all around and the work of obtaining milk from the f
and delivering it to customers goes on unhindered.

"The day before" is the big day with this compa
It likes to know today just what it is going to do
morrow, and this forehandedness applies in the busi
all the way through.

For, although intending to put in, within the n
two years, a complete modern dairy-delivery plant on
city block on Bay Street, by keeping down the inv
ment on machinery and building up to this time, it
been able to apply its surplus to the acquisition of
land, thus settling for all time the question of lease.

And further, by such means has been built up
large dairy farm and depot at Alvarado, enabling
company to realize its profits as producer, jobber,
retailer, by supplying **itself** with necessities as far
practicable.

In addition to the fleet in the city, a small squad
of trucks is maintained "outside," in the country, wh
travel around daily "picking up milk," and other c
modities, from the surrounding farms. And by prod
ing the bulk of the merchandise itself, the company
a big say in what the purchase price shall be, instead
being at the mercy of others as would be the case if
much money had been expended in San Francisco w
the concern was building up its present-day structu

It was F. Borghi, now president and general mana
of this progressive dairy products corporation, who, w
a single proprietor, fourteen years ago, making deli
ies to "friends" on a small scale, conceived the idea
surrounding himself with "key men" with capital,
reaching out into the city for the services of the bes
his compatriots capable of building up milk routes
their own. Each man is really a partner in the en
prise, wagon driver as well as the stockholders, w
each retail delivery man wholly responsible for his
route.

Adding to the organization D. Cordoni, corporat
secretary and plant manager, G. Lombardi, treasu
and outside superintendent, and J. Nicolai, assist
secretary, office manager and cashier, with the serv
of the wagon "milkmen" available, routes were quic
added to the business until, up to this time, twenty-
large ones have been obtained.

And intensive work in each neighborhood has
sulted in a close-woven network of customers, with
Bay Street depot as hub of the half-wheel, which grea

PEVELY
THE BEST
MILK
BABY FIRST
PEVELY

A two-and-one-half-ton tractor with six-ton Fruehauf Semi-Trailer carrying 1500 gallon tank—one of a number of such haulage units used by the Pevely Dairy Company of St. Louis.

IAULING 1500 GALLONS OF MILK AT 50% LOWER COST

THE type of haulage unit pictured above—a 2½-ton tractor with a 6-ton Fruehauf Semi-Trailer—carries a 1500 gallon glass-lined tank. It is being adopted by leading Milk Dealers throughout the country on milk-collection hauls from rural districts—daily trips varying fron 40 to 125 miles each way.

With pneumatic tires, this unit usually averages a speed of from 25 to 27 miles per hour. Taking all kinds of delays into consideration, such as waiting at railroad crossings, the slowest time shows an average of at least 18 miles per hour.

As a result of 7-days per week performance records now available, it is estimated that the cost of operating this high-speed unit is approximately half of what it costs to use a 5-ton motor truck on solid tires with a 1250 gallon tank. The investment on equipment, too, shows a saving of from $500 up in comparison with the first cost of a 5-ton truck with tank. And a long haul with the big truck becomes a much shorter haul, in point of time, when you use the unit shown above!

GET THE LATEST DETAILS OF LOW-COST MILK HAULAGE

Haulage information of vital importance to you is now available. Let us place it before you without obligating you in any way. Write today.

FRUEHAUF TRAILERS

Oldest and Largest Manufacturers of Semi-Trailers, Four-Wheel Trailers and Adjustable Pole Trailers.

FRUEHAUF TRAILER COMPANY

BRANCHES AND DISTRIBUTORS IN ALL PRINCIPAL CITIES

2 Harper Avenue Detroit, Michigan

When writing to FRUEHAUF TRAILER COMPANY *please mention The Milk Dealer.*

simplifies customer problems and reduces cost of maintenance and delivery of fleet to low proportions.

Everything in the Bay Street plant is closely coordinated and small space for each department is the rule. **Space**-saving devices and machinery, rather than labor-saving, have been the rule, thus far, in line with the general policy of the company to keep its precincts "narrow" until ready to put in the new plant.

When the trucks return with the glass in cases, the bottles are checked in, and care is taken that credit has only been given for those bottles belonging to the company. This, because, with some delicatessen and grocery stores, the proprietors are not always as careful as they might be about taking in the right bottles for credit. And with some housekeepers not as scrupulous as they might be about the return of bottles to the right store, the company would stand considerable loss if this feature were not kept under control.

Cases are then put through an opening in the partition wall which is the mouth to the wash-rack. There is a Berg universal washer right to hand, with an attendant ready to wash out the bottles. Where there is a caked bottle here and there, it must be cleaned out by hand. As fast as a case and its bottles is washed and is clean, onto a conveyor it goes and travels through the steam tunnel to the roller-equipped incline leading into the filling room.

Piled high on floor trucks equipped with large wheels, the cases are hauled by hand to a point where are stacked the clean bottles, in their wooden containers, ready for the use of the "fillers." Three men work at the revolving, electric-driven Milwaukee filler, one taking clean bottles from cases and dropping them onto the machine, the other, in front, controlling and watching the fill of bottles, and the third removing filled bottles and dropping them into their compartments in the wooden cases. A fourth man supplies empty bottles by hauling cases as needed from the tiers, and also assists in any other work that may be required.

The general scheme on working the three "fillers" is to have them change about in their duties, from time to time, to relieve monotony and to change the burden onto other muscles. The job at the front of the machine, requiring sitting down, gives an almost complete rest to each man for a spell, from time to time.

The supply installation is a Jensen, with the fresh milk pumped overhead to the cooling bath. Here are two coolers through which flow the streams of milk, with sufficient head on hand to insure complete cooling before bottling.

Milk awaiting handling is kept in cold storage and there are two ice machines to supply refrigeration.

Cans are kept dry after washing by being suspended on racks of galvanized iron piping, and there are mechanical arrangements for the complete washing and sterilization of cans as well as bottles.

The groundwork has been laid for a business twice the size of the present one, by the past policy of the company, and when the new plant is opened, intensive work can then be done on the other end of the business; the acquisition of new accounts and the increasement of the sufficiency of the fleet.

INTERNATIONAL ASSOCIATION OF MILK DEALERS TO HOLD TWENTIETH ANNUAL CONVENTION.

The twentieth annual convention of the International Association of Milk Dealers is to be held in Columbus, O., on October 19, 20, 21 and 22. The headquarters will be the Neil House.

Executive Secretary R. E. Little has arranged for an attendance of 1,500 members.

MACHINERY AND SUPPLIES ASSOCIATION WI MOVE TO LARGER HEADQUARTERS.

The Dairy and Ice Cream Machinery and Suppl Association which for some years has had its offices 1328 Broadway, New York City, will move some time April to larger headquarters necessitated by the gro ing scope of its membership service and general tra development activities, in one of New York City's m recent new large office buildings, the Pennsylva Building, 225 West 34th Street.

The Pennsylvania Building is less than two blo distant from the present quarters of the association, j opposite one of the entrances of the Pennsylvania R way Station, and within ten minutes of New York Cit other great mid-town terminal, the Grand Central S tion. It is within brief walking distance of the Pe sylvania, Herald Square, McAlpin, Martinique, Impe and Waldorf-Astoria hotels, and within ten minutes' tance of the Hotel Astor, Hotel Times Square and Grand Central Terminal district's hotels.

NEW PLANT IN OWENSBORO, KY.

Ground was broken recently for the Evansville P Milk Company's $40,000 plant at Eleventh and Loc Sts., Owensboro, Ky., which is expected to be comple within 90 days.

It will be a one-story brick building and will equipped with all modern conveniences for receiving handling cream and whole milk, making ice cream pasteurizing milk.

When finished the company will vacate the build on East Fourth street and concentrate its activities at new plant near the Union station.

The business is owned by the Evansville Pure M Co., Evansville, Indiana.

MILK BECOMING POPULAR IN BRAZIL.

Under the supervision of the Food Control Board the Ministry of Commerce, during the first six mon of 1926 there was a total of 1,878,401 liters (ab 1,991,000 quarts) of fresh milk sold in Rio de Jane The milk thus sold was offered at forty-eight statio A fair amount of milk is sold without the supervision the board.

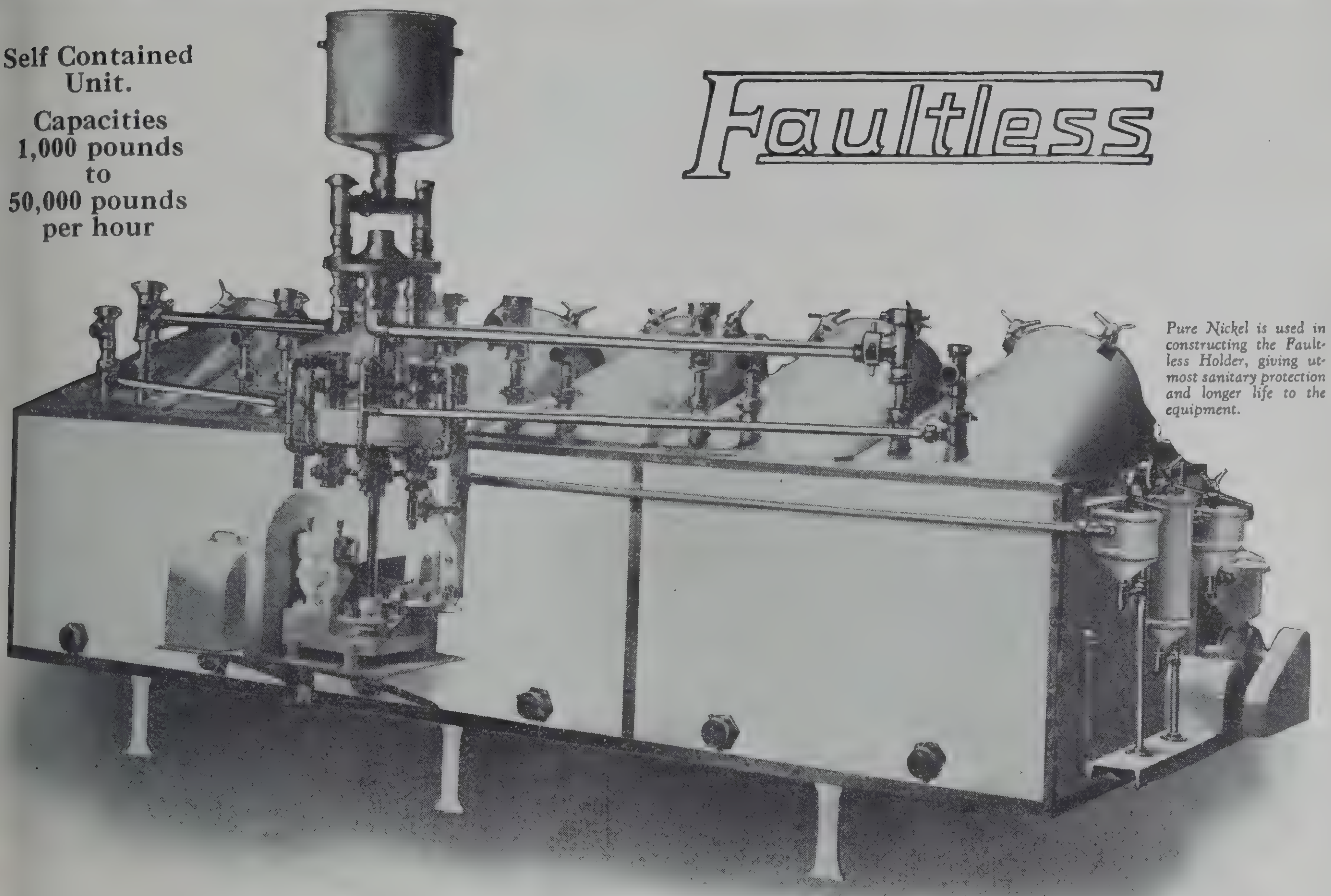
According to a report to the department of comme by Assistant Trade Commissioner D. Duval Brown, Sorocabana Railroad, of Brazil, has just put into serv a refrigerator milk car with carrying capacity of 6, quarts of milk in cans. This car is carried in fast frei and passenger trains, carries two tons of ice and deliv its contents, milk, in Sao Paulo and Sorocaban at the of the 190-mile journey in good condition.

NEW MEASURE INTRODUCED IN INDIANA SENATE.

A measure was introduced in the Indiana state sen by Senator Claude S. Steel which would make it unla ful to discriminate in the purchase price of the c modities in different localities of the state.

This measure would provide that firms or pers buying milk, cream or butterfat who shall discrimin between different territories or localities by buying c modities at a different price or rate in one locality t is paid for the same commodity in another locality, a making due allowance for the difference, if any, in act cost of transportation, shall be guilty of unfair crimination and provides a fine of $100 or thirty days jail, or both. Meeting a price of a competitor is construed as discrimination under the terms of the

Faultless



Self Contained Unit.
Capacities
1,000 pounds
to
50,000 pounds
per hour

Pure Nickel is used in constructing the Faultless Holder, giving utmost sanitary protection and longer life to the equipment.

Positive Automatic Valveless HOLDER

Give your trade the assurance of Positive and Perfectly Pasteurized Milk

You need no longer contend with the human element to control the charge and discharge of your pasteurizing equipment. With this new Faultless Valveless Holder everything is automatic. It is fool-proof. The holding period is positive for the correct period at the correct temperature. There is no chance to cheat one way or the other.

Each compartment is a distinct holding unit in itself and automatically filled without the usual dependency of valves.

Each compartment is automatically discharged by compressed air pressure by a positive timing device at the end of a correct holding period.

Send for illustrated circular giving full operating details and construction specifications

E. A. Kaestner Baltimore, Md.

516-24 North Calvert St.

ARE YOU COURTING COURT EXPENSES?

(Continued from page 28)

often told me that they "wouldn't have given the fellow a ticket if he hadn't been so nasty about it." I know of several concerns that have found it pays to pass on the idea to drivers that a "gentlemanly, good-natured attitude will accomplish far more than all the arguments in the world."

I think many concerns make a mistake when they let a driver appear in court to answer his own traffic summons. In most cities the judge in traffic court has a leeway running anywhere from a suspended sentence or a five dollar fine all the way up to fifty or seventy-five dollars and his decision for the amount of the fine depends on probably three things: The case, the way the case is presented and his good or bad humor at the time. There is no question about the fact that the person who appears to answer the charge and the way in which he handles the situation has a lot to do with the amount of the fine.

Drivers, of course, should be penalized or docked in some just way when they are fined for traffic violations. It is not altogether possible to make the driver pay his own fines although some concerns are making this rule and paying slightly higher wages to cover it. Drivers generally consider this unjust and will not stand for it. At best, it is always a cause for argument and ill-feeling. The driver is certain to have plenty of excuses and he is certain to feel that if the summons was for speeding, he was going fast only so that he might give better service to his employer.

The most satisfactory way to handle court fines, expenses and accident prevention is in connection with other driver incentives in a contest or bonus plan with merits and demerit points. A thing of this kind is not difficult to put in operation. Pay the standard wage for the type of man you want. Keep an individual account of each driver's record. Pay the standard local wage for the type of man you want and allow a bonus of so much per month payable to the driver if his merit and demerit points are within a specified average.

How Demerit Plan Works.

The following is a description of the way in which one firm has successfully carried out a plan of this kind: An individual record is kept on each driver, to which the employee may have access in the office of the assistant general manager. Credits are allowed for commendable acts, deeds of heroism and loyalty, good judgment in emergencies and courtesy. Demerits are provided for an absence of these factors. An accumulation of 75 demerits results automatically in discharge from service. If extenuating circumstances exist and under proper authority reinstatement is approved, it will be with 50 demerits against the employee's record. A second accumulation of 75 demerits will result in permanent discharge.

The company sets aside a fund equivalent to $5 per month for each driver, which is credited to the record of the individual and paid to him on December 1st of each year if he has sufficient merits to his record to justify it. Employees must be with the organization continuously for 6 months to participate in the bonus. There is one exception to this rule. Employees laid off on account of reduction of force, through no fault of their own, are entitled to receive bonus pro rata for the period worked.

The merits are assigned on the following basis:

For meritorious service in avoiding accidents or unusual assistance or good judgment in emergencies, or any commendable act out of the strict line of duty, 10 merits are credited, on authorization of the head of the department. A clear record for 6 months wins 15 merits. The demerits are given for the following
fenses:

		Offenses
	1st	2nd
Missing route or reporting late for work....	1	3
Discourtesy or altercation with customers..	5	10
Smoking on duty.........................	1	5
Reading on duty.........................	1	5
Inattention to duty......................	1	3
Careless driving	5	10
Failure to report accidents or defects coming to the attention of those whose duty is personnaly to report such.............	5	10
Criticising management or policy of the company except to superiors..............	10	10
Lack of neatness........................	2	5
Signals imperfectly given and respected....	3	5
Violating speed regulations..............	3	5
Rough handling	5	10
Failure to have proper lights, and in working order	3	5
Violating overloading regulations.........	3	5

Court fines and accident expenses demerited according
expense incurred and nature of case.

The garage superintendent of this company sa
"As an indication of how our demerit system works
in one important respect, it may be interesting to n
that 80 per cent of our drivers last year had no accide
of any variety—not even the scratch of a fender.

Five Means of Protection.

Besides the bonus demerit plan, there are four ot
good ways in which you can protect yourself agai
heavy court costs. The five means of protection are:

1. Bonus demerit plans.
2. Careful selection of drivers.
3. Driver educational meetings.
4. Bulletins and posters.
5. Insurance.

The selection of drivers should be handled carefu
and systematically. And remember that a cheap
may be easy to get, but he can do enough harm to y
business to more than make up for his lower wag
The best policy by far is to set a wage a little above
average for your locality. Then you can afford to
mand more of the applicant.

In one company every applicant who makes a fav
able impression in an interview with the personnel
ficer of the company and gives surface indications of
ing likely material, must submit a list of his previous
tivities as far as employment is concerned for a period
5 years. The personnel officer, through letters and p
sonal inquiry, checks up on the record of the applica
not in a general incidental way, but in a systematic a
thorough manner. Preference is invariably given
married men.

The two salient things that are looked for in
analysis of an applicant center around the questions

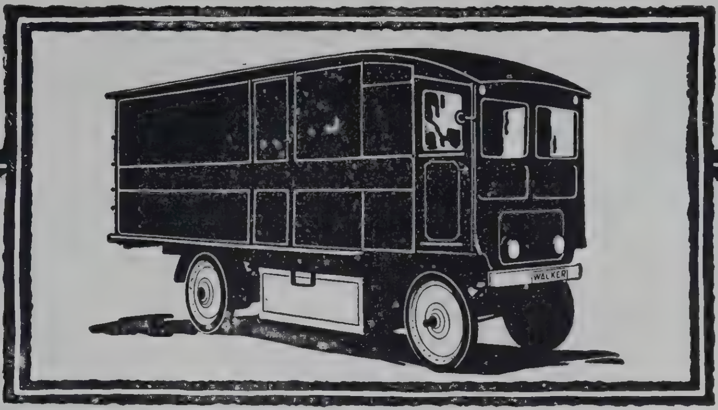
1. "Is he of a nature to yield to training and
cipline, and to recognize and assume responsibility?"
2. "Does he actually want permanent employmen

Experience as a driver is a minor factor in consic
ing an applicant's qualifications. The company's
tem calls for a thorough course of schooling befor
man is given charge of a truck, and while any previ
experience in handling automotive equipment is of va
to him it is not essential.

When an applicant has been found, after inquiry
be worthy of employment he then is required to pas
complete physical examination.

Safety Meetings Reduce Risk.

Several concerns are finding that they can cut do
their accident liabilities by holding what they
"safety meetings" for their drivers. These are usu



SUPPLEE-WILLS-JONES MILK CO.
MATTHEWS SELECTED DAIRIES
LOS ANGELES CREAMERY CO.
BORDEN'S FARM PRODUCTS CO.
FORREST GLEN CREAMERIES
BOWMAN DAIRY COMPANY
BURR CREAMERY CORP'N
CHESTNUT FARMS DAIRY
INTERNATIONAL DAIRY CO.
WIELAND DAIRY CO.

Experience Governs Re-orders

Hundreds of firms like these—leaders in American business, which have ample capital, long experience and a scientific viewpoint in all their equipment buying—keep re-ordering more and more Walker Electric Trucks for their hauling on city routes. Their experience indicates that city route work is electric truck work—and that Walker is the outstanding electric.

If you have city route hauling and deliveries, you too can save money with Walker Electrics. Ask us about their 16 definite money making, money saving advantages—and check these with your business neighbors who use Walkers.

Order Walkers now!

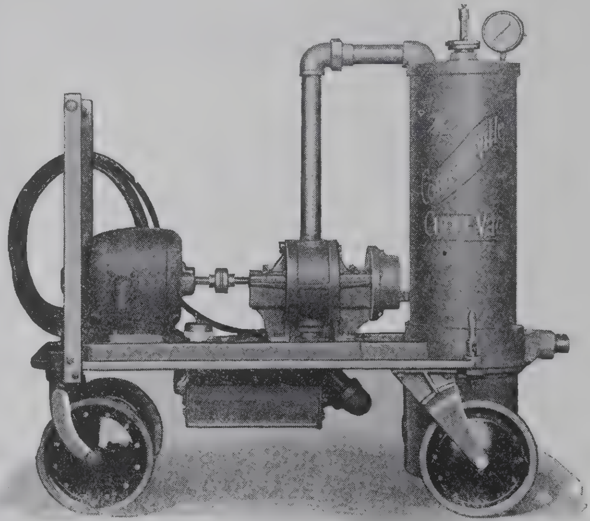
WALKER VEHICLE COMPANY
CHICAGO

WALKER ELECTRIC TRUCKS
LOWEST TRUCKING COST ON CITY ROUTES

When writing to WALKER VEHICLE COMPANY *please mention The Milk Dealer.*

Makes 500% with a Curry-Vac

The Wilson Creamery Company, Detroit, Mich., was able to operate with one less stable man after installing a Connersville Curry-Vac. This one saving makes 500% on the investment in one year.



Consider that The Wilson Creamery Company's horses are more healthy, can do more work and that they present a better appearance, although the cost of cleaning is reduced.

Is there a Dairy or Creamery that couldn't profitably use a piece of equipment that makes 500% on the investment in one year?

A Curry-Vac will do as much for you. Try one and see. Write today.

(Agents in All Principal Cities)

Please send information on ( ) Truck ( ) Stationary Type Curry-Vac for cleaning ( ) Horses ( ) Cows.

Name ....

Address ....

City ....

United Vacuum Appliance Corp.

CONNERSVILLE Dept. M3 INDIANA

dinners held in the evening during which saf measures and methods of avoiding accidents and tra violations are discussed. The H. C. Bohack Co. Brooklyn, N. Y., recently held such a meeting at wh the drivers met a traffic court judge and heard his s of the story on traffic troubles. This company is h ing safety meetings once a month and they have down accidents from the start.

Here is another good idea that helps to reduce accident liability. Any police officer will bear witn to the fact that no two stories of the same accident agree in detail. Experienced truck operators likew know how difficult it is to get a clear idea of what curred from the description of the driver involved. overcome this and arrive more or less at the true fa of the case, J. A. Henley, the well-known delivery sup intendent of the Hudson Store at Detroit, has had m a model of a street intersection incorporating a vari of corners and crossings, with street car tracks an traffic tower.

On this are placed miniature street cars, automob and tracks which can be located as desired. When driver is reporting an accident, this board is placed fore him so that he can demonstrate the conditions relative positions of the obstacles involved and a tr comprehension of the facts of the case obtained. several occasions this model has been of great value court.

Keep Drivers Posted.

Recognizing that the problem is largely in the ha of the drivers, one concern in Los Angeles puts the lowing message over to all drivers in the form o printed card in the truck cab:

"Most accidents are avoidable. We will not exc accidents which are plainly your fault.

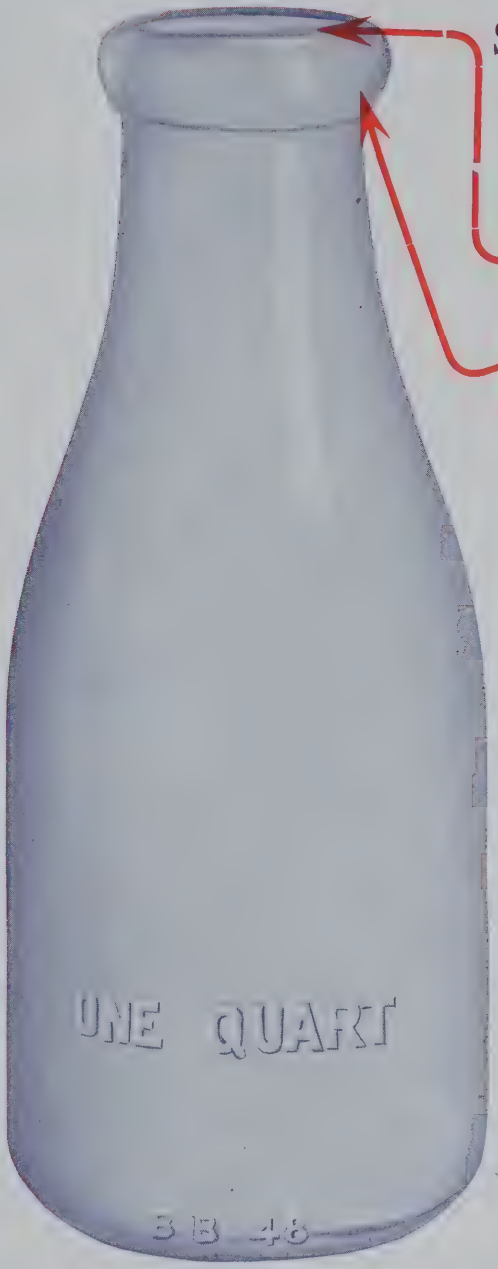
"You are instructed to report any accident damage to property of any nature. Violation of t rule will not be excused.

"Avoid all arguments with officers, pedestrians drivers of other vehicles. You gain nothing by th and they may react against you. If an argument of nature develops, hold your temper; explain in a gen manly manner, your side of the argument, if your planation does not satisfy the other party, inform h that you are not authorized to settle these questions, are instructed to deliver your load and return; give h your name, truck number and truck license number, ask him to report the incident to the transportation m ager. If the occurrence or accident is liable to be o nature at all serious, obtain names of all witnesses p sible, and then be on your way."

Insurance is a thing on which the opinions of tr owners vary greatly. Although many truck owners not agree, it is the writer's unqualified opinion that concern can afford to run a truck unless it can afford have that truck insured on both personal injury, liab ty and property damage policies. The risk is entir out of control of the owner of the business. It is in hands of the vague human element which is always v able and as such, it is too great a risk for the owner take.

The only other safe alternative in the writer's perience is for a concern to carry its own insurance this is sometimes done successfully where the fleet large one. An interest department bank account opened and **at regular periods,** semi-annually, a dep is made to this account, drawn from the business, equ lent to the amount of the premiums if they were p to an insurance company. This fund is used to losses much as an insurance company would pay th and very often, over a period of time, the idea will sh a profit.

Automatically Processed Milk Bottles of Quality



Six Little Details All Big

1. Round cap seats that hold the cap
2. Well formed heads designed to obviate chipping
3. Accuracy in capacity uniformly maintained
4. Glass clear in color
5. Scientifically annealed (tempered) giving maximum strength
6. Grace in design, making a pleasing package

Our Motto:

Quality

Economy

Dependability

You Want Quality
Let Us Serve You

BERNEY-BOND GLASS COMPANY

Main Office-Factory: CLARION, PENNA.

CHICAGO Representative: A. F. MARTIN, 1654 Cleveland Avenue, Chicago, Ill.
MICHIGAN and OHIO Representative: Lock Box 56, Redford, Mich.
NEW YORK, N. Y., Hudson Terminal Bldg., 50 Church St.
BOSTON, MASS., 170 Summer St.
PHILADELPHIA, PA., Abbott Bldg., Broad and Race Sts.

When writing to BERNEY-BOND GLASS COMPANY *please mention The Milk Dealer.*

Over 500 Dairies are using

KOKO-MALT

It's Making a Big Hit !

for their

Chocolate Malted Milk Drinks

HERE is a new product which is blended from a special Dutch-processed, double milled cocoa and pure barley malt extract with special flavoring to intensify the full chocolate flavor and absorb the bitterness of cocoa.

DAIRIES bottling chocolate milk should be interested in this new preparation. It means a great saving in your syrup purchases. The cost of one gallon of delicious chocolate malted syrup made from KoKo-Malt, which is sufficient to flavor 10 gallons of milk, is 75 cents.

We will be glad to send a sample of KoKo-Malt sufficient to make one gallon of syrup to those interested in this new hit.

THE DAIGGER CORPORATION

Manufacturers

WASHBURN'S PRODUCTS

413-415 Beethoven Place CHICAGO

When writing to THE DAIGGER CORPORATION *please mention The Milk Dealer.*

Cosco

Cosco Bacteria Exterminator

For All Sterilizing, Disinfecting
and Cleansing in
The Dairy, Creamery,
Milk Bottling Plant,
and Ice Cream Factory

Bacteria

A Positive
Germ Destroyer
Leaves No Odor
Is Tasteless

Xterminator

Its Unusual Strength
Requiring Only
Minimum Quantities
Makes It The Most
Economical Cleanser
Offered

SETHNESS COMPANY
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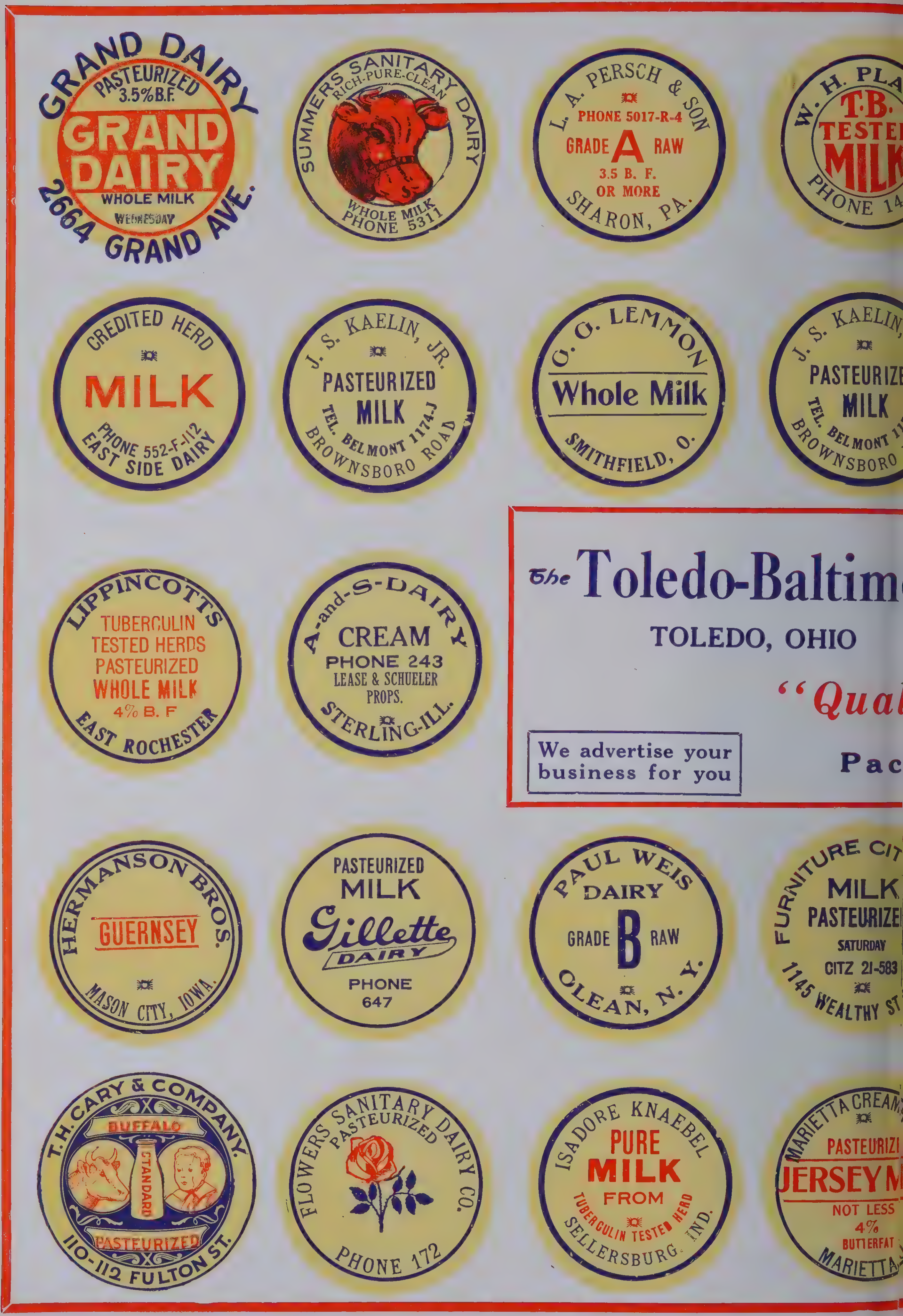
659 Hobbie St.
NEW YORK
1133 Broadway

Sethness, Chicago.
Send Trial Call on C-B-X ☐
Send Particulars on C-B-X ☐
Name..........
Street..........
Town..........
State..........
M.D.


GRAND DAIRY
PASTEURIZED 3.5% B.F.
GRAND DAIRY
WHOLE MILK
WEDNESDAY
2664 GRAND AVE.
SUMMERS SANITARY DAIRY
RICH-PURE-CLEAN
WHOLE MILK
PHONE 5311
L. A. PERSCH & SON
PHONE 5017-R-4
GRADE A RAW
3.5 B. F. OR MORE
SHARON, PA.
W. H. PLA
T.B. TESTE
MILK
PHONE 14
CREDITED HERD
MILK
PHONE 552-F-112
EAST SIDE DAIRY
J. S. KAELIN, JR.
PASTEURIZED MILK
TEL. BELMONT 1174J
BROWNSBORO ROAD
G. G. LEMMON
Whole Milk
SMITHFIELD, O.
J. S. KAELIN,
PASTEURIZE
MILK
TEL. BELMONT 11
BROWNSBORO
LIPPINCOTTS
TUBERCULIN TESTED HERDS
PASTEURIZED WHOLE MILK
4% B. F
EAST ROCHESTER
A-and-S-DAIRY
CREAM
PHONE 243
LEASE & SCHUELER PROPS.
STERLING-ILL.
HERMANSON BROS.
GUERNSEY
MASON CITY, IOWA.
PASTEURIZED MILK
Gillette DAIRY
PHONE 647
PAUL WEIS DAIRY
GRADE B RAW
OLEAN, N. Y.
FURNITURE CIT
MILK
PASTEURIZE
SATURDAY
CITZ 21-583
1145 WEALTHY ST
T. H. CARY & COMPANY.
BUFFALO
STANDARD
PASTEURIZED
110-112 FULTON ST.
FLOWERS SANITARY DAIRY CO.
PASTEURIZED
PHONE 172
ISADORE KNAEBEL
PURE MILK FROM
TUBERCULIN TESTED HERD
SELLERSBURG, IND.
MARIETTA CREAM
PASTEURIZ
JERSEY M
NOT LESS 4% BUTTERFAT
MARIETTA

The Toledo-Baltim

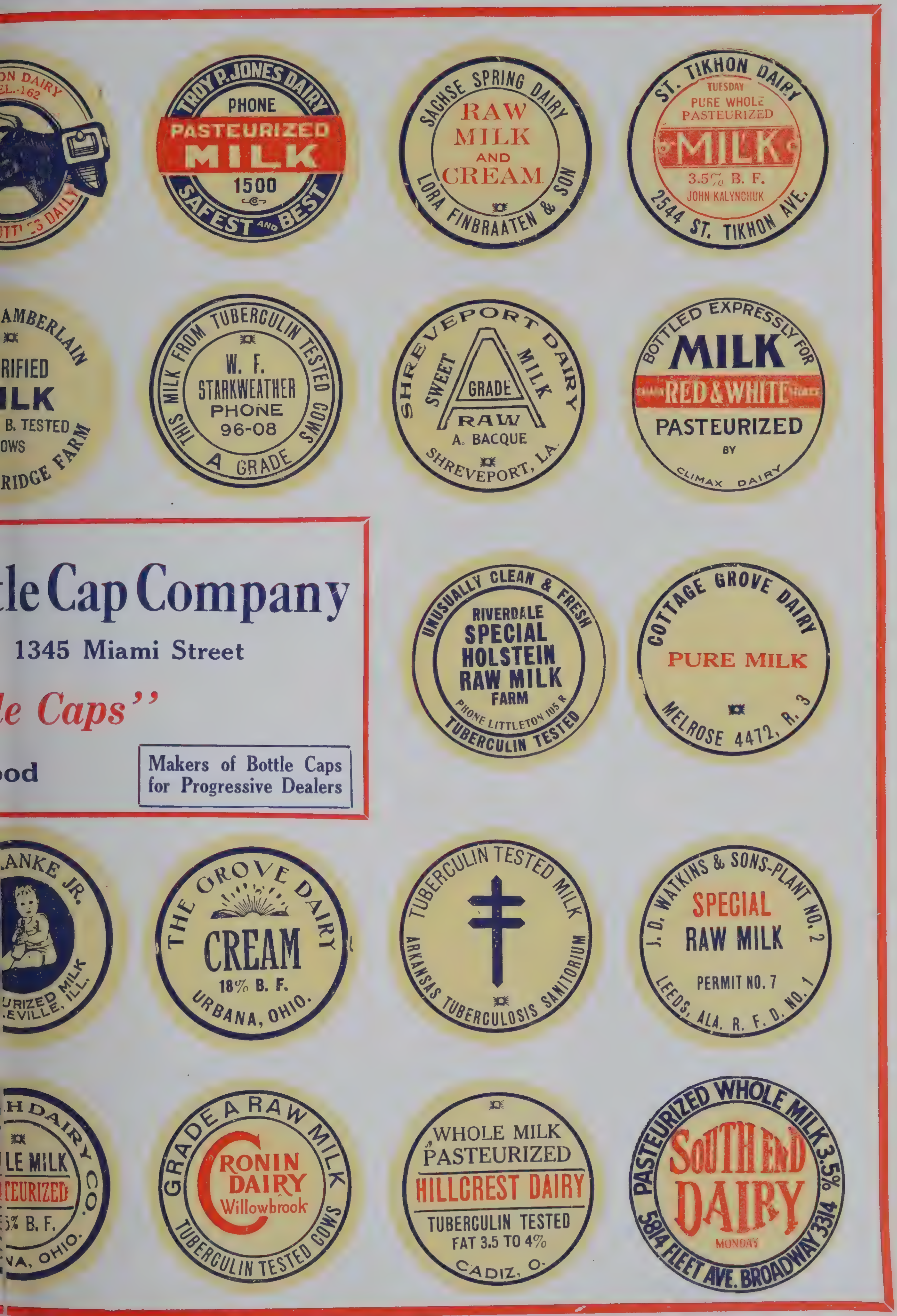
TOLEDO, OHIO

"Qual

We advertise your business for you

Pac

When writing to THE TOLEDO-BALTIMORE BOTTLE CAP COMPANY *please mention The Milk Dealer.*


ON DAIRY
EL.-162
S DAILY
TROY P. JONES DAIRY
PHONE
PASTEURIZED MILK
1500
SAFEST AND BEST
SACHSE SPRING DAIRY
RAW MILK AND CREAM
LORA FINBRAATEN & SON
ST. TIKHON DAIRY
TUESDAY
PURE WHOLE PASTEURIZED
MILK
3.5% B. F.
JOHN KALYNCHUK
2544 ST. TIKHON AVE.
AMBERLAIN
RIFIED
ILK
B. TESTED
OWS
RIDGE FARM
THIS MILK FROM TUBERCULIN TESTED COWS
W. F. STARKWEATHER
PHONE 96-08
A GRADE
SHREVEPORT DAIRY
SWEET
GRADE
MILK
RAW
A. BACQUE
SHREVEPORT, LA.
BOTTLED EXPRESSLY FOR
MILK
RED & WHITE
PASTEURIZED
BY
CLIMAX DAIRY
UNUSUALLY CLEAN & FRESH
RIVERDALE
SPECIAL HOLSTEIN RAW MILK
FARM
PHONE LITTLETON 105 R
TUBERCULIN TESTED
COTTAGE GROVE DAIRY
PURE MILK
MELROSE 4472, R. 3
ANKE JR.
URIZED MILK
EVILLE, ILL.
THE GROVE DAIRY
CREAM
18% B. F.
URBANA, OHIO.
TUBERCULIN TESTED MILK
ARKANSAS TUBERCULOSIS SANITORIUM
J. D. WATKINS & SONS-PLANT NO. 2
SPECIAL
RAW MILK
PERMIT NO. 7
LEEDS, ALA. R. F. D. NO. 1
H DAIRY CO.
LE MILK
TEURIZED
5% B. F.
NA, OHIO.
GRADE A RAW MILK
CRONIN DAIRY
Willowbrook
TUBERCULIN TESTED COWS
WHOLE MILK PASTEURIZED
HILLCREST DAIRY
TUBERCULIN TESTED
FAT 3.5 TO 4%
CADIZ, O.
PASTEURIZED WHOLE MILK 3.5%
SOUTH END DAIRY
MONDAY
5814 FLEET AVE. BROADWAY 3314

tle Cap Company

1345 Miami Street

le Caps''

ood

Makers of Bottle Caps
for Progressive Dealers

When writing to THE TOLEDO-BALTIMORE BOTTLE CAP COMPANY *please mention The Milk Dealer.*

The BEST BULWARK

CLEARNESS
ACCURACY
STRENGTH

CLEARNESS

—that the customer may see the quality of milk you are distributing.

ACCURACY

—that the customer may get the amount that he or she buys.

STRENGTH

—that the bottle may last the dealer as long as possible. Bottle loss is one of the milk distributor's problems. Less breakage, less cost.

ATLANTIC
Milk
Bottles

ATLANTIC BOTTLE CO.

FACTORY: BRACKENRIDGE, PA.

90 W. Broadway, New York **327 S. La Salle St., Chica**

When writing to ATLANTIC BOTTLE CO. *please mention The Milk Dealer.*

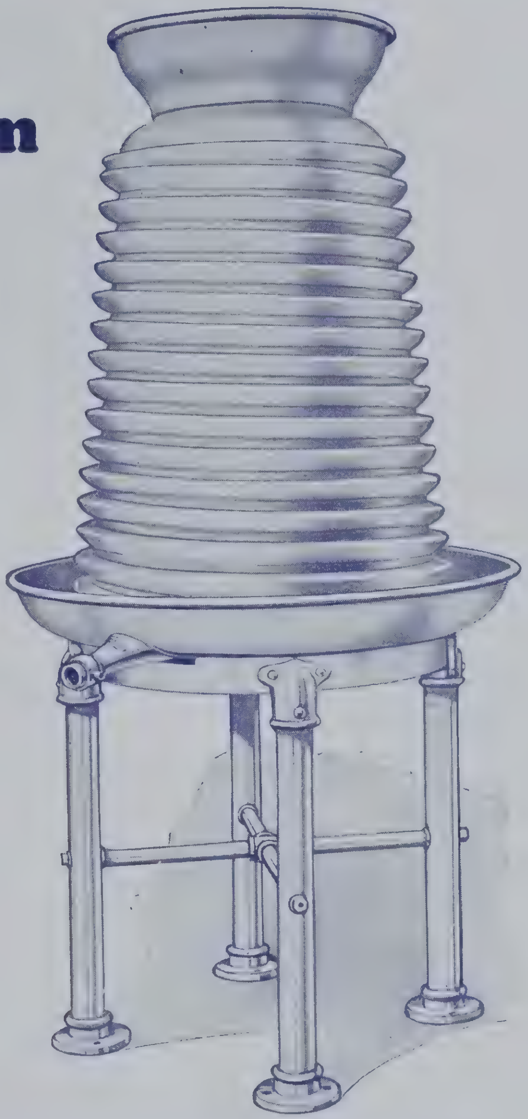
Miller

Miller

THE
H·H·MILLER INDUSTRIES CO.
CANTON, OHIO.

Chilly King Milk and Cream Coolers

Unexcelled for the cooling of Fluid Milk, Heavy Cream and Pasteurized or Homogenized Ice Cream Mix.



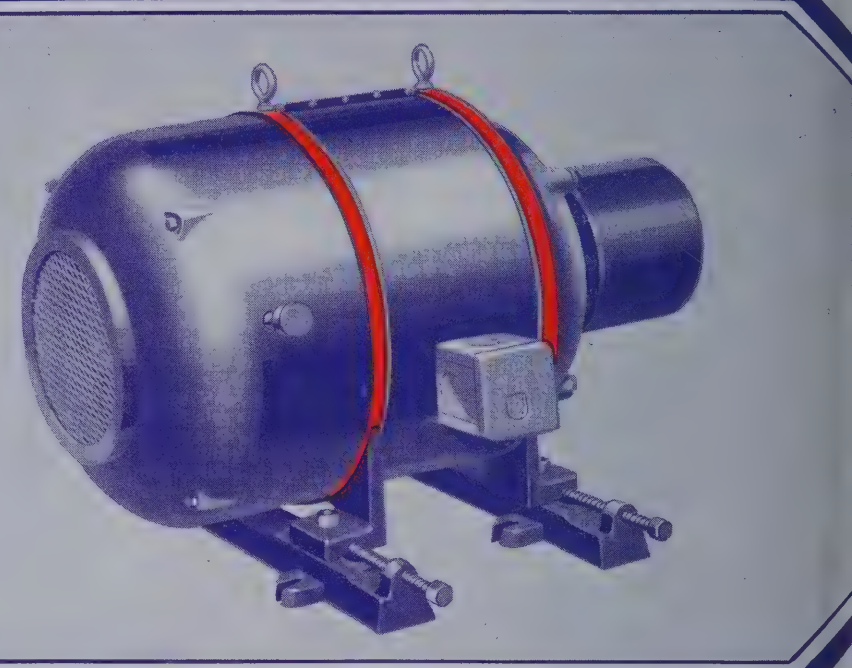
Made in sizes 1,000 to 10,000 lbs. per hour.

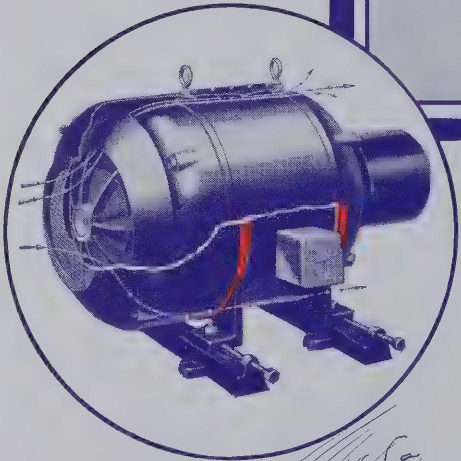
Also manufacturers of MILLER BRINE ICE CREAM FREEZERS, MILLER PASTEURIZERS, AUTOMATIC MILK HOLDING MACHINES, VATS, TANKS, M&M BOTTLE WASHERS, ETC.

Please Ask for Bulletin and Prices

When writing to THE H. H. MILLER INDUSTRIES CO. *please mention The Milk Dealer.*

a New HOWELL MOTO





Totally enclosed - self-ventilating

The Howell organization announces a new motor

Totally enclosed, self-ventilating—fireproof, oilproof, dustproof, waterproof, fume and acid proof

And like all other Howell Red Band Motors—foolproof

With Timken Tapered Roller Bearings—sealed against entrance of foreign material—guaranteed to last the life of the motor

With double cotton-covered enameled wire—moisture and oilproof

With the patented Howell automatic bearing adjuster—that keeps bearings snug at all times and under all conditions

With the Howell guarantee and reputation of always making good on the hard jobs

And at a much lower cost than the ordinary totally enclosed motor.

(88)

Descriptive literature and prices upon application —Branches in all principal cities

Howell RED BAND ELECTRIC Motors

Make Good On the Hard Jobs

HOWELL ELECTRIC MOTORS COMPANY, HOWELL, MICHIG

When writing to HOWELL ELECTRIC MOTORS COMPANY *please mention The Milk Dealer.*

TEACHING THE PUBLIC TO LIKE MILK.

(Continued from page 30)

er the contents of a bottle from which the "top
" has been poured is still a very valuable food and
well be used by those who do not like the richer
s.

specially is skim milk to be recommended to people
are afraid to drink milk because they have heard
it is fattening, and they are very anxious to stay
A great deal more milk would be drunk if it were
or the fear of the bulging waistline, or that the fair
er might lose the dimensions of a clothes horse.

hysicians are sure that a great many women are in-
g themselves by a too scanty diet. They eat a very
lanced ration and as a result are particularly in
of a "protective" food. Milk is commonly con-
ed out of the question in such diets because it is so
tening." Skim milk has lost a considerable part of
protective" substances, but is still very much better
no milk at all.

Milk tastes flat" say some of its detractors. But
so do meat and most other foods taste flat until salt
lded. Friend wife forgets to salt the oatmeal or the
mbled eggs occasionally, and is very soon reminded
e fact by the members of the family. Most of us
milk without salt, and can hardly understand why
want salt in it, but some even want salt with water-
n, apple, peaches, and other things so good that it
s they couldn't be improved. There is no accounting
astes, so if they like their milk better with salt in
ere can be no reasonable objection.

n excellent way to get the salt into the milk is to
soda crackers with it. A glass of high grade milk
ed to the right temperature, and a dozen fresh soda
kers is as tempting a layout as a king could desire.
dentally there is no better way to take milk than in
this manner. Nature intended that her ideal food
ld be taken slowly rather than be gulped in great
lows. The baby gets its milk through tiny holes in
nipple; the adult should sip his milk mixing it with
r foods as he chews. When taken in this way and
oughly mixed with the crackers, the curd formed by
action of the gastric juice is fine and easily digested.
am crackers with milk makes an ideal lunch for
ing children. A glass of milk and a couple of
kers in the middle of the morning and afternoon is
ty hard on small boys as we used to speak of sum-
showers being hard on little potatoes. It makes
nes out of 'em.

ome will like milk better if it is sweetened, others
has chocolate added as in cocoa or in other chocolate
drinks that are on the market. It was formerly the
tice to give children coffee for breakfast, but milk
e cocoa is far better if it is felt that they need a hot
k. Malted milk, malted grape nuts in milk, choc-
malted milk, milk with various kinds of fruit
ps, even milk mixed with Coca Cola is served to
ons at the "stand in" lunch stalls, and no better
lunch can be found though it is probably better if
flavoring is not carried to excess else the natural
r become distasteful.

lmost everyone eats milk with cereal, and certain
r foods as coffee or fruit. In case a given individual
says that he does not like milk, this makes an ex-
nt starting place. It is a comparatively easy matter
ir a couple of tablespoonfuls of applesauce into a
of milk, and then eat it as if it were all applesauce.
ous fruit juices mixed with milk make pleasing
ks. If the juice cannot be had in liquid form a
nful of jelly can be stirred into a glass of milk,
ing an agreeable beverage.

t was formerly supposed that acid fruit juices

The Old Way—*Dragging*

The *Nutting* Way—*Rolling*

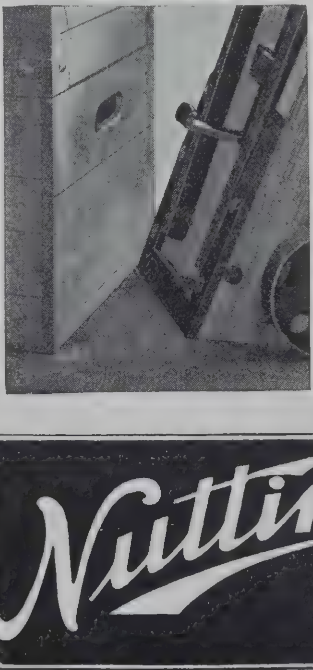
Quick Handling—the Key to Greater Profits

By far the quickest, easiest way to move milk cases short distances about the plant **is with the Nutting Milk Case Truck.**

It's the key to greater profits. While a man drags one stack of cases across the floor he can roll two or three stacks with this milk case truck. It does away with delays at the bottle washer; ends "traffic jams" at the inclined runways. Saves wear on case bottoms. No other truck is like the patented

Nutting Milk Case Truck

You simply grab and go! No nose to pry under a stack. An adjustable hook slips into the hand-hole of the bottom case. The rack supports and balances the load. Easily moves 6 to 8 cases of quart bottles.



Fits any milk case made. Thousands in use. Ask your jobber or write us for catalog C showing this and other floor trucks for the dairy industry.

Nutting Truck Company
1287 Division St.
FARIBAULT, MINN.

Nutting Floor Truck Specialists Since 1891

should not be mixed with milk, but now we know that this idea is entirely erroneous. "Give the baby milk, and also give him orange juice, but never give them together" is an old adage which is all wrong. It has been proved beyond argument that organic acids added in proper amount to milk makes it easier to digest. Orange juice may properly be mixed with milk or taken just before or just after it quite properly and safely. The wonderful new way of feeding babies with lactic acid milk is in principle identical to that just stated. The acid helps the acid of the gastric juice to digest the milk. It has been claimed that President Andrew Johnson died after eating cherries with milk over them, and we have no reason to doubt the statement, but we do not believe that the cherries or the milk had anything to do with the death. Even if there were any significance in the yarn a glass of milk with a little cherry juice in it would make a man take a chance.

Folks with delicate appetites for milk can be utterly upset by the finding of a speck of dirt in bottom of the glass, and we must confess that it isn't a very pleasant experience for any of us. It's up to the milk dealer to be sure that it doesn't happen. Until the public is educated to know that many of the bacteria of milk are quite harmless or even beneficial the dealer will have to be very careful about giving the wrong impression. A milk man of the writer's acquaintance was jubilant when he got to the place where his raw milk was under a count of 10,000 and every man can understand his feelings if he has tried sometime to produce that kind of a milk. He talked and talked about it with the result that his trade fell off perceptibly. It is true that he gained several well informed families who understood his claims, but he lost five times as many other families who thought that even a single germ in milk was too many.

Emphasis upon the superior qualities — the positive aspects of the argument—of milk will have a better effect upon the man or woman of the fickle appetite. Attention should be called to the sun-flooded dairy barn, the "contented cows" grazing in green pastures beside stony brooks, and all that sort of thing. Of course, we physicians and health officers must keep tab on all phases of the work, but if the milk dealers will handle the milk as it can and should be handled in these modern days, it will not be necessary for us to be calling the attention of the public to the various negative phases of the subject. Practically all physicians recommend milk to their patients and their families and they are all very willing to pass up mentioning the possible dangers of the milk supply if they think they dare do so. So again the responsibility goes back to the producer.

Nearly every one likes ice cream. What is ice cream? Roughly speaking, it is milk that is cold, sweet, flavored, and eaten with a spoon. Very well then, here is our cue. Consider milk as a food—a food to be eaten. It is far more than a mere beverage like coffee or tea. It has high fuel and nutritive value. Let's EAT our milk, cold, sweetened, and flavored—if we like it that way. Anyway, it's worth a trial by those who profess not to like milk.

Many folks will like milk if it is drunk from a bottle through a straw. In that way they avoid the odor almost entirely. Children think it is fun to drink through a straw, and make the milk fly. By the time the novelty has worn off they will usually have learned to like milk. Some even prefer to drink milk with a spoon rather than from a glass.

Of course, it will hardly need be mentioned that the bug-a-booes concerning the dangers from the drinking of milk are pretty much out of date. There is hardly more danger with good milk supplies than that sea serpents or dragons should come up out of the ocean and
eat us. Folks used to believe such stories, of co
Tuberculin testing of cows, clean dairies, promp
frigeration, health examinations of the hired help,
teurization, delivery in the bottle, and careful co
of the various stages of production have taken ca
that and there is no reason why these things should
be frequently mentioned as they point out the pos
phases of the industry rather than the possible dan

After children have been weaned from the b
they are commonly given a bottle with cows' milk.
a few months they are given the milk in a glass bet
meals and at the table. This is the crucial time.
easy enough to allow the child to turn away from
milk to the other new found delights of the table, bu
should not be permitted to do so. At least a pint,
preferably a quart of milk a day is the birthrigh
every child. He needs the milk and he also need
keep continuous his natural appetite for the only
that Nature has especially prepared. If in later lif
should develop tuberculosis, malnutrition, gastric u
certain forms of intestinal disease, nervous disor
kidney disease, or other fairly common complaints
very likely that his physician will recommend a
diet. If the patient likes milk he is all set, but i
doesn't, he is set back. It's a poor time to learn to
milk when one is ill, and unless one likes a given
it doesn't do him much good in a time like this.

When Mrs. Smith complains to the milk man that
Johnny doesn't like milk he should be able to ma
few pertinent suggestions that will help the harra
mother to get her children to drink the milk that
knows they need. Milk companies might do well to
lish pamphlets instructing parents in such matters t
end that the next generation may be a "protect
generation, and the milkmen be prosperous milk
It is not unlikely that the consumption of milk in a g
city could be nearly doubled if every one liked mil
the same way that they like the other good thing
life. A man, a woman or a child converted to the li
gospel of the use of milk is a life-time customer of
milk company.

If milk were an article of food that might go o
vogue the expense of propaganda urging its use m
not be justified, but milk is a food that we always h
There is no substitute for milk, and for this reason t
is no more stable—or important—industry than th
milk production. The dairy community is practi
always progressive and prosperous, and the milk d
ing community is healthy. The "synthetic milk" wi
a certain noted industrialist has proposed to make i
feel safe to predict, several thousands of years in
future.

And in the meantime let's talk milk, teach foll
drink milk, and give 'em good milk to drink. H
to a glass of good cold milk, and may we live long
prosper—by drinking it!

⚜

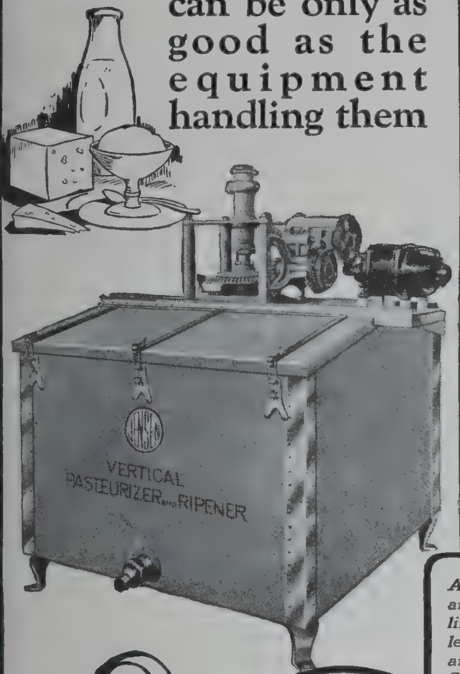
WINS NATIONAL DAIRY EXPOSITION CUP F THIRD CONSECUTIVE TIME.

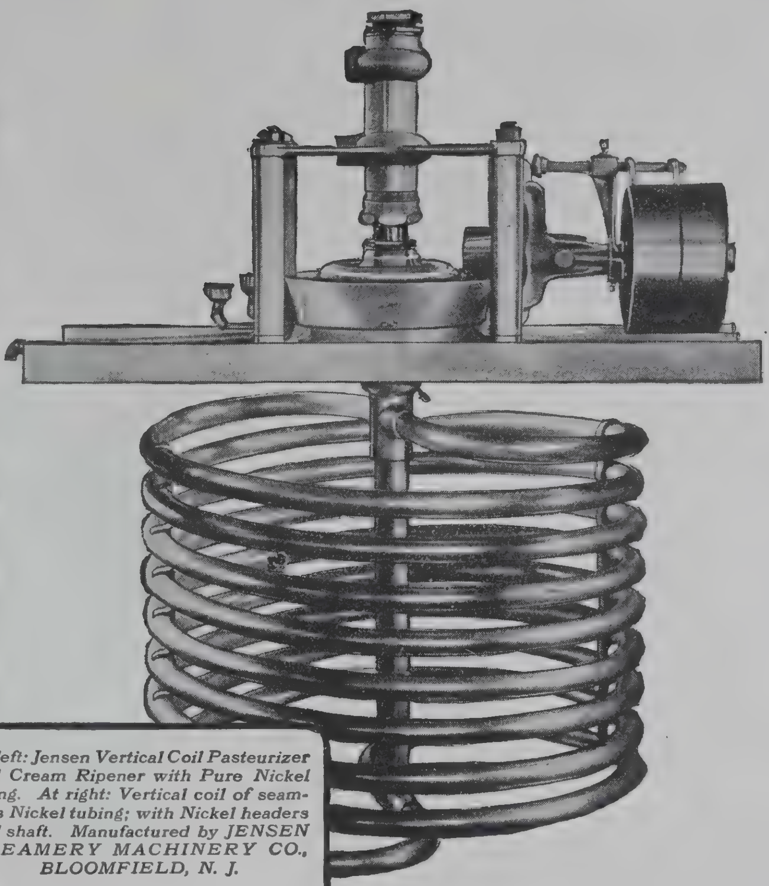
The 1926 Dairy Products Judging Team of the
State College, competing at the National Dairy Ex
tion at Detroit, Mich., brought the National Dairy
position cup for judging dairy products to Ames
for the third consecutive time, thus becoming perma
owners of the cup. The team came highest on bot
cream and milk in the various products judged.

J. W. Tatum was awarded the gold medal for the
est individual score in judging all products and the s
medal for second place on milk. George L. Myers
silver medals for second place on all products and se
place on ice cream. J. A. Earle took the bronze
for third highest individual score on all products.

Dairy Products

can be only as good as the equipment handling them





At left: Jensen Vertical Coil Pasteurizer and Cream Ripener with Pure Nickel lining. At right: Vertical coil of seamless Nickel tubing; with Nickel headers and shaft. Manufactured by JENSEN CREAMERY MACHINERY CO., BLOOMFIELD, N. J.

So JENSEN has adopted Pure Nickel

THE goal of the dairy industry is the increased consumption of dairy products. Authorities say that this expanded volume of business will come with a better product--a product handled in better equipment.

Realizing that conditions call for a metal that is easily cleaned, yet strong and durable, the Jensen Creamery Machinery Co. has adopted Pure Nickel for the coils and linings of its quality line pasteurizers.

The same properties that make Pure Nickel the SAFE metal also make it the ECONOMICAL metal for dairy equipment; for it combines long life and easy cleanability.

You can now obtain Pure Nickel equipment from YOUR manufacturer. Ask him about Pure Nickel, or write us for more detailed information.

INCo

SEND FOR "LIST B" OF NICKEL & MONEL METAL LITERATURE

Nickel

HE INTERNATIONAL NICKEL COMPANY (INC.), 67 WALL STREET, NEW YORK CITY

When writing to THE INTERNATIONAL NICKEL COMPANY *please mention The Milk Dealer.*

Are Milk Products Paying Their Share?

Report of Freight Rate Committee of International Association of Milk Dealers at Detroit Convention. Chairman H. S. Van Bomel, Sheffield Farms Co., New York

Presented by GEO. E. CLINTON, Sheffield Farms Co., New York

YOUR Freight Rate Committee submits herewith its report for the past year. You are, of course, all aware that for the past two years the carriers in Trunk lines and Central Freight Association territory have proposed to cancel the special commodity rates applying on glassware, and apply the regular fifth class rates. Many conferences have been held between the railroad companies, manufacturers and assocations representing the users of glass bottles, and the railroads have submitted propositions, none of which to date have been acceptable to the glass manufacturers, glass buying public or to your committee.

A proposition has been presented to the carriers which, if accepted by them, will make certain advances and certain reductions, and will in the main afford the carriers practically the same revenue as they are securing at the present time. We are not at this time prepared to deal with the subject finally. The main object in my appearing before this group, in lieu of the chairman of the committee, is to endeavor to impress upon the minds of the members of this organization the fact that the railroads throughout the East, and in some parts of the West, have evidently decided that milk and milk products are not paying their proper share of the transportation charges of this country, and in a number of instances have filed tariffs providing for radical increases in rates, and if these tariffs had been allowed to become effective without opposition, they would have created a precedence which, no doubt, would have resulted in increases throughout the country, particularly in the principal cities of New England, in New York, Philadelphia, Baltimore, Chicago and all other Western cities where the present C. F. A. scale of rates applies.

As a practical illustration, I would like to submit what has recently happened in New England. In January, 1925, the New England roads, including the Boston & Maine, Maine Central, Central of Vermont and Rutland railroads took up with the New England Producers' Association and the Boston milk dealers the question of advancing rates on milk and milk products 20 per cent, claiming that the cost of handling milk in New England exceeded the revenue derived therefrom to the extent of 34 per cent. After this proposition had been presented to the shippers and distributors an organization of shippers and distributors was formed to combat this action on the part of the carriers, and wide-spread publicity was given to the program, as arranged by the railroads. When the railroads ascertained that they were to meet a great deal of opposition, Garrett Fort, vice president of the Boston & Maine Railroad (and this railroad was the railroad that agitated the entire proceedings), advised both the distributors and dealers that the carriers had abandoned the proposed action for the time being. In January, 1926, the Boston & Maine Railroad again presented a proposal for an increase in milk rates in New England, and this time the matter did not appear to be taken seriously by the dealers and producers, and at first no effort was made to combat the proposed action on the part of the carriers. This appeared to be due to the fact that there was no one sufficiently interested to act as a leader and was further due to the fact that milk in the Boston market was purchased on a delivered basis, and the producers had no funds to enter a fight. After some agitation by outside inter
who felt that inasmuch as the rates in New England
been set by the Interstate Commerce Commission,
as a result of the New England so-called Milk Rate (
—the commission had adjusted and set the rates in N
York, Philadelphia, Baltimore, Chicago and other C
A. cities, that any increase in New England would
turally be followed by an attempt to increase rates
both trunk lines and Central Freight Association te
tory by the railroads carrying milk into these points

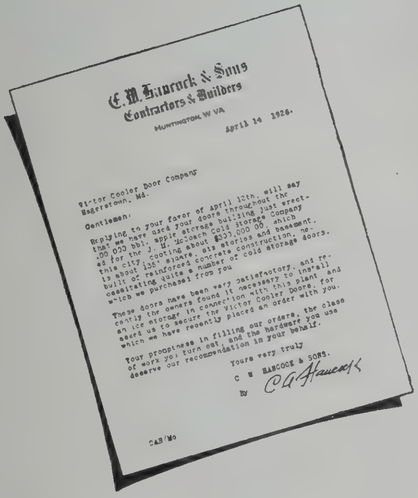
The New England Milk Producers' Association
the dealers in Boston finally held a meeting to dis
the proposed action of the carriers, and as a resul
this meeting, committees were formed representing b
the dealers and the producers, and a plan of finan
the fight was arranged between them. Several of
New York dealers were interested in the rates in cer
parts of New England territory, and for this reason,
for the reason that they felt any advance in New E
land would be immediately followed by advances
New York, together with the New York Milk Confere
Board, retained counsel, filed a petition for suspens
with the Interstate Commerce Commission, the ta
were suspended, and the first hearing was held in Bos
Mass., on May 5, 1926, and at this hearing the prot
ants took the position that they would only listen to
railroads evidence in support of their request for a
tional rates, would not cross-examine nor would t
put in evidence until they had an opportunity to
what they had to combat.

The carriers presented as their first witness, P
J. E. Slater, professor of transportation of the Univer
of Illinois, who had until Sept. 1, 1925, been assistan
the general manager of the New Haven Railroad,
who presented as his first exhibit, a composite cost st
of all of the roads mentioned above, as well as the N.
N. H. & H. and Boston & Albany Railroad, which
study was supposed to show a very large deficit in
carriers' revenue as a result of the handling of milk
the New England carriers. This cost study was uni
and instead of dealing with the adopted theories
transportation, dealt with milk purely from a passen
baggage and U. S. Mail standpoint, and presented
facts based on car foot mileage which heretofore
never been given consideration except in the case o
S. mail and in a case presented against the exp
companies.

In addition to the cost study presented by the
riers, their traffic witnesses presented facts and fig
to indicate that from a traffic standpoint, milk sh
have a regular classification, their theory being that
carload shipments should be classified as 125 per
if the first class rate, this to include what he ter
special features of icing less carload shipments and
turning empties, or without these special features,
less carload shipment should take the first class rate
return empties one-half of the rule 26 rate (the rul
rate is 20 per cent lower than the third class rate,
not lower than the fourth class rate), the carload s
ments he claims should be classified as fourth class.
of these figures would produce tremendous increase
rates, in fact far in excess of the rates actually prop
at this time, indicating very clearly that the carr

THE STANDARD VICTOR AUTO CLOSE DOOR

AND A LETTER THAT TELLS ITS OWN STORY



C. W. Hancock & Sons
Contractors & Builders
Huntington, W. Va.

April 14 1926.

Victor Cooler Door Company
Hagerstown, Md.

Gentlemen:

Replying to your favor of April 12th, will say that we have used your doors throughout the 400,000 bbl. apple storage building just erected for the J. W. McCoach Cold Storage Company this city, costing about $300,000.00, which is about 135' square, six stories and basement, built of reinforced concrete construction, necessitating quite a number of cold storage doors which we purchased from you.

These doors have been very satisfactory, and recently the owners found it necessary to install an ice storage in connection with this plant and asked us to secure the Victor Cooler Doors, for which we have recently placed an order with you.

Your promptness in filling our orders, the class of work you turn out, and the hardware you use deserve our recommendation in your behalf.

Yours very truly
C. W. HANCOCK & SONS.
By C. W. Hancock

CAB/Mo

The letter to the left is but one of the many commendatory letters that we have received from contractors as well as actual users of Victor Standard Refrigeration Products.

The reason for this unqualified popularity of Victor Products is their unfailing dependability to do the work they are manufactured to accomplish.

The Victor Auto Close Door (illustrated above) is especially adapted for storage anterooms and vestibules.

Bring your refrigeration problems to our attention. We employ a corps of refrigeration engineers who will be glad to advise you with regards to your needs. Of course, this service will not obligate you in any way.

VICTOR COOLER DOOR COMPANY, INC.

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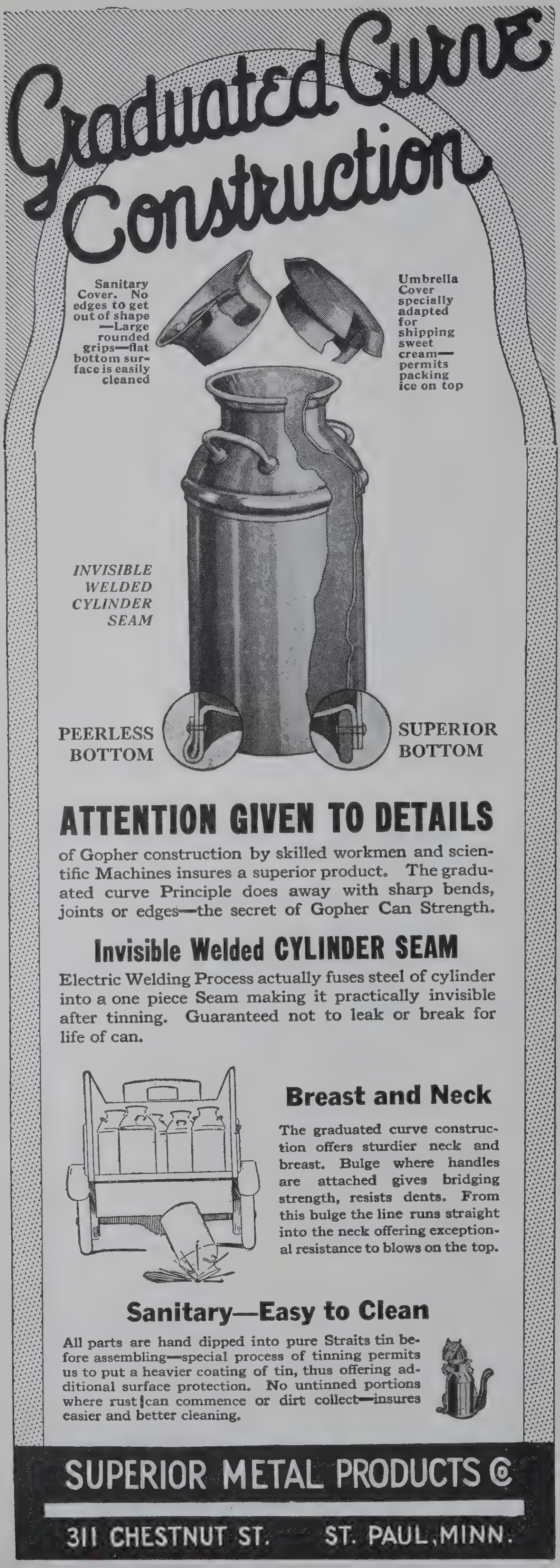
Branch Offices, NEW YORK, CHICAGO AND NEW ORLEANS



Graduated Curve Construction

Sanitary Cover. No edges to get out of shape—Large rounded grips—flat bottom surface is easily cleaned

Umbrella Cover specially adapted for shipping sweet cream—permits packing ice on top

INVISIBLE WELDED CYLINDER SEAM

PEERLESS BOTTOM

SUPERIOR BOTTOM

ATTENTION GIVEN TO DETAILS

of Gopher construction by skilled workmen and scientific Machines insures a superior product. The graduated curve Principle does away with sharp bends, joints or edges—the secret of Gopher Can Strength.

Invisible Welded CYLINDER SEAM

Electric Welding Process actually fuses steel of cylinder into a one piece Seam making it practically invisible after tinning. Guaranteed not to leak or break for life of can.

Breast and Neck

The graduated curve construction offers sturdier neck and breast. Bulge where handles are attached gives bridging strength, resists dents. From this bulge the line runs straight into the neck offering exceptional resistance to blows on the top.

Sanitary—Easy to Clean

All parts are hand dipped into pure Straits tin before assembling—special process of tinning permits us to put a heavier coating of tin, thus offering additional surface protection. No untinned portions where rust can commence or dirt collect—insures easier and better cleaning.

SUPERIOR METAL PRODUCTS Co

311 CHESTNUT ST. ST. PAUL, MINN.

not expecting the opposition they found, were mak the 20 per cent increase merely a preliminary incre This traffic witness presented a series of comparisons prove that his contentions were sound, and we theref had not only an elaborate cost study but a most ext ordinary traffic study to combat.

The hearing in Boston lasted for three days dur which time part of the carriers' evidence was heard, a case was then adjourned and came up for re-hearing Plymouth, Mass., on July 26th, 1926. We believe July 26th hearing was the most important milk hear that had ever been handled by the Commission. T case ran from July 26th to August 7th without a bre and was then adjourned in order that the railroad mi secure additional data as requested by the protestar which data the railroads figured would require ab ten days to secure, and the case was to be set for furt hearing thirty days after the railroads had furnis the protestants with such data. At this writing a gr deal of the data has been supplied by the carriers, there is some additional data that is required and case will porbably come up for a hearing again in Bos some time the latter part of October.

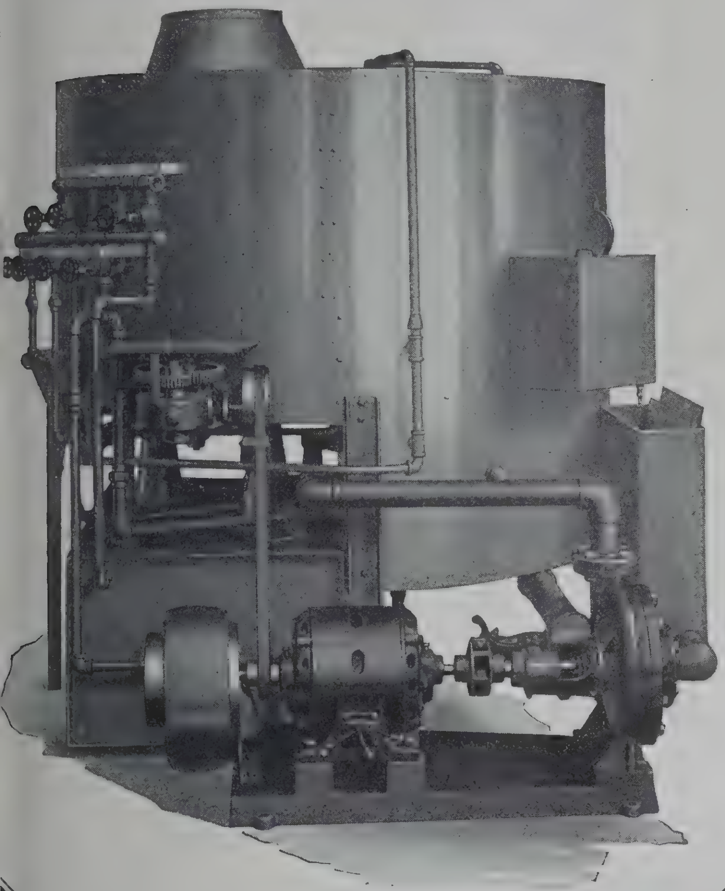
The car foot mileage theory as advanced by the r roads is the most dangerous theory that has ever b advanced against a milk interest. It is, as stated abo the same theory that was used in connection with U. S. mail pay case and is based on the material be piled 6 ft. high and with an aisle between. As an ill tration: If a combination car, that is, a mixed car, sta out from a point 400 miles from destination, the car f mileage is computed on the basis of the actual milea from the first point of origin to ultimate destinati and the space occupied is based on the material pi 6 ft. high across the car, but with an aisle between. the Boston hearing the carriers claimed that this wo mean 8 cans of milk per foot, but at the Plymouth he ing they revised this to 18 40-qt. cans of milk per fo The carload was to be on the basis of the length the car; that is, if a 60-ft. car was used, the revenue to be derived on the basis of mileage from the first po of origin to ultimate destination, even though part the contents of the car might be picked up at an int mediate point. At the first hearing in Boston, the c riers showed in their rate exhibits, rates applying i New York, Philadelphia, Baltimore and Chicago m kets, to prove that the rates in New England were o lower basis than the rates in other territories, with giving the Commission any information to indicate value of the services in New England as compared w the services in the other markets.

The case itself is so complex as to be almost imp sible to present intelligently to this group. Our m thought in presenting it is to warn the milk inter of this country of the great possibility of all the carr in the country seeking increases in their rates on m and presenting, in support of their plea for increa rates, a fallacy in the guise of the car foot mile basis.

In order to show how important the proposed i crease in New England would be, it is only necessary state that the revenue of the carriers on milk and cre into New England is approximately $5,000,000 per y therefore a 20% increase in rates would effect the m dealers in that territory to the extent of approxima $1,000,000 per year. When we stop to consider t the amount of milk and cream entering the New Y market brings with it revenue to the carriers of p proximately $15,000,000 per year, it can be readily s that if rates were advanced in New York to the sa extent as they propose to advance them in New E land, it would mean an additional burden of $3,000,0 per year to the milk interests. We have no direc

ractical, Efficient, Scientifically Correct

Complete front view of Oakes & Burger Purity Rotary Can Washer. Very solidly constructed of high-grade materials throughout. Economical and practical, the result of years of careful experimentation.



THE Oakes & Burger Purity Can Washer is not an untried experiment. Its designing engineers were intimately familiar with all other makes, and worked to combine the virtues and eliminate the known vices of existing models.

The Purity Rotary is at present the only washer with a two-speed capacity. It will deliver six freshly emptied milk cans, or three cream or condensary cans per minute. It, therefore, possesses a much wider range of usefulness than the average Rotary Washer.

The O. & B. Purity Rotary operates very simply and efficiently. Possesses many advantages. Gives a very thorough washing, sterilizing, and drying action, delivering cans bone dry and sterile. It is economical to operate; possesses a one-piece hot air coil; is easily cleaned; attractively finished; and shipped completely assembled, ready for immediate service.

You ought to investigate the Purity Rotary. Write at once for our proposition.

here is a real reason for the high
uality and long service of Oakes &
urger Purity milk handling equip-
nent. The illustration shows a por-
ion of the beautiful Cattaraugus
alley nestled among the foothills
f the Alleghenys. Here in the pure
zone of the uplands, working year
fter year and generation after gene-
ation, cheerful, thrifty workmen
ly their trade. Each workman takes
lifelong interest and pride in his
ccupation. Good goods at reason-
ble prices are the net result—why
ot profit by Oakes & Burger con-
ented all-American workmanship.

akes & Burger Co. Inc.

ESTABLISHED 1873

CATTARAUGUS, N.Y. ERIE, PA., U. S. A.

When writing to OAKES & BURGER CO., INC., *please mention The Milk Dealer.*

Better Service

Doors have
HANDLES

—so have CERTIFED
CAPS for Milk Bottles

SERVICE WINS dairy customers. Every dairyman knows that. But what about the cost? You can give better service than your competitor—the service that wins customers and keeps costs down to the minimum with Certified Caps—the Caps with the Red Flaps.

Certified Caps have the tough red fiber flap, like a stout handle, that lifts the cap *easily* every time. That's what customers want. The Flap is stapled on. It does not tear. Easy to see. Easy to grasp. For capping machines or hand capping.

Let us show you, free, what Certified Caps with Red Flaps are doing for dairies everywhere. Write us or ask your supply house for free samples.

Certified Caps
FOR MILK BOTTLES
THE CAP WITH THE RED FLAP

American Dairy Supply Co.
Dept. B-32 **WASHINGTON, D. C.**

London Factory, Waxed Papers, Ltd., Nunhead Lane, S. E. 15.
Canadian Factory, Purity Milk Cap Co., Ltd.,
76 Stafford Street, Toronto.

authentic figures to show the revenue the carriers receiving to markets such as Philadelphia, Baltim Pittsburgh, Chicago, Detroit, St. Louis or Cincinnati, probably many of you have an idea of the magnitude the increase, if a 20% increase in milk rates was put force in all of these different cities.

Your secretary, Mr. Little, knows that some of carriers entering Chicago market feel that the rates distances of more than 100 miles are on too low a ba and should be advanced. My experience in the last y is that the majority of carriers, at least in the East, f that the rates on milk and milk products should be vanced. Just recently the Great Northern, North Pacific, Minneapolis, St. Paul and St. Ste. Marie r roads proposed to increase rates on milk, cream a buttermilk transported on the passenger trains in cert territory in Montana, North Dakota, Minnesota a other Northwestern States. These rates were protes and the Commission disallowed them. If they had been protested by the shipper, they would have beco effective and there would have been another burc placed on the milk interests.

The C. & E. I. Railroad previous to June 14th, 19 carried the C. F. A. or so-called "authorized scale" rates on milk between points on its line, but carried so-called "Beatrice scale" of rates which was lower th C. F. A. scale on cream. They increased their rates cream to the C. F. A. scale, and while the increased ra were protested, the Commission allowed them, and revised tariffs became effective as of September 15, 19 These two cases are presented to you to show you th the carriers have under contemplation increased rates the commodities you are interested in, and indicate ve clearly that the carriers are not satisfied with th present revenue on milk, cream and other related ar cles. It would therefore appear, to the interest of eve member of the association, to be on the lookout for a proposal on the part of the carriers to increase rates his shipments, and I believe some action should be tak to insure the secretary of this association being advis of any contemplated increase in rates, so that your Ra and Transportation Committee can be advised, and m give consideration to the subject.

If a case is apt to develop into one which will crea a precedent, and will have as its end a possible increa in other territories, your Rates and Transportation Co mittee should be authorized to use the best possil means to prevent such an increase. This, of cour would necessitate expense, and the question of exper is a question that rests with the officers of this assoc tion.

This matter is being presented for such action in t premises as your association may deem necessary to ta and is meant to serve as a warning as to what may expected in our business in the immediate future.

⁂

MORE MILK PER PERSON IN ALTOONA, PA.

According to the records of the bureau of health, consumption of milk in Altoona, Pa., is steadily incre ing. Figures show that in 1926 the average daily c sumption was 7,120 gallons, as compared with 6,756 g lons in 1925. These figures apply only to consumpti of milk in the homes.

⁂

MILK RATES SUSPENDED IN NEW ENGLAND

The Interstate Commerce Commission has suspend the rates on milk from certain points in New Engla from February 1st to June 1st, pending the establi ment of rules regarding the icing of cars.

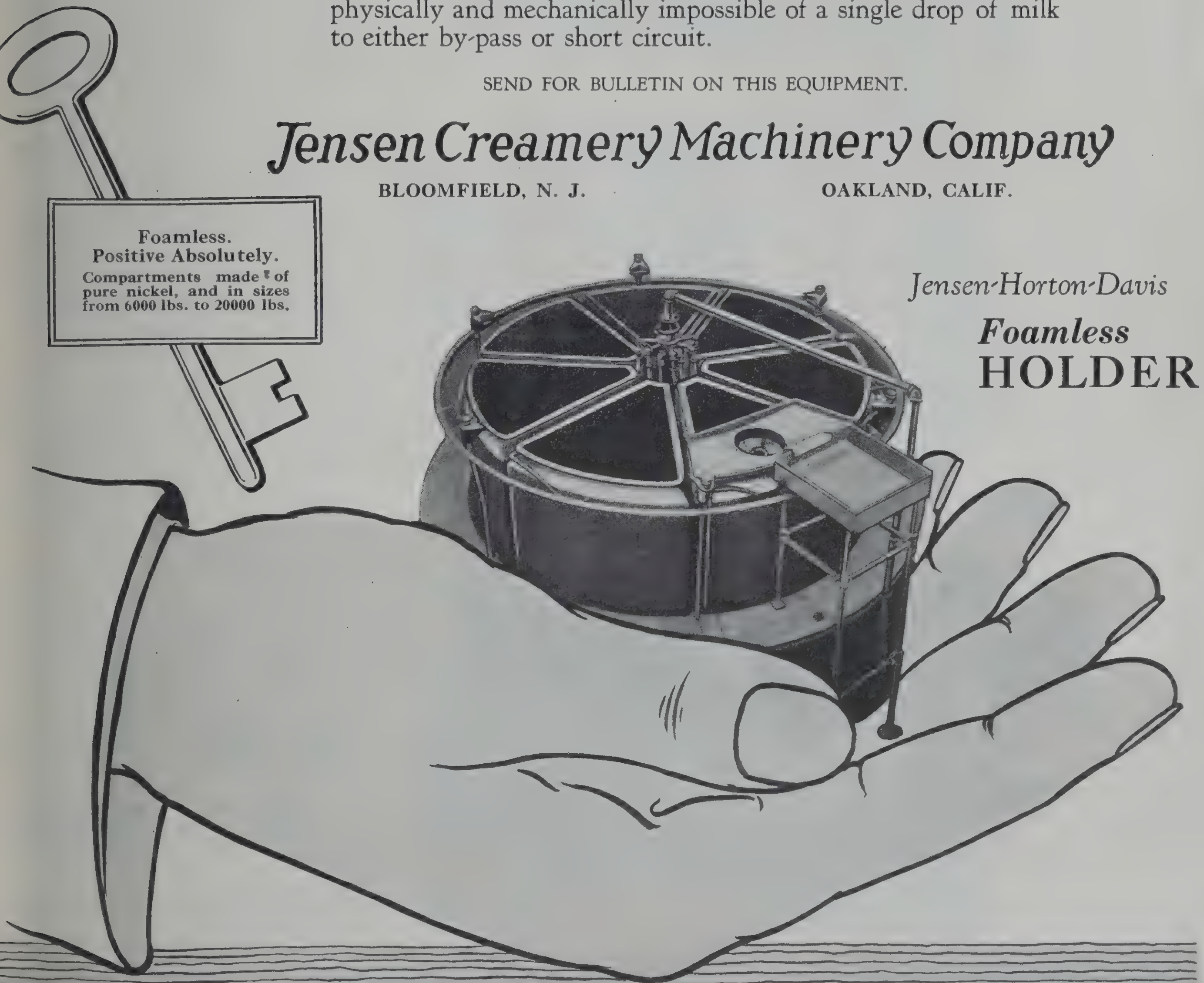
The Key to a Perfect Product!

NEVER since milk pasteurization has come into general use has the question of "the proper method of holding" required such serious attention as right now. Many so-called positive holders were found during the Endicott tests to be absolutely incapable of proper holding. In some cases they delivered to the cooler milk held only eight to twenty minutes. As a result of these tests you, as a manufacturer of dairy products, must feel the need for a machine that will always and positively hold the milk the required thirty minutes and at the required temperature. The Jensen-Horton-Davis Holder does just that thing. It is truly an exception as it always and accurately holds the milk. It is a "positive — positive holder" —to differentiate the Jensen-Horton-Davis Holder from any and all others yet produced because it not only holds at the temperature and during the required time, but while so doing it is physically and mechanically impossible of a single drop of milk to either by-pass or short circuit.

SEND FOR BULLETIN ON THIS EQUIPMENT.

Jensen Creamery Machinery Company

BLOOMFIELD, N. J. OAKLAND, CALIF.



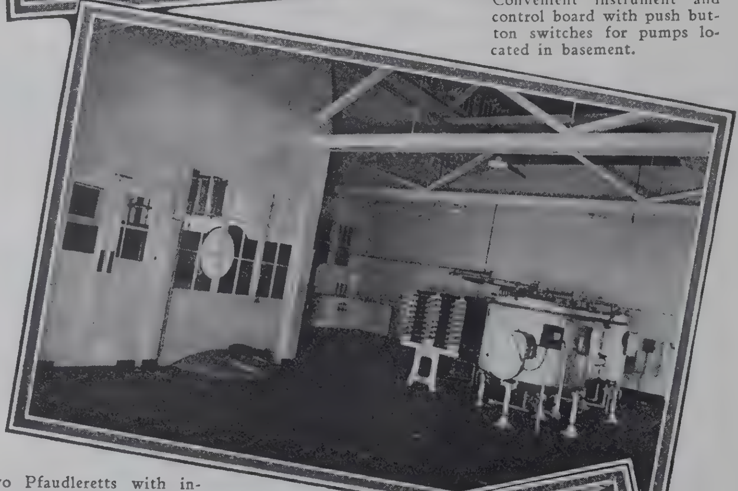
Foamless.
Positive Absolutely.
Compartments made of pure nickel, and in sizes from 6000 lbs. to 20000 lbs.

Jensen-Horton-Davis
Foamless
HOLDER

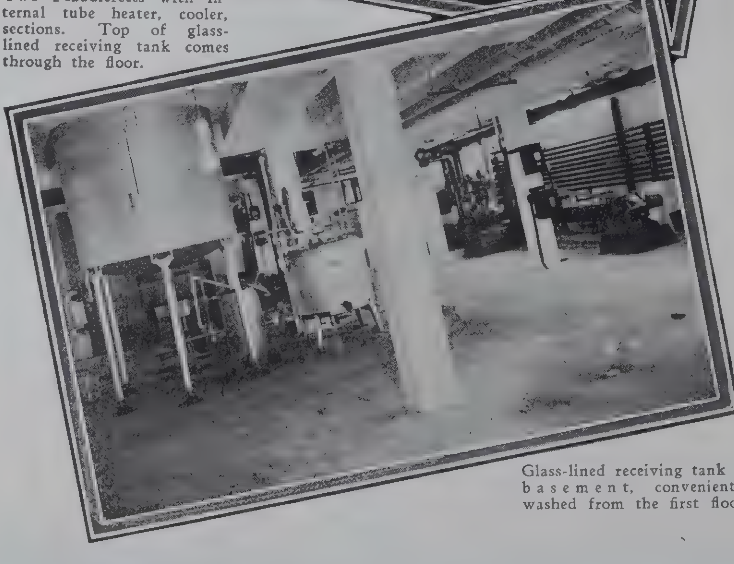
Mr. Kleinheinz writes—

"We do not feel as though we have paid a certain debt until we have written you about our new plant and have told you how well pleased we are with the work of your engineering department in designing our new plant, and the equipment which you furnished and installed."

Convenient instrument and control board with push button switches for pumps located in basement.



Two Pfaudleretts with internal tube heater, cooler, sections. Top of glass-lined receiving tank comes through the floor.



Glass-lined receiving tank in basement, conveniently washed from the first floor.

Most of the equipment in both these mod

The New Pasteur Kleinheinz Da Was Designed to M Cream Plant by th

Frankly — there's always a cert amount of pleasure for us, in rece ing from our customers a volunt expression of satisfaction with service we have rendered. Read tracts from the Kleinheinz Da Company's letter indicated above bearing in mind the same compl efficient service is available to you always.

From the designing, equipping a installing of Dairy plants, remod ing old ones, or to furnishing smallest equipment or supplies Barber-Goodhue service gives y better results, greater efficiency, most economy in operation.

For—here under one roof, is brou together the most complete, carefu selected stock—representing the b of the things made by leading ma facturers of Dairy equipment. Th a distinct advantage to you for h you can obtain *all* of your needs fr one stock under one buying overh

A. H. BARB

Home Office:
300 W. Austin Ave., CHICA

When writing to A. H. BARBER-GOODHUE COMPANY *please mention The Milk Dealer.*

from the A. H. Barber-Goodhue Company.

lk Plant of the
, Wausau, Wis.,
eir Attractive Ice
arber-Goodhue Co.

saving time, clerical work and
ipping expense.

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trained men with a background of
quarter century of invaluable ser-
ce to the Dairy industry is constant-
at *your* service, prepared to consult
th and advise you on your prob-
ns. You may look to us with im-
icit confidence to study your re-
irements thoroughly and to make
commendations which will give
u the utmost in a better quality
oduct — speedier, more efficient,
ore economical production.

you plan to build a new plant —
you are thinking about remodeling
e old one — if you need equip-
ent or supplies, however large or
all your needs may be—for your
vn best interests as well as ours, de-
nd upon us for sincere co-opera-
on, top-notch service, and for great-
satisfaction.

rite for information and latest
ices on your requirements.

ODHUE CO.

ITY OFFICE
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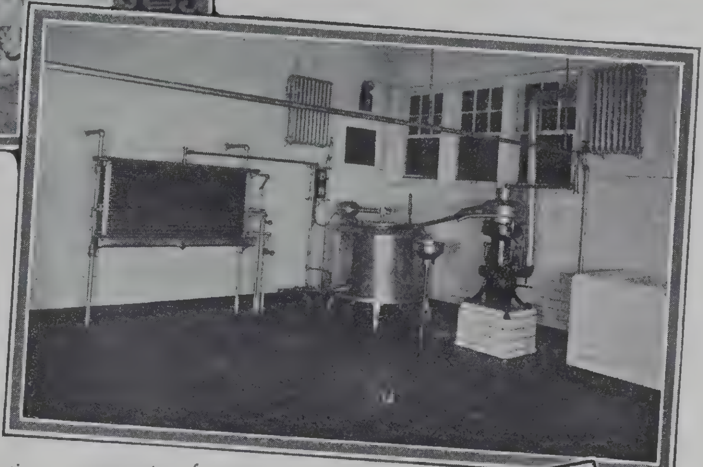
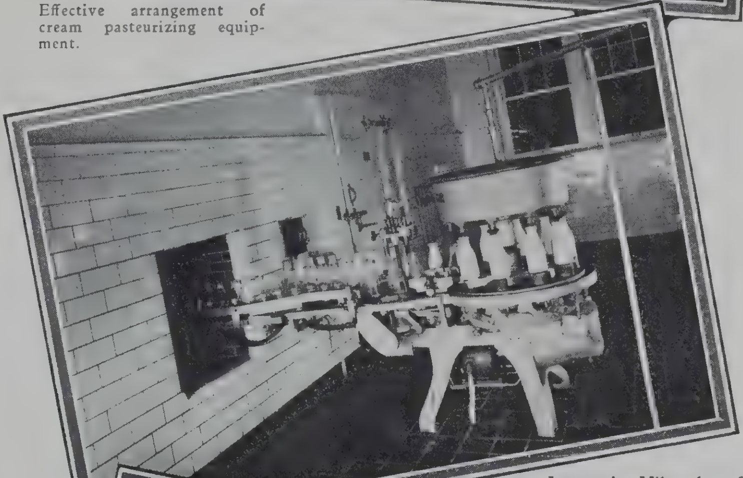
Satisfaction—

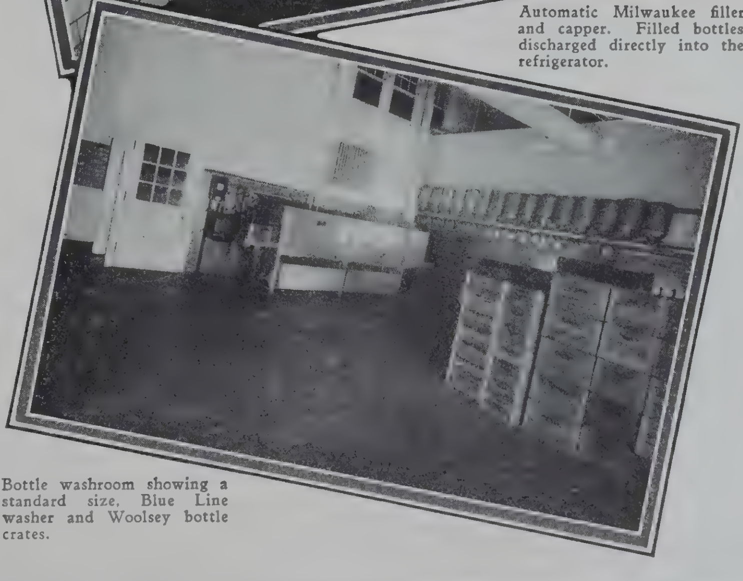
"After ten months of operation we have found no serious mistake in our plant, and assure you it is a pleasure to operate same. We are getting better results and the way the electric remote controls are planned out gives us a two floor plan with one floor effort."



Effective arrangement of cream pasteurizing equipment.



Automatic Milwaukee filler and capper. Filled bottles discharged directly into the refrigerator.



Bottle washroom showing a standard size, Blue Line washer and Woolsey bottle crates.

When writing to A. H. BARBER-GOODHUE COMPANY *please mention The Milk Dealer.*

Losses of Fat in Buttermilk

Huge Sum is Lost Every Year to the Industry From This Source. Can Be Due to Many Factors

"Mistakes are gentle reminders that we are becoming too confident of ourselves."
—Philosophy of the Street.

IN a recent address given by G. L. McKay, secretary of the American Association of Creamery Butter Manufacturers, before the association, he stated that "it has been estimated by one writer that in one of our large dairy states, the loss of fat in buttermilk would amount to between one and three million dollars annually." Dr. McKay has pointed out that the writer was probably taking the entire loss of fat in buttermilk into account, and that there would always be some loss of fat from this source.

In making this estimated loss, the writer to whom Dr. McKay referred, only took one state into consideration, while there are, at the present time, 16 states producing in excess of twenty million pounds each. What would be the figure for the entire group? Certainly, it would mount to staggering proportions.

It is true that some loss of fat in buttermilk can not be avoided under our present system of manufacture, but it is also true that in a very great number of factories that the losses of fat in buttermilk are far out of line with good management. Losses of fat ranging from one-half of one per cent to one per cent are not uncommon. Dr. Larson in his recent address made this quite clear when he said: "Some years ago, after carrying on some investigational work on the loss of fat in buttermilk, I made the statement at one of our annual meetings that the loss of fat in buttermilk would amount to about what would make one pound of butter in every hundred pounds of buttermilk. Some of our members thought that I had made a mistake. Some time after this one of our members reported that he had checked on the loss of fat in their buttermilk for a period of two months, during the flush, and he found the loss to be nearly one per cent."

Daily Testing Important.

Undoubtedly, therein lies the trouble in many cases. Many creamerymen perhaps have the impression that their fat losses in the buttermilk are small, because an occasional test is taken and no alarming loss is shown. However, no real definite conclusions can be drawn from spasmodic testing, for there are too many factors entering into the losses which are apt to occur from day to day and give a mistaken idea of the percentage of fat in the buttermilk. Daily fat tests of the buttermilk are, of course, to be desired. They involve very little additional work, and they are apt to be very profitable as a means of checking the losses in the creamery.

To repeat, there are many factors which are apt to be responsible for large fat losses in buttermilk, but as it was pointed out by Dr. McKay, "there are two kinds of cream that are inclined to cause a heavy loss of fat in buttermilk; namely, cream that has developed a very high per cent of acid and sweet cream. Cream containing a high per cent of acid seems to precipitate some of the casein into fine lumps or granules, which may not always be visible to the naked eye. When such cream goes through the pasteurizer, these lumps are hardened to such an extent that the concussion of the churn does not break them up. Hence, considerable fat is carried off between the meshes of the casein. Sweet cream does not give an exhaustive churning due to its viscosi unless special temperatures are used."

Avoiding Losses With Sweet Cream.

In the latter case, an excessive loss of butterfat m be avoided by churning at a lower temperature. Mortensen, head of the department of dairying at Io State College, states that in Ireland a large loss of is overcome by holding the temperature of the cream 33 degrees Fahrenheit and holding until it is churn In this connection it might be pointed out that losses frequently incurred, due to the fact that the cream not held for a sufficient length of time before churni at churning temperature. Ordinarily, the cream shou be held for at least two hours at the temperature that is to be churned. Butterfat cools very slowly, and less it is held for a sufficient length of time, it will not reduced to the churning temperature, despite the f that the serum may be at this temperature.

Another factor that is of extreme importance in ducing butterfat losses is the richness of the cream. general, it may be said that cream testing from 30 to per cent fat is the most satisfactory, and one that is l prone to produce large fat losses. Thin cream, besi being more difficult to churn, is also more likely to p duce large butterfat losses. This is due to the gr amount of serum present, which is not conducive to haustive churning, and as a result there will be a la amount of buttermilk with accompanying large fat los in the buttermilk.

Seasonal Temperature Changes.

During the winter it is also somewhat difficult churn exhaustively due to the dry feeds which are to the cows which result, very often, in small, h globules of butterfat. A remedy for this, of course, is raise the churning temperature, although care must taken in doing this because if it is raised too much body of the butter will be injured and a slushy prod will result. No definite temperature can be given churning, but in general it will lie between 55 to 60 grees Fahrenheit. Perhaps the only way that the corr churning temperature that will fit the individual con tions is to determine the temperature at which exha tive churning can be made in a period ranging from to 50 minutes. No hard and fast rule can be made reference to the temperature that cream should churned for there are so many factors which enter with different creameries and what might be good one might not hold true in any other creamery.

One point that is common knowledge to every ma facturer of butter, but is very often disregarded, is factor pertaining to the fullness of churn. Usually, reason given by so many in the creamery for loading churn too heavy is that they did not have enough cre for two full size churnings and the time that would lost in splitting the batch and making two churni would be too great. Usually, those who advance t argument find that they could make two smaller chu ings more rapidly than the time that it takes to ch an overloaded churn. In addition to the time elem

Shifting from Wood to

ALL STEEL

CLIPPER CASES

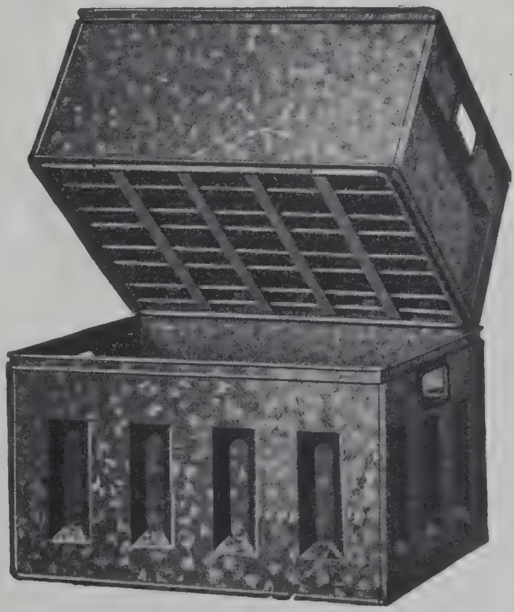
THE great saving in using Clipper All Steel Bottle Cases is realized by many milk dealers, but some get the impression that a shift necessitates complete junking of all good wood cases on hand or a great inconvenience.

¶ Such is not the case. The change is very simple. The advantages are many and the saving considerable.

These Jobbers Sell CLIPPER CASES

J. G. Cherry Co.	Cedar Rapids, Ia. St. Paul, Minn.
Meyer-Blanke Co.	Birmingham, Ala. Dallas, Tex. St. Louis, Mo.
Haines-Carpenter Dairymen's Co.	St. Louis, Mo.
Miller-Lenfesty Supply Co.	Jacksonville, Fla. Miami, Fla. Tampa, Fla.
N. A. Kennedy Supply Co.	Kansas City, Mo.
Apothecaries Hall Co.	Waterbury, Conn.
Teague Hardware Co.	Montgomery, Ala.
Gowing-Dietrich Co., Inc.	Syracuse, N. Y.
John W. Ladd Co.	Detroit, Mich. Cleveland, Ohio Columbus, Ohio Cincinnati, Ohio
A. L. Davis' Son	Binghamton, N. Y.
Cherry-Bassett Co.	New York, N. Y. Syracuse, N. Y. Baltimore, Md. Philadelphia, Pa. Pittsburgh, Pa.
E. K. Owens Hardware Co.	Susquehanna, Pa.
National Dairy Equipment Co.	Utica, N. Y.
Hagan's Dairy Supply House	Greensboro, N. C.
Chester Dairy Supply Co.	Chester, Pa.
M. G. Newell Co.	Greensboro, N. C.
Oakes & Burger Co.	Cattaraugus, N. Y.
Ft. Wayne Dairy Equipment Co.	Ft. Wayne, Ind.
Thompson-Bremer & Co.	1750 Carroll Ave., Chicago, Ill.
John Pico	New Orleans, La.

Let us tell you how many other dealers have made a practical shift to Clipper All Steel Bottle Cases with no inconvenience and at a great ultimate saving.



The Defiance Pressed Steel Co.

DEFIANCE, OHIO

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION, INC.
ASSOCIATE MEMBER NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS

Improve the Quality of Your Buttermilk

and Prevent Wheying Off!

THE addition of a very small amount of good gelatine to commercial buttermilk effects a wonderful improvement. Gelatine prevents wheying off, softens the curd through keeping it finely divided, retards excessive acid, making a smoother, creamier product that will please your customers and bring them back for more.

ESSEX GELATINE

Sx, the Gelatine used by manufacturers of the highest grades of ice cream, is highly recommended for cultured or natural buttermilk. The slight additional cost for small quantity of gelatine used is more than offset by increased sales through highly improved quality.

Let us send you instructions for its use, with a sample and prices.

ESSEX GELATINE
TRADE MARK REG. U.S. PAT. OFF.
ESTABLISHED 1903

Essex Gelatine Company
40 North Market Street
BOSTON - MASS.

Branch Offices:

NEW YORK CITY
54 Washington Street
ST. LOUIS
400 So. Broadway
LOS ANGELES
412 West Sixth Street
SEATTLE
1018 4th Ave., South

PHILADELPHIA
708 So. Delaware Ave.
ATLANTA
169 Haynes Street
SAN FRANCISCO
Second & Brannon Street
DALLAS, TEXAS
301 No. Market St.

CHICAGO
323 West Polk Street
GRAND RAPIDS
135 Ionia Ave., S. W.
PORTLAND, ORE.
403 Hoyt Street

there is the loss of fat that should be considered in r
ing a large churning. When a churn is filled too
there is too little room for concussion, and as a result
small fat globules do not have an opportunity to u
and consequently they pass off in the buttermilk.
results can be obtained when the churn is filled f
one-third to one-half full.

Fat Losses are of Vital Importance.

The speed of the churn is also important in obtai
exhaustive churning and decreased fat losses in the
termilk. A churn that does not revolve rapidly en
will result in greater fat losses inasmuch as the co
sion is not great enough to cause the smaller fat glob
to adhere. Too great speed will, of course, cause a
creased agitation, for the cream will not fall from
to side of the churn.

Dr. McKay stated: "This loss of fat in buttermi
a very important question that should claim the a
tion of everybody interested in the butter busine
From the figures that Dr. McKay quoted, there is a
proof offered that the loss of fat in buttermilk is
vital to the butter industry. It can "break" the s
creameryman, and to the large manufacturer the l
can reach a staggering sum of money each year. A
checking of the losses that are being suffered from
source should be made, and the manufacturing o
tions followed through to determine the cause of
leak.

* * *

QUANTITY OF MILK BOTTLED AT CITY MI PLANTS.

The accompanying table shows the percentage of
bottled at each of 92 milk plants. These figures
obtained in the course of labor studies made at
plants.

It will be noted that on the average 80 per ce
more of the milk received is bottled. Some of the p
in three of the groups went considerably below
figure, but these particular plants handled a
amount of wholesale milk.

Although many milk plants handle a much sm
percentage of bottled milk than the ones included i
table, the figures given more nearly represent tho
the average milk-bottling plant. Apparently no rel
exists between the size of the plant and the rat
bottled milk to total milk receipts.

Per Cent of Milk Bottled at 92 Representative Milk Plan

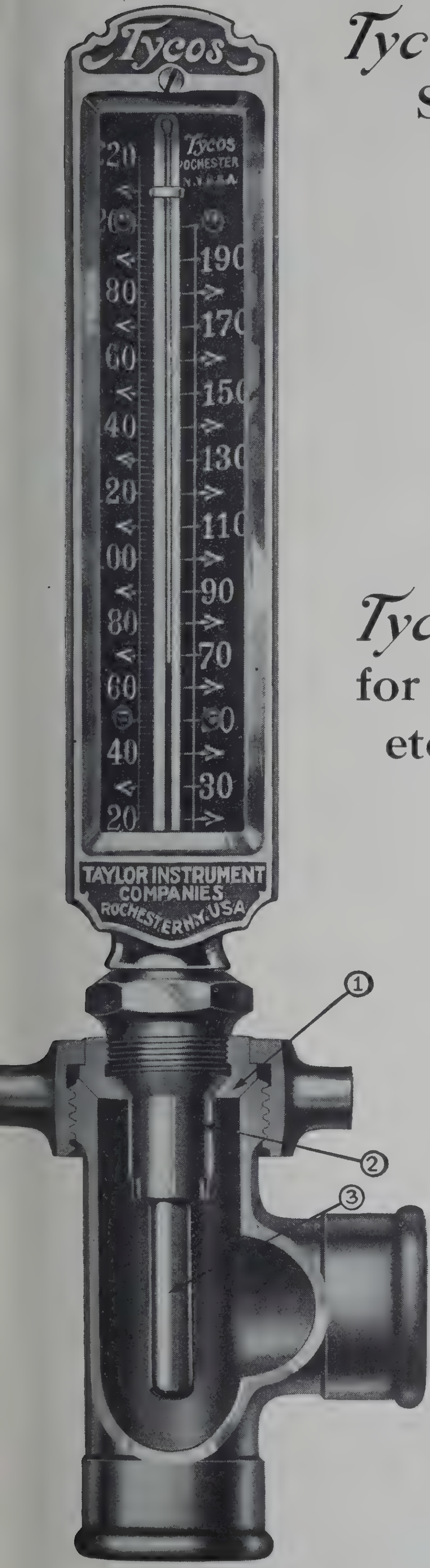
Group	No. of gallons handled daily	No. of plants	Aver. total gallons handled per plant	Per cent of receipts bo	
				Aver.	Vari
1	2,000 or less	13	1,407	81.0	70·
2	2,000 to 5,000	21	3,308	88.2	73·
3	5,000 to 10,000	34	7,342	85.1	54·
4	10,000 to 15,000	9	11,504	82.0	66
5	15,000 to 20,000	8	17,393	87.0	57·
6	Over 20,000	7	27,448	88.0	80·

—Bureau of Dairy Indu

* * *

NEW ULM TO HAVE NEW PASTEURIZING PL

New Ulm, Minn., will have a pasteurizing plan
milk, cream, and other farm produce will be handl
A. H. Dannheim, former resident of that city. Mr. D
heim closed a deal whereby he became the owner
Girg property on South Minnesota St. He will ren
and remodel the building and install special mach
and equipment.

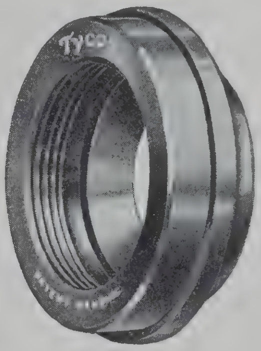


Tycos Industrial Thermometers with Sanitary Ferrule for Milk Lines

The dependability of ***Tycos*** instruments for use in the milk industry is well-known. To further their usefulness and to show a new standard of cleanliness and sanitation, the ***Tycos*** Sanitary Ferrule has been developed and placed on the market. It is another example of the thoroughness with which the ***Tycos*** engineers, with their knowledge of your industry, solve and anticipate your needs.

Tycos Sanitary Ferrule for Applying Thermometers and Regulators to Milk Lines

(PATENTED DEC. 7, 1926)



This Ferrule can be installed on all milk pipe lines. It is furnished for any size tee or cross of I. A. M. D. specifications.

All ***Tycos*** Indicating, Recording and Controlling instruments with connections for this sanitary ferrule are interchangeable in any size of ferrule.

The ***Tycos*** Ferrule has no thread to come in contact with the milk, consequently it offers no dead pocket for the propagation of bacteria. By its use the bulb of the temperature instrument is directly in the milk flow, where true temperature conditions exist.

Write for additional information on the **Tycos** *Sanitary Ferrule and for milk plant calalog No. 500-A.*

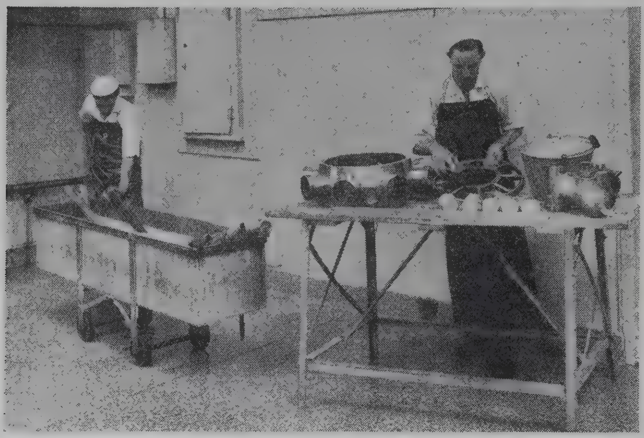
Taylor Instrument Companies

ROCHESTER, N. Y., U. S. A.

CANADIAN PLANT
TYCOS BUILDING
TORONTO

MANUFACTURING DISTRIBUTORS
IN GREAT BRITAIN
SHORT & MASON, LTD., LONDON

When writing to TAYLOR INSTRUMENT COMPANIES *please mention The Milk Dealer.*



Try this
easy Oakite way
of cleaning equipment!

ONE of the toughest jobs in dairy plants is removing hardened casein from pasteurizers. Heretofore, it has meant energetic, vigorous scrubbing, and many concerns have resorted to abrasive cleaners to remove this tenacious casein film.

But there is no need or reason for doing this now. Because Oakite so easily and quickly softens casein and other adherent film or deposits that it can be removed with comparatively little effort. And most important, at LOW COST and SAFELY. Whether for removing casein from pasteurizers, or for cleaning cans, bottles, churns, strainers, or other dairy equipment, the remarkable detergent action of Oakite makes all cleaning EASIER and does work other materials cannot do.

You can get the facts about this remarkable material and its money saving possibilities by writing for the booklet "Oakite in Milk Plants and Dairies", mailed free on request. A post card will do. Write today.

OAKITE IS MANUFACTURED ONLY BY
OAKITE PRODUCTS, INC., 30B Thames St., NEW YORK, N.Y.
(Formerly OAKLEY CHEMICAL CO.)

Oakite Service Men, cleaning specialists, are located at:
Albany, Allentown, Pa.; Altoona, Pa.; *Atlanta, Ga.; Baltimore, *Birmingham Ala.; *Boston, Bridgeport, *Brooklyn, Buffalo, Camden, Charlotte, N. C.; *Chicago, *Cincinnati, *Cleveland, *Columbus, O.; *Dallas, *Davenport, *Dayton, *Denver, *Des Moines, *Detroit, Erie, Pa.; Flint, Mich.; Fresno, Cal.; *Grand Rapids, Harrisburg, Hartford, *Indianapolis, *Jacksonville, Fla.; *Kansas City, *Los Angeles, Louisville, Ky.; *Milwaukee, *Minneapolis, *Montreal, Newark, Newburgh, N. Y.; New Haven, *New York, *Oakland, Calif.; *Omaha, Neb.; Philadelphia, *Pittsburgh, Portland, Me.; *Portland, Ore.; Providence, Reading, *Rochester, Rockford, Rock Island, *San Francisco, *Seattle, *St. Louis, South Bend, Ind.; Springfield, Ill.; Syracuse, *Toledo, *Toronto, *Tulsa, Okla.; Utica, *Vancouver, B. C.; Williamsport, Pa.; Worcester.

**Stocks of Oakite materials are carried in these cities.*

OAKITE
TRADE MARK REG U S PAT OFF
Industrial Cleaning Materials and Methods

HOW ONE OPERATOR WENT ABOUT IT TO G
GOOD MILK.

Oregon, Wis., Jan. 30, 1927

Editor The Milk Dealer:

I received your letter some time ago saying that P
C. E. Lee had told you of the improvements that we h
made in the quality of milk and cream received at
creamery.

Regarding sanitation, I do not believe it right
me to insist that the farmers clean up their prem
unless my own plant is in such a condition that it
pass inspection. The first thing I did on taking cha
of the creamery was to clean the entire plant. Sho
after that the Gridley Dairy Company and the Milw
kee Board of Health made an inspection of the cream
and gave it a score of something over 81 points. I
much as 75 is a passable score, I felt very pleased.

Then I began going out on the routes, as 95 per
of all the milk is delivered in that way and the only
to see the farmers was for me to visit them. I m
rather slow progress, due to the fact that my helper
I handle 40,000 pounds of milk daily and cream enc
to churn five to eight thousand pounds of butter a mo
It was possible for me to spend only a few hours
day on my inspection tour. I loaded a can brusher
Wyandotte into my car and started out on my inspec
tour and got very good results, and the hearty co-op
tion of all the farmers I called on.

Later I found that my inspection and lecture
was evidently not thorough enough because when I
sediment tests I could not get the results I expecte
sending out the discs, so I had to cover all the ro
again. I took the sediment test on a certain route
then with their pads proceeded to call on the pat
taking along a strainer and cloth which we secured
the Gridley Dairy Co. I also tried to impress on
farmers the necessity of cooling and stirring their
After this trip the results were very satisfactory.
patron told me that he liked the way we started o
namely, cleaning up the creamery before trying to
the farmers improve their product.

William Rehm of the Gridley Dairy Co. mad
inspection of each farm and aided us materially in
work and the suggestions he made to the farmers
taken very good naturedly.

But still we found that there was more to be
complished as our bacteria would be too high at ti
and as we receive a premium when the bacteria c
is below a certain amount, I got a methylene blue
to assist us. I found that some milk would run up
millions of bacteria while the bacteria count in
milk would be very low. I got one farmer inter
in the methylene blue test and he experimented wi
He cooled one can in water and the other can he c
only slightly, and the result was surprising. The
that was cooled at once, and the pails and str
rinsed with a good disinfectant, stood up 7½ hou
this blue test while the other would neutralize in
hour. Therefore, this proves to us that the whole
lies in about two things—cleanliness and proper co
of the milk.

We expect to have a dinner soon and invite al
farmers to this dinner at which we will demonstra
them what is necessary to obtain good, clean milk.
hope to have Prof. Lee here to assist us in convi
the farmers of the advantages in producing only
milk. We will advise you definitely when this d
is to be held and would like very much to have yo
tend it.

Yours very truly,
H. E. GRIFFIN.

Water

A Blessing and a Curse to Your Business

A Blessing in view of its use to flush and clean machinery, floors, etc. In view of its conversion into steam to heat with, to pasteurize with, to obtain power from. In view of the fact that it represents 87% of milk by volume.

A Curse in view of its presence in the form of condensation on the walls, ceilings, floors, machinery, pipes, belting, etc., with the resultant unnatural depreciation of these things.

In view of its effect on the health of your workmen when they are exposed to a high relative humidity, wet floors, dripping ceilings and cold drafts.

In view of its effect on the quality of your product when it causes mold due to a water saturated condition of the air.

This Curse Can Be Removed From Your Business

Removing the excessive moisture from the air of your plant will effect a tremendous saving in depreciation of building, machinery, pipes and belting. It means more efficiency from your workmen as well as a more healthy working condition. It will help you produce a higher quality product because of improved sanitary conditions.

Knowledge of the types of machinery and equipment used in your plant together with a thorough knowledge of the "handling of air" in milk plants and creameries by the King Ventilating Company's engineers puts us in position to render you a most valuable service.

WRITE FOR OUR BOOK.

KING VENTILATING CO.

OWATONNA, MINN.

ENGINEERS AND MANUFACTURERS

Milk Plant and Creamery Heating and Ventilating Systems

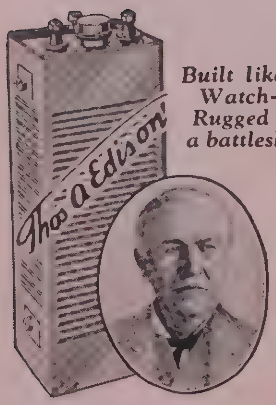
When writing to KING VENTILATING CO. *please mention The Milk Dealer.*

THE year of 1926 was the greatest year in the history of the Edison Storage Battery Company. Despite its higher initial cost, the Edison Battery stands *first* in volume of motive power and train lighting sales. The provable economy in buying Edison quality and Edison performance is alone responsible. The Edison Storage Battery Company is the largest manufacturer of industrial storage batteries in the world.

Edison Storage Batteries today are standard equipment on nearly two-thirds of all the street trucks, industrial trucks, tractors and mine locomotives in service throughout the country. Lower final costs and constant dependable service have made this record possible.

There is a very unusual booklet containing a full report of ten storage battery cost investigations by the A. C. Nielsen Company, an independent firm of engineering accountants. May we send you a copy? If you are a battery user, it will prove most interesting.

EDISON STORAGE BATTERY COMPANY
ORANGE, N. J.



*Built like a Watch—
Rugged as a battleship*

Edison

STEEL-ALKALINE

TRUCK BATTERIES

Thomas A. Edison is the World's largest manufacturer of storage batteries for motive power purposes (industrial trucks and tractors, street trucks and mine locomotives) although the Edison Storage Battery Company has been in this business less than nineteen years.

ATLANTA BOSTON BUFFALO CHICAGO CLEVELAND DETROIT HUNTINGTON LOS ANGELES
NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH SAN FRANCISCO SEATTLE ST. LOUIS WASHINGTON

Export: 26 West Broadway, New York *Canadian Distributors: International Equipment Co., Montreal, Quebec*

HAUL MORE FOR LESS MONEY

When writing to EDISON STORAGE BATTERY COMPANY *please mention The Milk Dealer.*

Alert
ew Jersey Dairy
Jumps Sales 19% This Way

CAN you point to this record, made by the Keystone Dairy Co., Hoboken, N. J.:

> *"Finding that Thatcher national advertising had increased public interest in milk from a health standpoint, we decided to use Thatcher Posters on our hundred or more wagons. The result, after one year of these attractive moving advertisements, was an increase in milk sales of 19%."*

Being identified with the celebrated "A Bottle of Milk Is A Bottle of Health" pays. If you are not identified with this popular slogan, you are missing a real money-making opportunity.

"MORE TRIPS PER BOTTLE"

The most important item in buying milk bottles, is the final cost per bottle to you. The first cost or purchase price means little or nothing to you. From the actual experience of dairymen and from exhaustive laboratory tests, it has been definitely proved that Thatcher Superior Quality Milk Bottles will give you more trips per bottle. For Thatcher Bottles are tougher, more uniform in quality, have a better distribution of glass, and consistently perform better in actual service than any other bottle made.

Specially designed lehrs, used exclusively by Thatcher, help to give Thatcher Bottles that Superior quality and wear-resisting toughness not found in ordinary bottles. The Thatcher Trade-mark is blown on every Thatcher Bottle for your protection and guarantee. Then too, millions of milk users see and read the celebrated "A Bottle of Milk Is A Bottle of Health" advertisements of Thatcher Bottles in The Saturday Evening Post and Good Housekeeping Magazine. If you want to increase your milk sales, fill in and mail the attached coupon. It will pay you to act at once.

THATCHER MANUFACTURING COMPANY, Elmira, N. Y.

Operating several plants throughout the country, each strategically located and devoted to making Superior Quality Milk Bottles. Prompt, efficient service—always.

Mail This Today

THATCHER MFG. CO., Elmira, N. Y.

(1) *Send me prices and further information regarding Thatcher Superior Quality Milk Bottles. We use approximately .... bottles a year.*

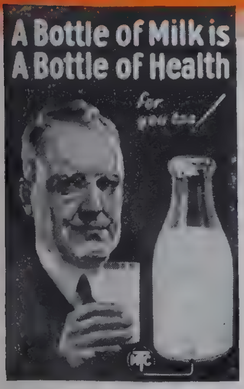
(2) *Send me .... Thatcher Posters. I intend to use these Posters on my wagons ...., windows ....*

Name ....

Address ....

City .... *State* ....

Tested and Approved 2517 Good Housekeeping Institute Conducted by Good Housekeeping Magazine

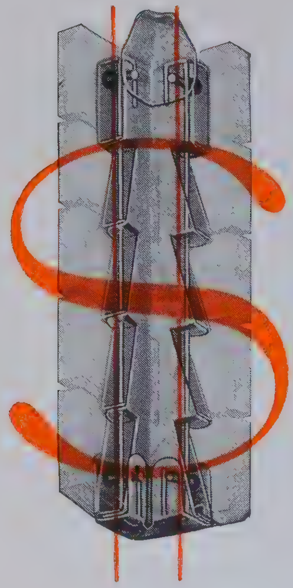


Put this Attractive Poster on your Wagons and Windows. Get your supply now.

THATCHER
Superior Quality
MILK BOTTLES

ost Less Because They Last Longer

When writing to THATCHER MANUFACTURING COMPANY *please mention The Milk Dealer.*



Do You
Your

These Corners
Mean Dollars
To You

Only a Trial of the

"WOOLSEY"

WIRE LACED

Bottle Crate

can prove to you how great their value really is.

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION INC.
ASSOCIATE MEMB.
NATIONAL ASSO[illegible]
ICE CREAM MANUFACTURERS

The Northwestern Collapsible Carrier

Ask These Jobbers:

A. H. Barber-Goodhue Co.,
Chicago, Ill.—St. Paul, Minn
Indianapolis, Ind.

The W. E. Barrett Co.,
Providence, R. I.

E. A. Kaestner,
Baltimore, Md.

Meyer-Blanke Co.,
St. Louis, Mo.
Birmingham, Ala.
Dallas, Tex.

N. A. Kennedy Supply Co.,
Kansas City, Mo.
Oklahoma City, Okla

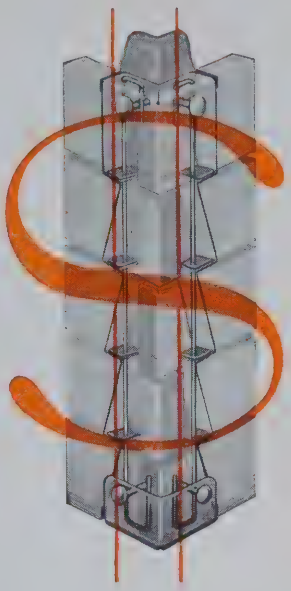
Oliver M. Dean & Son
Worcest

Beatrice Supply Co.,
Den

Ohio Creamery Supp
Clevela

When writing to THE NORTHWESTERN COLLAPSIBLE CARRIER CO. *please mention The Milk Dealer.*

Value Dollars?



These corners have increased the value of hundreds of milk dealers Bottle Crate Dollar by giving many more years of service.

here is only ONE

WOOLSEY

Dollars Saving Bottle Crate Construction

The patented wire laced corner is an exclusive feature with the Woolsey Bottle Crate.

It is the one feature that so many are trying to imitate but can't.

It is the one feature that gives the Woolsey Bottle Crate a FLEXIBILITY and ability to absorb shock that is impossible with a rigid crate.

Good business policy demands that you get the most for your dollar. The prospect of a big saving commands an immediate order for trial.

---

30 Talmadge Ave., S. E.,
MINNEAPOLIS, MINN.

1821 Callowhill Street,
PHILADELPHIA, PA.

pply & Equipment Co.,
Pittsburgh, Pa.
ord Bros.,
New Haven, Conn.
rummond, Ltd.,
Toronto, Canada

Kennedy & Parsons Co.,
Sioux City, Ia.—Omaha, Neb.
Geo. G. Mill Co.,
Great Falls, Mont.
N. W. Creamery & Dairy Supply Co.,
Seattle, Wash.

T. C. Power Co.,
Helena, Mont.
Oakes & Burger Co.,
Cattaraugus, N. Y.—Erie, Pa.
Phoenix Seed & Feed Co.,
Phoenix, Ariz
C. Peterson,
Hartford, Conn.

Geo. W. Prising Co., Inc.,
San Francisco, Calif
The Smith-Comstock Co.,
Bridgeport, Conn
United Dairy Machinery Corp.,
Buffalo, N. Y
Warr Supply Co.,
Los Angeles, Calif.

When writing to THE NORTHWESTERN COLLAPSIBLE CARRIER CO. *please mention The Milk Dealer.*

MILWAUKEE FILLERS and CAPPERS

Bowman Dairy Co., Chicago, Ill.

6 Type "L" Fillers

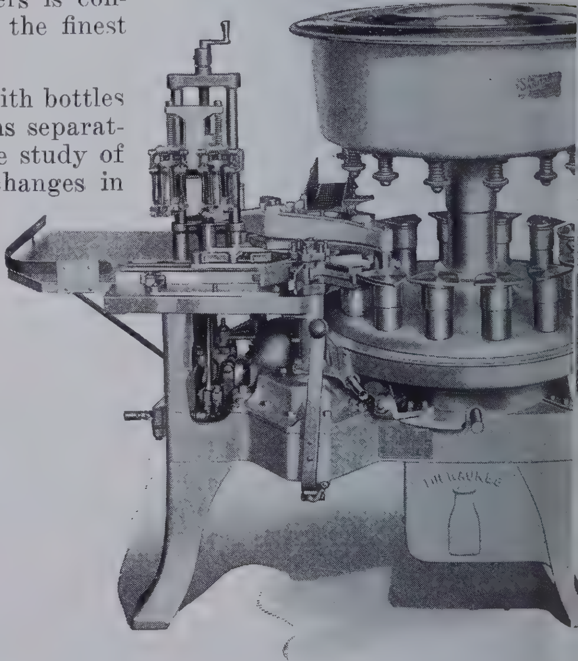
300 to 360 per minute

THE PRE-EMINENCE of Milwaukee fillers is continually emphasized by their choice for the finest new plants wherever they are built.

This beautiful "Day-Light" filling room, with bottles received automatically through glass partitions separating it from the washer room is worthy of the study of every plant operator who is contemplating changes in his plant.

Strong
Compact
Simple
Precise
Sanitary

The Type "L"
14 Valves
2 Cappers
Capacity 50 Qts. to 60 Pts. per minute.
Tank Capacity 26 Gallons.

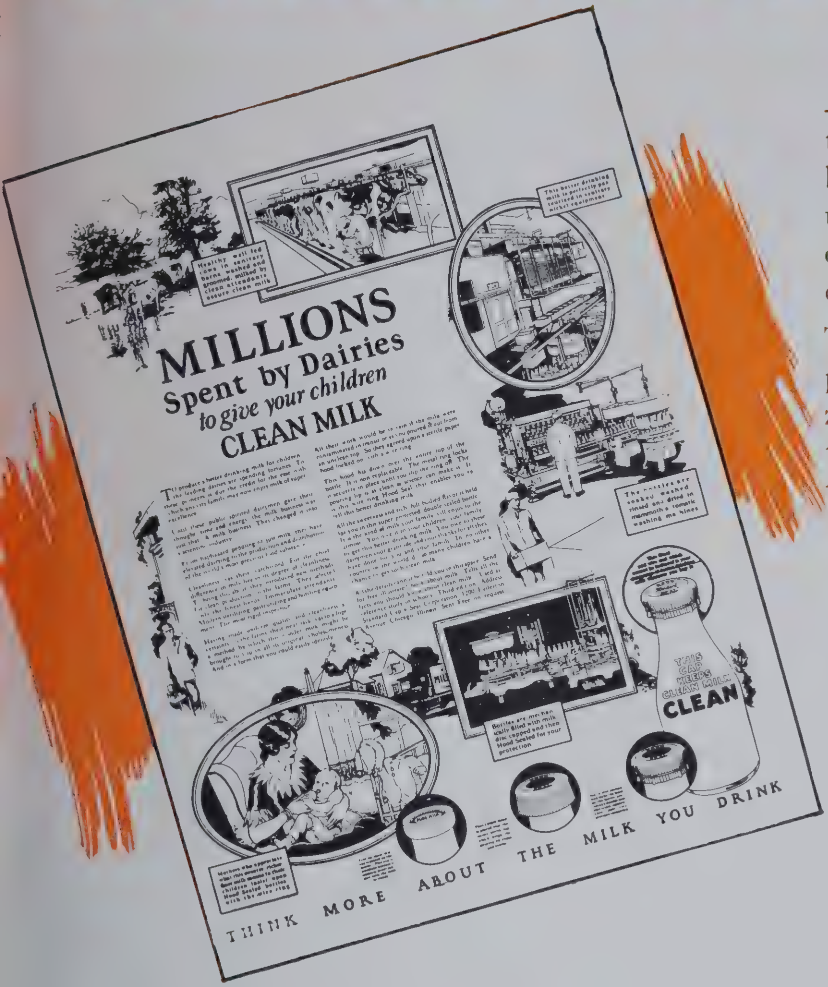


Sold by Best Dairy Supply Houses Everywhere.—Ask Them.

Milwaukee Dairy Supply Mfg. Co., Milwaukee,

When writing to MILWAUKEE DAIRY SUPPLY MFG. CO. *please mention The Milk Dealer.*

Building a Quality Market to Increase YOUR Sales



MILLIONS
Spent by Dairies
to give your children
CLEAN MILK

Healthy well fed cows in sanitary barns washed and groomed, milked by clean attendants assure clean milk

This better drinking milk is perfectly pasteurized in sanitary nickel equipment

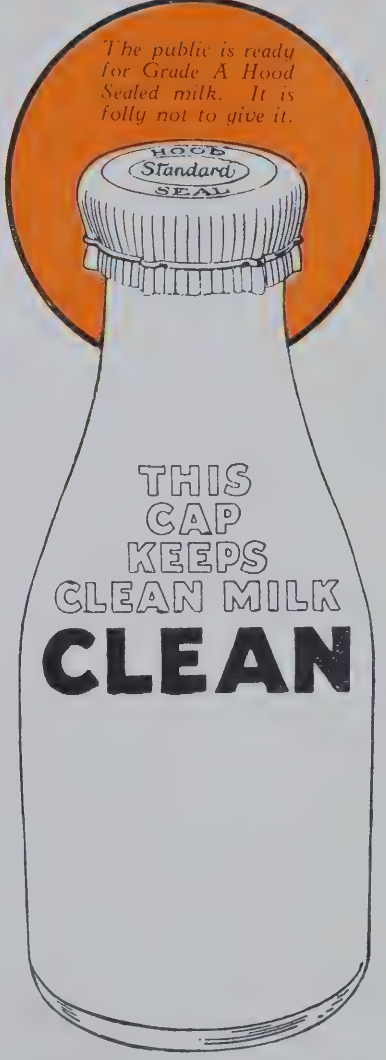
The bottles are soaked washed rinsed and dried in mammoth automatic washing machines

Bottles are mechanically filled with milk disc capped and then Hood Sealed for your protection

THINK MORE ABOUT THE MILK YOU DRINK

A NATIONAL advertising campaign is now appearing in the American Weekly Magazine—big full pages in colors—to build up good will for dairies and to establish confidence for better drinking milk.

These ads feature cleanliness of production, perfection of pasteurization and other processes in bottling plants and final Hood Sealing to assure purity and protect quality.



The public is ready for Grade A Hood Sealed milk. It is folly not to give it.

This Advertisment–full page in colors–in American Weekly Magazine—over 5 million circulation is *building business for you!*

More than 5,000,000 copies each month in fourteen leading cities and surrounding territory—these big full pages in colors—building a quality market for better drinking milk in the Hood Sealed bottle.

You can tie up your milk sales plans with the strong national publicity and get this new quality business.

More than 2000 leading dairies in the United States and Canada have adopted this Hood Sealed milk service.

Over 500,000,000 bottles sold in 1926.

Write for sample and full information.

Standard Cap & Seal Corporation

00 Fullerton Ave. Chicago

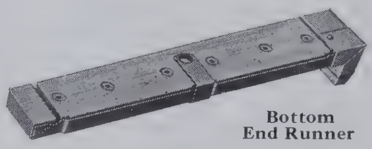
When writing to STANDARD CAP & SEAL CORPORATION *please mention The Milk Dealer.*

BOTTOM RUNNERS on your BOTTLE CRATES

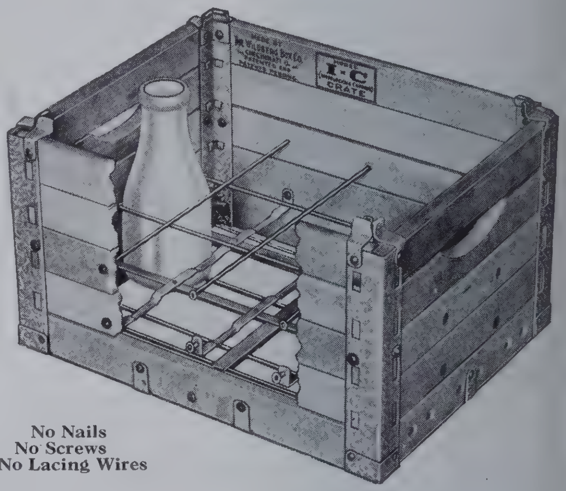
The Bottom Runners on

The MODEL **I-C** (Interlocking Corner) **CRATE** are the only runners on the market which provide the crate with a perfectly smooth surface [with nothing to catch on conveyors or floors], yet at the same time take nothing away from the strength of the bottom slat.

To apply all other runners the manufacturers either wood-work away part of the thickness of the lumber of the bottom slat and weaken it to the point of splitting at the first hard blow it receives, or have numerous rivets, holes for which are bored against the grain of the wood, also greatly increasing the likelihood of splitting and breaking off.



Bottom
End Runner



No Nails
No Screws
No Lacing Wires

Ours is the only Bottom Runner to *actually strengthen the bottom slat,* due to the *Patented Clips that reinforce bottom, inside and outside* of the slat above the bottom row of wires on the ends and above the brace wires on the sides.

And—if you use hand trucks in your plant, you will find that the nose of your truck will slide under the I-C bottom runner at any angle at which it strikes the crate. It won't with most others.

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION INC.
ASSOCIATE MEMBER NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS

The MODEL **I-C** (Interlocking Corner) **CRATE**

MANUFACTURED BY

The Wildberg Box Company

Cincinnati, Ohio

"World's Largest Manufacturers of Milk Bottle Crates"

When writing to THE WILDBERG BOX CO. *please mention The Milk Dealer.*

IFORM SYSTEM OF MILK GRADING FOR WISCONSIN.

ıt a uniform system of milk grading should be d in Wisconsin was the general opinion expressed earing held at the request of leaders in the move- for better milk before Commissioner of Markets d Nordman. The purpose of milk grading, ac- g to Mr. Nordman, is to bring about a condition which the consumer will know what he is getting e producer will receive a higher price for superior product. The system should be uniform but not lsory.

the conclusion of the hearing the following com- of seven was appointed to devise a milk grading

th Michels, Department of Markets, Chairman.
H. Bryant, Gridley Dairy Company, Milwaukee.
Wayne A. Munn, Janesville.
C. Burchard, Wisconsin Dairymen's Association.
lo K. Swanton, Madison Milk Producers' Assn.
H. Kramer, Kennedy Dairy Company, Madison.
F. Dineen, Milwaukee Milk Producers' Association.

* * *

PROPOSED SYSTEM OF GRADING TO BE REJECTED.

was decided at a meeting of the department ad- board and Milwaukee (Wis.) milk shippers that ilwaukee health department will oppose changes milk inspection and grading procedure advocated state marketing commission.

e new system of grading would take into account nditions at the farm where the milk is produced, acteriological content and numerous other condi- which Dr. J. P. Koehler, commissioner of public ı, Milwaukee, does not believe materially affect the y of milk.

e new system would cost the city approximately 00 a year for inspection and would result only in crease in the price of milk. There are only ten in the state which are able to make the tests needed the proposed system of grading and the costs of ional personnel for these cities would be prohibitive.

⁂

FOR SALE—OR WHAT HAVE YOU?

Van ads in the Synthetic Age, when the flivver become sticated and the lowing tin kine rattle o'er the lea on

OR SALE: Holstein-Blitzen Eight Roadster. Good r; butter record, 863 pounds in 1920; cream separator ment. Milk shake and pressed brick ice cream freezer in. Will sell cheap or trade for horse and buggy.—K9

O TRADE: Hofbrau-Rolls-Noise, 1923 model, seven pas- r. Capacity, two quarts per mile. Patent built-in bot- device and interlocker. Special cop-proof scent ab- r. One-man top. Will trade for house and lot, or have you? 7 come 11.

ANTED TO BUY: Used Sandwich-Klaxton Twelve, passenger. Must have ham sandwich attachment for y of nine, with mustard spreader, coffee urn and tooth- plant. XYC.

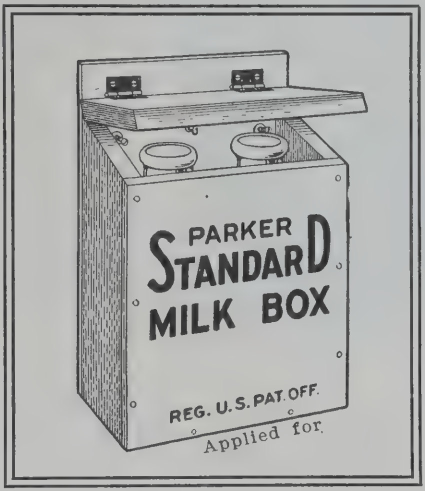
OR SALE: Chassis, Rhode Island Red-Honkers Eight. four dozen synthetic eggs (with fresh, strictly fresh, utely fresh and double yolk lever controls) a day on an ge. Just the thing for theater goers. A bargain. Don't astinate. Address: Tribune Z.

TTENTION, MOTOR OWNERS: Attach my wish-bone hment to your car and, out of three pounds of sawdust, even servings of chicken a la king. Agents wanted. for terms and prices Transgressor Company, 75 Run- Roard.—Cartoons Magazine.

⁂

en are polished through acts and speech, each by as pebbles are smoothened on the rolling beach.

Protection for Your Milk



PARKER
STANDARD
MILK BOX

Every housewife likes to get her milk in a Parker Milk Box. It keeps milk from freezing in the winter and keeps it cool in the summer. It guards against theft and contamination.

Dealers who sell in shops and offices will find these boxes effective trade boosters. Employees gladly switch their trade to the dealer who furnishes them.

Write for quantity prices. Quick shipments.

Parker Standard Milk Box Co.
228 WARREN AVE. :: SAGINAW, MICH.

C. A. DESHELL RETURNING TO AMERICA FOR A VISIT.

C. A. Deshell, inventor and former president of the Deshell Laboratories, Inc., Los Angeles and Chicago, and now a resident of Paris, France, is returning for a visit to the United States, arriving early in March.

C. A. DESHELL.

Many connected with the ice cream and dairy business will remember that Mr. Deshell was head and founder of a firm which had branches all over the world, and that he sold his interests, both in the United States and abroad, to the Stirling Products Co.

Recently he has become associated with the Esquimaux Brick organization of Paris, ice cream manufacturers, purchasing an interest and being president and general manager. He explains his mission in the United States as one to purchase additional machinery and equipment, and to raise money to establish his ice cream business more fully. In writing about the possibilities of the ice cream industry in France, Mr. Deshell says: "I am absolutely confident that France is offering wonderful possibilities, for this is absolutely an undeveloped business."

YOUNG MEN, FOLLOW HIS EXAMPLE!

Even in our present high-speed era of living there are to be found outstanding business careers which should inspire the ambitions of every young man.

Francis J. Kullman is an example of this type of career. Mr. Kullman was born June 5, 1871, at Somerset, O., and came to Chicago in 1891, shortly after which he began to work for the Bowman Dairy Co.

From that time to the present, Mr. Kullman has been associated with the Bowman Dairy Co., now located at 4149 South State St., Chicago, Ill.

Mr. Kullman is now vice-president of the company.

"ASSOCIATION CATALOG" OF MACHINERY A SUPPLIES.

Within the next two months the Dairy and Ice Cr Machinery and Supplies Association announces, it pects to have in printed form a directory of associa houses and their products, relating to the whole r of requisites of all of the manufacturing dairy indust

As reported by officers of the association at it cent annual meeting in New York City, preparatio this inclusive directory which will have a circulatio several continents, has been necessitated by the l number of inquiries which regularly come from thro out the dairy products industries concerning source supply for various types of dairy products manufa ing and merchandising materials, equipment, accesso processes, etc.

The association announces that it hopes to be ab supply a copy of this inclusive directory to every sponsible dairy products plant executive throughou United States and Canada, without charge.

CARBONDALE, PA., TO HAVE NEW MILK PLA

Mr. Russell, of The Russell Farm Dairy, Carbon Pa., announced that plans have been prepared for erection of a new and modern dairy plant and that ations will start as soon as the weather conditions permit.

The property recently acquired by the compan ideally located for a dairy on account of the conve switching facilities.

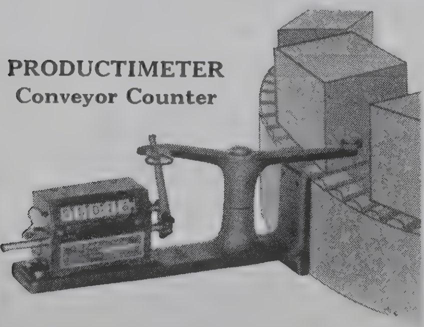
The new dairy will have a frontage of 174 fee Belmont Street and the depth to the Ontario & We Company right of way is about fifty feet, a triang shaped plot, the long sides of which are most sui for the new business enterprise. The dairy and building will be a two-story structure, 30 by 70 The stables and garage will be erected on the rema space.

NORWAY'S MILK PRODUCTION.

Commercial Attache H. Sorensen reports to th partment of commerce that according to semi-o sources the total production of milk in Norway d 1924 was 291,000,000 gallons. Of this total 119,00 gallons were used by the farmers themselves and 000,000 gallons for feeding calves and hogs, 95,40 gallons were sold as milk and cream, 31,800,000 ga for the production of butter, 21,200,000 gallons cheesemaking, and 10,600,000 gallons for condensed making and for other industries.

Since 1924 the production of milk has increased idly and at present it is estimated that the total duction amounts to roughly 330,000,000 gallons.

COUNT 'EM ACCURATELY—BOTTLE or CAS



PRODUCTIMETER
Conveyor Counter

Productimeters recording daily volume on important machines or operations give you an accurate count, in plain figures, quickly and dependably. They tell you at a glance just what has been done in a given period of time; make it easy to figure costs, bottle and case requirements, etc.

Built in various models—to fit washing, filling, sealing machines, conveyors, and to tally bottles, cases, packages, boxes. Our Service Department advises you which model is best for particular applications. Write for the Productimeter Catalog, telling us what you wish to count.

Durant Mfg. Co., 663 Buffum St., Milwaukee, Wis.

Productimeter Bottle Count

In the all-important matter of *tickets*

Use Globe Milk Tickets

MILK TICKETS serve the convenience of your customers. They mean less work for your drivers, accurate records in your office and greater safety for your collections. They eliminate bad debt losses.

Consult us about the design and production of milk tickets in strips or books—standard and special types.

For more than fifty years we have specialized in the production of all types of tickets and serially numbered printed forms—where accuracy of numbering is a first requirement.

We shall be glad to send you full particulars on our service and samples of our work.

Specialists
for half a
century

Globe
TICKET COMPANY

112 North Twelfth Street
PHILADELPHIA

BALTIMORE CLEVELAND LOS ANGELES NEW YORK

When writing to GLOBE TICKET COMPANY *please mention The Milk Dealer.*

CHLORAMIX
THE BACTERIA KILLING CLEANSER

The Sure Way to Control Bacteria!
Kill Them in the Washing Process

A cleanser that kills bacteria! While equipment is being washed it is being conditioned to receive milk and cream; freed of the old milk deposits as well as bacteria. That is progress. That is *Chloramix, The Bacteria Killing Cleanser.*

Chloramix contains chlorine, ready to act and of sufficient strength to kill bacteria. It comes in crystalline form, easily dissolved in warm or cold water—a cleanser to remove the heaviest deposits; a bacteria killing agent with swift dependable action.

WHEN USING CHLORAMIX YOU NEED NO OTHER POWDER, CLEANSER DISINFECTANT OR CHEMICAL. Using *Chloramix* in all cleaning operations insures against accidental carelessness, enhances the efficiency of high priced equipment—

SAVES TIME, TROUBLE AND MONEY:

—it cleans quickly, avoids contamination from improperly cleansed surfaces, insures uniform high quality products.
Get maximum returns on your cleansing effort with Chloramix.
We will gladly furnish additional information on *Chloramix* upon request. Fill out the coupon below, no obligation.

CHLORAMIX MANUFACTURING COMPANY
(INCORPORATED)
1428-1432 North Orleans Street
CHICAGO, ILL.

CHLORAMIX MFG. CO.,
1428-32 N. Orleans St.,
Chicago, Illinois.

Send full information about Chloramix for Bacteria Control.

Send details on your special Producer Package Offer.

Name ....

Street ....

City .... State ....

Improve the Raw Product!

You can improve the quality of the raw product without costly educational methods. Get your patrons to use Chloramix. Write today for the special Producer's Package offer. Fill out the coupon.

When writing to CHLORAMIX MANUFACTURING COMPANY, INC., *please mention The Milk Dealer.*

NICIPAL PASTEURIZATION REQUIREMENTS.

A study of 250 municipal ordinances relating to mar- milk, reported as having been in effect in 1925, shows t a wide variation existed in temperature and time re- rements of pasteurization. The maximum and min- m temperatures were 175 and 140 degrees F., respec- ely, a large majority ranging from 140 to 145 degrees The time varied from 30 minutes to momentary ex- ure (flash). A 30-minute holding period was pre- ibed in approximately 80 per cent of the ordinances.

In 39 ordinances pasteurization temperature require- nts were not stated, and 40 prescribed no definite ding time. A large majority of the cities which did state pasteurization requirements had a population 25,000 or less.

In several instances an ordinance allowed two, three four different combinations of temperature and time pasteurization. Such regulations, however, were te rare, the tendency being to prescribe but one defi- e temperature and holding period.

The following table gives the temperature and time uirements found in the ordinances studied. In the rch letter similar tables will be given for various pop- tion groups.

unicipal Requirements for Temperature and Time of Milk Pasteurization (1925).

	Number cities	Average time	Maximum time	Minimum time	Time	Number cities	Average temperature	Maximum temperature	Minimum temperature
.		Min.	Min.	Min.	Min.		°F.	°F.	°F.
0	34	28.50	30	20	F*	4	170.25	176	165
2	95	30.00	30	30	.5	4	165.00	165	165
3	3	30.00	30	30	1	1	165.00	165	165
5	78	29.46	30	20	1.5	1	160.00	160	160
0	3	18.30	20	5	5	3	156.60	160	150
5	3	8.30	15	5	10	1	160.00	160	160
7	1	20.00	20	20	15	2	152.50	155	150
0	3	5.50	10	1.5	20	8	145.00	157	140
5	7	.714	1	.5	25	6	142.85	145	140
5	2	F*	F	F	30	198	142.42	150	140

= Flash

—Bureau of Dairy Industry.

⚜

KROHA WINS AWARD.

In a recent contest, sponsored by the John P. Smith inting Co., Rochester, N. Y., for the best essay on rect mail advertising, George F. Kroha, advertising nager of the Pfaudler Co., was awarded first prize th his essay, "Direct Mail, the Dominant Motivating rce in Modern Selling."

It was pointed out by Mr. Kroha that direct mail ad- rtising "looms as the most powerful single influence modern selling and daily shows further instances of right to an equal share with its running mate—maga- e advertising. These two allies are working in close rmony and making advertising history in many com- nies today. Magazine advertising is busy getting in- iries—and direct mail advertising is converting these quiries into orders."

The contest was judged by Frederick C. Kendall, edi- r of "Advertising and Selling," New York, and the ize carried a cash value of $50.

⚜

WN FINE MILK PLANT IN MARSHFIELD, ORE.

H. W. Sanford and Ellis Selander operate one of the est milk plants in the Bay region. The plant is thor- ghly modern in every respect.

For Covering Pipe

DISCRIMINATING plant owners are rapidly learning that wherever there are cold pipe lines it pays to cover them with

Mundet Jointite TRADE MARK Cork Pipe Covering

Cork is ideal because of its remarkably low heat transmission, its natural waterproofness, its limitless life, and low cost of installation. It is a very simple matter, with the half sections of perfect-fitting covers, to PROPERLY insulate many more feet of pipe per day with cork than is possible with any other covering.

Our Practical Refrigerating Engineers cover the entire United States. They will gladly help you with any cold insulation problem. No obligation whatever. We manufacture, sell and install complete.

L. MUNDET & SON, Inc.
Hillside, - New Jersey
Established 1865
New York Office: 461 Eighth Ave.

Also Manufacturers of Jointite Pure Cork Board for all cold insulating purposes.

The New Mark Hopkins Hotel, San Francisco, Cal., nearing completion. Mundet Jointite Cork Pipe Covering was used throughout on the cold pipe lines and fittings.

CALIFORNIA MEN PLAN FOR 1927 SHOW.

Oakland, Calif., Feb. 1, 1927.—Several meetings of dairy industry people from all parts of the Pacific Slope were held at the Hotel Whitcomb, San Francisco, January 24 and 25, inclusive. This gathering brought together the membership of the Pacific Slope Dairy Show Association, California Dairy Council, State of California Milk Dealers' Association, a committee of the California Creamery Operators' Association and the joint committee on California dairy development.

Preliminary plans for the seventh annual Pacific Slope Dairy Show were made by the membership of the association. The dates were tentatively set as November 14 to 19, 1927, inclusive.

The organization returned the same officers and directors as last year with the exception of three new directors, namely, C. O. Hagen of Los Angeles, A. J. Cowell of San Francisco, J. R. Murphy of Fresno. The officers and directors are as follows:

Dr. C. L. Roadhouse, Davis, president; Albert Meister, Sacramento; Robert E. Jones, Oakland; D. M. Dorman, Los Angeles; Geo. E. Platt, Los Angeles; A. Jensen, Los Angeles; P. H. Davis, San Anselmo; Frank M. Helm, Fresno; Emile J. Etienne, San Francisco; Wm. M. Regan, Davis; E. A. Green, San Francisco; Geo. W. Prising, San Francisco; W. E. Haley, San Francisco; C. E. Gray, San Francisco; Geo. R. Frampton, Artesia; Sam H. Greene, San Francisco; M. H. Adamson, Los Angeles; J. W. Coppini, Ferndale; R. A. Condee, Chino; J. J. O'Neil, Oakland; F. J. Bowden, Hanford; J. N. Gilman, San Francisco; C. O. Hagen, Los Angeles; J. R. Murphy, Fresno; A. J. Cowell, San Francisco.

The annual report of Secretary-Manager Robert E. Jones was received. It showed that the 1926 show was the most successful in its history, not only in attendance and exhibits, but also financially. A surplus of $3,000, income over expenditures, was indicated by the financial statement.

A total of 100 new life members have been added during the year, making a grand total of 200 life members.

President C. L. Roadhouse announced that he expected to spend a year of study in Europe, and will be leaving about the first of May. Vice-President W. E. Haley of San Francisco was directed to act as executive head of the show during his absence.

The secretary-manager made a complete report on his activities in the East Bay district, where he has been acting as "peacemaker" in an effort to settle the differences between Oakland milk dealers and the Co-operative Dairymen's League. This report brought out considerable discussion, and the secretary-manager was authorized to continue his work and report to the executive committee at a later date.

The committee on California dairy development was appointed jointly by the California Development Association and California Dairy Council. Its purpose being to outline a plan to bring more dairymen to California. Members are: Geo. R. Frampton, Los Angeles, chairman; R. N. Wilson, Calif. Development Assn., San Francisco, secretary; O .W Jarvis, Sacramento; E. C. Gordon, Prof. E. C. Voorhies, University of California, Berkeley; C. E. Gray, San Francisco; J. R. Pickett, editor Pacific Rural Press, San Francisco; T. R. Brice, Los Angeles, and Robert E. Jones, Oakland.

This committee held its organization session. It was generally agreed that the parts of California which offered opportunities for dairy development were the Sacramento and San Joaquin Valleys, and that the committee's energy should be directed to further settlem of these areas.

It was voted to name a sub-committee to prepar list of reasons why California offered opportunities dairymen from other states The secretary was instru ed to get in touch with land companies having eith completely equipped dairy farms for sale or which w willing to erect dairy buildings on their lands and of the complete plant for sale. It was brought out t there are many applications for dairy farms, but th is a shortage of farms and also of cows. The commit then adjourned to meet again shortly at the call of chairman.

Milk Dealers Elect.

At the state of California milk dealers' meeting following officers were elected:

President, D. M. Dorman, Los Angeles; 1st vice-pr ident, W. E. Haley, San Francisco; 2nd vice-preside Frank Helm, Fresno; secretary-treasurer, C. A. Fieweg Oakland.

Practically the entire session was devoted to the cussion of the advisability of a publicity campaign acquaint the consuming public with the meaning of word "Pasteurized." It was brought out that this wo is considerable of an enigma to the housewife. The m ter was left in the hands of the board of directors to f ther develop the act.

The association voted to provide a fellowship at University of California, College of Agriculture, Da (dairy industries division) in the amount of $800.00 year. This grant was accepted by Dr. C. L. Roadhou on behalf of the University, with warm thanks.

A legislative committee of the California Creame Operators' Association, composed of Fred Abbott, sec tary; T. E. Day, San Francisco, and C .L. Mitchell of Angeles held a brief session to discuss legislative matte

Profound sorrow prevailed at all of the meetings to the sudden death of E. F. Moran, attorney for State of California Milk Dealers' Association and San Francisco Milk Dealers' Association, and a life me ber of the Pacific Slope Dairy Show Association. Re lutions of sympathy were adopted and the visitors, well as home people, attended the funeral, which held Monday, January 24.

* * *

GOLDEN RULE FOR BUSINESS.

To visualize the aim of the California dairy indust a code of ethics was adopted at the last meeting of California Dairy Council. Here, in brief, are its sali points:

California Dairy Council Code of Ethics.

To take pride in our business.
To produce and handle dairy products of high quality.
To place California Dairy Council foremost among business activities.
To believe in California Dairy Council as the heart the industry.
To strive to correct abuses and unethical practices in business.
To treat alike both old and new customers.
To guarantee the same price, quality and service to
To strive to retain the good will of our own and our c petitors' customers for the benefit of the industry
To recognize the right of the producer to a fair price his product.
To apply the golden rule to every transaction.

1927 1928 1929 1930 1931 1932 1933 1934 1935

ook ahead

It's the EXTRA Years of Service that return the big profits on Conveying Equipment

Note the features briefly described at the right. There are some of the important reasons why

LAMSON SANITARY CONVEYORS

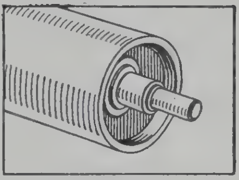
last longer

There, too, are some of the reasons why these modern labor-saving devices are easier to keep clean—provide continuous, trouble-free service—soon pay for themselves in any milk plant.

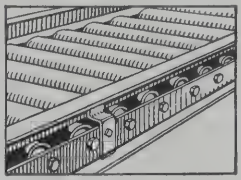
Send us the coupon — let it bring further information that shows why so many prominent plants are Lamson Equipped.

THE LAMSON COMPANY
SYRACUSE, N. Y.

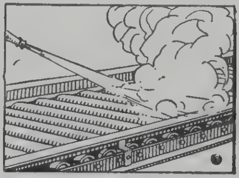
LAMSON
SANITARY
CONVEYORS



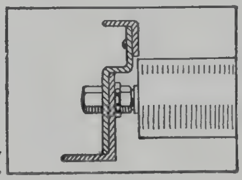
1 *Moisture can't get in.* Corrosion comes with moisture. Keep moisture out and you prevent corrosion. Lamson Rollers extra-heavy throughout, have heads *welded in.* No joint through which moisture can enter. No inside corrosion. Remember that.



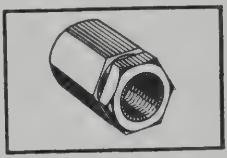
2 *Special guard rail over roller ends.* This heavy angle iron guard rail, setting in over the ends of the rollers, prevents can-chimes from dropping off and blocking the conveyors. *And this saves wear.* Sliding cans over rollers that can't turn wears out the rolls and the cans, both. The Lamson conveyor never stalls or blocks.



3 *Stands up under flushing and steaming.* Turn the hot water on it as often as you please. Steam it often as you want. You can't harm the bearings, you can't force any moisture into any part where it will be harmful. Lamson has designed this conveyor to stand a limitless amount of cleaning.



4 *Practical mounting.* The frame is so designed that it forms a cup-like protection to keep moisture and milk away from the shafts and bearings. This mounting maintains dryness of the moving parts, even in conditions where a great deal of moisture is present. It adds greatly to the service of Lamson conveyors, and helps to prevent rolls from sticking.



5 *Non-corrosive bearing of special design.* The bearings are cast of non-corrosive alloy. They are extremely resistive to all corrosive action. They are hexagonal in shape, so inserted in the frame that they can never turn with the shafts. Consequently they cannot freeze, and always operate.

The Lamson Co.,
Syracuse, N. Y.
Please send further information on Lamson Sanitary Conveyors.
Name ....
Firm Name ....
Business Address ....

When writing to THE LAMSON COMPANY *please mention The Milk Dealer.*

Fluid Milk Market Report for United States for Feb., 19

By Bureau of Agricultural Economics, Market News Service, United States Department of Agriculture.

Table I—Producers' Prices for Standard Grade Milk Testing 3.5% Butterfat, Delivered F. O. B. Local Shippi Point or Country Plant.

Prices which appear in this report are secured through the co-operation of milk distributors, producers' associat and municipal officers. Dealers' buying prices unless otherwise indicated, represent prices applying to all milk deliv by producers. For cities where a "surplus plan" is in effect, the prices reported in table III are for "basic" quanti All per cwt. buying prices have been converted to a 3.5% butterfat basis for comparative purposes.

Sections	Range of February Prices		Prices Compared for Same Markets			
	Number Local Markets	Prices per Hundredweight	Number Local Markets	1927 Average for February	1926 Average for January	1926 Average for Febru
New England	10	$2.77–$3.82	9	$3.34	$3.38	$3.43
Middle Atlantic	15	2.45– 3.15	15	2.85	2.85	2.69
E. North Central	23	1.74– 3.15	23	2.58	2.59	2.58
W. North Central	22	1.66– 3.10	20	2.34	2.38	2.31
South Atlantic	15	2.80– 6.15	15	3.67	3.73	3.81
E. South Central	4	2.36– 3.39	4	2.64	2.78	2.66
W. South Central	6	2.05– 2.96	6	2.59	2.73	2.71
Mountain	8	1.82– 3.20	5	2.43	2.47	2.52
Pacific	8	2.05– 3.13	7	2.65	2.71	2.70
United States	111	1.66– 6.15	104	2.79	2.86	2.83

Above prices include "basic" prices where a surplus plan or cooling plan is in effect. Cities where prices are b upon current butter quotations not included.

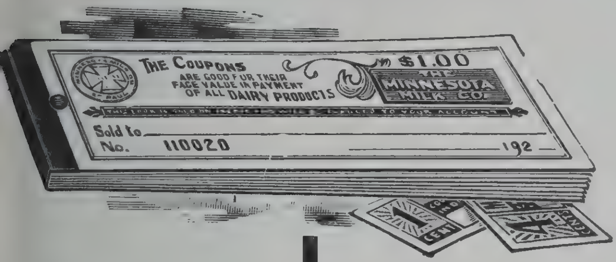
Table II—Prices for Special Grades of Milk and Certain Milk Products.

The following table shows the wholesale and retail prices reported for "special" and "certified" milk and certain products delivered at wholesale buyers' places of business and at the home of retail customers.

Cities	Special Milk	Certified Milk	Cultured Buttermilk		Cottage Cheese		Light Cream 18-25% B. F.	
	Retail Price per Quart	Retail Price per Quart	Wholesale Price per Gal.	Retail Price per Quart	Wholesale Price per Lb.	Retail Price per Lb.	Wholesale Price per Gal.	Reta Price ½ P
Akron	16–18	20	20	8	..	10	1.30–1.50	16
Albany	18	..	..	10	..	..	1.60	17–
Albuquerque	..	..	30	10	18	..	1.75	15
Allentown	18	..	36	13	..	..	2.00	17
Altoona	15	22	25	10	..	..	1.35–1.55	13–
Asheville	19	25	25	10	15	..	2.00	20
Baltimore	..	30	44	14	10–12	15*	1.70	16
Birmingham	..	25	25	10	..	..	1.50–1.60	15
Boston	17½	26	..	10	..	..	1.17–1.79	..
Buffalo	14	26	24	10	10*	12*	1.50	20–
Chicago	17	25	..	10	..	15*	1.30–1.80	16
Cleveland	19–20	25	..	12–13	12–14	15	1.26–1.88	15–
Colorado Springs	17	..	15	6	..	..	1.25	11
Columbus	17	25	35	12	10	15	1.45	14–
Dallas	24	..	20	9	..	..	1.50	11–
Denver	14	..	..	8	..	..	..	14
Des Moines	14–20	25	20	9–11	10	14	1.40–1.55	12–
Detroit	..	25	..	35	..	..	..	16
Duluth	14	25	13	8	10*	15*	1.40	17
El Paso	17	..	20–25	10	15	20*	1.40–1.50	15–
Evansville	15	..	25	9½	12*	15*	1.60	14
Harrisburg	..	..	36	12	..	..	1.50	14
Hartford	20–25	25–35	..	...	..	..	1.40	18
Indianapolis	16	..	25–32	10–12	12	..	1.10–1.75	12–
Jacksonville	25	..	30–35	10–12	20	30	1.60–2.50	20–
Kansas City	15	25	25–30	10	14	20*	1.60–1.80	10–
Los Angeles	..	30	..	10	..	..	..	17
Louisville	17	24	..	13	..	..	1.00–1.63	16
Memphis	..	30	15–20	6–7	15	20	1.10–1.40	14–
Miami	30–35	35	50–60	18–22	25–30	30	2.25–3.25	25–
Milwaukee	14–18	25	16–20	6	7	9–10	1.30–1.65	14
Minneapolis	..	22	..	13	10*	12*	1.32–1.40	14–
Nashville	18	..	22	10	17	20	..	16
New Orleans	*18	31	40	14	..	20	1.20	17
New York	30	28	28	11	..	..	..	..
Omaha	15	20	20	10	12*	15*	1.30	11
Philadelphia	15–16	30	..	9–13	..	..	1.56	17
Pittburgh	..	25	25	10	..	..	1.40–1.50	17
Richmond	16–18	..	25	8	..	..	1.20–1.30	14
Salt Lake City	15	..	15	5	12½	15	..	14–
San Diego	20	30	20	9	12	..	1.80	15
San Francisco	..	25	15	14	..	20	1.70–2.50	20
Scranton	18	25	20	8–10	7	10	1.40–2.40	20–
Sioux City	..	25	15	6	8*	10*	1.20	10
Spokane	..	..	..	..	..	..	1.55	15
St. Louis	18	25	..	10–18	13	15	1.26–2.00	17
Trenton	17	30	40	13	20	25	1.76	15–
Trinidad	15	20	25	10	..	..	1.25–2.25	12–
Washington	18–23	30	..	15	15–20	15–20	2.00	20
Wilmington	20	..	..	10	..	13*	..	17

* 12 oz. package

Are National Dairy Coupons a Success?


THE COUPONS
ARE GOOD FOR THEIR FACE VALUE IN PAYMENT OF ALL DAIRY PRODUCTS
$1.00
THE MINNESOTA MILK CO.
Sold to
No. 110020
192

They reduce customer turnover.

They increase sales.

They wipe out the bad debt item.

They simplify collections and reduce drivers' working hours.

They avoid disputes with customers and consequent lost accounts.

They concentrate purchases through your regular routes.

They solve the problem of handling transient accounts.

They simplify accounting records.

They cost very little to use.

They can be used for all products regardless of price changes.

Users will be glad to tell you how National Dairy Coupons have overcome many of their greatest business problems.

They have pulled many a milk dealer out of a rut through the ability of National Dairy Coupons to put his business on a *cash basis.*

Think what it would mean to you if you could have the use of cash now tied up in customers' accounts. Then add to this one dollar a customer for advance payment on National Dairy Coupons.

Is the prospect of releasing and raising that amount of capital not worth the small cost of trying out National Dairy Coupons?

You will find encouragement in the success of users. Let us tell you about them.

National Checking Company

St. Paul, - - - Minn.

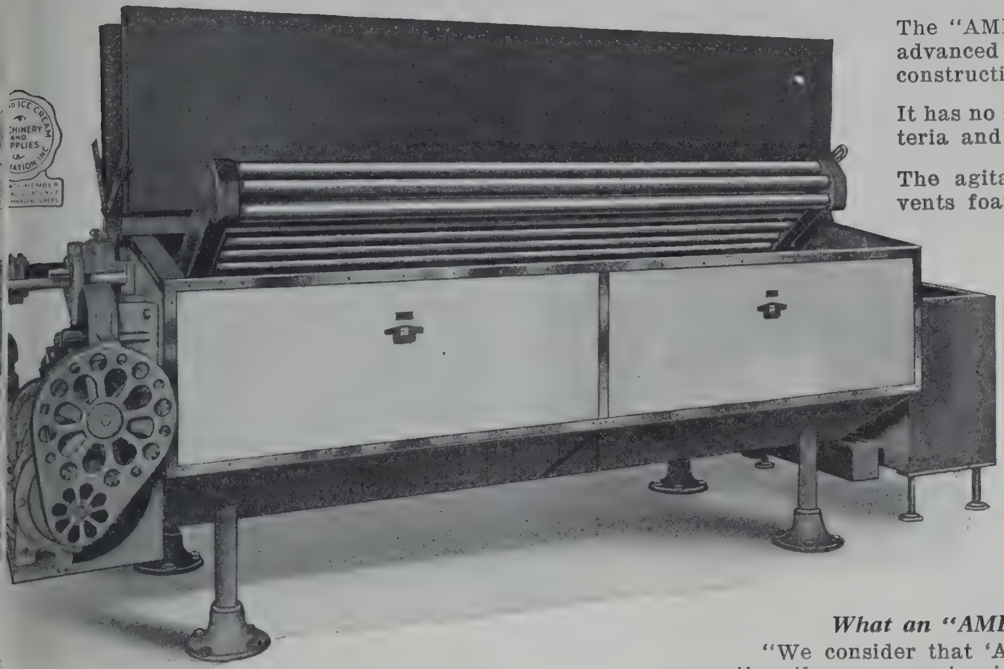
When writing to NATIONAL CHECKING CO. *please mention The Milk Dealer.*

Table III—February Cost and Selling Prices

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat Test of Milk Sold
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5–20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
ALABAMA—							
Birmingham	3.42–3.90	Flat to 4.2%	45–50	13–14	17	13–17	4.0–4.
ARIZONA—							
Phoenix	..	..	32–36	9–9½	10–12	10	..
CALIFORNIA—							
Fresno	Butter Market Basis		35	11	13	12–13	3.8
Long Beach	3.33	9.5	43.33	13	15	15	3.5–4.
Los Angeles	3.15–3.33	9–9.5	..	..	15	..	4.3
Oakland	2.92	2.9+	35	9	13	11	3.6–4.
San Diego	..	..	41.66	13	15	15	3.6–3.
San Francisco	3.11–3.21	2.9+	41.3–41.6	11.2–12	14	13–14	3.75–4.
COLORADO—							
Boulder	2.01	5.75	32	9	11	10	3.8
Colorado Springs	2.45*	6	30	9	11	10–11	3.4–3.
Denver	2.27	6.5	..	..	12	..	3.5
Pueblo	2.38	6.8	30	9	12	10–12	3.8
Trinidad	2.45	7	30–40	8–11	10–13	10–13	3.0–4.
CONNECTICUT—							
Bridgeport	4.22*	4	48	14	16	..	3.6
Hartford	4.22*	4	46–48	12–14	16	14–16	3.8–4.
New Haven	4.22*	4	50	14	16	16	3.7
DELAWARE—							
Wilmington	..	..	44	13	13	14–15	3.6–3.
DIST. OF COLUMBIA—							
Washington	3.60*	7	44–48	12–13	15	12–15	3.8–4.
FLORIDA—							
Jacksonville	4.53*	10 to 4.2%	50–60	17–18	20–21	18–21	4.0–5.
Miami	6.27*–6.75*	Varies	80	22–23	25	23–25	3.5–4.
Tampa	4.78	5 to 4.4%	60	19–20	23	20–25	3.5–4.
GEORGIA—							
Atlanta	2.80	8	50	15	..	..	..
IDAHO—							
Wallace	3.50	Flat	50	12½	15	12½	3.6–3.
ILLINOIS—							
Chicago	See Table II		32–38	13	14	14	3.6
Peoria	2.45*–2.60*	5	36	11	13	12–13	3.5–3.
Quincy	..	..	30	8	10	10	3.5
Rockford	2.55	6	28	9	11	11	..
Springfield	2.63	5	34–36	12	14.28	14–15	3.8–4.
INDIANA—							
Elkhart	..	..	30	7½	12	12	4.0
Evansville	2.45	7	34	11	12½	12½	3.7
Fort Wayne	..	..	40	11	13	12–13	3.8
Indianapolis	2.10–2.27	6–6.5	28–30	10–10½	12	11–12	3.8–4
South Bend	2.43–2.65	4	32	9–10	12	11–12	3.8
IOWA—							
Burlington	2.55	4	30	8	10	10	..
Cedar Rapids	2.75*	Flat	..	10	12	12	3.5–4
Davenport	2.35	5	28	9	11	10–11	3.6
Des Moines	2.65*	5	32	9	11	10	3.6
Fort Dodge	2.75*	5	38	10½	12	12	3.8–4
Iowa City	2.45	7	30	9	12	11	3.4–3
Ottumwa	2.25	5	35	10	12	12	3.5
Sioux City	2.30	5	30	8	10	10	3.6
KANSAS—							
Topeka	2.10–2.20	4	30–35	8	10	10	3.5–4
Wichita	2.10–2.35	3	35	10	12	12	3.5
KENTUCKY—							
Lexington	2.45	8 to 4%	40	12	15	12–15	4.4
Louisville	2.54–2.59	4–5	32	11	13	13	3.8–4
LOUISIANA—							
Alexandria	2.91	Flat	40	10	15	12	4.0
New Orleans	3.04	4	35	12	14	14	4.0
MARYLAND—							
Baltimore	3.55*	5.8	44	14	14	15–16	4.1
Cumberland	3.70	7 to 4%	40	13	14	15	4.0–4
MASSACHUSETTS—							
Boston	3.62*	B. M. Basis	39	11½	14	12	3.7
Easthampton	..	..	46	12	14	14	3.6
Fall River	..	..	..	12	14	13–14	3.7
Lawrence	3.86	4.65	44	11½	14	12–13	3.7
Lynn	3.72	Flat	..	12½	14	..	..
Springfield	3.25	Flat	40	12	15	10–12	3.7

* Basic prices for fluid milk.

AMERICO” THE PASTEURIZER WITH A PURPOSE



The new “AMERICO” with improved coil control

The “AMERICO” embodies the most advanced principles in design and construction.

It has no stuffing boxes to gather bacteria and contaminate the batch.

The agitation is gentle. This prevents foaming, churning and breaking of fat globules.

Heating is done with water below 160° F. There is no burning on the coils nor scorching of the product.

The flush type outlet valve is standard on all vats.

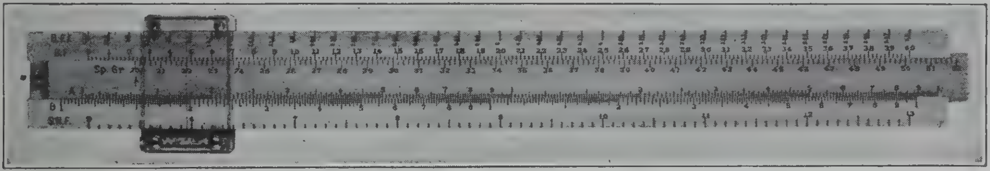
Thorough cleaning of all parts is accomplished with ease as the coils can be raised out of the vat.

What an “AMERICO” User Says:

“We consider that ‘AMERICO’ is nearer perfection than any pasteurizer we have ever used.”

ERICAN COPPER & BRASS WORKS
Manufacturers of Dairy Equipment

610-616 E. FRONT STREET
CINCINNATI, OHIO



Quick - Accurate Figures!

THE
Dairyman's Slide Rule

$5.50

Mailed postpaid complete with case and self-teaching manual on receipt of remittance.

for Standardizing milk and cream. Computing butterfat. Estimating overrun in butter and ice cream making. Calculating the yield of cheese. Reducing pounds to gallons, and a great many other figures needed by dairymen every day.

GET ONE!

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Table III—February Cost and Selling Prices

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat Test of Milk Sold
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5–20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
MICHIGAN—							
Battle Creek	..	..	36–40	10	12	12	3.8
Detroit	3.00*	5	..	..	14	..	..
Grand Rapids	2.48*	4	30	8–9	9–12	9–12	3.5
Kalamazoo	3.00*–3.20*	4 to 4%	38	11	13	13	3.5–4.
Lansing	2.25	4 & Flat	30	8	10	10	3.3–3.
MINNESOTA—							
Duluth	..	..	30	10	12	11–12	3.8
Minneapolis	2.70	5	32–34	9–9½	11	10–11	3.5–3.6
Northfield	2.37	5	32	8½	10	10	3.7
St. Paul	2.70*	5	34	9½	11	..	..
Winona	3.10	Flat	35	9.58	11	11	3.6
MISSOURI—							
Kansas City	2.73	3.5	35–40	9–11	13	10–13	3.6–3.
St. Louis	2.90	3–4	35–38	11	13	13	3.5–3.
MONTANA—							
Lewistown	..	..	30	10	12½	12½	3.6
NEBRASKA—							
Lincoln	2.01	5.75	..	..	..	..	..
Omaha	2.35	5	28	9	11	11	3.4–3.
NEW HAMPSHIRE—							
Concord	2.94*	4.9	37½	..	11–14	11–14	3.7–3.
Portsmouth	..	..	42	10½	13	13	4.1
NEW JERSEY—							
Atlantic City	..	..	48	..	15	..	..
Camden	..	..	..	..	13	..	..
Hoboken	..	..	34	10–16	15	14	3.7
Trenton	3.41*	4	38	10	13	14–15	3.7–3.
NEW MEXICO—							
Albuquerque	3.20	5.8	40	12–12½	15	15	..
NEW YORK—							
Albany	3.07*–3.17*	4	38	15	15–17	16–19	3.8
Buffalo	2.90*	4	35–40	11½	13	11½–13	3.6
New York	See Table II		40	14	15	15	..
Rochester	2.83–2.85	4	40	11	12½	12½	3.7
Troy	..	..	36–44	11	13	13	..
Utica	3.12*	4	36	10	12	12	3.5–3.
NO. CAROLINA—							
Asheville	3.80	4	48	14	17	17	4.2
Biltmore	3.80*	4	48	14	17	14	4.1
Greensboro	3.70	6	50	14	17	18–20	4.0
Winston-Salem	3.30	4	50	12½	16.15–17	17–18	4.3–4.
NO. DAKOTA—							
Fargo	2.10	6	28	8	..	..	3.5
Jamestown	2.30	4	30	9	11	11	3.5
Mandan	2.75	4	35	8	13	10	3.6
OHIO—							
Akron	3.40*	5	40	11	13	13	3.5–3.
Cincinnati	Not Determined		40	12½	14	12	3.7
Cleveland	3.34–3.50	5	42–44	11–12	14–15	10–15	3.5–3.
Columbus	..	..	38–40	11	12	11–13	3.5–3.
Toledo	2.50	3	36	10½	12	..	3.6
OKLAHOMA—							
Tulsa	2.45–2.63	7–7.5	40	11	15–20	9–20	4.0
OREGON—							
Portland	2.35	5	30	9	12	10–11	4.0
PENNSYLVANIA—							
Allentown	3.16*	4	36	11	13	13	3.8
Altoona	3.14–3.16*	4	42	11	13	13	3.8–4.
Harrisburg	2.70	4	34	11	12	12	3.6
Philadelphia	3.49*–3.52*	4	38–40	12	13	..	3.8
Pittsburgh	3.90*	5	39–44	14½	15	..	3.5–3.
Scranton	..	..	38	12	12	12	3.5–3.
RHODE ISLAND—							
Newport	..	..	..	..	15	15	3.9
Providence	3.62*	B. M. Basis	42	11½	14½	..	..
SOUTH DAKOTA—							
Sioux Falls	2.75*	5	30	10	12	12	3.7
TENNESSEE—							
Chattanooga	..	..	45	12	18	17	4.2
Memphis	2.58–2.73	4.5	32–40	10–14	15	12–15	4.2–4.
Nashville	Butter Market Basis		38	12	14	14	..

* Basic prices for fluid milk.

HUNDING DAIRY COMPANY
HUNDING'S BEST MILK

Since 1880—

We have been making special dairy wagons and truck bodies built to order.

Guedelhoefer Wagons for milk delivery are not only built with every detail of good looks and advertising qualities in mind, but also with the one thought of sturdiness and practicability.

Representative users in the milk industry have shown their approval of Guedelhoefer quality through repeat business for years.

The new Guedelhoefer Silent Wagon

These new Guedelhoefer low down milk wagons have
Timken Bearings and Rubber Tires
That Outlast Steel!
They handle large loads conveniently, silently and with extremely light draft for the horse.

Let us tell you more about these wagons and their cost.

THE POLK SANITARY MILK CO.

Regular Style

John Guedelhoefer Wagon Co., Inc.

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NO OTHER THING

can make a cleaner of more value to the Dairyman, Creameryman or Cheesemaker than the fact that its superior qualities are uniform and dependable and barrel for barrel will perform the same consistent sanitary service.

This dependable, superior service has been performed for over twenty years and is being performed today by

Wyandotte
Dairyman's
Cleaner and Cleanser

It isn't any wonder then that every day the demand for this unequalled cleaner increases.

Moreover, its thousands of users are proving beyond doubt that Wyandotte Dairyman's Cleaner and Cleanser is also the most economical cleaner for the dairy industry.

Ask your supply man for "WYANDOTTE"

Indian in Circle

In Every Package

Are you using Wyandotte C. A. S. [cream acidity standardizer] for standardizing the acidity of your cream?

The J. B. Ford Company *Sole Manufacturers* Wyandotte, Mich.

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	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
TEXAS—							
Dallas	2.60	4	35	11	13	10–13	4.0
El Paso	3.00–3.10	5	35	11	14	12–14	3.6–4
Houston	3.15	9	..	..	16	..	4.7
UTAH—							
Salt Lake City	2.49	7	..	..	9–10	10	..
VIRGINIA—							
Newport News	4.20	5	50	15	17	18	3.8
Richmond	3.93*–4.05*	5	44	13	14	..	3.8
WASHINGTON—							
Everett	..	..	30	8	10	10	3.8–3
Spokane	2.50	5	34	10	12	12	4.0
Tacoma	2.20*	5	32	8	10	9–10	3.6
WEST VIRGINIA—							
Clarksburg	3.25	5	40	13	15	16	3.8–4
WISCONSIN—							
Beloit	2.50*	5	30	8	10	10	3.8–3
Kenosha	3.00	4	40	11	12	12–13	3.7
Madison	Butter Market Basis		36	9	10	10	3.7
Milwaukee	2.90*	4	30	9½–10	11	10–11	3.5–3
Racine	2.60	4	38	10	11	11	3.5
Oshkosh	Butter and Cheese Market Basis		..	9	10	10	4.0
Sheboygan Falls	Cheese Market Basis		..	10	11	11	3.
Wausau	2.40	3	..	9½	11	11	3.7

* Basic prices for fluid milk.

Table IV—February Cost Prices of "Standard Grade Milk" 3 5% B. F. for Cities Where Part of the Supply Purchased Through Country Stations.

Cities	Prices Paid Producers per cwt. raw Milk (Flat prices of 3.5% B.F. basis): F. O. B. City	Prices Paid Producers per cwt. raw Milk (Flat prices of 3.5% B.F. basis): At Country Stations	Freight Zones to Which Country Station Prices Apply
New Haven, Conn	$4.22*	$3.70*	28c rate
Washington, D. C.	3.60*	3.02*	35c 10-gal. can
Chicago, Ill	Unavailable	2.50	All
Baltimore, Md.	3.55*	2.97*	35c rate
Boston, Mass.	3.62*	2.88*	181-200 mile zone
St. Louis, Mo.	2.90	2.30	34c rate
Trenton, N. J.	3.41*	2.85*	41-50 mile zone
Buffalo, N. Y.	2.90*	2.62*	28c rate
New York, N. Y.	Unavailable	3.00*–3.05*	201-210 mile zone (53c rate)
Cleveland, O.	3.34–3.50	2.96–3.03	All
Philadelphia, Pa.	3.49*–3.52*	2.91*–2.95*	51-60 mile zone
Pittsburgh, Pa.	3.90*	3.15*	All
Dallas, Tex.	2.60	2.10–2.20	All

* Basic prices for fluid milk.

NOTE: At all places in the above tables where prices are not shown, the information was either not reported or i available.

NEW MILK CODE ACCEPTED BY DAIRYMEN OF LEXINGTON, KY.

The Lexington Dairymen's Association, Lexington, Ky., at a special meeting, endorsed and accepted the proposed milk ordinance, as modified at a recent conference of the City Board of Health and a committee appointed by the association.

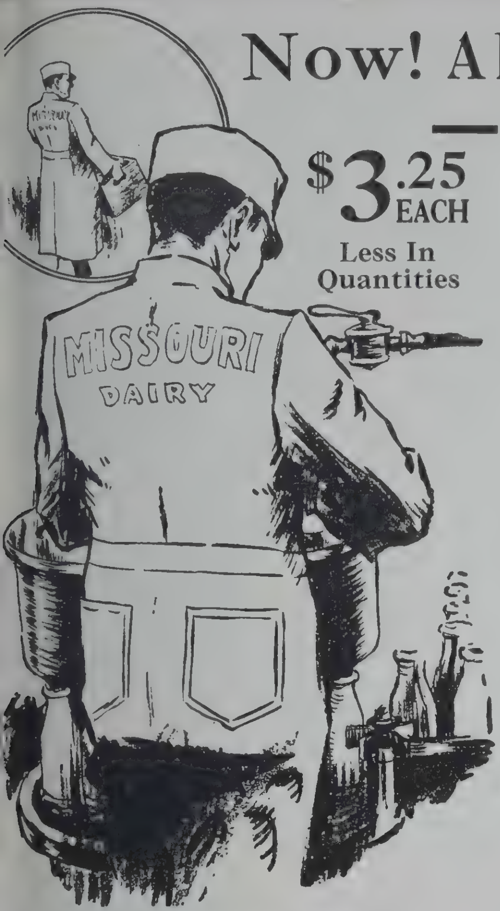
The revised ordinance next goes to the Board of City Commissioners, which is expected to give it favorable action at an early date.

The original ordinance provided that all milk be classified in three grades, A, B, and C, depending o bacterial count and standardized equipment neces for its production. Pasteurization was to be empl to improve the quality of the lower grades.

Instead of allowing the raw milk to be advanc grade by pasteurization, as set out in the original nance, the draft was modified at the last conferenc tween the board of health and the dairymen's commi so that raw milk could not be raised in grade by teurization process.

Prof. W. S. Anderson is president of the associa

Now! ALLOVA Garments in New Fabrics —*Stronger and Heavier*



$3.25 EACH

Less In Quantities

We have waited three years to make this announcement. Meanwhile, one of the finest cloth mills in the United States has been working diligently in our behalf, perfecting an overall cloth made according to our own standards and specifications.

And now it's ready! The Allova Work Suits, Work Coats and Caps you buy after March 1 will be made of our new material, with the name "Allova" at frequent spaces along the fabric. Thus you can identify the genuine "Allova Cloth."

These new fabrics are eight-ounce cloths, closely woven, and stronger, heavier, longer wearing! In order to guard against the inevitable shrinkage, we cut all garments oversize, and make them two inches longer than ordinary work clothes. Measure an Allova Suit against an ordinary work suit and see for yourself!

These precautions make Allova Work Clothing the outstanding value for the money—in comfort, in service, in long-wearing satisfaction!

Yes, Sir! These new Allova Work Garments are built for real service—"he-man" suits and coats, made in attractive colors, and lettered with the *individual name, trademark or monogram of the wearer!* Advertising that walks and talks!

Workmen take a new pride in their appearance and the appearance of the premises, when they are outfitted in Allova Garments. Snappy uniforms give an air of "class" to any place of business—and yet cost but little more than nondescript, shabby overalls.

Sturdy, one-piece, Allova Garments wear long and well. Cut big and roomy. Every seam stitched to stay. Pockets reinforced with double thickness of material. All buttons covered. Your choice of many colors: solid blue; solid white; solid khaki; blue and white striped; blue and khaki striped. Sizes 34 to 56.

$3.25 Each—*for Suits or Coats*

12 Suits or Coats	**$3.00** each
25 Suits or Coats	**2.88** each
50 Suits or Coats	**2.75** each

Sizes 46 to 56 are 10% additional.

Caps .... **40c** each

One Suit or Coat FREE with each dozen ordered at above price.

Your dry goods, department or clothing store can supply you ALLOVA suits at the above prices. If not, order direct from the Motor Suit Manufacturing Company.

We embroider names, trademarks or monograms in fast colors for 25c per garment. Choice of any color embroidery. 24 to 72 hour service.

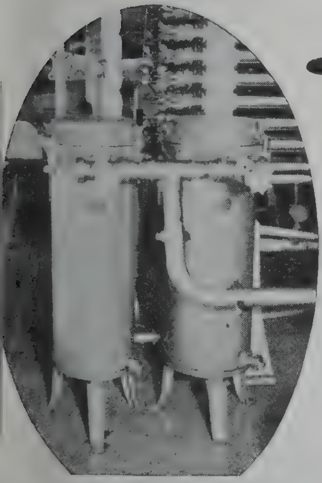
Order Allova Work Garments from your Jobber.

MOTOR SUIT MANUFACTURING CO.

—DEPT. 288—

Manufacturers Exchange Bldg., Kansas City, Mo.
327 S. Market St., Chicago, Ill.
107 N. Austin St., Dallas, Tex.
53-55 Walton St., Atlanta, Ga.

Why not FILTER *with a Ladd Filter?*



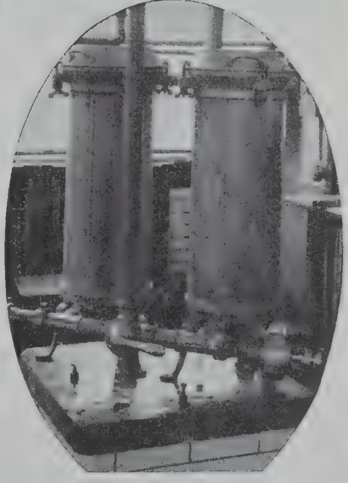
Two of the three No. 12 Ladd Tubular Filters of the Belle Isle Creamery, Detroit, Mich.

We have some outstanding reports of results from Ladd Filters. Don't you want to know more about them?

Remove visible and invisible dirt without affecting the cream line—

MOST ECONOMICAL TO BUY—
MOST EFFICIENT TO USE ——

We Have a Special Proposition for You



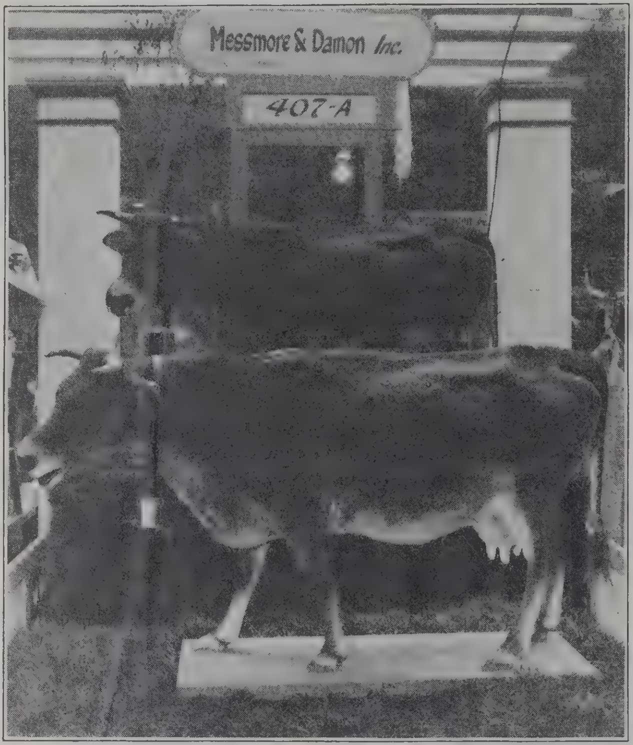
Two No. 12—Used by Risdon Creamery Detroit, Mich.

JOHN W. LADD COMPANY

DETROIT COLUMBUS CLEVELAND CINCINNATI

The Sensation of the Exposition!
—In Detroit

ANIMATED
Life-Like Cows
That Move Their Head, Eyes, Mouth and Tail



On display at J. L. Hudson's Department Store, Detroit, Mich. Between 6 and 7 P. M. over 3,200 people stopped to view these animals.

At the Exposition we have registered 500 representatives from the largest dairies and ice cream plants in the United States, Canada and Europe, making actual sales to these countries.

These cows will secure good locations for your displays. They will work for you night and day, bringing increased business and reputation.

If interested, write or wire for full particulars.

Messmore & Damon,
INC.
404 West 27th Street New York

ASSOCIATION NOW HAS 3,350 MEMBERS!

According to the announcement of C. E. Hough, ge eral manager of the Connecticut Milk Producers' Ass ciation, that organization has made a marked increase membership, volume of milk sold, a slight improveme in the average price of milk, and a very marked improv ment in the morale of the membership and standing wi the trade that purchases their milk.

The association now has a net membership of 3,3 Connecticut milk producers and the volume of busine in 1926 represented by their members at wholesale mi values was twelve million dollars. Ten million dolla of this milk was sold by contract through the associ tion and the remainder was sold either to small deale without contract or retailed by those who produced

Several resolutions were passed at the annual me ing, namely, one endorsing an area T. B. test law f Connecticut, another to continue support of the Connec cut Dairy and Food Council during 1927, another endo ing the sale of their milk by the pooling, or classifi plan, as well as several others on other subjects.

The following officers and directors will guide t affairs of the association during 1927: Robert C. Mitch president; Charles P. Viets, vice-president; George Harris, secretary, and J. Arthur Sherwood, treasur B. B. Norton, Cheshire; Philo T. Platt, Bethel; C. Pomeroy Willimantic; John Rankl, East Hampton; L. Thompson, Woodbury; George W. Treschman, Midd field; C Daniel Way, Andover; W. L. Wetmore, Winst Lester E. Williams, Northford; R. J. Averill, Washingt Depot; Jacob Beisegel, Woodbridge; S. McLean Bu ingham, Watertown; G. A. Collins, Broad Brook; C. Fieneman, Farmington; A. H. Gardner, Middletown; Samuel Gillette, Bristol; H. A. Healey, Seymour; Ned Kendall, Granby; Chas. N. Le Geyt, Barkhamsted; T man B. Miller, Farmington.

MANISON ANNOUNCES RESIGNATION.

G. N. Manison announces his resignation as prod tion manager of the Pfaudler Co. of Rochester, N. and advises he has joined the ranks of the Nickel F ricating Corp., with headquarters at Philipsburg, Pa. the capacity of manager of that firm's New York off

The many friends of Mr. Manison will be pleased hear that he has entered the sales field, and officials the Nickel Fabricating Co. have expressed confide that Mr. Manison's long experience will be a real vantage in his new work.

MIDDLESBORO MILK PLANT OPENED.

The most modern equipment available has been stalled in the plant of the Middlesboro Sanitary M Co. at Middlesboro, Tenn. The company expects to s be in a position to take care of a large trade. The p cipal owners of the business are W. S. Jaynes of T well, Grant of Tazewell, and W. G. Meador of Horrog

According to the present plans of the company, W Meador will be manager of the plant.

NORTHFIELD PLANT TO BUILD ADDITION

Plans have been completed for an addition to Northfield plant of the Twin City Milk Producers' A ciation, St. Paul, Minn., to be used as a sweet milk buttermilk drying unit. An accumulation of 40 pounds of skim milk necessitated the action.

The new addition will be 42 by 42 feet and machin will be installed to take care of from 40,000 to 80 pounds of milk daily.

Ice and Moisture Can't Harm a SEALRIGHT CAP

HOLSTEIN DAIRY
BUTTE, MONT.

1. The New Sealright Liftright Cap. Patented groove makes it easy as ABC to insert finger nail under tab and remove cap in a jiffy.

WM. J. BURBECK
COMPANY

2. The Improved Sealright Pouring-Pull Cap. Has same patented groove as new Liftright Cap. Opening in Cap for pouring or inserting straws. Ideal in home, school and restaurant.
3. Sealright Regular Standard Cap. The best and biggest selling regular standard cap in the world.

DEARY BROS.
DB
MILK

Note: The special Sealright Process drives hot paraffine into every fibre

NO milk user likes a soggy, leaky, delapidated cap on opening a bottle of milk. Such caps are unsightly, unsatisfactory. Sealright Caps protect you and your customers against such bugbears.

By a special process, which assures perfect sterilization, hot paraffine is driven into every fibre of the world-famous Fulton Board from which Sealright Caps are made. This treatment, plus the natural toughness of the Spruce made Fulton Board, makes Sealright Caps impervious to ice or moisture. They have the strength and firmness to resist the most severe conditions.

Sealright Caps print clear and bright. Uniform thickness and clean cut edges insure a perfect, liquid-tight seat in bottles as well as perfect operation in capping machines. There is a Sealright Cap for every need. (See illustrations and descriptions at left.)

And Sealright Caps are nationally advertised and nationally preferred. No wonder it pays to use them. Write today for *Free Samples* of the three greatest caps in the dairy industry.

SEALRIGHT COMPANY, Inc., *Dept. MD-3*
FULTON, N. Y.

Write today for Free Samples

"KEEP THE GOODNESS IN AND THE FINGERS OUT"

SEALRIGHT
Milk Bottle Caps

When writing to SEALRIGHT COMPANY, INC., *please mention The Milk Dealer.*

The Truth about Chocolated Milk

WE started it in the South at the Army Camps during the World War and it has now spread over the entire country and is a growing success where the Milk Dealers are using

CHOC-O-LISHUS

[TRADE MARK REG. U. S. PATENT OFFICE]

There is no reason for using imitations.
The original Choc-O-Lishus is just as cheap and it goes further.

It has the true Chocolate Flavor.
It is the best by test.
It deserves your support.

The manufacturers of Choc-O-Lishus are the oldest and largest manufacturers of Chocolate Syrup in the world.

THE CHOC-O-LISHUS CO.

NORFOLK, VIRGINIA

Subsidiary of H. B. HUNTER CO., INC.

When writing to THE CHOC-O-LISHUS CO. *please mention The Milk Dealer.*

Getting Quality into Powdered Milk

By Which Surplus Milk is Turned to Greater Profit!

THE Rogers Way of reducing Surplus Milk to its most concentrated form results in a product highly superior in texture, color, solubility and minimum moisture content.

Experienced buyers readily appreciate the quality milk powder made the Rogers Way. It assures a better market and a better market seldom fails to reflect itself in more profit for the seller.

The Rogers Way

Let us tell you all about the Rogers way of reducing surplus milk to powder—the market for the product and the experience of users.

USE THE COUPON.

C. E. ROGERS

731 Witt St. Detroit, Mich.

C. E. Rogers,
8731 Witt St., Detroit, Mich.
Tell us how to make more profit out of surplus milk.
Company ....
By ....
Street ....
City .... State ....

When writing to C. E. ROGERS *please mention The Milk Dealer.*

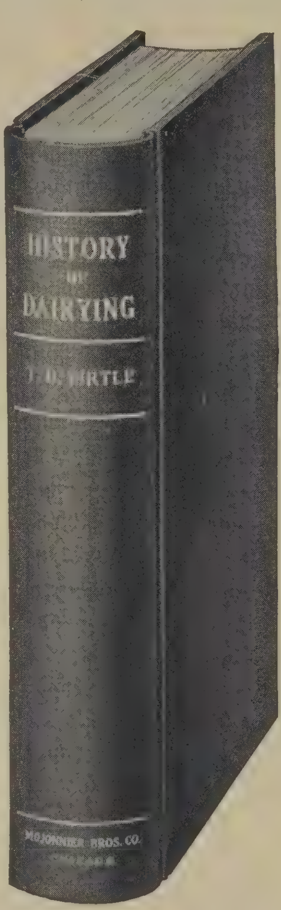
THE HISTORY OF THE DAIRY INDUSTRY.

A CONTRIBUTION to dairy literature of outstanding importance is the new book, "The History of the Dairy Industry" (of the world), published by Mojonnier Bros. of Chicago, just off the press.

The author of the book, T. R. Pirtle, assistant marketing specialist, bureau of agricultural economics, U. S. Department of Agriculture, Washington, D. C., has used exceptional brevity in treating each subject, and at times he covers many years in a single paragraph or sentence.

Few authors have attempted to handle a subject so broad and intricate covering all countries and reaching from the beginning of written history to the present time, and it is especially difficult as the dairy industry is so full of technical phases and has an ever changing application of great scientific discoveries. The undertaking is stupendous.

The book opens with a general resume of dairying in all countries, swinging rapidly from one country to another, briefly and connectedly picturing the cattle and dairy products, methods, trade, extent, and peoples of each country and bringing it connectedly down to the present time. In a word, showing the world trend in dairying down through the ages and its present status.



It is divided into five chapters: 1, United States; 2, Europe; 3, Australia, New Zealand and Asia; 4, Africa; 5, South America, Mexico, Central America and West Indies.

The book covers more than 600 pages and is profusely illustrated, having more than 200 pictures, covering various breeds of cattle, and prominent buildings, in foreign countries, and of interest in the United States. The pictures bring up many new points.

The style of the book follows an outline, giving first a picture of the natural conditions of the country and people, a picture of the cattle, then a picture of the development of cattle, and industry, with the extent of the industry at the present time closing the written portion. This, however, is followed by a table of the chronological events of the country and the statistics, with some special references.

Each country is treated singly but it is handled in such a way that there is practically no repetitions in the book.

Possibly the most interesting feature is the recording of the development of breeds of cattle, the methods of feeding, care and breeding, all to no purpose until the breeds were established and standardized, then the progress became permanent. This is followed by the cow testing associations to further develop the breeds of cattle and increase the milk yield and this in turn is followed by the co-operative association work to economize in the handling and selling of the product.

The chronological events are tabulated at the end
each country to show the trend and time of various pe
ods of development and the agents to which they w
principally due. An international table is also giv
which shows the trend of the world, placing the eve
in order of time regardless of country of origin. T
table is a new departure and corrects many false i
pressions and will be a great saving of time as a rea
reference.

The facts are noted often without a hint of the e
nomic urge behind them and yet they are usually c
nected in such a way that the reasons are visible with
giving the "ready-made" impression.

The general impression of the book is to make
feel that he has visited the countries and become
quainted with the people, the cattle and the industry.

The vast quantity of information brought toget
in this volume has been possible only by the autho
connection with the U. S. Department of Agriculture
many years. The author's connection with the dairy
dustry for years gives the weight to the volume and
doubt it will have a large place in the dairy indust

⚜

DETERMINATIONS OF FREE CAUSTIC IN PR ENCE OF OTHER ALKALIES BY MEANS OF TH NAFIS AUTOMATIC CAUSTIC TEST.

By M. E. Parker.

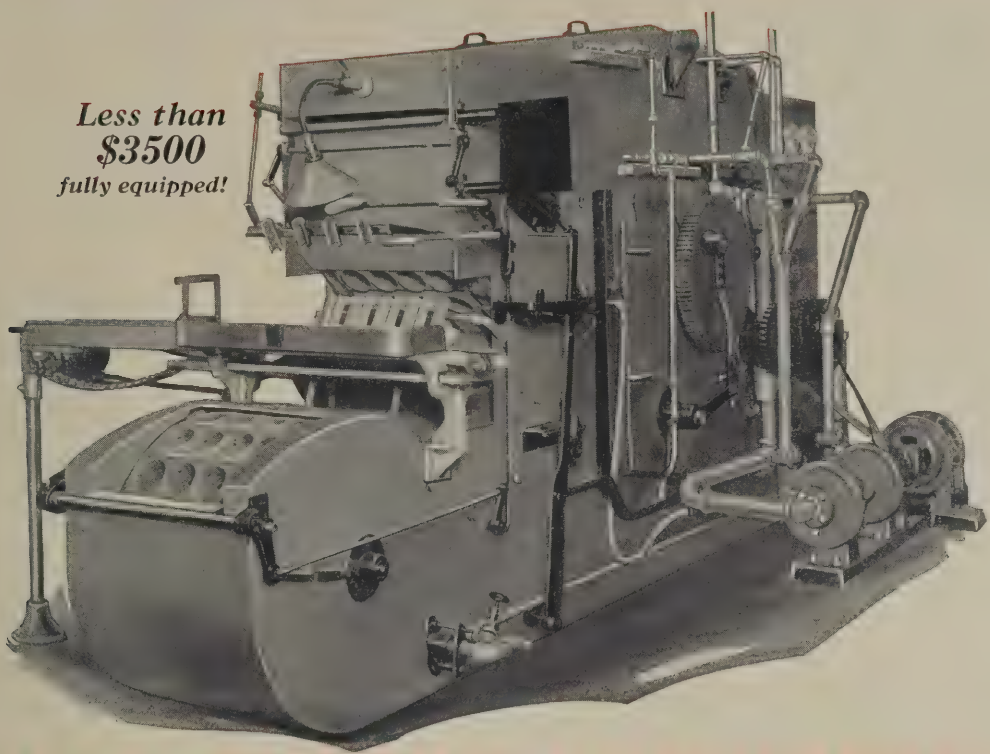
The analytical methods employed by the Nafis Au
matic caustic test as originally designed and descri
in a past issue have been found to be limited to
analysis of detergents containing caustic soda and s
ash (sodium carbonate). A modification developed
the result of recent research permits the analysis
washing compounds and detergent solutions contain
caustic soda in the presence of other alkalies such
tri-sodium phosphate, silicates, carbonates or alumina
This development gives this apparatus greater uti
for it can now be used for the determination of cau
soda in the presence of any other alkali or alkalies.

The new technique is as follows: Fill the dou
scale burette to zero. Add approximately 10 c.c.
saturated solution of barium chloride to the meas
sample by means of the measuring pipette. A w
flocculent precipitate will be formed. Add 3 drop
indicator No. 1 to the mixture, which will render
mixture a deep pink. Add neutralizer to mixture s
ly with constant stirring. Continue the titration u
an end-point is reached comparing with the color st
ard for indicator No. 1 contained in the stirring
The point on the "T" scale gives the percentag
caustic soda directly. Refill the burette to zero.
indicator No. 2 to the mixture. This will render
mixture a deep yellow. Run out neutralizer from
burette into the mixture with constant stirring.
tinue the titration which dissolves the precipitate
an end-point is reached comparing with the color st
ard for indicator No. 2 contained in the stirring rod.
fore end-point is reached, the mixture becomes a
solution. The reading on the "T" scale divided by
gives the percentage of residual alkali as soda ash.
reading on the "T" scale is added to reading obta
with indicator No. 1 in the first titration to give the
centage total alkalinity as caustic soda.

This modification is a technique developed from
well known analytical method of C. Winkler.

⚜

Need a good man for that new department of yo
You can get in touch with a lot of them through "
Milk Dealer" Want Ad Department.



Less than
$3500
fully equipped!

AN OUTSTANDING ACHIEVEMENT—
a real Soaker-Hydro at a price you can afford!

TO grow! To make more money! That's the ambition of every progressive dairy owner. *And right there's where the R & A Little Soaker-Hydro fits into the scheme of things.*

It gives the smaller plant the same type of bottle washing equipment that larger plants use, at a fraction of what the bigger machines cost.

It provides all the advantages of combined soaking and hydraulic washing methods—made exceptionally effective by the way the machine is designed.

It supplies a strong selling argument to use in soliciting new customers — "the most modern type of bottle washing equipment that the market affords." And, best of all, right back in your plant, the Little Soaker-Hydro will be living up to the best you can say about its performance!

It guarantees, through its utterly simple, tremendously strong construction, that your bottle washing difficulties are definitely at an end. It will give you 365 day a year service for years into the future with a minimum amount of maintenance and expense.

It is compact—16 feet long, slightly over 6 feet high. It is easy to install, easy to care for; and is so carefully designed that *only one safety-stop is required on the entire machine.* Three rows of pockets are always ready for loading. Feed and automatic discharge at one end of washer.

Every piece of metal, every mechanical unit in its construction is the best that money can buy for the purpose. One 5 H. P motor operates the entire machine, including the pumps.

Two sizes: 4 wide—32 bottles per minute; 6 wide—48 bottles per minute. Chlorinating attachment can be added if desired.

This is the kind of bottle washer you should have in your plant! Let us give you complete information with exact prices. The obligation will be all ours.

R&A

Rice & Adams Corp.
1141 Military Road
Buffalo, N. Y.

Little SOAKER-HYDRO BOTTLE WASHER

CUSTOMER
O.K.'s SHIPMENT

M-W Milk Can Jackets

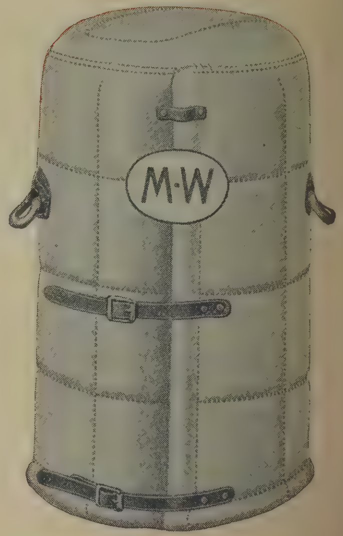
Protect Milk, Sweet Cream and Ice Cream Mix from extremes of temperature while in transit, insuring shipments arriving in good condition.

Increase your sales by reaching new territory and add to your profits by eliminating adjustments caused by shipments spoiling.

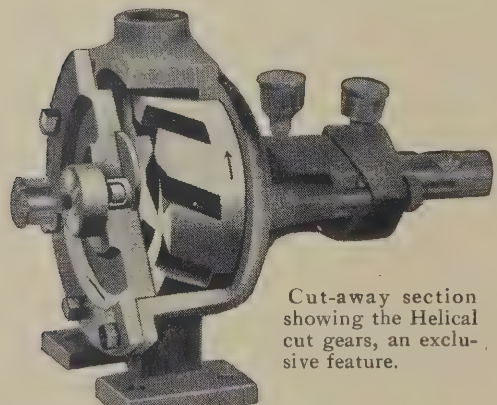
Milk or cream shipped in "M-W" Jackets is kept at a temperature that complies with requirements of the Health Authorities. Their use will please your customers.

Made by the manufacturers of the original
"M-W" Iceless Delivery Jackets
"The Jacket That Defies Heat"

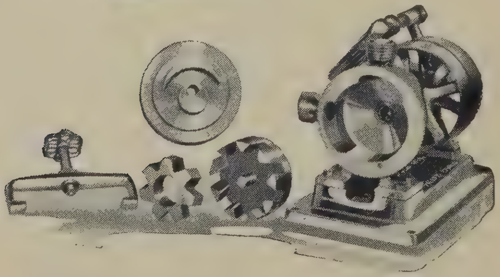
Montgomery - Washburn Co., **Saugerties, N. Y.**



The Perfection Rotary Pump



Cut-away section showing the Helical cut gears, an exclusive feature.



The Perfection Rotary Sanitary Pump
(Disassembled)

Note the extremely smooth inside finish and the accessibility. Open pockets, easily cleaned. Note, also, that there are only two moving parts, the internal gear rotor and the pinion. The rotor is supported by a bearing on both sides.

The Pump with the Shearing Cut

THE teeth of the rotor in the Perfection Rotary Pump work like a pair of scissors on an angle instead of head on like so many splashing buckets. Because there is no shock or strain it runs more smoothly and delivers a uniform flow.

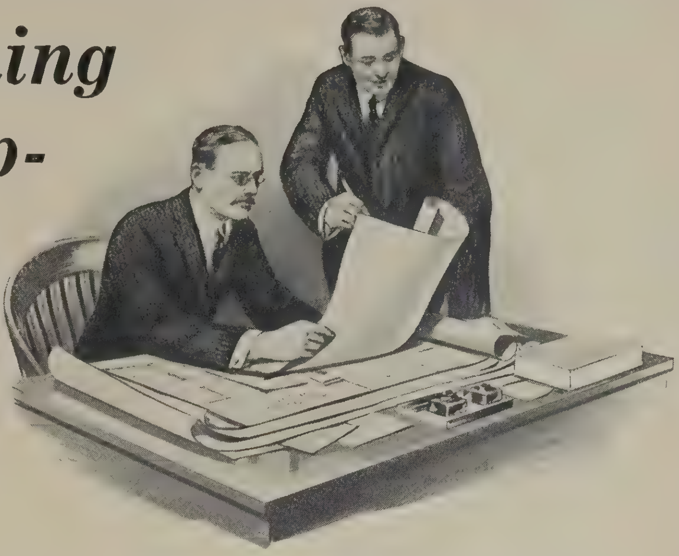
It is the ideal pump for milk or cream because the smooth running helical gears prevent excessive churning. And it is a **real sanitary pump.**

Made in Iron or Bronze, finished in gray enamel. Bronze pumps nickel plated if desired. Capacities 8 to 90 gallons per minute. Industrial types for water or brine. Mounted on base with tight and loose pulleys or with reducing gear for individual motor.

Write for catalog and prices.

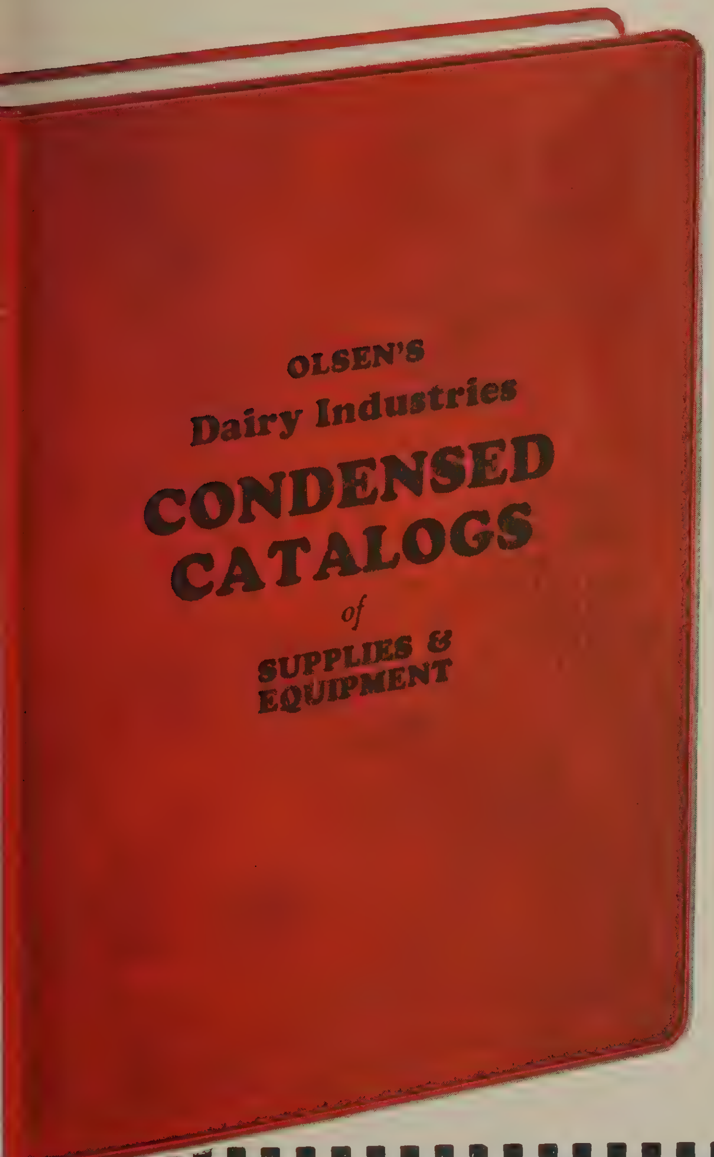
Perfection Manufacturing Co.
2187 East Hennepin Ave. **Minneapolis, Minn.**

hen You Are Planning Build, or Buy Supies and Equipment



NO matter what you need in machinery or supplies, you can find detailed information on the products of the best and largest manufacturers and suppliers in *Olsen's Dairy Industries Condensed Catalogs.*

Here in one heavily bound book, you will have complete *data and specifications* in standardized form of every important article or service used in the manufacture and distribution of butter, ice cream, milk, cheese, evaporated and powdered milk, etc.



A DATA BOOK for Your Desk

Always within reach, *Olsen's Dairy Industries Condensed Catalogs* is a valuable reference volume. It is completely classified and cross-indexed — a room full of individual catalogs condensed into one large book.

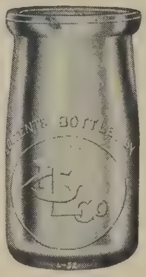
Every purchasing agent and buyer in the Dairy Products Industries should have a copy of this important and helpful book. It will be sent out on a registered loan basis only, free of charge, to be recalled each year and replaced with a new copy.

Olsen's Dairy Industries Condensed Catalogs will be completed within a few months. To reserve your copy, write a letter on your business stationery, stating your position. You will then be sure to receive a copy early, free of charge.

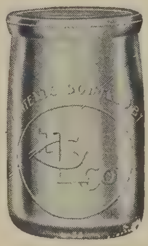
CATALOG DIVISION

The Olsen Publishing Co.
501-515 Cherry Street
MILWAUKEE WISCONSIN

CHEESE JARS



16 oz.



14 oz.

12 oz.

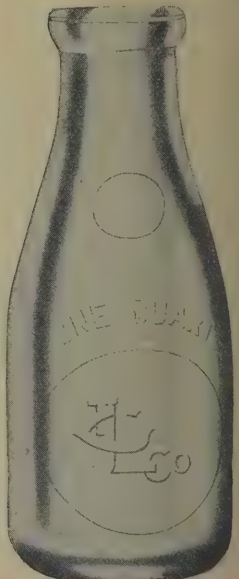
12 oz.

Glass Containers are:

THE MOST SANITARY
MOST SERVICEABLE
MOST ECONOMICAL

We make all standard sizes and shapes.

The Highest Development in Bottlecraft



SUPER Milk Bottle

Send for samples and information to ... .. .

The LAMB GLASS CO.

FACTORY AND OFFICES AT..... **Mt. Vernon, Ohio**

Chicago, Ill., *Chas. E. Ketcham, Mid-West Representative*
New York, N. Y., *W. W. Wallace, Eastern Representative*

COTTAGE CHEESE RECIPES.

(Continued from page 32)

Variations.—To utilize leftover cereals use one cup of cooked rice, oatmeal or corn meal mush with ¾ cup of bread crumbs.

Dry corn meal or finely ground oatmeal may be used for stiffening the mixture above, but in such case it is better to form into a loaf and bake it in the oven about 25 minutes.

Other seasonings may be used in place of those shown above.

The quantity of liquid will vary in every case. The mixture should be very stiff, as the cheese tends to soften it during the cooking.

Suggested breakfast menu. — Orange or grapefruit; cottage cheese sausage; corn bread or toasted Victory bread; coffee. For a heartier meal, include creamed potatoes.

* * *

Cottage Cheese Loaf No. 1.

1 cup cooked rice (dry and flaky).
1 cup cottage cheese.
½ cup ground peanuts.
1 cup bread crumbs (or more).
1 tablespoon chopped onion.
1 tablespoon savory fat or drippings.
¼ teaspoon soda.
1 cup strained tomato.

Mix well and form into a roll. Brush over with melted butter and bake in a moderate oven 25 minutes. Serve with a medium white sauce to which may be added 2 tablespoons minced pimientos.

* * *

Baked Bread and Cheese.

4 medium slices of bread, or 2 cups cold cooked rice (dry).
1 egg.
1 egg yolk or an egg white.
2 cups milk.
¼ teaspoon salt.
Cayenne pepper.
Butter.
1 cup cottage cheese.
¼ teaspoon soda.
½ teaspoon onion juice.
Parsley and pimiento, or piccalilli or chili sauce; nuts if desired.

Butter the bread and cut the slices in squares or triangles. Place a layer, buttered side down, on the bottom of a large shallow buttered baking dish. Dissolve the soda in a little of the milk, and with it mix the cheese to a soft cream. Add parsley and pimiento or sauce if desired. Spread a thick layer of the cheese lightly over the bread, and cover with the rest of the bread, buttered side up. Beat the eggs well, mix them with the milk and seasonings, and pour them over the bread. Bake in a slow oven till a knife blade thrust into the custard comes out clean. If the milk is heated and added gradually to the beaten egg, and the baking dish is set in a pan of hot water, the custard cooks more quickly and is less liable to curdle through becoming overheated.

Variations.—Corn muffins, barley or oatmeal bread may be used instead of white bread. This dish may be made into a hearty sweet pudding by omitting the onion juice and other seasonings, and substituting two to three tablespoons of sugar, or an equivalent sugar substitute, and raisins or dates, nutmeg or cinnamon, with other spices if desired.

Supper or luncheon menu. — Baked bread and cheese, green salad or crisp fresh vegetable, toasted corn muffins, coffee or Russian tea. fresh or canned fruit. For a heartier meal add baked or hashed brown potatoes.

* * *

Cottage Cheese and Potato Croquettes.

1 cup cottage cheese.
2 tablespoons chopped parsley.
1 rounding teaspoon chopped green pepper.
¼ teaspoon soda.
½ teaspoon salt.
Dash of cayenne.
Dash of paprika.

Mix these ingredients very thoroughly and form into small rolls. Then embed the rolls in mashed potatoes which have been seasoned with salt and pepper, forming a larger roll of each. Roll the finished croquettes in egg and bread crumbs and fry in a pan containing about one tablespoon of hot fat, or brush with melted fat and brown in a hot oven.

* * *

Hashed Brown Potatoes with Cottage Cheese.

Chop cold boiled potatoes fine and season them well with salt, pepper, and onion juice. Turn upon a hot frying pan lightly greased with savory fat, and cook the potatoes slowly without stirring till they are browned next the pan.

Meanwhile soften a generous quantity of cottage cheese with cream or milk till it will spread easily. Mix with it any desired seasoning, such as chopped parsley or pimientos, a little leftover ham or bacon, chili sauce or piccalilli, and spread it over the potatoes. Let the mixture stand long enough to warm and soften the cheese; then fold over the potatoes, like an omelet, turn it upon a hot platter, and serve at once.

Many persons enjoy the slight acid flavor of the cheese with this dish. If desired, however, the acid of the cheese may be neutralized by adding ¼ teaspoon or more of soda for each cup of cheese.

Suggested supper menu. — A little cold meat, thinly sliced; hashed brown potatoes with cottage cheese; salad; tea or coffee; warmed-up corn muffins; apple or berry pie.

* * *

Creamed Potatoes and Cottage Cheese.

Reheat cold diced or sliced potatoes in medium white sauce with cottage cheese. The best seasoning for this sauce is a slice of onion added to the milk while heating and chopped parsley and pimientos; ⅔ cup of potatoes and ⅓ cup of sauce make a generous serving.

Boiled new potatoes may be served whole with this sauce.

* * *

Cottage Cheese Dressing.

½ cup milk.
¼ cup vinegar (not too strong).
1 egg.
1 cup soft cottage cheese.
1 cup sour cream, whipped.
1 teaspoon salt.
1 teaspoon mustard.
½ teaspoon paprika.
2 teaspoons flour.
1½ teaspoons melted butter.

Method.—Mix the dry ingredients together and cream them with the melted butter. Add the creamed mixture to the heated milk and stir until very thick. After the mixture has boiled, add vinegar slowly, stirring all the while. Cool slightly and add beaten egg. Put the cottage cheese through a sieve if necessary to break up lumps. Using an egg beater, beat the cottage cheese gradually into the dressing until smooth. Lastly fold whipped cream into dressing.

* * *

Fried Bread With Cottage Cheese.

Spread slices of stale bread thickly with cottage cheese, with which pimientos, nut meats, or some marmalade or jelly has been blended. Dip in a mixture of egg and milk, and fry quickly in butter or other fat.

Variation.—The egg and milk may be omitted, and the bread may be fried lightly in a very small quantity of bacon fat.

(Continued on next page)

NAPACANS
FOR
COTTAGE CHEESE

MANUFACTURED BY
W.C. RITCHIE & COMPANY
831 W. VAN BUREN ST.
CHICAGO, ILL.
Page's
COTTAGE CHEESE
THE PAGE DAIRY CO.
TOLEDO — OHIO

Cottage Cheese Pie.

- 1 cup cottage cheese.
- ⅔ cup sugar.
- ⅔ cup milk.[1]
- 2 egg yolks, beaten.
- 1 tablespoon melted fat.
- Salt.
- ¼ teaspoon vanilla.

Mix the ingredients in the order given. Bake the pie in one crust. Cool it slightly and cover it with meringue made by adding two tablespoons of sugar and ½ teaspoon of vanilla to the beaten whites of two eggs and brown it in a slow oven.—New York State College of Agriculture.

[1] One tablespoon of cornstarch stirred smoothly into the milk will prevent the custard from separating in the oven.

* * *

Old Dutch Cheese Cake.

The rule is the same as that for the filling of the cottage cheese pie, except that the milk should be reduced to ½-cup, two tablespoons cornstarch should be used, and the flavoring usually is of lemon juice and rind with mace or nutmeg. White corn sirup may be substituted for part of the sugar if the milk is reduced in proportion. Bake 25 minutes in a moderate oven, or until brown. This makes a very firm custard.

* * *

Spiced-Cheese Pudding.

- 2 slices stale bread.
- 2 eggs.
- ½ teaspoon salt.
- 1 cup milk.
- 1 cup cottage cheese.
- ¼ teaspoon soda.
- ½ cup sugar.
- ¾ cup seeded raisins.
- ½ teaspoon allspice.
- ¼ teaspoon mace.
- ¼ teaspoon cloves.

Cut the bread into cubes and place in a greased baking dish. Beat the yolks and whites of the eggs separately. Blend with yolks the milk, salt and sugar, and cheese, to which the soda has been added. Add the spice and chopped raisins and lastly fold in the stiffly beaten whites. Pour this mixture over the cubes of bread and bake like a custard in a moderate oven.

If desired the white of one egg may be beaten separately, sweetened wih one tablespoon of sugar, and spread over the top of the pudding just before removing it from the oven.

Corn muffins or cold rice cooked dry and flaky may be substituted for bread.

* * *

FOUR SANDWICH SUGGESTIONS.

Cottage cheese, tomato, lettuce and mayonnaise dressing.

Spread layer of cottage cheese and then layer of jam generously on brown bread.

Grind few stuffed olives, add two tablespoonfuls walnut meats; blend with one-half pound cottage cheese and mayonnaise to taste.

Hard boiled egg, ground; cottage cheese, mix with salt and mayonnaise.

* * *

COTTAGE CHEESE-RAISIN SANDWICH.

Raisins, dates or prunes softened by soaking and then mixed well through cottage cheese and spread on Boston brown bread makes another delicious sandwich filling.

* * *

COTTAGE CHEESE OMELET.

A luncheon dish that's different. Two eggs beaten separately; to yolks add two tablespoons milk and two tablespoons ground pimentos, one-half teaspoon salt, and two heaping tablespoons cottage cheese; fold in egg whites. Cook in frying pan with one table-

SANS, Meaning *Without!*

Without

Extra Advertising
Extra Salesmen
Extra Manufacturing Expense
Extra Packaging Expense
Or Better Milk

You can secure a 50 per cent increase in your cottage cheese sales. Learn our method of making *flaky, creamy, low-in-acid* cottage cheese.

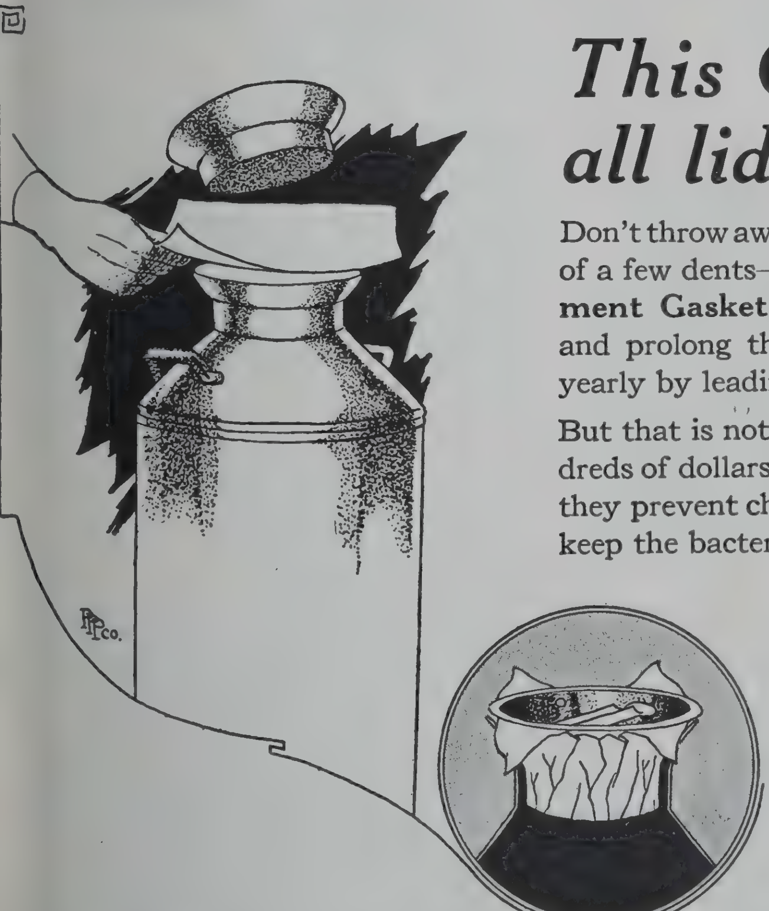
The largest and best dairy companies report a 50 per cent increase after learning our method.

Without obligation to you, we will be glad to send full details.

Write us about it TODAY!

Flake Cream Cottage Cheese Co.

601 MILWAUKEE AVE. **CHICAGO, ILLS.**



This Gasket makes all lids fit like new!

Don't throw away perfectly good cans or lids because of a few dents—use **Paterson Vegetable Parchment Gaskets.** They make all lids fit like new and prolong the life of every can. Millions used yearly by leading milk shippers.

But that is not all! Parchment Gaskets save hundreds of dollars worth of "spilled milk and cream"; they prevent churning of cream in the lid and help keep the bacterial count where it belongs.

Parchment Gaskets are easy to use. They come cut to size in packages of 1000. **Soak them thoroughly in clean water,** place over neck of the can and jam down the metal cover.

Samples and prices from your
Dairy Supply House or write direct

The Paterson Parchment Paper Co.
Passaic, New Jersey

spoon butter; brown on top in oven. Serve hot.

* * *

COTTAGE CHEESE-NUT SANDWICH.

Chopped nuts and cottage cheese, to which a little mayonnaise has been added; mixed well and spread on thin slices of graham bread make a delicious sandwich.

* * *

COTTAGE CHEESE CLUB SANDWICH.

Toast three slices of bread on one side only. Butter and cut in triangles. On the untoasted side of two triangles spread cottage cheese thickly and dot with jam. Lay two more toast triangles on, and on these lay strips of crisp bacon, a slice of tomato and a bit of cress or lettuce, and spread lightly with mayonnaise. Put other two triangles of toast on top and serve with garnish of dill pickle and ripe olive.

* * *

COTTAGE CHEESE PINEAPPLE SALAD.

On a nest of lettuce leaves place a slice of pineapple. Heap cottage cheese in the center and cover with mayonnaise or whipped cream. A dash of paprika adds much to the appearance of the dish.

* * *

COTTAGE CHEESE IMPERIAL SALAD.

Mix chopped pecans with cottage cheese, form into balls, roll them in finely chopped nuts, and place in cavities of pears. In forming cheese balls add pinch of cornstarch to each ball and they will shape much easier. Serve on lettuce leaves with either French dressing or mayonnaise and garnish with strips of pimento.

* * *

COTTAGE CHEESE PIE.

Line a deep pie plate with pie crust, and add the following: Three well-beaten eggs, one cup cottage cheese, one cup of shredded cocoanut, nine tablespoons of sugar, one teaspoon of nutmeg, two cups of milk or enough to fill the pie plate. Bake as you would custard pie, being careful to reduce the heat to prevent it becoming watery.

* * *

OLIVE AND NUT SALAD.

To a cup of ground olives and a half-cup of nut meats chopped fine, add one pound of cottage cheese combined with mayonnaise. Heap on crisp lettuce leaves and garnish with mayonnaise—topped with stuffed olives.

* * *

COTTAGE CHEESE RAREBIT.

1 cup cottage cheese
1 tablespoon butter
1 egg
4 tablespoons skim milk

Put cheese and butter in saucepan, add pepper, salt and a dash of mustard to taste, then add milk and egg; stir until cheese melts. Pour over hot buttered toast. Do not heat very long, as cheese will become stringy.

* * *

COTTAGE CHEESE FRUIT COCKTAIL.

1¼ cups cottage cheese
¼ cup diced pineapple
¼ cup diced orange
¼ cup shredded dates
1 tablespoon sugar
½ cup whipped cream
juice of one lemon

Mix the diced fruit, sugar and lemon juice together. Fill sherbet glasses quarter full, add heaping tablespoon cheese and fill with fruit, top with whipped cream and add a maraschino cherry.

* * *

STUFFED CELERY.

Cut small can pimentos very fine and mix with one-half pound cottage cheese. Add mayonnaise to taste. Spread on celery, arranging three slices of stuffed olive on top.

TOMATO AND COTTAGE CHEESE SALAD.

Choose medium sized tomatoes, peel and slice very thick.

Drain well and wipe each slice. On top of each slice put a thick layer of cottage cheese mixed with chopped green pepper. Cover all with French or mayonnaise dressing and serve on lettuce. Pimento may also be chopped in with the cheese.

* * *

CELERY AND CARROT SALAD.

To two cups of cottage cheese mix one-half cup of raw carrots and one-half cup celery minced or ground. Pile on lettuce leaf. Add tablespoon of mayonnaise and dash of paprika. Serve with brown bread.

* * *

COTTAGE CHEESE SUNDAE.

To a serving of cottage cheese, pour over it sweetened, crushed fresh fruit. Jam makes a lovely combination. Serve with crisp wafers.

* * *

COTTAGE CHEESE GOLDEN WEST SALAD.

Drain and chill halves of peaches. Place halves on hearts of lettuce and fill centers with chopped celery, salted almonds and cottage cheese with which mayonnaise has been mixed. Garnish top of each with a dash of mayonnaise and a whole almond.

* * *

STUFFED EGGS.

To the yolks of three hard boiled eggs, add three tablespoons cottage cheese. Season to taste with salt, pepper and mayonnaise. Fill cavity in egg whites, letting stuffing mound high. Garnish with fine strip of pimento laid lengthwise.

* * *

COTTAGE CHEESE TEMPTATION

12 slices bread
¼ teaspoon salt
¼ pound cottage cheese
1 large green pepper
1 can condensed tomato soup
6 teaspoons butter, pinch of pepper

Trim crusts from bread and spread one side of each with cottage cheese. Place two slices together with unspread sides out. Put three tablespoons of butter in frying pan, brown the sandwiches on both sides in it. Remove to platter and keep hot. Then melt one tablespoon butter in same pan, add green pepper, seeded and chopped fine and cook until it is tender. Add tomato soup, salt, pepper, and pour over the sandwich. Sprinkle the top with cottage cheese and serve hot.

* * *

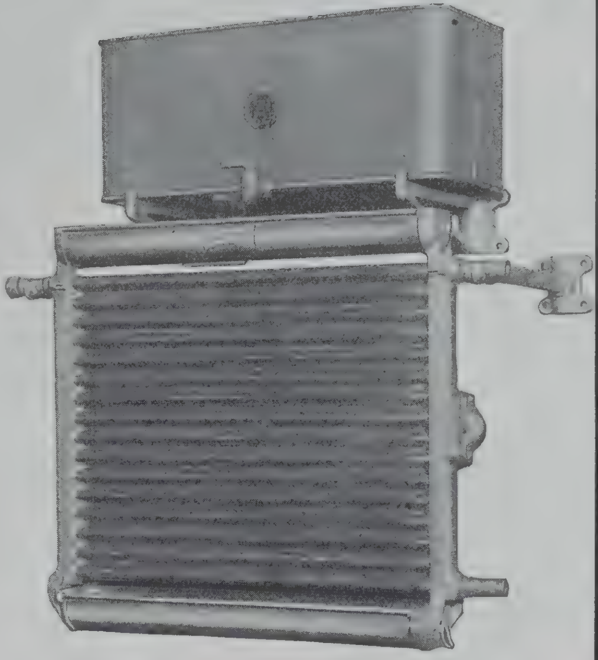
COTTAGE CHEESE CAKE

1 pound cottage cheese
½ pint whipped cream
1 cup sugar
3 eggs
2 tablespoons flour
vanilla

Beat these ingredients to a smooth paste. Line a bake tin about two inches deep with a crust made of one package of zweiback rolled to a flour, mixed with one-half cup melted butter, three-fourths cup sugar, one teaspoon nutmeg and cinnamon mixed. Fill this crust with the first mixture, and cover top with some of the crust sprinkled over. Bake in slow oven until the filling is firmly set.

Any of our readers who may wish to use these r
are permitted to do so. We can even furnish them,
with others, and your firm name printed in a small f
at moderate cost.

Many progressive milk dealers are buying Bestov Farm Coolers IN QUANTITIES



If you endeavor to maintain a high quality standard for your bottled product, it is necessary to work with your producers and encourage them to supply clean, sweet milk.

Warm weather is approaching and proper cooling methods on the farm will be imperative.

Why not take a constructive part in this cooling problem, as many progressive dealers are? Furnish your producers with the finest type of dairy cooler made—there are several ways of getting them in use throughout your country district, and there are many advantages for you to have efficient, sanitary coolers in use.

Bestov Farm Coolers are built of copper and bronze to last a lifetime. They are easy to keep clean and to use. Brine or spring water or both under pressure, may be used. Built just like the coolers in your own plant, they cool milk down to within a degree or so of the cooling medium.

Guaranteed
against
a pressure of
150 Pounds
water or brine

Several capacities are offered with or without pump, stand, reservoir, covers, etc. A BULLETIN will give you all details. Ask for a copy from your nearest DAIRY SUPPLY HOUSE —or direct to Cherry-Bassett Company, manufacturers of Bestov equipment for handling milk products.

Cherry-Bassett Company

Philadelphia
Pittsburgh Baltimore
Syracuse New York City

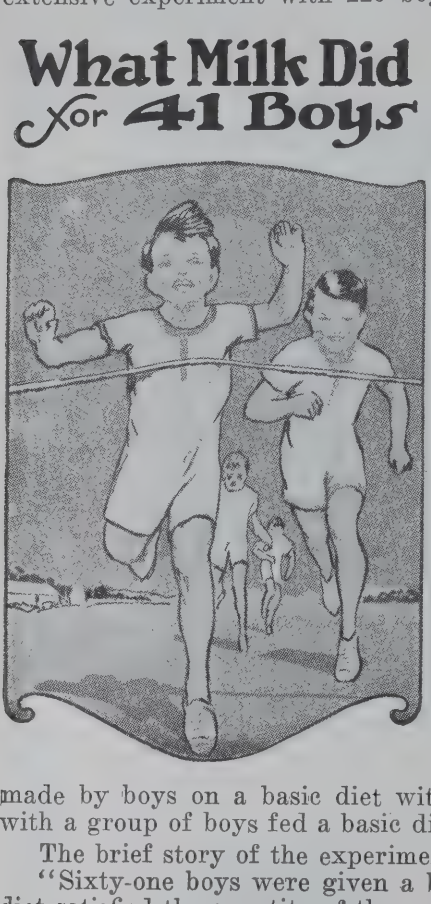
CHERRY-BASSETT COMPANY
TRADE MARK
BESTOV
MILK PRODUCTS EQUIPMENT

ENGLISH EXPERIMENT ON VALUE OF MILK IN BOYS' DIET PRINTED IN LEAFLETS FOR MILK DEALERS.

Experiments showing the food value of milk and the growth and health promoting qualities of nature's nearest to perfect food have been conducted with animals for a good many years in America.

However, doctors who have been studying undernourished children and the lack of proper diet among children in industrial sections of London, England, decided a few years ago that the best means of teaching parents the proper value of foods and of impressing upon them the value of dairy products was to outline an extensive experiment with 220 boys, covering a period of four years. The results of this study of child diet have just been published in leaflet form by the National Dairy Council, Chicago.

This leaflet, small enough to make an excellent enclosure with statements sent by milk dealers or for special mailing to their customers or prospects, has been regarded as so important that several thousand of them are now available from the National Dairy Council. It is called "What Milk Did for 41 Boys" and contains a brief story of the experiment, along with charts showing the rapid gains made by boys on a basic diet with milk, as compared with a group of boys fed a basic diet only.



The brief story of the experiment is as follows:

"Sixty-one boys were given a basic diet. The basic diet satisfied the appetite of these growing boys and **apparently** was all that was needed. During the first year these boys increased in height 1.84 inches and gained an average of 3.85 pounds.

"Another group of boys, forty-one in number and as nearly like the group of boys fed the basic diet as possible, were fed a pint of milk a day in addition to the basic diet. As a result their gain in height was 2.63 inches and their gain in weight 6.98 pounds. In other words their increased gain in height, because of milk, was 42 per cent, and their increased gain in weight, because of milk, was 81 per cent over the basic gain.

"The basic diet varied from day to day and consisted of selections from the following: Potatoes, bread, beef, pork, herring, kipper, sausage, dumplings, cabbage, beets, beans, peas, porridge, "Hoosh," lettuce, molasses, sugar, cheese, cocoa (containing a total of two to four ozs. of milk daily), margarine, jam, raisin suet pudding, rice pudding and cake.

"It is to be noted that no preference was shown in selecting the groups of boys. They were as evenly balanced as was possible to make them. The entire experiment was planned and conducted under the supervision of the Medical Research Council, under the Privy Council of England.

"The differences in gains were the result of the fo and nothing else, inasmuch as the housing conditi were the same for all the children, their activities w the same, and the same factors prevailed in all cas except with respect to food.

"Apart from the marked gain in weight and heig which is shown by the boys who are receiving the ex milk ration, there is also a general improvement in th physical condition.

"There was absence of illness during the winter 1923 and 1924 among the boys with the milk ration, though in other houses in the village the sickness r has been somewhat higher than usual.

"After eighteen months observation a casual visi entering the dining hall where the boys of ninete houses sit at table would never fail to recognize the ta of that house which was alone receiving the extra rati of milk, the boys of that house being obviously more than those of any other house."

We are informed that dealers may secure these le lets in any quantity at cost prices by writing to the N tional Dairy Council, 910 S. Michigan Ave., Chica More than half a million of them are being printed national distribution.

* * *

RATES RULED REASONABLE.

In a report to the Interstate Commerce Commissi Examiner Bronson Jewell states that commodity rates canned goods and canned milk from Central and Illin territories to New Orleans, Memphis and other points the lower Mississippi Valley are neither unjust nor reasonable. The rates were assailed as unjust and reasonable in complaints filed by the National Canne Association and the Carnation Milk Products Compa The report reads in part as follows:

Nominally the complaint in No. 17776 brings in issue rates on canned goods from all points in Central and Illin freight association territories to the Valley, but the evide was directed to the general level of rates under attack not toward the question of the proper relationship of ra within the originating territories. Accordingly this rec affords no basis for a disturbance of this present adjustm or, for the same reason, any change in the existing relati ship between points in the territory of destination. U these questions no opinion is expressed in this report.

The commission should find that the rates assailed canned goods, including canned milk, in carloads, from poi in Illinois association and central territories to Mempl Tenn., New Orleans, La., and other points in the lower M sissippi Valley are not unjust or unreasonable.

Upon consideration of the record the former finding t the rates from Middleton should not exceed the contem raneous rates from Madison by more than two cents sho be reaffirmed. The commission should further find that rates from Richland Center, Chilton, Berlin, Sparta and Nei ville, and any other points no further distant, figuring m ages through Madison where less than through Chicago, and for the future will be unreasonable to the extent t they exceed the contemporaneous rates from Madison a Milwaukee to the same destinations by more than eight ce per 100 pounds; and that rates throughout the balance of territory here considered are not unreasonable or otherw unlawful.

An appropriate order should be entered.

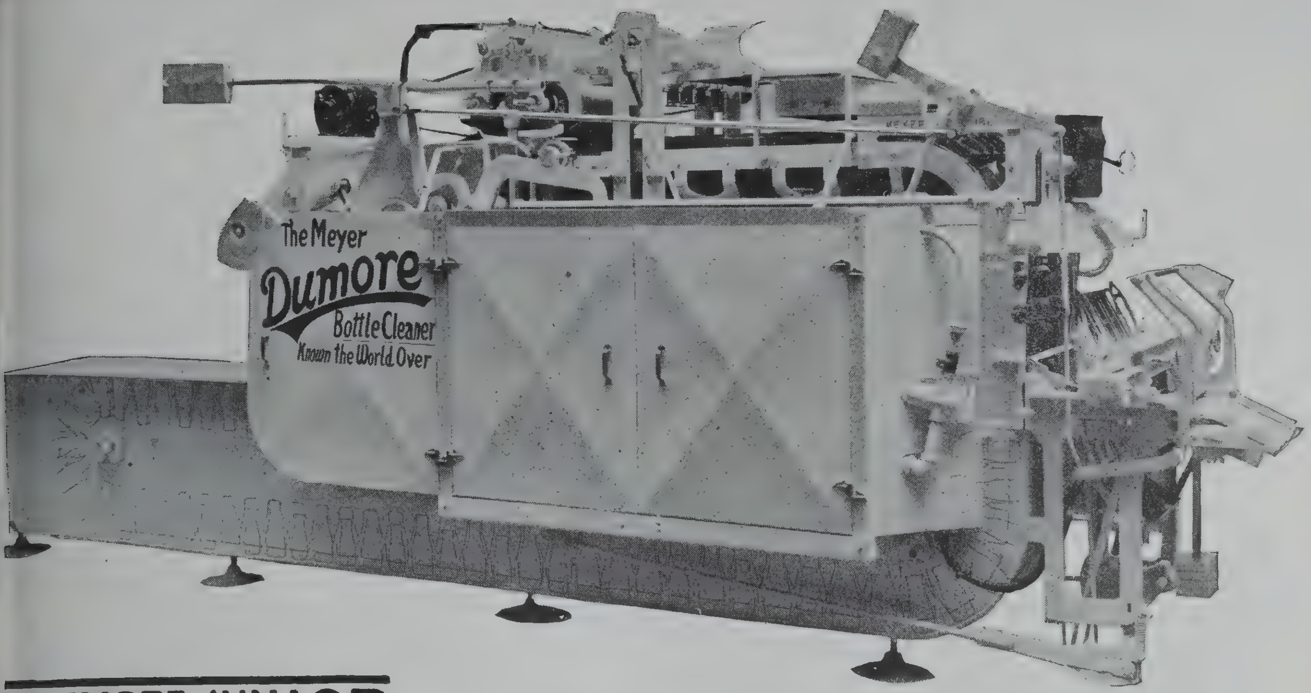
* * *

THE REASON WHY.

Little Freddie, an only son, was having a childish ar ment with Billy, youngest of a neighbor's family. The cussion seemed to be about which of the two was the bet fighter. Billy, thus far, had the advantage of the word bat

He said: "Why, Freddy, you're seven years old and can't lick Buddy Gordon; and I'm only six and I've lick him twice!"

Freddy was silent for a few seconds, then exclaim "Yes, but the milkman brings you four bottles of milk a us only two!"



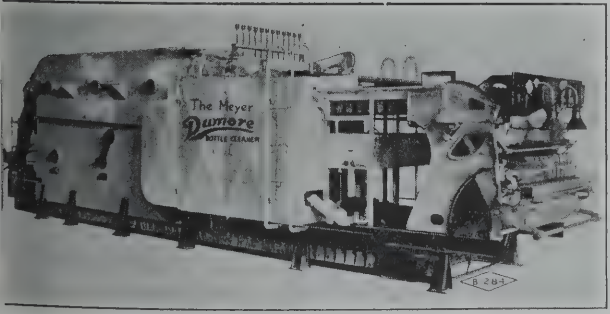
DUMORE-JUNIOR BOTTLE CLEANER

Capacity 24 to 60 bottles per minute.
Bulletin B-36

Sales Record
102
DUMORES
sold in
97
Business Days

MEYER-DUMORE BOTTLE CLEANER

Capacity 60 to 200 bottles per minute.
Bulletin B3-A



The DUMORE-JUNIOR Bottle Cleaner

To the milk plant operator we offer this highly developed and highly efficient, modern bottle cleaner. We are the originators of the only successful out-of-the-case bottle-cleaning machinery. We pioneered the Dumore milk bottle cleaner. Over 350 of these are now in use.

The Dumore Junior, which has been in use for over 10 years, is a typical Meyer product. It embodies all the well known Meyer bottle-cleaning principles, and offers the same dependable service as its big brother—the Dumore Bottle Cleaner. The machine illustrated here, equipped with pre-rinse loader, is made in two sizes, and delivers 24 to 60 clean bottles per minute.

And we guarantee that every bottle is bacteriologically clean!

Dairy and Ice Cream Machinery and Supplies Association Inc.
Associate Member National Association of Ice Cream Manufacturers

The Dumore Junior should be in your plant! It can give you a quality and amount of service that will exceed your greatest demands. We can confer with you and offer you the services of our experienced dairy plant engineers. Write for Bulletin B-36, and we will be glad to send you complete information regarding all the practical advantages of the Dumore Junior.

Geo. J. Meyer Manufacturing Company
Largest Builders of Bottle Cleaning Machinery in the World.
569 Barclay Street, Milwaukee, Wis.
Offices: NEW YORK and CHICAGO

When writing to GEO. J. MEYER MANUFACTURING CO. *please mention The Milk Dealer.*

MIKE THE MILKMAN

MILK BOTTLE STORIES

Milk bottles tell me stories and secrets, yes they do, revealing inner natures of people, through and through! I may be just a driver who makes a morning drive, but you can bet my brainlet is very much alive. One woman on her doorstep leaves bottles sleek and clean; day after day no dirt-streaks are ever, ever seen. That woman is a dandy as mother and as wife; her husband and her kiddies must have a happy life! Another leaves the bottles with curdled milk inside, a place for germs to gather, and speculate, and hide. I'm sorry for HER husband, and for her kiddies too; she's slovenly, I'll warrant, and careless, through and through! Another places bottles in orderly array, and is as prompt as taxes, the very best of pay. I'll bet her home is nifty, I'll bet it's spick and span; if hubby minds his knitting he'll be a wealthy man. Another drops her bottles at random, here and there. She's inexact in business, her husband needs a prayer; her money must go slipping the great toboggan plank; she does not watch her pennies—I hope that I am frank! Another KEEPS the bottles, some two or three per week. She may not be dishonest, but has a scad of cheek! She takes them to the grocery and turns them in for tea, and feels she's cute as Cupid and much too sleek for me! Poor soul! Her kids, I'm certain, will learn that mother steals, so shout a might "ditto," and tackle crooked deals! Yes, bottles tell me stories, they whisper in my ear, they tell me who is honest, they tell me whom to fear; they tell we who is shiftless, and who is prompt and neat; they tell me who's an angel, they tell me who's a cheat! By harking to the stories that bottles have to tell, I serve my boss, I'm certain, one hundred times as well!

⚜

ANNUAL LOSS OF MILK BOTTLES ESTIMATED AT $15,000!

Members of the Superior Milk Dealers' Association, Superior, Wis., are optimistic as to the results of their campaign to round up and keep a check on all lost milk bottles.

According to President G. H. Davis, the annual loss from bottles unrecovered in Superior is placed at over $15,000, which is a staggering loss for the business in that vicinity.

MUNICIPAL TUBERCULIN TEST REQUIREMEN

Milk Inspector Letter No. 112, Bureau of Dairy Indust

With the development and increased accuracy of t tuberculin test as applied to dairy cattle for the det tion of tuberculosis, sanitarians and health officials ha advocated its use as one of the desirable features co nected with the control of municipal milk supplies.

A study of milk ordinances of 250 American cit shows that both the large and the small cities appre ate the value of this test. The following table giv a summary of the tuberculin test requirements of th cities.

As shown by this table, 69, or 27.6 per cent, of t city ordinances studied required that all milk, wheth sold as raw milk or to be pasteurized, should be fr tuberculin tested cows.

Many ordinances require that all milk sold to t consumer as raw milk be produced from tubercu tested cattle, permitting milk which is to be pasteuriz to come from nontested cattle. One hundred and eigh eight, or 75.2 per cent, of the cities have this provisi It will be noted that a greater percentage of the cit in the two largest population groups require that r milk be from tuberculin tested cattle than do the cit in the smaller population groups.

Sixty-two, or 24.8 per cent, of the cities studi make no mention in their ordinances regarding the berculin test. A big majority of such cities have a p ulation of 50,000 or less. In this tabulation certifi milk requirements are not included. The tuberculin t for cattle is one of the requirements for certification milk no matter in what locality it is produced.

Tuberculin test requirements for market milk in 250 citie

Population group	Cities requiring tuberculin test				Cities stating requirements		To cit
	All milk*		Raw Milk*				
	No.	Per cent	No.	Per cent	No.	Per cent	
500,001 and over	1	10.0	10	100.0	0	0	1
100,001 to 500,000	8	25.8	29	93.5	2	16.5	3
75,001 to 100,000	3	23.1	9	69.2	4	30.8	1
50,001 to 75,000	3	16.7	12	66.7	6	33.3	1
25,001 to 50,000	12	26.6	32	71.1	13	28.9	4
10,001 to 25,000	27	34.2	55	69.6	24	30.4	7
10,000 and less	15	27.7	41	75.9	13	24.1	5
All groups	69	27.6	188	75.2	62	24.8	25

* Certified milk not included. Such milk, wherever produ must come from tuberculin tested cattle.

⚜

ALFRED PURE ICE CREAM COMPANY BUILD ADDITION.

The Alfred Pure Ice Cream Co. of Los Angeles, Ca are constructing a new addition to their plant wh will be equipped for the making of condensed milk, b ter and cheese. A mill, which will have a daily out of 10,000 pounds of milk powder, will also be instal according to the announcement of M. U. Alfred, g eral manager of the company.

The new creamery addition and improvements expected to cost $150,000.

⚜

VALUE OF THE MILK CROP.

It has been brought to our attention that the valu the milk produced in this country last year was grea than that of all the gold and silver mined in the Uni States during the past twenty years.

OUTHITT MILK POWDER PLANT

GRAY-JENSEN SPRAY PROCESS

Designed and Built by

DOUTHITT ENGINEERING COMPANY

139 NORTH CLARK STREET, CHICAGO

Whatcom County Dairymen's Association Plant at Lynden, Washington

Plants in Operation — 7 Under Construction

BECAUSE WE GUARANTEE:

FURNISH A MARKET FOR ALL SKIM-MILK POWDER MANUFACTURED ON OUR PLANTS.

COVERY EQUIVALENT TO 100% OF SOLIDS IN THE MILK.

PRE-CONDENSING NECESSARY.

OM LIQUID TO SOLID IN 30 SECONDS,
and deposited in barrels or containers immediately as manufactured. The low heat and short time the milk is exposed to heat insures highest grade of powder, readily soluble in cold water.

LY ONE MAN NECESSARY TO OPERATE PLANT.

ONOMY IN FUEL, LABOR AND POWER,
compared to other processes, makes it possible to pay for one of our plants in from one to three years.

Write today for booklet describing the Douthitt Milk Powder Plant

When writing to DOUTHITT ENGINEERING COMPANY *please mention The Milk Dealer.*

ANTICIPATIONS OF AN ALERT MILK DEALER.

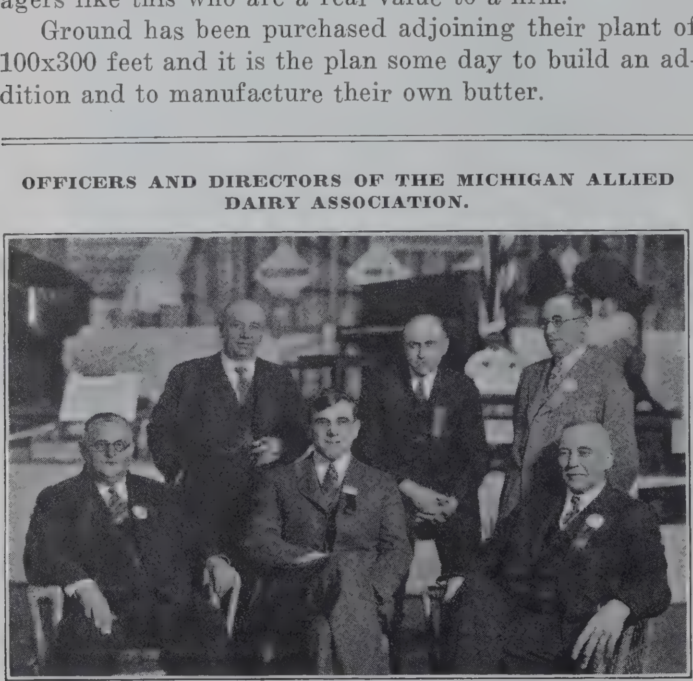
While one of our staff reporters broke in upon the even tranquility recently of the busy morning routine at the Gabel Creamery Company of Detroit, Mich., a little lesson in forethought was taught which might be a suggestion for some other company entering the milk business who some day hopes also to enter the butter business.

The question was put to C. F. Sielaff, of why a dairy company, operating 137 wagons and catering to 38,000 customers, should be named a "creamery" and not a "dairy." He answered that future plans were laid for going into the butter business and that it would save changing the name of the company at that time.

The thought came to Mr. Sielaff that serving 38,000 customers with milk, cream and cottage cheese, ought to be a very legitimate reason for also serving them with butter on certain days of each week. He has investigated the possibilities of companies as far away as Maryland who are buying Minnesota butter and distributing it on their milk routes and he has decided that if Maryland dairies can make money serving their customers with Minnesota butter, that the Gabel Creamery, located much closer to Minnesota, can also do the same. It is managers like this who are a real value to a firm.

Ground has been purchased adjoining their plant of 100x300 feet and it is the plan some day to build an addition and to manufacture their own butter.

OFFICERS AND DIRECTORS OF THE MICHIGAN ALLIED DAIRY ASSOCIATION.



From left to right, standing: C. J. W. Smith, K. L. McKinnon, Bert Reed. Sitting: C. J. Yuncker, Martin Seidel and D. W. Shiel.

MONTGOMERY-WASHBURN CO

A Corner of the Jackson Exhibit Hall.

THE ADVANTAGES OF ROOF INSULATION.

By John E. Gray, Sales Engineer, Federal Asbestos a Cork Insulation Company.

Our present era of prosperity is carrying with i very noticeable era of efficiency and conservation. Co petition in every line of business is causing all industr and investment projects to conserve in every manner means possible.

Up to very recent years, little consideration has b given to the great waste of energy due to the conduct of heat through roofs. The roofs of industrial buildin office and store buildings, institutions, etc., represent erally millions of square feet of radiating surface, all ing valuable energy to escape and be dissipated into atmosphere.

At present, however, progressive architects are spe fying some form of roof insulation. It remains only the builder to realize that roof insulation is a sound vestment to cause the insulation of roofs to be a univ sal practice.

The fuel saving due to roof insulation represent return which more than justifies the investment. It also possible to save on the original cost of the heati system, as less radiation is required in an insula building.

Condensation of moisture on the underside of an insulated roof is a very common condition in c weather. An ordinary roof conducts heat so rapidly t the underside presents a surface that is much colder th the air within the building. As the warm air strikes t cold surface, it contracts and drops its moisture. T "sweating" is objectionable in nearly any building, a is very detrimental in many classes of buildings, such textile mills, paper mills, etc. Nearly any case of "swe ing" can be remedied by proper insulation.

Insulation greatly reduces the rate of heat flow, the by causing the temperature of the ceiling or wall to more nearly that of the inside air.

Warm weather benefits are also many. Investigati have shown that insulation, by keeping a plant at cooler temperature has increased plant efficiency by per cent. This is due to the increased comfort of t employees. Roof insulation makes the top floor of office building just as comfortable and valuable as a of the lower floors.

A good insulator should be primarily a poor c ductor of heat. It should further be a permanent, lig weight material, capable of resisting moisture. It shou be low in cost and fire-resisting. The ease with whi it can be applied is also a factor to be considered.

There are many insulating materials on the mark at the present time. Some are applied in a plastic for There are several fibrous materials applied in sheets rolls. There is corkboard, a cellular material applied sheets.

A builder who does not adopt roof insulation is act ally passing up an opportunity of making an investme that will pay a larger return than the building as whole. He is giving his competitor an opportunity gain an advantage over him.

* * *

AMERICAN FAMILY SHOULD SPEND 30 PER CEN OF FOOD BUDGET FOR DAIRY PRODUCTS.

According to Dr. E. V. McCollum, of Johns Hopki University, the American family should spend thirty p cent of its food budget for its dairy products. Th now spend only twenty per cent.

The Dairymen's Slide Rule

A Little History Pertaining to the Invention of the Slide Rule.

By B. I. MASUROVSKY, Consulting Dairy
Chemist and Technologist

The Dairymen's Slide Rule is a derivative of the engineer's side rule and the history of the latter will apply in so far as the logarithmic scales are concerned.

Modern computation owes largely to John Napier (1550-1617), Baron of Merchiston, Scotland, who invented a table of logarithms and gave it to the world in 1614. This invention was welcomed by England and the European countries on the continent. The invention of the engineer's slide rule is based upon logarithms and the first interpretation of logarithms to the slide rule was made by Edmund Gunter (1581-1626), Professor of Astronomy in Gresham College, London. In the year 1620 he designed the logarithmic "line of numbers" which is simply a straight line with the digits 1, 2, 3 . . . 10 arranged upon it from one extremity to the other and in such a way that the distance on the line from the end marked 1, to the figure 2, is to the distance from 1, to any other number as the logarithm of 2 is to the logarithm of that other number. In other words, distances along the line were not taken proportional to the numbers on it but to the logarithms of those numbers.

The first invention of the straight edge slide rule was made by Edmund Wingate and explained by him in several publications, the earliest of which appeared in 1630.

The slide rule was used much more in England, during the 18th century, than in Germany or France.

It is not generally known that Sir Isaac Newton ever referred to the slide rule or discovered how it could be used in the solution of numerical equations. For that reason the following translation of an extract from a letter of Oldenburg to Leibnitz, dated June 24, 1675, may be of interest:

> "Mr. Newton, with the help of logarithms, graduated upon scales by placing them parallel at equal distances, or with the help of concentric circles graduated in the same way, finds the roots of equations. Three rules suffice for cubics, four for biquadratics."

The "runner" is claimed to be the idea of Newton, as the first to have thought of such an attachment to the slide rule.

It was not until about 1850 that a French army officer in Metz, then only about nineteen years old, designed a straight slide rule with a "runner" and with a disposition of the logarithmic scales, such as experience has shown to be admirably suited to the ordinary everyday uses of a slide rule. This officer was Amedee Mannheim (1831-1906) and his slide rules are known everywhere as Mannheim rules. Not until 30 or 40 years after its invention did it come to be used in England and the United States.

Great activity has been shown during the last forty years in the direction of perfecting the mechanical execution of slide rules. In America celluloid rules were introduced and being sold by Keuffel and Esser as early as 1888. The Keuffel and Esser are still improving on the slide rule and stimulate the use of same in high schools as well as in colleges.

The Dairymen's Slide Rule has logarithmic scales adapted for figuring dairy problems. It also bears an interpretation of the American Standard Babcock Formula on a straight edge rule. This makes the Dairymen's Slide Rule a standard device for computations and its history is that of the Mannheim Slide Rule described above, except the additional dairy scales which will be described in a later article.

The Dairymen's Slide Rule is patented by B. I. Masurovsky, Consulting Dairy Chemist and Technologist. It is manufactured by the largest manufacturers of high grade slide rules, to be sure of uniform accuracy.

*THE DAIRYMEN'S SLIDE RULE IS
DISTRIBUTED BY*

THE OLSEN PUBLISHING CO.

501-515 CHERRY STREET MILWAUKEE, WIS.

AND WILL BE SHIPPED ANYWHERE
POSTPAID ON RECEIPT OF $5.50

ONCE A USER BECOMES FAMILIAR WITH MAKING THE CALCULATIONS BY THIS SLIDE RULE MUCH TIME IS SAVED AND THE HIGHEST DEGREE OF ACCURACY RESULTS.

Notice:—In a subsequent article a description of the Dairymen's Slide Rule will be given so far as its development and uses are concerned.

CALIFORNIA FOLKS MAKE MERRY AND PLAN BIG.

On Tuesday evening, January 4, the Southern California Milk Dealers' Association met at a dinner in the banquet room of the Los Angeles Creamery Cafeteria, Los Angeles, for the purpose of installation of officers and to enjoy a little social intercourse and addresses by various speakers. There were about one hundred present including members of the association, executives of various creameries and salesmen. Everybody was in a happy mood and a lot of jokes were passed around prior to the dinner hour which was scheduled for six o'clock. The call for the opening of the evening's entertainment, however, did not occur until six twenty when President R. D. Weaver asked everybody to take seats at the table and the trouble began.

I say trouble, there was trouble for some of the guests, and joy for others. It was found necessary to raise funds for the purpose of passing cigars around to the crowd so the fertile mind of President Weaver conceived the idea of introducing the End Man at the first table and requesting that man to introduce his next neighbor which procedure was carried clear round the room. But when an introdution was made in an inaudible voice or could not be heard across the room the man who was remiss in this respect was fined fifty cents. The inimitable and retiring, modest Robert St. John Gardner of the Jersey Farms Dairy volunteered to collect the fines and proceeded to do so. Bob claimed to have kept count of all fines collected which amounted to $12.00 which he immediately turned over to the incoming president, Ed. Sullivan, who after counting the money, however, claimed there was $1.50 short. Ed. being Irish, and Bob Scotch, there was immediately started a very warm debate as to where the money had gone. The question is still ''up in the air'' as to what became of the $1.50. The debate between Bob and Ed. provided much merriment for the crowd and it is still a matter of doubt whether or not all the fun that was produced by this pair originated in a milk bottle!

After the dinner was finished President Ross D. Weaver addressed the meeting in a serious vein and expressed the satisfaction over the progress made in bringing together those engaged in the dairy industry and the better understanding there was between them. But Mr. Weaver forgot, or rather was too modest to even hint at the splendid service he has rendered in the office for three years, and his splendid conduct of the affairs of the association and his kindly manner in helping to settle disputes. He leaves office with the respect and affection of all those who have been associated with him.

The new president, Ed. Sullivan, has a splendid ample of efficiency to emulate during his term as pr dent. Ed. Sullivan is liked by all people in the indus about Los Angeles and has proven himself worthy of honor conferred upon him and undoubtedly will be successful in the conduct of the office as he has been building up his milk business which he started with wagon a few years ago and now operates forty truck

Charles L. Dameron of the Mutual Dairy Associat is the new vice-president and Mr. Dameron will be a to render great assistance to Mr. Sullivan in the cond of the office and it must be admitted by all that his ca judgment and fine manner with the boys with whom is associated and with the general public will be of gr value to the association. He is a man of few words, has a very keen mind and everyone listens when he anything to say. Mr. Dameron is an outstanding man the association.

Harry Walsh is continued as secretary of the assoc tion and his work for the past few months for the as ciation has proven him to be an invaluable man for t position. Harry is a genial fellow with a smile and kind word for everyone and is diplomacy personified, the right man in the right place.

Each guest at the banquet was issued a number a a drawing was made for a ''door'' prize, which consist of an immense fruit cake. H. E. McCormick, connect with the Excelsior Dairy at Santa Ana, won the prize

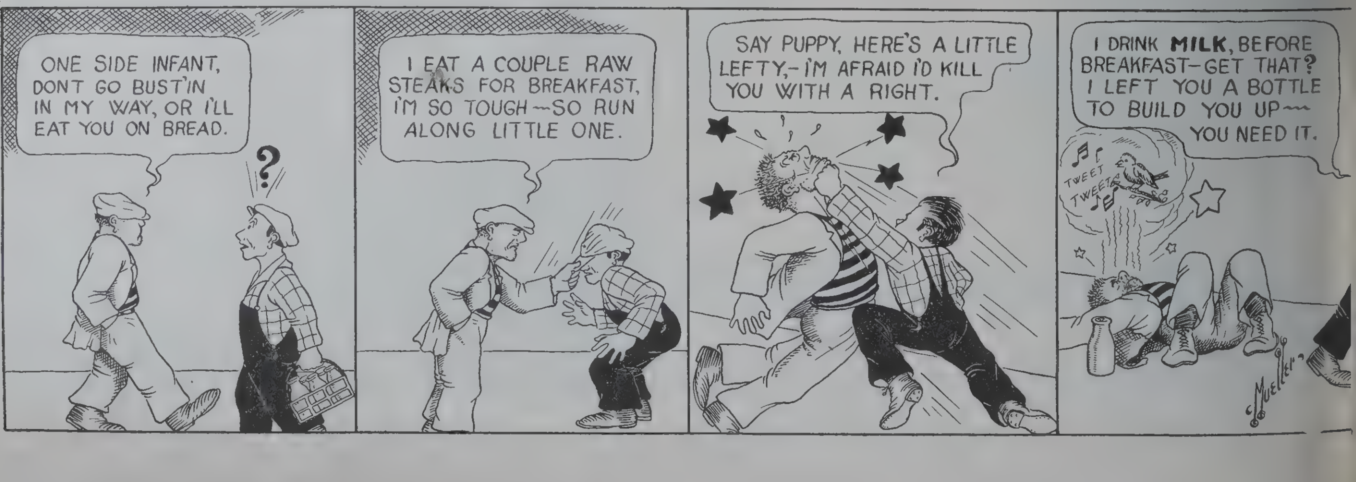
S. Jensen, salesmanager of the Knudsen Laboratori led the members of the ''Yellow Dog'' Society pres in the ''Yellow Dog'' yell and then the whole crowd dulged in a few old time songs accompanied on the pia by Martin Allen, advertising manager of the Adams Corporation, Adohr Creamery.

Tom Butler, who has had twenty-five years experie in store management and sales development and w was stricken with blindness three years ago, delivere short address on ''Little Things that Make Big P ducers.'' He stressed the salesman having confidence himself and in his goods and warned against endeav ing to build up his business by tearing down the oth fellows. Have a good word for everyone and be able radiate a good feeling and enthusiasm. He stressed a looking out for the chief buyers in any firm. The bu er's first attitude is to sit on the check book and cut all salesmen. The salesman's first duty is to get the c fidence of the buyer and instill into him the same thusiasm and coifidence in the goods he has to sell the salesman himself should have.

Doctor Frederick P. Woellner, assistant professor education of the University of California, south

THE MILK MAN

By E. S. Mueller


ONE SIDE INFANT, DONT GO BUST'IN IN MY WAY, OR I'LL EAT YOU ON BREAD.
?
I EAT A COUPLE RAW STEAKS FOR BREAKFAST, I'M SO TOUGH — SO RUN ALONG LITTLE ONE.
SAY PUPPY, HERE'S A LITTLE LEFTY, — I'M AFRAID I'D KILL YOU WITH A RIGHT.
I DRINK MILK, BEFORE BREAKFAST — GET THAT? I LEFT YOU A BOTTLE TO BUILD YOU UP — YOU NEED IT.
TWEET TWEET
Mueller

SOLAR
MILK CANS

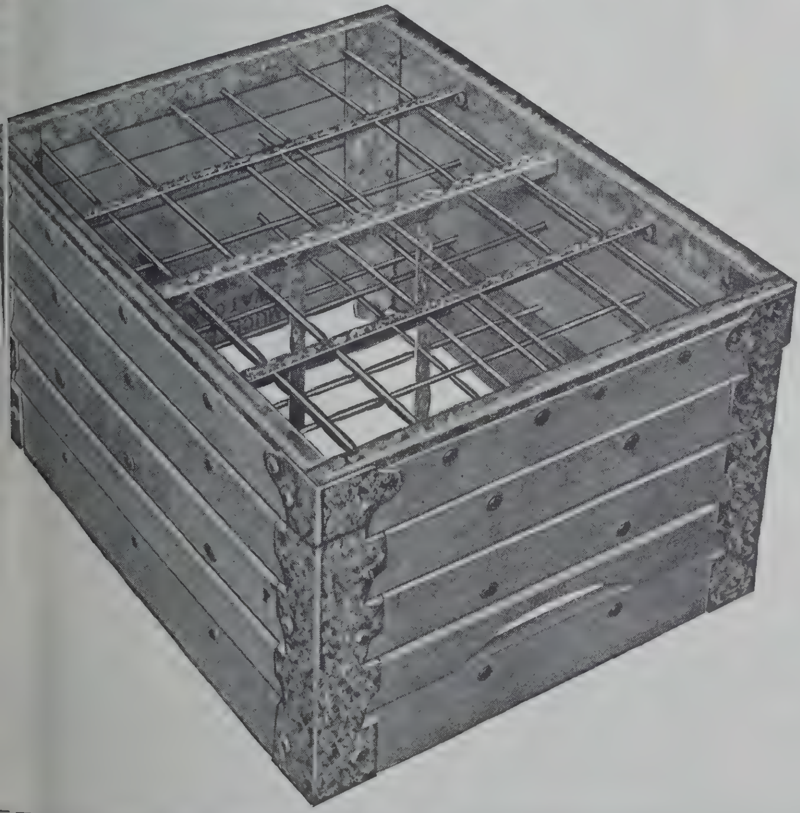
ALWAYS DEPENDABLE - - - - -

Each separate part chemically treated and cleaned, evenly and heavily coated with pure tin and then assembled by expert workmen. Quality is guaranteed—workmanship is guaranteed.

REMEMBER—when prompt shipment is imperative, you can rely on us.

SOLAR - STURGES MFG. CO.
MELROSE PARK • • • ILLINOIS

MUCKLE BOTTLE CRATE



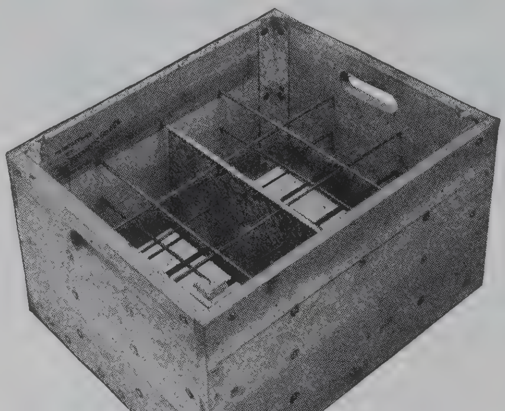
ENGINEERING LEADERSHIP

LEADING A NEW TREND IN BOTTLE CRATE DESIGN

It's the Foundation of Structure that Makes Them Superior!

MANUFACTURED BY
Muckle Manufacturing Co.
OWATONNA - MINNESOTA

The Highest Grade of Galvanized Metal



is used in

REPUBLIC Bottle Crates

"As Strong as the Republic"

ONE of the most important parts of a bottle crate is the galvanized metal. Not all galvanized iron is alike. In Republic Bottle Crates you get the highest grade of galvanized metal obtainable—called "Toncan." This metal costs about one-third more per pound than ordinary grades generally used in making crates. But "Toncan" lasts longer, has greater rust-resisting properties and gives additional strength to the case.

This is but one example of the quality behind Republic Crates. Before you buy, get complete information and prices. You will save money on Republics.

THE REPUBLIC BOX CO.
1693-1711 Merwin Street
CLEVELAND - - OHIO

branch, spoke at length on salesmanship and made statement that 98 per cent of failures were due physical weaknesses. Good health is necessary to cess and co-operation in the firm is necessary as With good co-operation anything is possible. Good operation means protection from any outside troub Doctor Woellner also said we should forget last year not too much anticipate tomorrow, but live for today, with all one's might the job in hand and tomorrow take care of itself.

This meeting will be followed by others from tim time and it is believed that a better feeling will be tivated among those in the industry in this way and do more to promote the welfare of the industry and b ness than anything else. In other words to follow Woellner's suggestion, a close co-operation of all th in the industry will work to the benefit of all those nected with it.

The directors of the Southern California Milk D ers' Association for the year 1927 are as follows:

C. E. Winkley, manager of Adohr Creamery.
E. Burr, manager of Burr Creamery.
C. L. Dameron, manager of Mutual Dairy Associat
J. Henry, of the Henry Creamery Co.
W. H. Jackson, manager of the Santa Monica Da
O. W. Strodthoff, manager of the Hanson Dairy.
E. T. Sullivan, manager of the Peerless Creamery.
W. D. Ranney, of the Excelsior Creamery, Santa A
Ross D. Weaver, supt. of the Los Angeles Cream
H. J. Boyle, manager of the Western Farms Dai
George H. Shaw, manager of Sanitary Gold Seal
H. L. Phillips, ass't mgr. of the Crescent Cream
Smith MacMullin, manager of the Glendale Cream
J. H. Chamness, mgr. of Gold Medal Cry, Long Bea
Robert St. John Gardner, of the Jersey Farms Da

This board of directors represents some of the brains of the industry in Southern California and association will probably accomplish great things un their direction.—Jay Dutter, Southern representat California Dairy Council.

⁂

NEW MEMBERS FOR SUPPLY ASSOCIATION

The Lookout Boiler & Mfg. Co., Chattanooga, Te American Mono Nickel Co., Clearfield, Pa., and P Cailler Kohler Swiss Chocolate Co., New York City, recently joined the Dairy and Ice Cream Machinery Supplies Association, according to announcement f the latter's executive offices, 1328 Broadway, New Y City.

The association's affiliated Salesmen's Club, which cludes active sales representatives of association hou has increased in membership in recent weeks by 58 actively in contact with one or more divisions of dairy products manufacturing field.

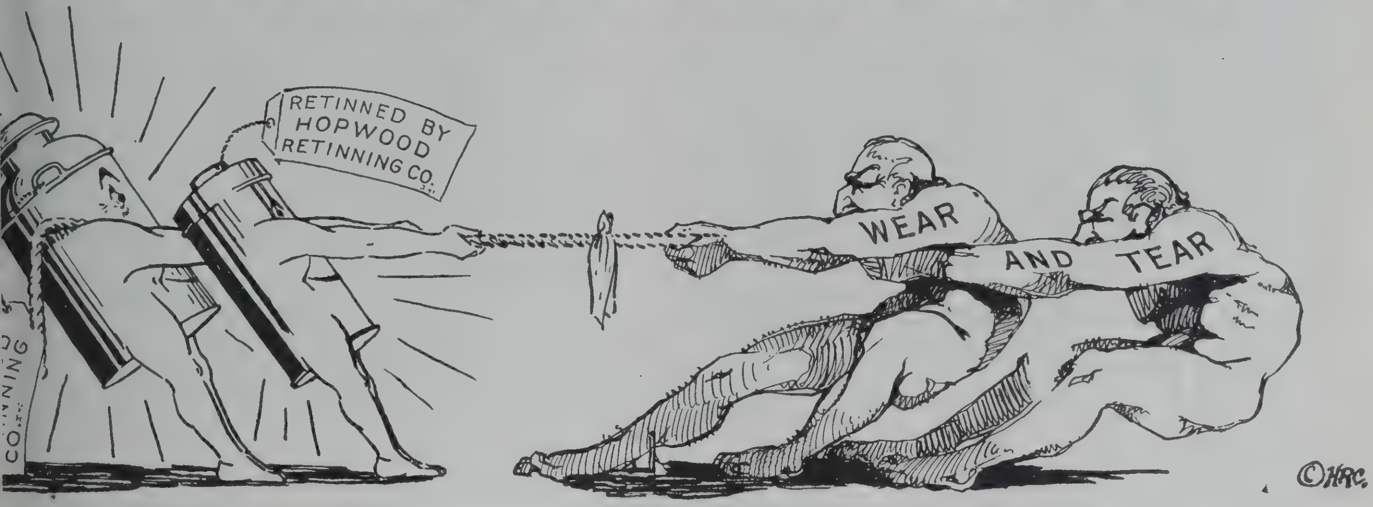
⁂

"A thorough review of the arrangements being m for the great dairy industries exposition in Clevelan October enables me to predict without any qualifica that the 1927 exposition will be the most importan the dairy products industries that ever has been hel —O. S. Jordan, president, Dairy and Ice Cream Mac ery and Supplies Association, Inc.

⁂

"Conditions in the trade indicate a prosperous y ....How important and vital it is that we familia ourselves not only with our own lines, but also with dairy products industries as a whole, with their finis products and with the application of machinery and plies to them."—J. B. Morse, president, Salesmen's of the Dairy and Ice Cream Machinery and Supp Association, Inc.

OLDING THEIR OWN


RETINNED BY HOPWOOD RETINNING CO.
WEAR
AND TEAR
NING CO.
©HRC.

Ship your rusty or leaky cans to us for re-tinning. We are a Reliable, Experienced Concern.

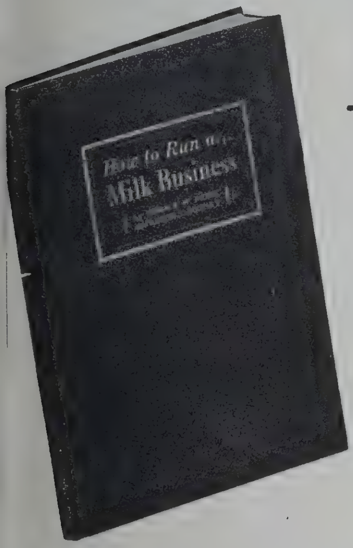
High Quality, Quick Service at Right Prices.

We have been connected with the manufacture and re-manufacture of Milk Cans and Ice Cream Cans since **1898**

HOPWOOD RETINNING CO., Inc.

Office 56 Commercial Street Brooklyn, N. Y.

E 64



LEARN from the experience of others

Ways and means by which successful Milk Dealers have built up a prosperous business are for the first time told in this handy book. Much of the information herein has never appeared in print before.

No matter what the size of your business, this book will be worth many times its cost to you.

Sent anywhere postpaid on receipt of . . . ***$2.00***

Send for a Copy Today.

THE OLSEN PUBLISHING COMPANY

Fifth and Cherry Streets MILWAUKEE, WIS.

ADDITIONAL DETAILS OF CARNATION CO.'S NEW PLANT.

Walter Page, vice-president of the Carnation Milk Products Co., Oconomowoc, Wis., gave out the following statement regarding the $500,000 milk products plant at Murfreesboro, Tenn.

"The proposed building will be approximately 225 by 72 feet, two stories for the most part, of re-inforced concrete, with roof of heavy mill construction. It will be erected by the company's force. The plant will have a daily capacity of about 150,000 pounds of fresh milk, which may be increased to 200,000 pounds per day by additional warehouse space."

⁂

DIFFERENCE BETWEEN EVAPORATED AND CONDENSED MILK.

The difference between condensed and evaporated milk is frequently misunderstood, due to the fact that both of these types of milk are condensed in vacuum.

Condensed milk is a combination of concentrated milk and cane sugar in a 43-100 sugar and 57-100 milk proportion. The sugar is its preservative. Evaporated milk is merely fresh cow's milk sterilized in cans and from which more than half of the water content has been removed. Nothing is added to evaporated milk and nothing but water removed. Heat is the only preservative.

⁂

BREAKAGE OF BOTTLES IN MILK PLANTS.

The number of bottles that have to be thrown out at milk plants because of chipped or cracked tops or lips is an important item of bottle breakage.

The table below shows that 4.4 chipped bottles were thrown out at one plant for every 1,000 bottles filled. The number of broken bottles at this plant, exclusive of the chipped bottles, was only slightly higher than the number chipped.

Observations indicated that at this particular plant the bottles were chipped on the routes rather than in the plant. Handling bottles through stores seemed to be the chief cause of the high number chipped. The table shows that for bottles of all sizes a much greater proportion of the store or wholesale bottles was chipped than of the retail bottles used for family trade.
—Milk Plant Letter No. 149, Bureau of Dairy Industry.

EXTRACTS FROM AMERICAN DAIRY FEDE TION REPORT COVERING FEBRUARY.

February has been an unusually busy month in Washington Office of the federation. There has bee unusually large amount of correspondence, and man quiries, mostly incident to the closing weeks of the sion of Congress.

Finance Campaign.

The finance campaign is going ahead in good sh The plan has been communicated to all organization the industry and definitely favorable replies have received from several of the largest organizat There has been no refusal to take part from any ganization. The details are being pushed forward rapidly as the circumstances will permit.

World Dairy Congress—1928.

Communications have been received from the Br Committee which has been organized to carry out p for holding a World Dairy Congress in Great Bri in July, 1928, through the courtesy of Prof. Rober Breed of Geneva, N. Y., and steps have been take have an American representative named. Until representative is named, this office will undertake communications between the British committee and industry here.

Annual Dairy Pilgrimage.

Necessary details have been decided on for Second Annual Dairy Pilgrimage, and announceme this event sent generally to member organizations others who may be interested and send delegates. date was finally fixed on as April 26, 27 and 28. first selected date, April 18-24, was abandoned bec of the congestion in Washington hotels at that ti Easter week.

It is important that those who come either as viduals or delegates to the Dairy Pilgrimage, wri advance to the secretary, so that the arrangements w are to be made for the personally conducted through the departments, may be taken care of. T trips make up the major part of the pilgrimage prog The secretary will also make hotel reservations for one who wishes this service.

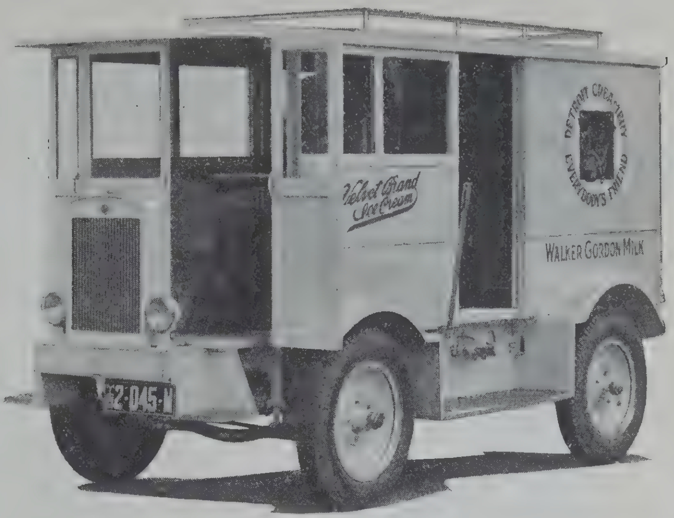
Number of chipped bottles thrown out at one milk plant in 8 days.

Day	Quarts			Pints			Jars (1)			All sizes		
	Store	Retail	Total	Store	Retail	Total	Store	Retail	Total	Total Store	Total Retail	Total
1	466	124	590	71	12	83	82	44	126	619	180	
2	465	140	605	44	27	71	17	89	106	526	256	
3	371	53	424	55	14	69	26	178	204	452	245	
4	422	118	540	97	25	122	52	78	130	571	221	
5	366	79	445	72	22	94	25	70	95	463	171	
6	300	31	331	111	1	112	26	78	104	437	110	
7	195	23	218	72	33	105	29	51	80	296	107	
8	117	21	138	41	24	65	25	30	55	183	75	
Total chipped bottles	2,702	589	3,291	563	158	721	282	618	900	3,547	1,365	41
No. of bottles filled	301,733	285,251	586,984	63,307	95,091	158,398	32,559	327,816	360,375	397,599	708,158	1,105
Bottles chipped per 1000 filled	8.9	2.1	5.6	8.9	1.7	4.6	8.7	1.9	2.5	8.9	1.9	

(1) Containing ½-pints or less.

DETROIT CREAMERY
DETROIT CREAMERY EVERYBODY'S FRIEND
Velvet Brand Ice Cream
WALKER GORDON MILK
2-045-H

Rear Side View.


DETROIT CREAMERY EVERYBODY'S FRIEND
Velvet Brand Ice Cream
WALKER GORDON MILK
2-045-H

Front Side View.

Built Especially For
Retail Milk Delivery

DIVCO TRUCKS

GASOLINE DRIVEN

3 Point Control

No matter where the driver gets onto his Divco, there is a driving and steering control at hand. Running around the truck and extra steps are eliminated. Divco can be operated from either running board, or from the front seat.

This Three-Point Control cuts down delivery time and saves costs. The driver need not climb into the seat each time while making short stops. Motor is specially built to idle throughout the trip; this saves starting time. On house to house delivery Divco will average 7 to 10 miles per gallon of gasoline. On a straight run, average 18 to 20 miles per gallon.

Capacity 50 cases. Rack for empties on top. Small turning radius. Quick, smooth and quiet operation; practically noiseless. Fool-proof brakes; easy steering.

Send for Booklet—"From House to House with Divco"

DETROIT INDUSTRIAL VEHICLE CORPORATION
1400 WEST FORT STREET - - DETROIT, MICHIGAN

When writing to DETROIT INDUSTRIAL VEHICLE CORPORATION *please mention The Milk Dealer.*

Growth of the Page Dairy

Toledo's Largest Dairy Grew From an Infant Within Thirteen Years

WHEN the visitor alights at Wade St., in Toledo, near the Union Depot, the long, spread-out plant of the Page Dairy Company greets the eye and is a reminding monument of the progress that has been made by this company within the last thirteen years.

Five additions have been built to the original plant during this lapse of time and a trip through the building shows it well equipped in every department to take care of the vast handling of butter, the bottling of 40,000 bottles of milk per day, and the manufacture of 600,000 gallons of ice cream annually. The company also manufactures condensed milk and condensed buttermilk, cottage cheese, popsicles in season, and the Page bar, which is a form of Eskimo Pie. Five million pounds of butter a year are sold from this plant, some is manufactured there and some is purchased.

About a year ago the last addition was made to the plant and consisted mainly of a new cold storage department. A railroad siding runs immediately adjoining one side of the building and plant purchases made for freight delivery are brought to the plant in this manner. Shipment of some of their products is also made by rail from the plant door.

A gasoline filling station is installed in the great yard of the plant where all trucks and autos belonging to the company are filled with gas and oil. The entire large yard area is of cement flooring.

A deep well pump is being installed now and the company will soon have its own water system.

The plant is particularly well laid out in spite of ing one of many additions. Each department is distin ly separate and each department also has its own c storage facilities. In one butter storage room alo $75,000 worth of butter has been taken care of at time. New cold storage rooms are now being outfit in the different departments.

A moving picture outfit is owned by this compa and is shown at intervals in their large auditorium, latter of which is one of the beauty spots of the pla It has become the popular idea in some of the dairies a ice cream plants to operate these moving picture sho for the education of the public, which is invited occasi ally to become more thoroughly acquainted with the op ations of dairy products manufacture, and they ar splendid advertisement to the public and an excell education for them in the dairy industry.

The auditorium is laid out particularly well, a la stage fronting the entrance, the spacious center equipped for dancing or for shows or entertainments the case may be. The sides are equipped with card tab The chairs are all outfitted with back insets advertis the Page Dairy and make a neat advertising disp when lined in rows. The splendid feature of this au torium is that Mr. Page donates it gratis to church cieties, women's organizations, clubs, etc., for their fairs and they may hold dances, hold card parties, give playlets, as their desire may be, through the cou sy of the Page Company. Oftentimes the ice cream these parties is donated by the company, and it is one their best advertisements. The auditorium comforta accommodates 700 people.

Separate dining rooms for the ladies and gentlem employees are well laid out for the convenience of th luncheons. Rest rooms, lavatories, shower and loc rooms are all of the finest equipment and installed the comfort of employees.

A complete laundry installation of drum wash machine, drier, and ironing equipment keeps over uniforms spick and span each day for the drivers a employees. This is entirely operated at the firm's pense.

Eighty tons of ice are daily manufactured in plant and none is sold on the outside; all is used by company on their own products. Two ice making roo are installed to take care of their needs. Several la ice making machines are taking care of this departm and the 390-ton capacity is run full force in seas Motors totaling 700 H. P. are installed.

The company also operates one separate butter f tory and three condensing plants elsewhere.

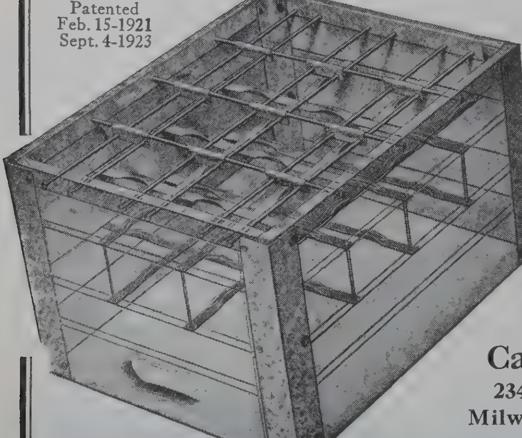
Large, spacious offices line the immediate front of building. In the office of Henry Page, one is remind of the athletic features of the dairy. Cups and sil trophies adorn the roll top desk and the flat top de which bespeak the prowess of these amateur tea connected with The Page Company. One particula fanciful one adorned with a silver baseball at the reads, "Trophy for Amateur Baseball. City Champ Federation, 1926. E. W. Weil, Mgr. Page Dairy Co pany."

The thirteen years in business for the Page Da Company shows a remarkable growth and their lea Henry Page, is to be particularly commended upon is able leadership to this attainment.

This Case will
appeal to you
for Service
for Price

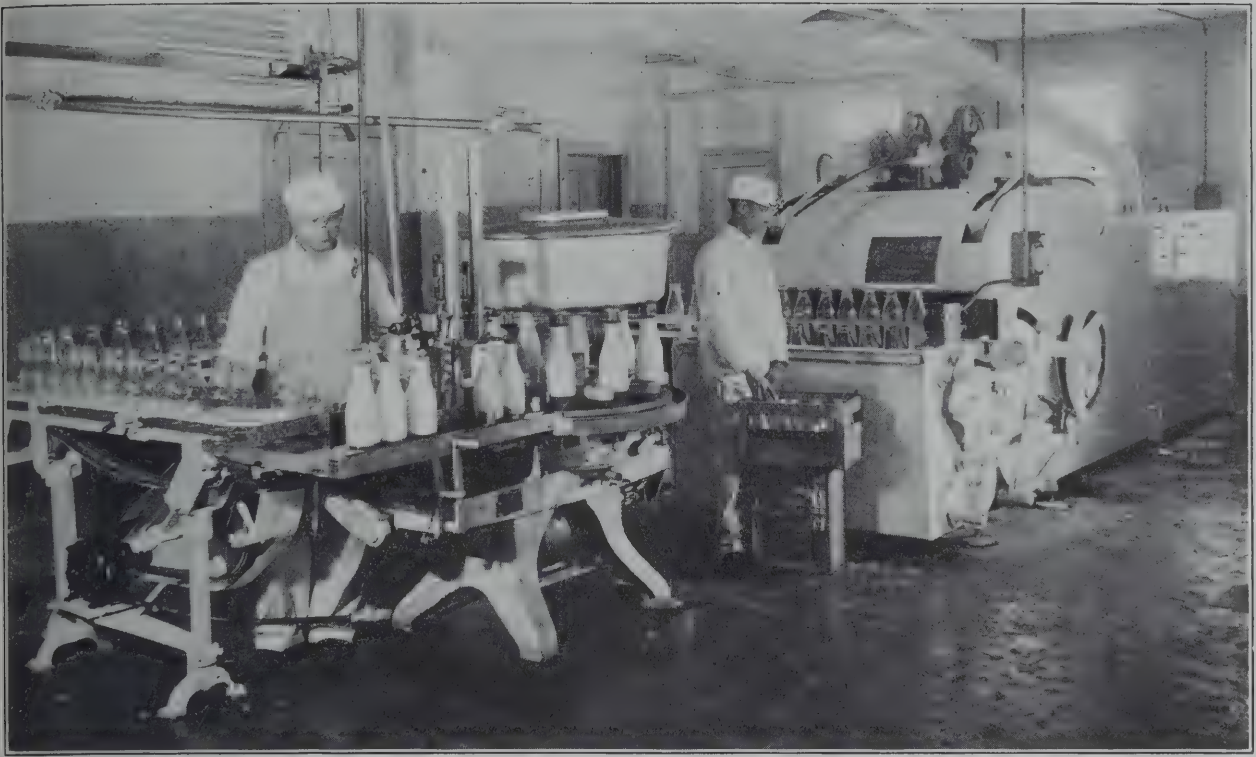
A glance at the construction of this new Quirk Bottle Case will convince you of its ability to do service.

Patented
Feb. 15-1921
Sept. 4-1923



Let us send prices and quantity discounts.

QUIRK
Bottle
Case Works
234 Reed St.
Milwaukee, Wis.



The LADEWIG-SOELCH *Super-Eight* BOTTLE WASHER

In Action!

RESULTS—this is what prompted the Manitowoc Farmers Co-operative Dairy Co., of Manitowoc, Wis., to install a Ladewig-Soelch Super-Eight.

No matter what washers you are using now: no matter what washers you have examined—this new Super-Eight is far beyond anything you ever thought a washer could be and do.

Simplicity in construction—less floor space—hydraulic principle, pre-rinsing and pressure washing—one-man machine—20 to 60 bottles per minute—no working parts inside machine—no adjustments for various sizes of bottles; half-pints, pints and quarts can be run through together- -perfect temperature control—lower first cost.

Write for Complete Information.

Distributed by
A. H. ARNOLD & CO.
718 W. Randolph St., Chicago, Ill.

Manufactured by
LADEWIG-SOELCH CO.
38th & Lapham Sts., Milwaukee, Wis.

When writing to A. H. ARNOLD & CO. *please mention The Milk Dealer.*

One of the Great South's Best

A Fine, Modern Dairy Plant Now Stands Where Explorers and Colonizers Once Struggled for Dominance

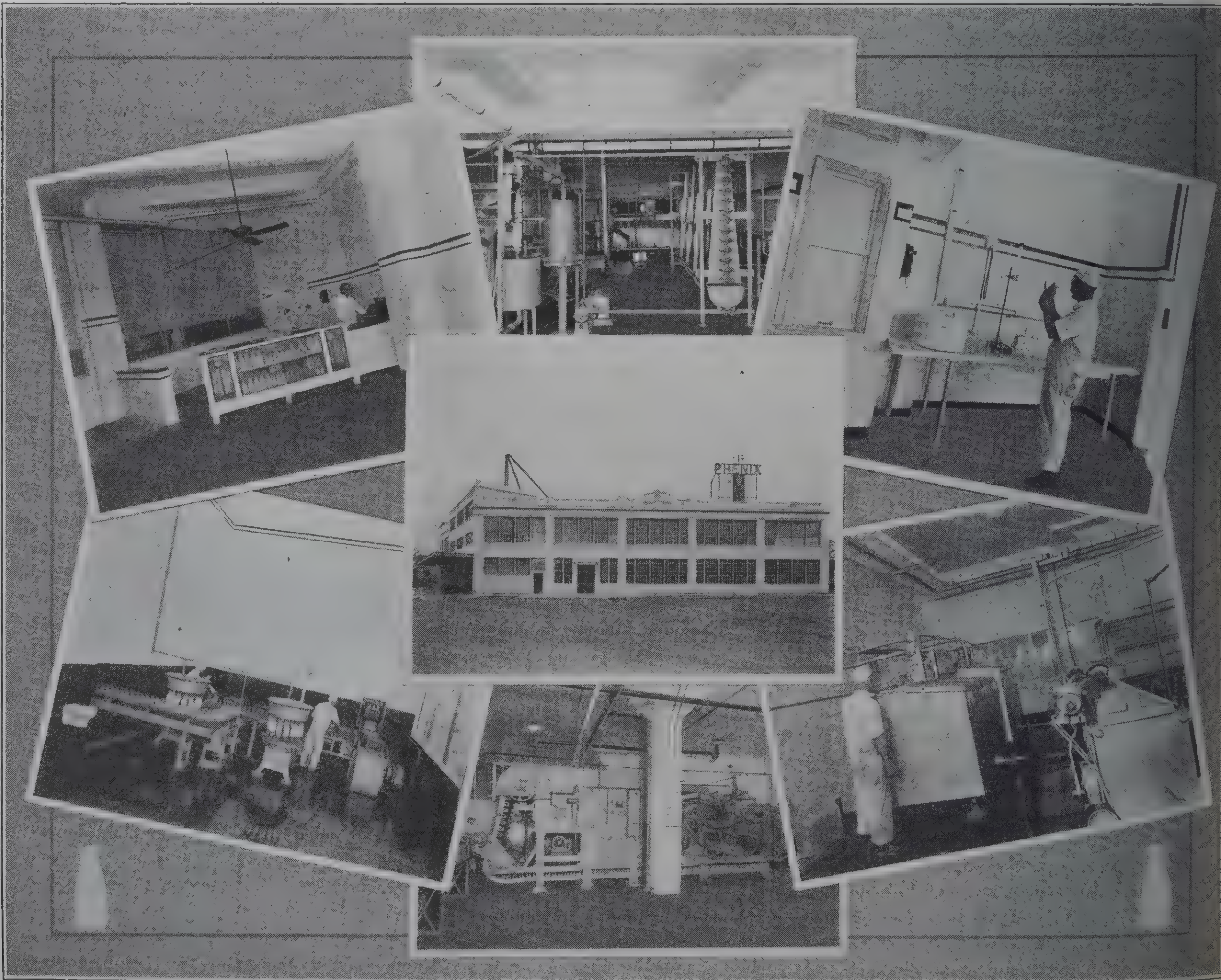
BY A SPECIAL CORRESPONDENT

A MONUMENT to the growth of the dairy industry in the South is the latest dairy plant built by M. C. Oldham as manager. Starting with one wagon on May 4, 1914, Mr. Oldham owned, drove, washed and filled all the bottles himself. Without buying out any business he had built the business in 1920 to 13 wagons. This growth necessitated a new building in 1918 but they have had continuous growth and now this structure stands as the milestone just reached and there is no mistaking the fact that due to plans, location and arrangement it comes as nearly as possible in construction of being a glass house, sanitary, the present 1927 home of 71 retail milk wagons.

This plant of the Phenix Dairy does not cater to wholesalers, but places its emphasis, care and attention on an endeavor to secure and to deliver to the homes "the best milk for the family." Mr. Oldham pays a premium for his milk and has for years, that meets his high standards of quality and production. All milk comes from tested cattle and is ice cooled on the farms. Not only is this a monument to the growing dairy industry in the South, but for efficiency and ease and dispatch in operation it stands equally worthy of comment. It is constructed as Mr. Oldham says, with a large p room, seated and lighted, where any civic clu woman's organization of the city may meet at any of the day or night without charge as one of the h centers of the city of Houston. Health and mill health posters and literature are available to all wh sire same. It is so handy at such times for the g to inspect the plant and learn of the processes us the receiving, pasteurizing, cooling, bottling and ing and delivering of the milk daily from the farm, states—"milk, fresh—rich—pure—pasteurized."

A fountain of the ice-cooled water on the outsi the building suggests also a public service for d and salesmen as well as to the public. In one s day over 1,700 mothers were shown through this Mr. Oldham states that much of the success is due t spirit of co-operation in the organization which has and keeps building the business.

Isn't it fitting and timely in the light of prog that right here where explorers, and colonizers fo for dominance in conquering the wilderness, shoul erected this snow white structure dedicated to he peace, to the greater Houston and to the new Sout

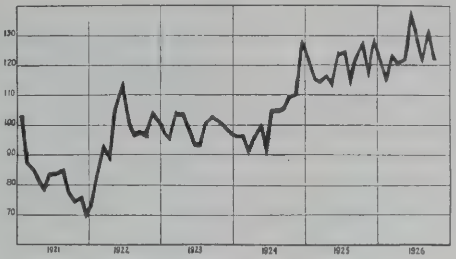


A new temple of purity and health erected by Phenix Dairy at Houston, Texas.

MR. MILKMAN—What Are You Going To Do?

Ten million people have left the farms and joined the mad competition in the cities. Result—Farm products are going to higher levels and the purchasing power of the public is decreasing. Four and five day weeks likely.

A narrowing margin on milk is certain. How will you meet the situation?



Increased Returns on Live Stock

OUR ORGANIZATION CAN HELP YOU

Problems that confront you have been solved by someone. Have you a budget? How fast should your business grow? Can you, quickly, find your weekly profit and loss? Does your bank appreciate the possibilities of your business? Do you? Have you competitive problems? Have you the "guess habit?" Sufficient capital? Cost accounting system? Are your sales below the danger line?

Have you surplus problems? Do you wish to reorganize? Or sell your business? Does your milk show a fine cream line and has your cream a fine body? Have you eliminated theft in your organization? Do you know your daily shrinkage? How to cut merchandising cost without reducing country prices or raising city prices? Are you making enough money?

A Man's Judgment Is No Better Than His Information. Tell us your troubles. Strictly confidential. We can solve them. Don't add to your plant until you have consulted us. Our methods increase capacity without additional equipment. We do not spend—we save.

Chas. F. Schwager **SERVICE SALES CORPORATION** Suite 503 Omaha Nat'l Bank Bldg., Omaha, Nebraska

Reference: Bradstreets, Dun, any Omaha bank; names of satisfied clients on request.

Made

RIGHT

*This is the way
you will find*

**Jacobs'
Powdered Milk
Barrels**

Made of selected, kiln-dried staves. Hooped with beaded steel hoops, heads firmly fitted, all at a ***right*** price.

WRITE

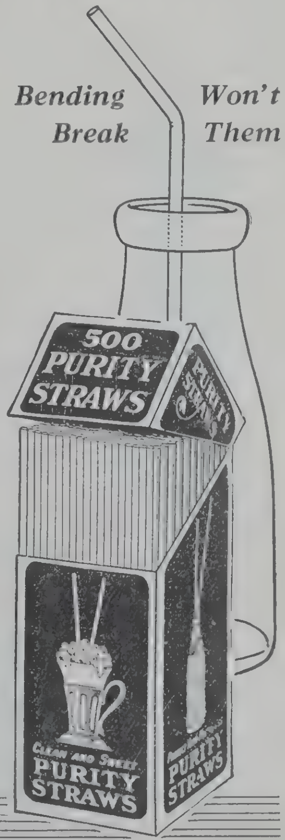
K. W. Jacobs Cooperage Co.
9th and St. Paul Avenue MILWAUKEE, WIS.

PURITY STRAWS

Bring More Business in Shops and Offices

Milk dealers can easily increase their business in schools, shops and offices by furnishing Purity Straws. No washing of glasses. Purity Straws are guaranteed sanitary. They are the strongest, cleanest artificial straw made. Write for free sample box.

COE MANUFACTURING CO.
35 Warren Street New York, N. Y.



NOTES OF THE TRADE

News of Interest Concerning What Our Readers and Advertisers are Doing to Develop the Industry. We Invite Correspondence Relative to New Products and New Equipment.

DAIRY SPECIALIST JOINS CHICAGO FIRM.

JOS. N. PRICE.

Jos. N. Price was recently engaged by the National Dairy and Food Bureau, First National Bank Bldg., Chicago, Ill. Mr. Price formerly was head of the dairy division of the University of Tennessee, Knoxville, and was formerly in charge of dairy extension work in the state of Washington for several years. His past experience has eminently prepared him to take charge of the dealer's service for pasteurized milk plants.

Mr. Price's long, practical experience in quality production, manufacture and efficient distribution problems, coupled with his scientific training, makes him a valuable addition to the organization, officials believe. T. J. Newbill, director of the bureau, advises that in addition to the milk and ice cream sales surveys and drivers' training work which the bureau has conducted, it will now render a much needed service on quality improvement work.

Having graduated from the University of Missouri in 1905, under Prof. Eckles, Mr. Price later was assistant in dairying and was in charge of the creamery at Columbia, Mo. While there his research work on feeds and feeding, and the tests on machine milking and milk yields was especially commendable and are now experiment station records. Mr. Price is said to have a thorough knowledge of the basic problems of the industry.

* * *

A GOOD RECORD.

The January 1, 1927, report of the Reciprocal Exchange and the Casualty Reciprocal Exchange, Kansas City, Mo., is a record of very satisfactory results.

Cash savings returned to policyholders were $470,029.43, an increase of $66,000.00 over the cash savings returned during 1925.

In addition to returning cash savings of nearly half a million dollars, the exchanges were able to add the sum of $137,193.98 to their surplus and reserves, bringing the total up to $4,311,231.89.

The inspection and safety service rendered is reflected in the loss record of the year, which ran well below the average for both fire and casualty insurance.

The issuance of tornado and windstorm policies by reciprocal exchange now enables members to secure the usual cash saving of 25 per cent on this class of protection.

Bruce Dodson & Company, 28th and Wyandotte Sts., Kansas City, are managers of the exchanges.

* * *

MASUROVSKY ANNOUNCES NEW GELATINE TESTER.

Prof. Benjamin I. Masurovsky, consulting chemist and technologist, 216 Water St., New York, N. Y., is placing on the market an inexpensive device for testing gelatine to be used in ice cream. It consists of a reservoir with holding capacity of one-half liter with a straining device attached for the purpose of detecting any visible impurities and part
of gelatinous nature which do not dissolve. It is also equi
with a special water bath used as incubator to determine
bacterial contamination and protective property of the
atine.

* * *

THATCHER RECAPITALIZES.

Early in the year the Thatcher Manufacturing Comp
Elmira, N. Y., recapitalized the business and issued 60,
shares of convertible preference stock, convertible into
no par value common stock of the company on a share
share basis.

The company was originally incorporated in 1889
now the plants of the company have a capacity of 150,0
000 bottles a year. At the close of last year the balance sl
of the company showed assets of $3,109,102.16.

* * *

QUIRK BOTTLE CASE WORKS ENLARGES.

Increased business has necessitated the installation
extensive additions to the metal stamping department of
Quirk Bottle Case Works, Milwaukee. This company's
style bottle case is meeting with favor, officials advise,
additional facilities are needed to increase output.

* * *

DROP AND STRAIGHT SILL WAGONS.

Comfort of the driver, more interest in his work an
better impression on the part of the public towards the d
er's products are claimed for the Hesse Autowagon, made
the Hesse Manufacturing Co., Leavenworth, Kansas.
manufacturers proudly acclaim it "The Modern Milk Wag

⁂

MILK COMPANY ENTERS FOURTH SUCCESSF YEAR.

The following officers were elected at the ann
meeting of the Norwalk Local of the Ohio Co-operat
Farmers' Milk Association, Norwalk, O.: Fred Ken
president; J. Laufin, vice-president; John Laux,
sceretary-treasurer; A. W. Emmon and Joe Hoffiver, a
council.

The association is now entering upon the fourth s
cessful year of its career.

⁂

THE CARE AND HANDLING OF MILK.

Problems concerned with the production and
tribution of city milk are covered exhaustively in a n
book of about 400 pages, "The Care and Handling
Milk," by Prof. Harold E. Ross, Cornell University.
book is intended as a text for dairy students and for
others who are interested in the care and handling
milk and its use as a food. Sent postage prepaid u
receipt of $3.00 by The Olsen Publishing Compa
Milwaukee, Wis.

⁂

CLOVERLEAF CHIEF IN EUROPE.

Mr. Jamison, Sr., of the Ohio Cloverleaf Dai
Toledo, O., is on an extended trip to Europe. The pl
is in charge of his son during his absence.

Von Gunten

Continuous
Sediment Eliminating

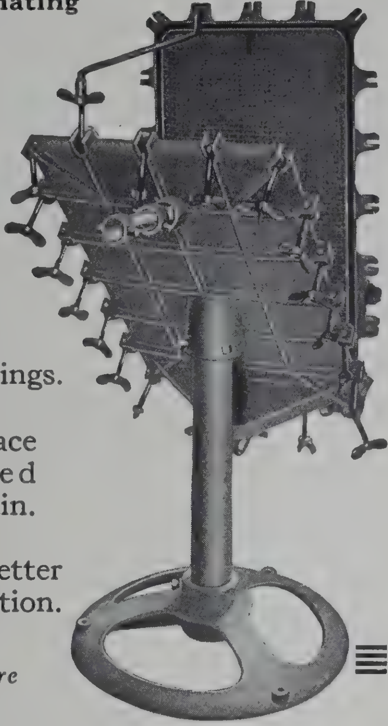
**Milk and
Cream
Filter
—Improved.**

olid bronze Castings.

The Milk Surface heavily coated with pure block tin.

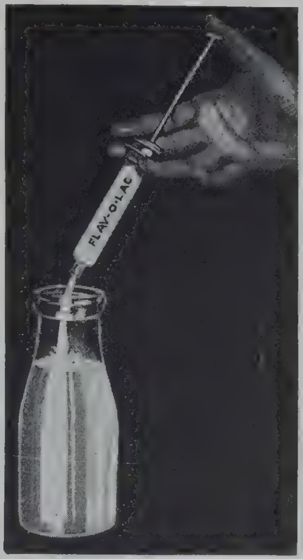
Different and Better
Method of Filtration.

Send for Literature



STOUT MFG. CO.
10 Sycamore St. Milwaukee, Wis.

**FLAV-O-LAC
CULTURES**



Our New Package

F L A V O - L A C

**FOR
BUTTERMILK**
Producing a uniform unexcelled product in aroma, body and keeping properties.
$2.00 per Qt.

BULGARIAN MILK
For making pure Bulgarian Milk or for use with Buttermilk Culture for **Double Cultured Buttermilk.**
$2.00 per Qt.

SOUR CREAM
A special culture designed to produce a distinctive flavor and a very **viscous product.**
$2.00 per Qt.

BUTTER and CHEESE
Special cultures designed for aroma and those characteristics most desirable in these products.
$2.00 per Qt.

One Syringe of Any Variety of Culture $1.00
The Oldest Concern in the United States Specializing in Liquid Lactic Cultures

The DAIRY LABORATORIES
Chemists "The Home of Liquid Culture" **Bacteriologists**
2300 LOCUST STREET PHILADELPHIA, PA.
Branches: New York Baltimore Washington

ncrease Your Sales
BY USING A
Cream Line" Pasteurizer

Every user of a "Cream Line" Pasteurizer has increased his sales at least fifty per cent in less than a year after installation of our equipment. Many have changed from raw to pasteurized milk without their customers knowing of the change.

There must be Good Reason for this. It will pay you to investigate.

BUILT IN SIZES
From 50 Gallon Up

ort Wayne Dairy Equipment Co.
1600 Winter Street
FORT WAYNE INDIANA

The Chicago Filter

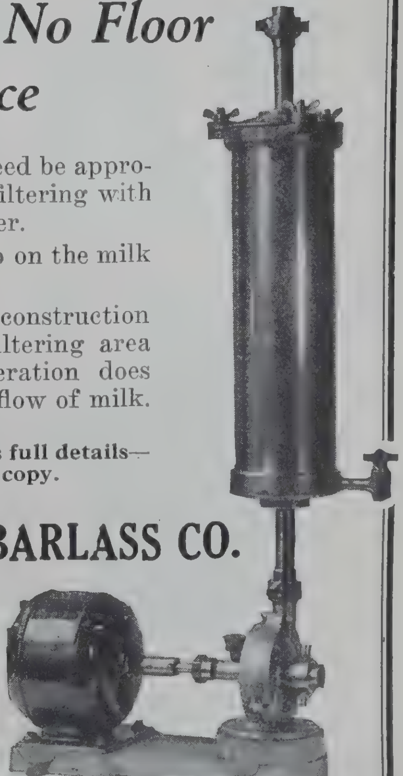
Requires No Floor Space

No floor space need be appropriated to milk filtering with the Chicago Filter.

It hooks right up on the milk line.

Its internal construction gives it great filtering area so that the operation does not slow up the flow of milk.

Our circular shows full details—send for a copy.



ARTHUR T. BARLASS CO.

32 W. AUSTIN
AVENUE
CHICAGO,
ILL.

READY NOW!

Kunsman Milk Talks
Series No. 2

57 Educational Talks upon the food value of Milk. Planned to cover a year's advertising and to promote an increased consumption of milk in your locality.

Only one dealer in a town can buy these talks. Order promptly and BE THAT ONE.

Price Only $5

Sent on Approval

KUNSMAN AD SERVICE
29 Reed St. Reading, Pa.

The Gaulin HOMOGENIZER

Guaranteed to Stand the Test of Years!

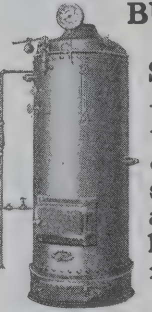
FOR 15 YEARS Gaulin

Manufacturing Exclusively Emulsifying Machinery

"Only Gaulin can Build a Gaulin"

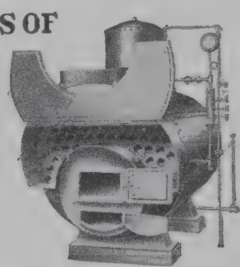
MANTON-GAULIN MANUFACTURING CO.
BOSTON MASS., U.S.A.

MURRAY IRON WORKS COMPANY
BURLINGTON, IOWA
INCORPORATED FEBY 1,1870



STEAM BOILERS OF ALL STYLES AND SIZES

The cuts show vertical and horizontal boilers requiring no brick work



We build also Water-Tube and Tubular Boilers to be set in Masonry

RETINNING
Ice Cream and Milk Cans

GALVANIZING
Ice Cream Lids Galvanized Outlast Lids Retinned

Sanitary Tinning Co.
3753-63 E. 93rd St. Cleveland, Ohio

WASHINGTON — MAINE

Notes From Far and Near

CALIFORNIA — FLORIDA

Birmingham, Ala.—The new plant of the Southern Da
recently completed here is modern in every detail and is
supplied with daylight. A laundry wherein the clothin
the employees are kept clean is a feature of the plant.
G. Gorman, Jr., is the manager of the plant.

Colton, Cal.—The Colton Creamery Co. is investing a
$16,000 in the erection of a new building on 8th and E
this city, which is to have a frontage of 50 feet on 8th S
75 feet on E St. According to Miles E. Nickles, general
ager of the company, the building will be complete
March 15.

Los Angeles, Calif.—The Crescent Creamery Co., this
are making extensive plans of improvements to its pl
which will cost approximately $500,000. According t
M. Dorman, president, a modern $200,000 plant will soo
built here. It is also planned to establish an ice cream
age and milk distributing plant in Redondo, Calif.

Oakland, Calif.—Plans are being prepared for the
struction of a two-story central distributing plant for
Mutual Creameries, Inc.

Hamilton, Ontario, Canada—The Canada Ice & Coal
is rebuilding its ice plant which was destroyed by fire
year. The approximate cost of the rebuilding will be a
$45,000.

Chicago, Ill.—The Wieland Dairy Co., this city, has
creased its stock from $500,000 to $2,500,000, accordin
the correspondent, Fisher, Boyden, Kales & Bell, locate
134 S. La Salle St.
of the Mid-West Corp.

Lena, Ill.—The Sullivan Milk Co. of Chicago have
chased the factory of the Lena Casket and Supply Co.
Sullivan Milk Co. plans installing machinery to concent
milk for tank shipment from Lena.

Indianapolis, Ind.—The Fletcher American Company
announced the public offering of 12,000 shares of Clas
participating preference stock of Capitol Dairies, Inc., of
city, the stock to be sold at $25 a share with an initial
dend rate of 8 per cent.

Rochester, Ind.—A Hammond dairy concern is abou
establish a milk plant here in Fulton county.

Rochester, Ind.—Harry H. Hogue has purchased
Priest Dairy, this city. Arnold Priest, former proprietor,
entered a different business.

Ames, Ia.—Preliminary plans for the construction
dairy plant by the state board of education, this city,
been drawn. The building will be a two-story one and
be of brick, stone and reinforced concrete. It is estim
that the new dairy plant will cost $500,000, accordin
W. H. Gemmill, secretary, State House, Des Moines, Ia.

Davenport, Ia.—Articles of incorporation of the W
ington Dairy, capitalized at $50,000, have been filed with
county recorder. The corporation will buy and sell
butter and other dairy products. Dan MacNeill is presi
and treasurer.

Rockford, Ia.—The Rockford Co-operative Dairy
ciation has begun work on the remodelng of an old buil
here which they will use as their creamery when compl
It will be strictly modern and in accord with the latest
in creamery construction. A Frigidaire plant will be
stalled to take care of the cooling problem.

Boston, Mass.—The New England Dairies, Inc., has
incorporated here with a capital of one thousand no-par
shares. The incorporators are Cornelius T. Curran
Robert W. Henrie of Boston, and James J. Leahy of Che

Somerville, Mass.—The New England Creamery Prod
Company have started work on their new creamery
here. They are installing an entirely separate unit for
special "Double A" milk. They have anticipated the
creased public demand for milk from tuberculin tested h
and after May 1 all their bottled milk will be from
herds.

Detroit, Mich.—The Detroit Creamery Co., this
located at Cass and Adams Streets, plan the constructio
a power house at its proposed new condensing plant at
land, Mich. The cost is expected to exceed $200,000.

Jackson, Mich.—The Chanter Dairy Company has
incorporated here with a capital of $20,000.

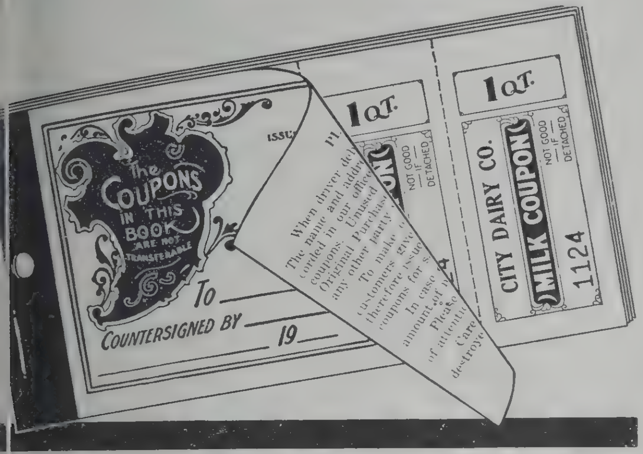
Northfield, Minn.—Plans have been completed for an a
tion to the Northfield plant of the Twin City Milk Produ
Association, to be used as a sweet milk and buttermilk dr

Low Prices

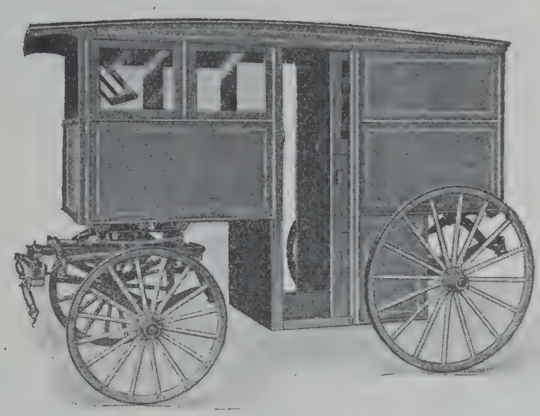
COUPON BOOKS

ractively printed with your name on each stub.
Well-bound. Quick shipment.

NSAS BANK NOTE CO.
DONIA, KANSAS



Sturdy Construction MEANS ECONOMY



We have built milk wagons for over 25 years and fully understand the needs of the dairyman in this line. We make a specialty of installing equipment for carrying cases in any of our wagons.

Send for our No. 48 free catalog showing eight styles and many sizes of gear from which to make selections

Special Wagons Built to Order.

DeKalb Wagon Company

300 Garden Street DE KALB, ILL.

Your Success Depends on the *Quality* of Your Product!

Quality is dependent very largely on the sanitation of your plant, and sanitation, in turn, depends on the sterilizing agent you use.

How important, then, to know these things about the sterilizer you use:

1—**How long has the manufacturer been in business?**

2—**What is his reputation for responsibility and dependability?**

3—**Are his products accurately prepared to definite standards?**

4—**Is his concern and its products recognized by authorities?**

General Laboratories has been in business fifteen years and submits its future success, as it has that of the past, to this crucial standard.

B-K is a standard, recognized product. Its dependability has been proved. Write for the proof.

GENERAL LABORATORIES

Dept. 13C MADISON, WIS.

B-K Bacili-Kil

Leffel CREAMERY BOILERS

Save Time Labor Fuel

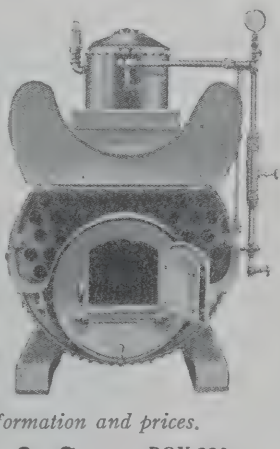
Surprising economy can be effected by operating Leffel Creamery Boilers in your Plant. They give more power, use less fuel, are easy to clean—and require little attention.

The illustration shows how easy it is to reach tubes, fire box and water chambers.

They come complete with all fittings and mounted on heavy wooden skids. Whether your plant is large or small there is a Leffel Boiler that will save money for you.

Sizes from 6 to 150 H.P. Every size fully guaranteed.

Meet all state boiler requirements.



Write for detailed information and prices.

The James Leffel & Co.

BOX 330
SPRINGFIELD,
OHIO, U. S. A.

4

CHR. HANSEN'S LABORATORY, INC.,
Little Falls, N. Y.
(Also Milwaukee, Wis., and Toronto, Can.)
Gentlemen:
Please send me **FREE Booklet**
"Starters and Cultured Milk"
I understand this booklet gives directions for using HANSEN'S LACTIC FERMENT and BULGARIAN MILK CULTURES to manufacture Commercial Buttermilk.
I am (am not) enclosing 75c for one package of HANSEN'S LACTIC FERMENT CULTURE.
Very truly yours,
Name ....
Address ....
....

HANDYCAP
Milk Bottle Opener and Cover
TWO IN ONE
REVERSE SIDE
HANDICAP
The Old Way
The Handy Cap Way
HANDYCAP

Good Housekeeping has approved the Handycap. It's a real convenience to the housewife and an excellent means of advertising for the milk dealer.
Ask Your Advertising Specialty Dealer to Show You Samples.
THE HANDYCAP CO. Sales Office **Irvington, N. J.**

DAIRYWEAVE
Means OBLONG Weave
MILK FILTERING FABRICS

CLEAN MILK
SELLS ITSELF
Use....
DAIRYWEAVE
MILK - FILTERING - FABRICS
Immensely rugged, and with great strength, these pure cotton Master Dairy Fabrics are standardized, and conform to the combined opinions of Leading Milk Bottlers and Progressive Dairymen. Dairyweave Master Fabrics are woven to a precise mesh of known dimensions and oblong in its construction. This feature alone is characteristic of Dairyweave Fabrics, and enables them to perform their missions. The removal of all insoluble and bacteria-laden foreign matter from hot or cold, raw or Pasteurized milk better than any other medium.
Send Your Specifications *Get Our Factory Prices*
THE PRICKETT MANUFACTURING COMPANY
HAMPDEN, MASS., U. S. A.

INSTRUCTIONS *for* TRACTION and STATIONERY ENGINEERS
By WM. BOSS
TENTH EDITION
EVERY man who operates a boiler or has anything to do with engines needs this book. Having gone thru ten editions proves its worth.
Sent postpaid anywhere on receipt of $1.50.
THE OLSEN PUBLISHING CO.
Fifth and Cherry Streets Milwaukee, Wis.

unit. The addition will be 42 by 42 feet, and machinery be installed to care for from 40,000 to 80,000 pounds of daily.

Tupelo, Miss.—The dairy industry has increased in section of the state the past few years as is evidenced by fact that Mississippi Creameries, located near here, 500,918 pounds of butter during 1926, an increase in pro tion of 100 per cent during the past five years.

Tupelo, Miss.—The new milk plant of the Carnation Co. will handle 100,000 pounds of milk daily and thereby into the pocketbooks of the farmers here $2,500.

Columbia, Mo.—It is reported that the Central Dairy this city, will erect a $25,000 dairy. The building will two-story one, 50x120 feet, and will be of brick and t cotta construction.

Reno, Nev.—The Crescent Creamery, this city, is ad a new testing room, also a new cheese manufacturing to their plant, thus completing the cheese factory which started last year.

Asbury Park, N. J.—John Shafto of 123 Corliss Ave Neptune, has sold out his business to Asbury Park Dairy of Bangs Avenue. Mr. Shafto was in the milk business forty years.

Irvington, N. J.—Considerable alterations are being to the plant of the International Milk Company at 57 Mt. non Avenue. When completed the old building will be kn as the "Grade B" plant, while a separate building altoge will comprise the "Grade A" plant.

Metuchen, N. J.—Wood Brook Farms are constructi new milk receiving room and making other alteration their milk plant.

Newark, N. J.—Dairymen's League is entirely remode the old Inter-State milk plant on Elizabeth Avenue and pect to install new apparatus. Already a new positive ho has been installed, being constructed of nickel.

New Brunswick, N. J.—John Paulus has just added a glass-lined receiving vat in his pasteurizing plant at 191 Street.

Pleasantville, N. J.—Randolph Price is installing ref erating machinery to improve his milk cooling and stor facilities.

Trenton, N. J.—Joseph Lampart has removed fron Howell Street to 815 Franklin Street, having constructe new pasteurizing plant at the latter address.

Trenton, N. J.—Assembly bill No. 369 was introduce the house late in February, which provides for the tubercu testing of all milk cows where the milk is to be sold in raw state, or, if not, the milk must be properly pasteuri Should the bill become a law its provisions will not go effect until January, 1928.

Trenton Junction, N. J.—Sanitary Dairy Co. has pla its order for glass-lined pasteurizers to replace its con uous-flow outfit.

Westwood, N. J.—Peter Jene has installed a glass-li pasteurizer and remodeled his plant in several respects. new cooler enclosure and new receiving room are among improvements.

Woodbridge, N. J.—Fire destroyed the cow barn o Feuchtbaum, but the owner will immediately start rebu ing. The milk is pasteurized and sold in Perth Amboy.

Glens Falls, N. Y.—Bids on the general contract for erection of a two-story reinforced concrete dairy build here at Glens Falls, are being taken by the architects, McCormick Co., 41 Park Row, New York City. The own of the new dairy are the Adirondack Dairy Co.

Ogdensburg, N. Y.—The Dairymen's League Co-opera Association has taken over the Redwood Milk Plant, this c W. H. Dixon of Theresa will be superintendent of the pl which is a fluid milk station, and will ship pasteurized n to New York.

Smith Park, N. Y.—The new plant of the Southern Da Co. has been completed at a cost of more than $200,000. T is the first unit of what will eventually be a $1,000,000 pl

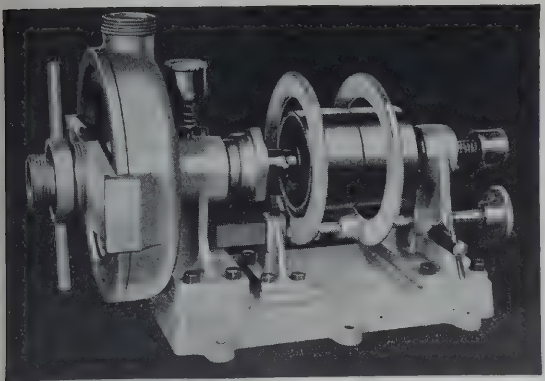
Salisbury, N. Car.—The Rowan Creamery, this city, is ranging to install a refrigerating machine and an additio butter cooling room to their present plant.

Cleveland, O.—The Cleveland Dairy Products Co., t city, has been incorporated here with a capital of $25,0 The incorporators are Joseph Levine, Amelia F. Reidel, M. Hiccano, J. E. Paduano and S. A. Grossner.

Butler, Pa.—A milk cooling station will be erected h by the Herold Dairy Co. It will be a two-story brick buildi size 30x30 feet.

Cold Spring, Pa.—The officers elected at the annual m ing of the Cold Spring local of the Dairymen's League as follows: Frank Scudder, president; W. B. O'Neill, v president; Stephen A. Douglas, secretary and treasurer, Russell Gager, director.

Elkton, Pa.—The Churchville Creamery Co., of this c



Nofome

The Pump that Gives Greater Satisfaction!

NO CHURNING—NO FOAM.

Send for Descriptive Circulars

SPECIALTY BRASS CO.

KENOSHA, WIS. ALBION, N. Y.

Preferred Corkboard

for

COLD STORAGE ROOMS

installed
complete by

"UNITED"

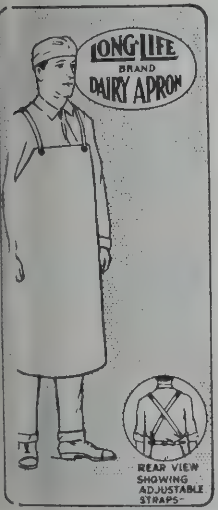
Crescent
100% Pure
Corkboard

We will gladly submit an estimate on any kind of insulation work, of course without obligating you in any way.

United Cork Companies
LYNDHURST, N. J.
Branch Offices in Principal Cities.

ACTUAL USAGE

Proves this IS A *Long-Life* Dairy Apron



Special fabric, scientifically treated to resist the disintegrating effects of fats and acids about dairy plants, gives the Long-Life dairy apron an ability to render continued useful service long after other aprons have been discarded

A TRIAL ORDER WILL PROVE IT!

You Will Learn a New Item on Which to Save Money.

The M. F. Murdock Company
RUBBERIZED FABRICS
66 So. Main Street AKRON, OHIO

The Importance of Proper Coolers

The cooler is the governor on your milk line. It either speeds up or retards the whole process of running the milk through your equipment.

The necessity of an efficient cooler designed to facilitate the passage of milk is of utmost importance.

Unless you are informed on the latest

U. K. Coolers

their construction, capacity and the successful concerns using them, you may be hampering your plant efficiency.

Why not send for our illustrated folders and comparative prices?

Uhlmann-Kinsey Co.
Incorporated
PHILADELPHIA, PENNA.

Please Mention The Milk Dealer.

has been purchased by the Western Maryland Dairy Co., at a reported price of $25,000.

McKeesport, Pa.—A milk station in each ward of the Glassport school district has been instituted with the consent of the board of education, for the purpose of assisting undernourished children to become 100 per cent physically perfect.

Sioux Falls, S. D.—At a joint meeting of the Sioux Falls Milk Producers' Association and the milk distributors of Sioux Falls, plans for a special milk campaign to put before the public the food value of milk as compared with other foods were discussed.

Garland, Tex.—Announcement has been made by D. M. Faulkner, president of the Southern Properties, Inc., that his company had decided to build a creamery in this city, and that work would begin at once.

Houston, Tex.—The new plant of the Phenix Dairy Company is now in operation.

Houston, Tex.—The Spear Dairy, Inc., this city, is increasing its capital from $100,000 to $115,000.

Odessa, Tex.—Modern and sanitary equipment is being installed in the Steward and Berkstresses dairy recently opened here.

Paris, Tex.—A survey of Lamar County is being made by the Southern Creamery Co., a subsidiary of Southern Ice and Utilities Co., with an idea of establishing a creamery.

Quanah, Tex.—Plans are now under way for the erection of a modern creamery here.

Salt Lake City, Utah.—The Intermountain Dairy Supply Co., this city, which is a consolidation of the H. A. Schellenberger Dairy Supply Co. and the Idaho Dairy Supply Co. has been incorporated at $75,000. The company contemplates construction in the near future of a $15,000 building.

Colchester, Vt.—George Polley of Andes, N. Y., has purchased the local creamery from Sheffield Farms Co. Mr. Polley is a creameryman of many years experience and plans to continue the manufacture of powdered milk, condensed milk, cream cheese, etc.

Bellingham, Wash.—The Western Dairy Products Company has purchased the Ford Dairy Products Company's plant and equipment. L. J. Ford has been retained as manager.

Seattle, Wash.—C. R. Shain and A. W. Pratt have purchased the Royal Dairy, this city, from D. Houts. The new owners are dairy men of long experience and will keep the standard of the Royal up to that maintained for so many years by Mr. Houts.

* * *

MALTED MILK POPULAR FOOD.

L. A. Thompson, of the L. A. Thompson Malted Food Co. of Waukesha, Wis., manufacturers of a nationally known malted milk product, announces that the company will erect a factory plant in Los Angeles.

According to Mr. Thompson, the raw milk products there are on a par with the Wisconsin brands and can be obtained at the right prices. The water and rail transportation are ideal for the distributing end of the business.

The Thompson Company has recently enlarged its plant in Waukesha, and has opened branches in Chicago, Ill., St. Louis, Mo., Cleveland, O., Detroit, Mich., and other large Eastern centers. The company is also shipping to South Amercan countries, Australia and New Zealand.

A PROGRESSIVE DAIRY.

In Highland Park, Mich., one of the fashionable s
urbs of Detroit, where the residences of many of
troit's millionaires are located and daily served w
milk and butter from Detroit's third largest dairy,
reporter finds The Highland Park Creamery Compa
enjoying steady progress toward a goal which m
other milk plants are striving for, in the erection o
fine, new plant, and tentative plans are being slo
formed toward the consummation of this goal within
other year's time.

The Prize Winners.

The Highland Park Creamery has a list of employ
who are loyally helping to reach this goal and th
social activities are bringing them before the public
Detroit in many ways. They have an organization cal
the Cream Top Minstrels and these boys bring cheer
the tuberculosis hospitals and other places where s
ferers enjoy their performances from time to time.

The plant is fully equipped to carry on the busin
at a minimum expense and overhead, they manufact
their own harness, build their own wagons, etc.

They have a splendid line of horses used daily in
livering the milk and cream to their hundreds of c
tomers and their horses took the first prize in their cl
at the Michigan State Fair.

* * *

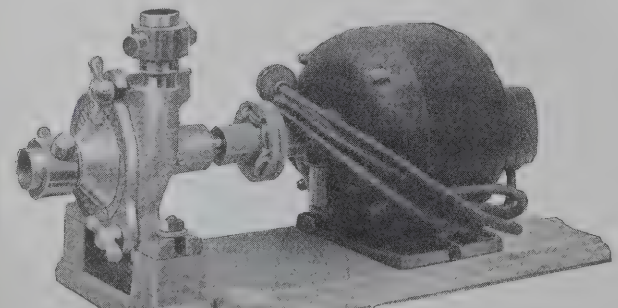
JACK DRINKS MILK.

"Jack, be nimble, Jack, be quick;
Jack, what keeps you from taking sick?"
"I drink four pints of milk each day,
I spend three hours in outdoor play;
Fresh air, sunshine and milk for me.
From ills and aches they keep me free."

* * *

Jack be nimble, Jack be quick;
Who ever saw a milkman sick?
They drive the horse and drink the milk,
It keeps them feeling fine as silk.—Gym.

SPECIAL—NEW SIZE—CENTRIFUGAL
Milk Pump



Write for Circular

Capacity — 1000 to 2500 lbs. per hour.
Complete with ¼ H. P. Motor, 1 phase, 60 cycle, 110 volts.

Model "O" $65.00

Mfd. by

R. G. WRIGHT & COMPANY
BUFFALO, N. Y.

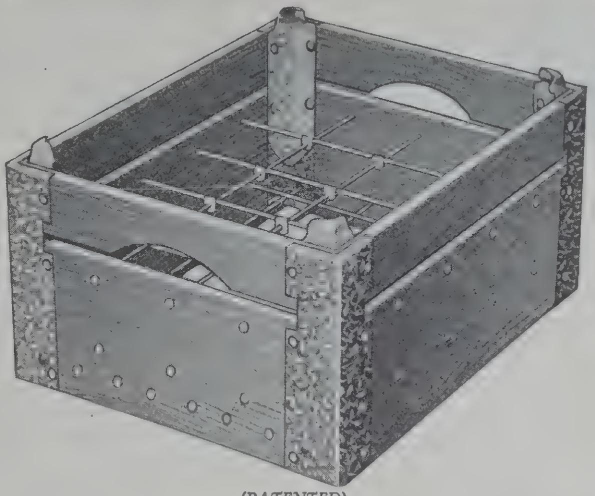
ARCUS
COUPON
BOOKS

For all purposes, including

Household Trade
School Milk Service
Industrial Milk Service

Send for booklets on each of the above lines. They are full of good ideas for boosting your business.

The Arcus Ticket Company
350 N. Ashland Avenue CHICAGO, ILL.



(PATENTED)

"The STANLEY"
SATISFIES!

Heavy galv. corner irons overlapped at top and bottom.
Long galv. stacking irons riveted through corner irons.
Strong — Durable — Yet light in weight.
Bottom runners if desired.
Will stack on any standard size cases.
Simplest and strongest construction — lowest in price.

WRITE FOR PRICES BEFORE YOU BUY AND REMEMBER *STANLEY'S* SATISFY.

THE STANLEY MILK CASE CO.
Front, Second and Lawrence Sts. CINCINNATI, OHIO

SAVE

25% Fire and Tornado INSURANCE

20% Workmen's Compensation Automobile, Teams and Other Liability Insurance

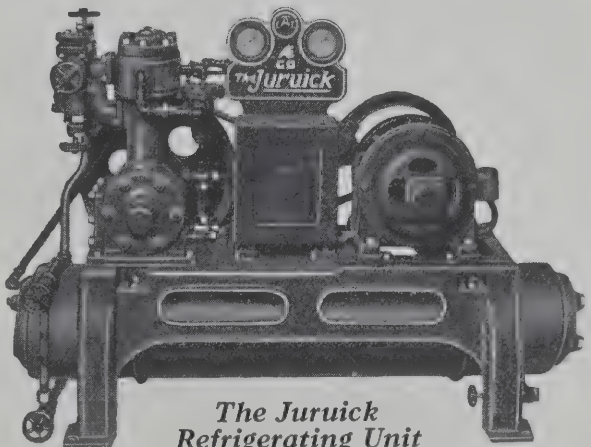
$5,036,000.00 *Savings Returned to Policyholders*

$4,311,000.00 *Surplus and Reserve*

Loss Adjustment Service Everywhere

Bruce Dodson and Company
Established 1900
28 & Wyandotte Kansas City, Mo.

Juruick
REFRIGERATION



The Juruick Refrigerating Unit

You can forget your refrigeration when you install a Juruick Automatic Unit. . . . It provides the exact cold needed for cooling milk after pasteurization and keeping it fresh in storage. . . . Automatic control insures economy of power and water. . . . The machine only runs when necessary and soon pays for itself.

Send for Juruick folder today.

American Engineering Company
2417 Aramingo Ave., Philadelphia, Pa.

Prof. Burke's Inquiry -:- Department -:-

Correspondence Covering a Variety of S
jects of Interest to Milk Distributors

Tennessee.

Dear Sir:—Is there anything to take out the onion flavor from milk? We are troubled a great deal through the South, during the spring of the year, with wild onions, and if there is anything to overcome this flavor I feel sure you will know of it.

Reply: At this time of year onion flavors are especially troublesome in milk and cream, and their removal is a great problem. At the Blue Valley Creamery, Chicago, Ill., this flavor has been removed by the blowing of warm air through cream under partial vacuum. The instrument used is the Pfaudlerizer and much care appears to be necessary for its proper operation.

A simple method which has proved of considerable value is described in Farmers' Bulletin 608, U. S. Department of Agriculture, Washington, D. C., entitled, "Removing Onion Flavor from Milk and Cream," and I suggest you write for this publication.

If you are interested in the mechanical method of eliminating the difficulty, I suggest you write to Professor O. F. Hunziker, Blue Valley Creamery Company, Chicage, Illinois.

* * *

Oregon.

Dear Sir:—I would like to give someone a contract gathering cream. Could you advise me how to go about it? The round trip is about 35 miles. How much cream is required to make it pay?

Reply: I take pleasure in enclosing copies of a contract which I believe will be suited to your needs, with slight changes.

As to the proper salary, this is something you yourself will have to determine as conditions vary so greatly in different parts of the country. You can pay a straight salary or salary plus commission, the latter method being somewhat the better where stimulation of cream production and volume are desired.

On the basis of the price of cream and butter I suggest you calculate what commission and salary would furnish your truck driver a reasonable income. Of course, if you own the trucks it need not be so great as where he owns them. I might add in conclusion that cream stations in this section operate on a margin of three-fourths of a cent per pound butterfat. Perhaps this may assist you in figuring what you can afford to pay.

* * *

Australia.

Dear Sir:—Some months ago you were good enough to furnish us with information on milk and cream which was of value to us, and we appreciate the advice you gave us so willingly. We are now in need of assistance again; permit us to approach you once more.

The standard here for a table cream is 35 per cent, but a cream of this fat content will not sell for the reason that it is too thin. In order to get the correct thickness we have used from .3 to .5 per cent gelatine, but after standing for more than 12 hours exposed to ordinary temperature a very bad smell develops. It will keep sweet for many days, except for this objectionable smell, which we have proved is due to the gelatine.

We have tried pasteurizing at 142 to 180 degrees,
pasteurizing first and adding gelatine at about 80
grees, with no better results.

Do you know of any means for treating gelatin
get over the smell, or any substitute with the same th
ening qualities? We notice that 35 per cent thick cr
is advertised freely in The Milk Dealer, and we th
you must have some means of thickening which does
affect the whipping. The latter is important to us,
cream for pastry cooks. At present we are using
per cent cream, which is hard to sell at a profitable p

Reply: We are always especially pleased to rec
inquiries from foreign lands, as it indicates the w
spread circulation of The Milk Dealer, and the inte
taken in that publication.

It is gratifying to know our services have assi
you, and we hope the following may prove helpful.
quiries are always welcomed.

I note the difficulty which you are experiencin
attempting to produce a viscous 35 per cent cr
through the use of gelatine, therefore I am going to
three probable remedies.

First Suggested Remedy.

I would like to inquire what brand and what gr
of gelatine you are using. A very high grade of gela
should contain few bacteria. I have tested about th
hundred samples of gelatine and found them to
from near sterility to over twenty million bacteria
gram. It is undoubtedly a high bacteria content in g
tine which is causing all of your trouble.

I suggest you investigate the bacteria count of
gelatine and request a certificate from the gelatine re
sentative or firm from whom you buy, guaranteeing
bacteria count to be under, let us say five to ten thous
per gram. Along with this I suggest you secure a g
tine having a high gel strength; in other words, se
a product of guaranteed purity from the bacteria st
point which is coupled with other desirable quali
such as high strength, low ash content, low acidity,
tremely mild odor when dissolved in hot water, g
clear color and appearance, etc.

This type of gelatine should readily withstand h
ing. The critical point of injury to gelatine strength
heat, is 140 degrees F., however, I have heated m
high grade samples to 170 to 180 degrees F. with
materially affecting their jellying properties.

I note you have pasteurized the cream but not
gelatine. Hence I suggest you try using .4 per
gelatine, soaking it in luke warm water for ten minu
(add the gelatine to the water for best results) and
low this by pasteurizing at 140 degrees F. for 20 t
minutes. Add it to the hot pasteurized cream, stir
well and cool down immediately. If you are still t
bled with the bad odor try soaking the gelatine as ab
heat to 180 degrees F. and cool down immediately w
out holding, to 145 degrees F., adding it to the cr
at the same temperature and cool down at once.

Second Suggested Remedy.

If the above fails to overcome the trouble, try this

To your 35 per cent cream add two to three per
of skim milk powder, heating slowly to 120 degrees F

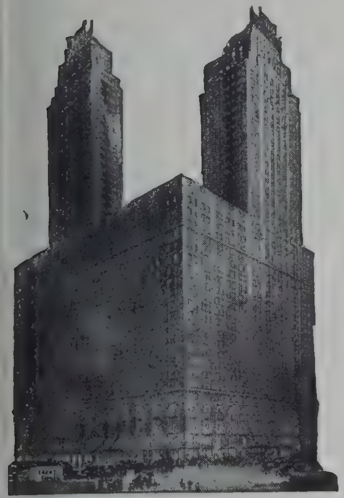
When in CHICAGO

Enjoy your stay — at the superb new

MORRISON HOTEL

Cor. Madison and Clark Streets

The Tallest Hotel in the World
Forty-six Stories High



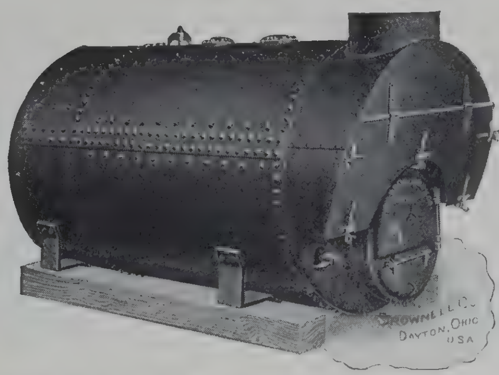
he New Morrison, when completed, ill be the largest and tallest hotel in e world, containing 3,400 rooms

Closest in the city to offices, theatres, stores and railroad stations

1,944
Rooms
$2.50 Up

—all outside, each with bath, running ice water, bed-head reading lamp and Servidor.

Home of the
TERRACE
GARDEN



BOILERS

For Use in

Creameries!

BROWNELLS comply with ASME and all state codes.

Men of 72 summers were mere infants in arms when the first BROWNELL BOILER was built. A thousand train-loads have made good since — otherwise the name BROWNELL would never have won honorable distinction in the industry.

When in the market specify a BROWNELL Creamery Boiler, remembering that long years of experience and an outstanding reputation stand back of every installation.

State your needs. You will find a BROWNELL exactly suited to your Creamery requirements.

Representatives everywhere ready to consult with you. Bulletin B-3 ready to mail.

THE BROWNELL COMPANY, Dayton, Ohio

BROWNELL

ou Want Accurate
BABCOCK TESTS!

SE....

afis Test Bottles

That Name Guarantees:

Superior quality of **glass** properly **annealed** for **strength.**

Accurate graduated scales colored with **durable enamel** unsurpassed in lasting qualities.

Conformity to **specifications** of various states and countries.

Specify NAFIS GLASSWARE to your jobbers

Do not accept substitutes. Write for our instructive catalog containing directions for many tests.

LOUIS F. NAFIS, Inc.

Manufacturers of Scientific Glass Apparatus for Testing Milk and Its Products

17-23 N. Desplaines Street Chicago

ASK THE MEN WHO USE IT

Crepe-Kraft
Barrel Liner

We make a Specialty of BARREL LINERS for Packing Powdered Milk.

PROMPT
SHIPMENT
ALWAYS

The Crepe-Kraft Co., Inc.

114 Adams Street

NEWARK, N. J.

dissolve the powder. Follow this by pasteurizing at 145 degrees F. for 30 minutes. Cool to 65 degrees F. and place in well tinned cans. Dilute 20 drops of commercial rennet extract in about one-fourth glass of water and add this to one hundred pounds of cream, agitating thoroughly while adding to insure adequate distribution. I suggest this be added to the cream in the well tinned cans and the cans immediately set in a cold room where the cream will cool over night without any additional agitation, to 50 degrees F. or slightly lower. Next morning I believe you will find it especially thick and quite easy to whip.

I suggest in first applying the above you omit the addition of skim milk powder. This can be used later if deemed necessary.

Third Suggested Remedy.

For the third remedy, I suggest the following. In this you will note I have used the addition of no special products, the whole process being based upon the method of handling the milk before separating. This remedy alone, or this plus the second, should give you the desired thick cream.

Recent experiments at the Geneva, New York, experiment station have shown that milk which is separated as soon as drawn from the cow, produces cream of low viscosity, but if this milk is cooled and held at a temperature of 37 degrees F. over night and then warmed up to 80 degrees F. and separated, the resulting cream, after standing about twelve hours, will have a viscosity of approximately ten times the product separated from fresh milk. The reason for this is that the fat globules in fresh milk are soft and are readily broken up and dispersed when the milk is separated. If the milk is kept cold the globules become very firm and, instead of being dispersed they clump together after separating and this phenomena causes the increased viscosity. A similar increase in viscosity is also noted when pasteurized milk is allowed to stand at a low temperature over night and then warmed to 80 degrees and separated the next morning. If it is allowed to age over night you will again find a very great increase in viscosity.

* * *

Baltimore.

Dear Sir:—I would like to have you send me a book on ice cream and pasteurized cream **testing**, also book on **testing cream and ice cream for bacteria count per c.c.**, showing the most efficient and quickest way for making tests. I now have a 10-bottle testing machine (electric) (but do not use steam), and I find that tests vary considerably. Advise me, please, if this is due to temperatures of cream and ice cream varying.

Reply: Into an eight or ten per cent milk test
weigh 9 grams of the melted and well mixed samp
ice cream. Add 10 c.c. of ethel or denatured alc
Mix thoroughly and add 9 c.c. of commercial sulp
acid. Centrifuge in the electric tester making two
tions with hot water to the bottle and completing
test as for milk. Place the tests in a water bath h
to 130 to 140 degrees F. as soon as removed from
tester. Allow them to remain in the bath for five
utes, read as for milk and multiply the reading by
It is very essential that all Babcock fat tests of
products be placed in the water bath for five mi
before reading and the water must be deep enou
completely surround the fat column in the bottle
This is essential for accurate results. Pasteurized c
is tested for fat in the same manner as unpasteu
cream. I am enclosing a new circular which will
you complete details of the process.

I am sorry we have no available bulletins on te
ice cream or dairy products for bacteria, and I su
you write to The American Public Health Associa
370 Seventh Ave., New York City, and secure a co
Standard Methods of Milk Analysis. This public
will cost forty cents, but it contains complete inform
on bacteriological analysis.

Now as to the cause of variation in cream
Cream from the same source will vary from day t
depending on many factors, such as:

1. Richness of the milk from which cream is
rated.
2. Temperatures used in separating milk.
3. Speed of the separator.
4. Rate of running milk through the separat
5. Amount of flush water used to flush sepa
after separating.

If your letter refers to a variation in tests bas
the fat content which you calculate your ice
should contain, then there must be some error i
way you are standardizing the mix.

Again, you may be standardizing properly bu
failing to weigh the cream and ice cream into th
bottles before testing. Cream and ice cream mu
weighed into test bottles for testing; they can n
measured. This is because they are viscous and ma
tain air; a great amount sticks to the pipette and
the amount delivered into a test bottle by a pipet
pends on the specific gravity or weight of the pr
The greater the fat content of cream the less weig
livered by the pipette. If you weigh the cream a
cream then temperatures will have no effect o
amount placed in the bottles.

WILLIAM H. TIMM
CONSULTING ENGINEER AND ARCHITECT
PERRY BUILDING
Chestnut & 16th Sts.
PHILADELPHIA
PENNSYLVANIA
DAIRY AND ICE CREAM PLANT SPECIALIST
Consulting Service for By-Product Processes

The Famous Flueless
— Boiler —

Famous as a Quick Steam Producer.
Famous as a Fuel and Repair Economizer.

BOILER is regularly constructed with extension to form ash pit, but can be furnished with cast iron ase, in all sizes up to and including 48 in. diamter, without extra charge. Boiler comes complete vith fire door and frame, ash door, grates, elbow nd damper, hand hole plates complete. Steam rimmings include safety valve, steam gauge and yphon, water gauge, gauge cocks, blow-off valve, injector complete with check and feed valve. All constructed to comply with the A. S. M. E. code for 100 lbs. working pressure and tested to 150 lbs. hydrostatic pressure.

Boilers carried in stock at all times.

See your nearest jobber for further particulars.

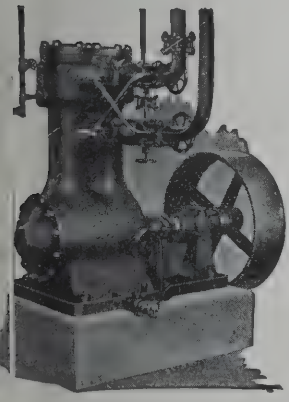
Schwab Boiler & Machine Company
16th & Canal Streets
MILWAUKEE, WIS.

Vilter
Enclosed Type
mmonia Compressor

An ideal ice machine for the moderate size plant. Modern in design made of high grade materials and thoroughly inspected and tested. Let us send a copy of our Bulletin No. 29R to you. It tells of the force feed lubrication to the piston pins, the easily operated Vilter plate valves, the oil sealed stuffing box and gives other information of value.

Let us Submit quotations on your requirements —no obligations to you.

The
ilter Manufacturing Company
ESTABLISHED 1867
5 Clinton Street Milwaukee, Wis.



Send These

Old Soldiers to our Camp for Spring Training

We Will Make New Men Out of Them

Like This

PRICES REASONABLE.
QUICK SERVICE.

Thompson-Bremer & Co.
We do Retinning and Rebuilding of All Kinds
We Can Quote You on Good Quality New Cans.
1750 Carroll Ave. :: CHICAGO, ILL.

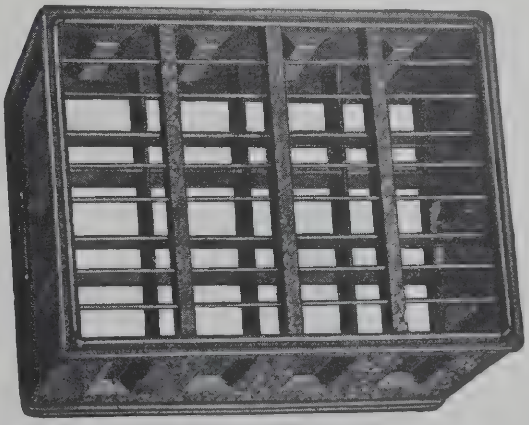
* * *

Year after year finds the users of

CLIPPER
ALL STEEL

bottle cases using their original purchases for daily service without a nickel for repairs.

If you want to economize—Try Clipper Cases.



Made by DEFIANCE PRESSED STEEL CO.

TRADE ASSOCIATIONS AND NEW COMPETITION.

(Continued from page 27)

In the case of clothing, the limitations are not so restrictive—although there is a limit to how much we can wear at a time—I am not so sure about the limit to how little we can wear—we can still have bigger wardrobes. But there are certain limitations as to what can be worn together—especially for the fair sex. What is called the ensemble is, in the new competition, the equivalent of the rules of civilized warfare. When what our grandmothers used to call limbs began to rival the colors of the rainbow, the shoe manufacturers faced the problem of their lives. Shoe and hosiery had "to go"—and they finally did because the shoe manufacturers and the hosiery manufacturers a year or two ago began to get together each season and set the colors which would be made popular.

When it comes to shelter, however, there are fewer limitations and the new competition between building materials is waxing fast and furious in every field of construction. One would think that the natural and technical properties of
building materials would be natural limitations in thei
And yet we find that there is a steady encroachment by
material into the fields of the other. Some of the stro
and most highly organized trade associations in the co
are fighting hard in the new competition in constructio
terials. The Portland Cement Association, for examp
one of the leaders. I understand that it has the largest
of any trade association and one of the largest budgets.
not content with selling cement for concrete highway
homes—it is reaching out for bridges and skyscrapers
hundred and one constructions in which other material
used. From the structural steel industry alone it is tak
hundred million dollars of business every year. Is the
tural steel industry sitting around watching this busines
It is not—within a very short time it has built up an o
ization which is not only working to meet concrete and
back its bridge and high building business but withi
next few years it will be meeting concrete in the small h
field with special types of fabricated steel shapes. And
incidentally, is a good example of how complicated the
competition is becoming. You would think that the las
son on earth who would aid the cement association
fight against steel would be a steel manufacturer. An
a substantial part of the Portland Cement Association's
is contributed by the United States Steel Corporation.
Because the Universal Portland Cement Corporation is a
sidiary in the great group of companies Mr. Gary has bui

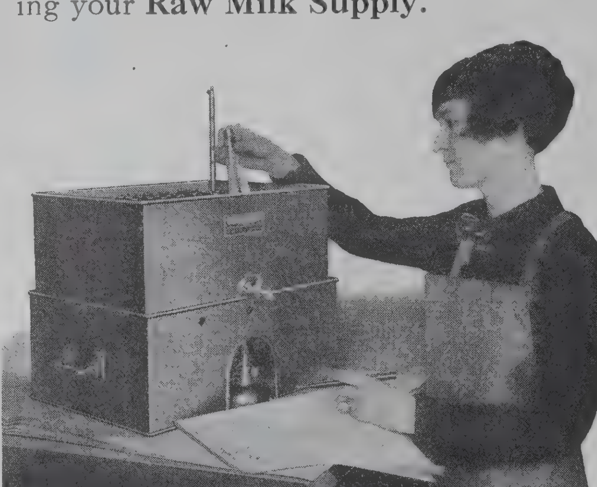
What Can a Trade Association Do?

What can a trade association do about inter-comm
competition? Advertising — co-operative advertising.
seems to be the first answer of all the problems of the
competition. Let's appropriate a hundred thousand d
a year to make the country moth-ball-conscious? Let's
a million dollars to make women hat-conscious! Yes
millinery industry is actually organizing a campaign to
women "hat-conscious"! Just think of the supreme
needed to make a woman hat-conscious. Off-hand, one
think that the hat trades must have conducted their ma
ing survey in a cemetery. And yet it is no joke for th
trades—the ensemble and the flapper tastes of women
ages have driven the big and profitable hat out of the s
Well, the women will be made hat-conscious and we sh
be made shoe-conscious and steel-conscious and chewing-
conscious and carpet-tack-conscious and on and until w
unconscious.

Co-operative advertising seems to be the logical and
itable and immediate answer to inter-commodity compe
But I have found that when the business world begins t
some particular method for granted, it is time to begin a
ing it very critically. Trade associations are beginni
feel that co-operative advertising is a panacea for eve
that afflict an industry. They vote a hundred thousan
lars or a million dollars, give it to an advertising agency,
instructions to take big space in colors in the committee
bers' favorite magazines—and forget it. They expect
within a year their plants will all be running day and
and that federal troops will have to be called out to kee
eager mobs back from the stores. If they are not sat
with a fair increase in volume, and they generally ar

The Contamo Tester

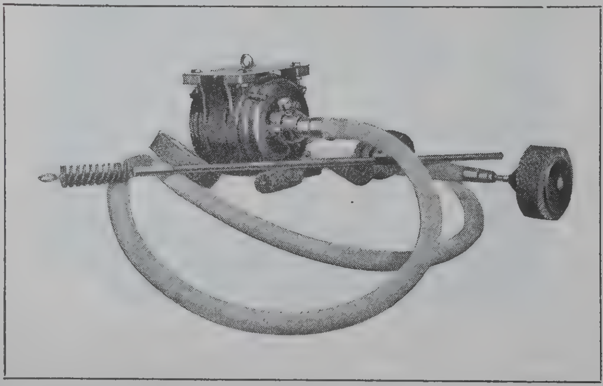
The quick and positive means of improving your **Raw Milk Supply.**



Send for illustrated circular which gives complete information.

LACTEAL ANALYTICAL LABORATORIES Inc.

176 Franklin St.
BUFFALO, N.Y.



The King Cleaner *vs.* Steel Wool and Harsh Brushes

RESULTS—Both will keep Sanitary Piping and tubular pasteurizing equipment perfectly clean,—but—the King Cleaner will not ruin the tubing, and requires far less time and effort for the work.

Send us diameters and lengths of tubing in your equipment and we will advise you size and price of Cleaner needed.

King Sanitary Pipe Cleaner Co., Inc.
SANDY HOOK, CONN.

WHAT IS GOOD *Dairying Country*

HISTORY
OF
DAIRYING

WITH THIS

History of the Dairy Industry

you can trace the progress different nations and localities have made in dairying.

You can learn quickly and positively how the industry originated, why it progressed and why it is what it is today.

Back of all these various degrees of success or failure there must be some fundamental reasons.

THEREFORE

reading this book gives you a knowledge that is essential to proper location of a dairy business and its proper development.

Copies sent postpaid on receipt of

$6.25 FOR DELIVERY IN THE U. S. $6.50 FOR DELIVERY IN ALL OTHER COUNTRIES

The Olsen Publishing Co.

501 Cherry Street " " " Milwaukee, Wis

it is up to the association secretary and the advertising agent to start selling the idea all over again to a new committee.

Warns Secretaries on Advertising.

A premature, vaguely-understood co-operative advertising campaign is worse than none at all. It is not enough to take full pages in magazines of two million circulation with a picture of a pretty girl and a slogan, "You need iron—eat more rivets." Trade association advertising is not a way of getting off cheap—whereby each member contributes a little and gets a lot. It is not a substitute for individual advertising. Trade association advertising is worth only as much as the individual members drag out of it—not what they put into it. Trade association advertising must be supplemented by individual advertising and merchandising to get its real value. The return on co-operative advertising is directly proportionate to the strength of its tie-up with the members' individual efforts.

Association advertising is a vital weapon in inter-commodity competition—it may be the most vital—but the new competition, like modern warfare, cannot be fought with a single weapon. It is not enough to tell the public to eat more of this or to wear more of that. Every product needs research to develop new uses and new markets. About every product the public needs facts—not advertising fancies—on efficient use and economical use.

After All It's a Price Issue.

Above all, inter-commodity competition is to a great extent price competition—if brick goes too high, people build with lumber; if meat prices go too high, people eat eggs, vegetables or cereals. To meet inter-commodity competition, it is therefore essential that the price of the product be brought down to the lowest possible level consistent with a reasonable profit. And there are dozens of ways in which a trade association can help accomplish this.

Inter-industrial competition is more difficult to meet—it is more indirect, more insidious. It is easy to know the alternative commodities with which you have to compete. It is much more difficult to know what other industries, apparently unrelated, are encroaching on your share of the consumer's dollar. And such competition has to be met indirectly. If other ways of spending money become more attractive to the consumer, the way in which you are interested must be made more attractive. More important even than this, the distribution system and the prevailing methods of merchandising must be watched constantly. You must not allow any other product which might compete become easier to buy. Of course, there are limitations to the extension of such facilities. The easier you make it to sign on the dotted line, the harder it may be to make the signature mean anything.

Inter-commodity competition may be the most spectacular of the types—but I do not believe that it is necessarily the most significant.

Study This Particular Type.

The other types of the new competition, which I have called inter-distributor competition, may have even more revolutionizing effects on business. Where it is recognized, it is certainly causing more heartaches and headaches. It is difficult for a business to reconcile itself to any change in its relative position in an industry. It is hard to overcome the idea that there is a caste system in business—that a manufacturer must be only a manufacturer, that the wholesaler has a definite place in business and that the retailer must always stay behind the counter. It is a shock to many to find that the stream of distribution does not have to run in the same channels that have guided it for hundreds of years. There is no economic law which has determined that a manufacturer should produce and sell to a wholesaler who in turn supplies the retailer. Is there one sound reason why manufacturers should not sell direct by mail or by canvassers? Is there any reason why department stores should not advertise nationally and build up mail-order departments? Is there any reason why a wholesaler should not organize a chain of retail stores or why a group of retailers should not organize a buying syndicate and cut out the wholesaler? The only possible reason is that such a step may be uneconomical—and the one who takes it will probably find that out first.

There is nothing sacred or eternal about any process of distribution. There are too many "mammy-songs" in trade association meetings—too much sentimental wailing about the old and traditional ways of doing business.

Should Small Associations Unite?

That is one of the big reasons why so many industries today are houses divided against themselves. Each factor in the line of distribution is trying to take advantage of the others and passes blood-curdling resolutions when the other party tries to get back. Each factor in each industry t to have its own trade association and to work out its destinies—usually opposed to the destinies of the other tors in the industry. Too much time is spent on resolu condemning such practices as group-buying, direct-sel hand-to-mouth buying, price-cutting, special prices for c stores and "free deals". All these resolutions are abou effective as the tribal dances savages dance before goin war, or ministrations of medicine-men or other supersti of primitive peoples, such as stealing a hair of your ene head and burying it at midnight.

There is no place for voodooism in American busines

The only way in which inter-distributor competition be met is by efficiency. The only way of preventing the fellow from stealing your place is to make yourself so u that he can't take it. The only way of keeping the ret from going into the wholesale business is to become a b wholesaler. If you have learned anything from your ex ence, if you have established a reputation and techniqu you serve as you should, you have advantages which the comer will find it hard to beat. And the only way fo trade association to help the member meet this type of petition is to help him become a more useful link in the of distribution.

New Problems and Ethics.

There are hundreds of unsolved problems which arise this type of the new competition—but they are not et problems. They are simply practical business problems as such only can they be solved. New methods of doing ness are not necessarily fraudulent or unfair or uneth They cannot be fought by indignant resolutions or appea legislators. I do not know of a single case in which methods have not failed absolutely and yet trade associa keep on "resoluting" against the new competition. I d intend to offer here solutions to these problems—ever dustry must work them out for itself. But I do want to gest some questions. They are not oratorical question do not know the answers to some of them—neither do But until we can learn to answer them we shall not be to meet the new competition.

Is the new competition unfair? The new competiti so intricate that there cannot be any general answer. I do not believe that there is any authoritative answe any official body to any of the specific questions involv the new competition. The Federal Trade Commission ca answer them. The government—in any branch—has been able to answer satisfactorily even the comparat simple questions regarding trade associations. The p at which competition becomes unfair is usually vague— particularly so in the new competition. But it is signi that the new competition was unrecognized until those suffered from it began to feel it as unfair. There has al been competition between raw material producer, man turer, middleman and distributor for their share of the mate price. What are fair and what are unfair metho increasing that share?

Nobody doubts that in such competition someone suffer seriously—but does that make it unfair? To extent are ability, foresight, enterprise, ingenuity, inf or good fortune unfair?

Who Is To Judge?

Who is to judge whether the elimination of the mi man is or is not in the public interest? How about the dlemen—can they not claim that attempts to eliminate are unfair? Suppose by eliminating the middlemen, were reduced, would that make it fair? Of course, dis tion must be made between the development of a legiti distribution method of permanent value and one whic matter how legitimate, cannot be developed to a usefu vice and which merely harasses and destroys exi methods.

Take the questions of skipping a step in the proce distribution—in the structural steel industry, for exa The steel mills ordinarily sell to fabricators who mak shapes and serve the builders with material to specifica demanded by the job. The fabricators give an impo service which not only saves time and money for the bu but also for the mill. Some of the larger mills, in att ing to increase their own individual volume to keep built plants busy, are now selling direct to builders- sometimes at a price lower than that which they ask fabricators. They do not do this on the difficult jobs require more service, but on the simpler ones. They selling in smaller and smaller quantities direct to the bu —selling at retail. Conditions are similar in the shoe i try, in the textile industry, in the food industry. Is petition with one's own customers ethical? I do no that it has anything to do with ethics—it may prove short-sighted business to destroy a valuable factor in tion. Especially is this so when nothing is really gained in the end—the total volume of structural steel used is ncreased one pound, nor the total volume of shoe sales ocery sales, by such methods. And the money and effort ved in such methods could probably help to increase the ne of business for everyone in the industry if they were ed constructively.

e are guaranteed "life, liberty and the pursuit of hap- s"—but it is becoming increasingly difficult to enforce guarantees in the complexities of the new competition. is commercial democracy? What is commercial equal- equality of commercial opportunity? And what is an nocratic limitation of opportunity?

Proves One Way Out.

ich vital questions between the different factors in in- y cannot be solved by having separate organizations and ate meetings at which each side sits and makes faces at ther. Some industries have already realized this and joint committees of producers, manufacturers, whole- and retailers. Joint committees discussing everyday ices and terms are a step in the right direction—but problems are simple compared with those of the new etition. It is on the very problems of the new competi- hat the clash of interest grows most bitter. But per- the strife of inter-distibutor competition will be quieted ie sake of strong union to meet inter-commodity com- on.

is only by industry-wide co-operation that inter-com- y competition can be met. Every element must forget auses of strife—all must contribute. It is not fair to t the manufacturers to bear the burden of a co-opera- dvertising campaign alone—or the retailers alone, or roducers alone. That which benefits one benefits all ll should contribute effort and money.

Strong Associations Are Needed.

ut every effort demands strong trade associations. The competition cannot be met by weak associations. A ary plus a figurehead and a letterhead do not make a association. A trade association must consist of a mem- ip which does what it wants its secretary to do for it. many trade associations the secretary's salary is in the e of alimony paid by the members to be left alone. The ganized or unorganized industry with a weak associa- as about as much chance in the new competition as the rbial celluloid dog with wax legs chasing an asbestos rough hell.

hat do I mean by a strong trade association? Let me st as an example a national organization with head- ers here—the Institute of American Meat Packers. And e say right here, that when I refer to such an associa- hat I am not cutting out the small association, well ized, adequately financed and capably managed. Where ind a trade association executive with brains and one ssing those qualities of leadership so necessary in all erative undertakings, you'll find a membership that is g. I want to stress that point. It is the association working membership that gets results. That's the cant thing about the Institute of American Meat Pack- t has a membership that works. It is one of the best ed and organized and most effective associations in the ry—and one reason is that its members are active. t is significant that it has been built up in an industry ich there has been not only the keenest competition ven the members but also deep antagonism from the factors in the industry. The packer's association not oins together for co-operative effort the packers but by and immensely valuable service also brings the whole ry together, from producer to retailer. On the one the packers have joined with the livestock producers to the National Livestock and Meat Board to improve rais- ethods and devise better methods of handling livestock well as to promote the sale of meat products. On the hand it has organized local Meat Councils of packers' etailers' representatives to work out fair practices in g with each other and in helping the retailers to de- into better merchants. For the packers themselves, the ite provides a long list of real services—not paper ones uding research into better operating practice; tests and rdization of equipment and supplies; tests of samples ducts; co-operative buying; university courses for train- ecutives in the industry; scientific research in nutrition ublic education in home economics. When the associa- s ready—when all the members heartily believe in it ill be able to get the most out of it—the industry will ly go into co-operative advertising.

ite this merely as a local example of what a trade asso- n can do to meet the new competition. There are dozens er well organized associations I could refer to, like the nd Cement Association.

Names a Needed Committee.

The time is approaching when the present methods of trade association activity will be found inadequate. Every trade association will then have a standing committee on the new competition—and it won't be the kind of committee which is so prevalent now. Sooner or later—and the sooner the better—such committees will develop into a board of strategy for each industry as a whole. It will be the duty of such a board of strategy to use the utmost resources in vision, brains and money that the industry possesses in studying continuously the new competition—and in carrying out the necessary measures for defense and attack. These are no tasks for letterhead committees.

The work of these boards of strategy will grow bigger and wider—there will be inter-industrial boards to work on common problems—there will be international boards which will develop world-vision and means of world-action. The only answer to the new competition is the new co-operation.

⁂

A WORTH-WHILE THOUGHT AS PORTRAYED BY A SMALL MILK DEALER.

Frank Baird, operating a small sized dairy plant in Toledo, Ohio, said a mouthful in a few words recently, which may be a splendid idea for some of you other small dairy plant owners to consider, and even some of the larger ones.

Mr. Baird does the collecting twice a month and does it himself. He operates a three-wagon route, one he runs himself, one is covered by a brother and another by a driver to whom he sells his milk and cream outright, allowing the driver to make his profit off the sale from the milk wagon. The accounts carried by the two former drivers are taken care of by Mr. Baird. He does no collecting while operatng on his route but takes afternoons semi-monthly and personally visits with his customers and builds a friendship in this way which would make it hard for a competitor to secure one of his accounts. Mr. Baird stated that in a small business it is possible to do this and gave as his reason the fact that the driver does not have the time to do it with any of the little personal touches which make and keep customers; he is in a hurry to cover his route and, of course, does not take the personal interest in the customer that the owner of the dairy does.

In speaking of personality, Mr. Baird expressed the fact that he believes most dairy equipment is purchased on that basis. He has had experiences covering his years of work in the dairy industry which have shown that customers will not tolerate perhaps a certain driver, whom the dairyman might think is an excellent worker and might not like to lose the services of, but will finally have to dispense with his assistance because he has not the personality to go over with the dairyman's customers. He simply is not liked on the route. He explains that it is the same way with salesmen to the milk industry; it is very easy to buy equipment and supplies from the salesman whom they like personally.

Mr. Baird is one of the dairymen who has spent the greatest number of years in this work in Toledo, and has taken but thirty-two days' vacation in the past 18 years, and no vacation for the past four years. He says the work is pleasant and interesting, but the proprietor must be on the job in order that affairs run smoothly about the dairy and for the customers.

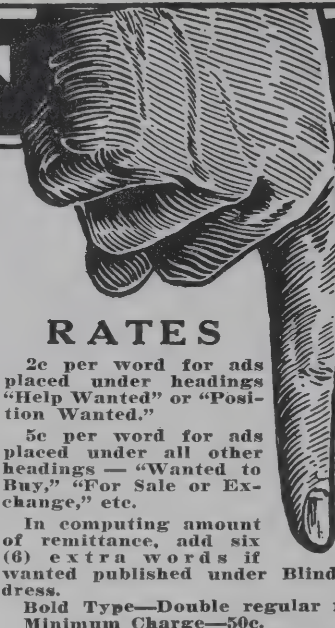
⁂

WILL MANUFACTURE BUTTER THIS SPRING.

The Scheffert Bros. Dairy of 869 Atlantic Avenue, Toledo, O., are adding the manufacture of butter to their dairy business, and will begin operation in this department this spring. A competent buttermaker has been hired.

The Best and Newest Equipment Is Advertised Consistently in The Milk Dealer.

WANT DEPARTMEN



HELP WANTED

(Rate: 2c per word)

HELP WANTED—Salesman calling on dairies to sell our bottle crate on commission. Liberal proposition. American Box and Crate Co., Louisville, Ky. 3-27tf

WANTED—Inspector and efficiency man, in and out of plant, handling city milk, butter, and ice cream. Must be a crank on cleanliness, quality and efficiency. Address: D-176, The Milk Dealer. 3-27

Wanted Advertising Man

with proven sales ability and one who has a good knowledge of the various branches of the dairy products businesses —

who is well versed in advertising and merchandising —

who can present and sell a high class proposition —

To this man is offered an attractive and profitable connection with a concern which is the largest of its kind.

In your first letter please give a complete statement regarding your experience, ability, etc.

Correspondence will be held strictly confidential.

Address: D-108, The Milk Dealer, 4-27

POSITION WANTED

(Rate: 2c per word)

POSITION WANTED—By a man who has had 18 years experience in the sales end of the milk business. Address: D-157, The Milk Dealer. 3-27

WANTED—Position as sales manager or supervisor of milk routes. Am 29 years old. Eight years experience. Fully capable of handling any situation and of building up sales. Address: D-156, The Milk Dealer. 4-27

POSITION WANTED — By dairy man with 16 years experience. Understands thoroughly buttermaking, pasteurizing, cottage cheese. cultured buttermilk and cream. Good reference Salary $40 a week. Address: D-169, The Milk Dealer. 3-27

POSITION WANTED—As superintendent or foreman in a city milk plant. I have had five years of commercial experience and four years of college work in dairy manufacturing. Please mention salary and possibilities of a job in your first letter. References. Address: D-175, The Milk Dealer 4-27

WANTED — Clients who should have more capital, cash profits, more room, more business, better products, better help, less guesswork, re-established confidence with bankers and public, better cost system, less surplus problems, low daily shrinkage. We are helping others, we can help you. Write us. Charles F. Schwager, Service and Sales Corporation, Omaha, Neb. 3-27

RATES

2c per word for ads placed under headings "Help Wanted" or "Position Wanted."

5c per word for ads placed under all other headings — "Wanted to Buy," "For Sale or Exchange," etc.

In computing amount of remittance, add six (6) extra words if wanted published under Blind Address.

Bold Type—Double regular rates.

Minimum Charge—50c.

Blind Address — EXTRA — 25c in U. S. only; 65c Foreign — To cover postage in sending out replies from this office.

REMITTANCE MUST ACCOMPANY ORDER.

IT PAYS TO ADVERTISE

NOTE: Names and addresses of advertisers using blind addresses cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of this paper.

NOTICE

The publisher disclaims any responsibility for the reliability of parties advertising in the Want Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting suspicious dealings.

We reserve the right to refuse to accept advertisements which we believe are detrimental to the dairy industries.

Want Ads are accepted up to 7th of month preceding date of issue. Forms close on that date.

POSITION WANTED — By young man, 30, familiar with the manufacturing of all dairy products, Swiss cheese a specialty. Knows how to keep up-to-date double entry books. Address: D-154, The Milk Dealer. 3-27

POSITION WANTED—By man experienced in the manufacturing of condensed and evaporated milk. Can qualify as foreman or manager. Will accept position as pan operator or Mojonnier chemist where there is chance for advancement. Can furnish references as to my ability and character. State all particulars and salary. Address: D-171, The Milk Dealer. 3-27

FOR SALE or EXCHANGE

(Rate: 5c per word)

BUSINESSES

FOR SALE—Pasteurizing milk plant in eastern Pennsylvania doing around 3,000 quarts daily. Owner in poor health. Plant built (everything new) four years ago. Will sell for less than half of original cost to quick buyer. Only half cash needed, balance on mortgage for 5 years. Address: D-168, The Milk Dealer. 3-27

FOR SALE—Ice cream plant complete. Two freezers, "brine," pasteurizers, milk cooler, all equipment. Two milk routes. Our own cooling rooms and ice machine. Address: D-172, The Milk Dealer. 3-27

MACHINERY AND SUPPLIES

FOR SALE — Refrigeration Machines — Used—We have several used and new machines of nationally known make, which we can sell at a big saving to you. Will erect and guarantee the plants fully. Address: Erecting Engineers Company, 4725 West Lake St., Chicago, Ill. 3-27tf

FOR SALE—One 5-h.p. Lookout ve
boiler, good as new. Used about 60
$100.00. American Box and Crate
Louisville, Ky.

FOR SALE — One 2-in. tubular
cooler, 2 sections, 8 pipes each, 10 ft
Complete with troughs and brackets
bargain, $150. Too small for my use
good condition. W. H. Halle, R. 4,
lyle, Ill.

FOR SALE—One Rice & Adams
tank case washer. Ten horse power
attached. Everything ready to ru
good condition. Glad to quote pric
request. Clarence Fraim, Fraim's Da
Cor. Vandener Ave. F. and La Mott
Wilmington, Del.

FOR SALE—One 300-gal wood
Manning coil pasteurizer, newly ret
and in excellent condition. Price $2
One 400-gal. C. P wood body coil pas
izer, in good condition. Price $250.00
300-gal. wood body Cherry coil pasteu
newly retinned and in excellent cond
Price, $250.00. Address: D-134, The
Dealer.

FOR SALE—One 200-gal. belt
Manton-Gaulin homogenizer; one 40
motor drive Manton-Gaulin homoge
These machines have been compl
over-hauled at the factory and are
anteed to run as well, and do as
work as new. They are subject to
prices for immediate sale. Address
133, The Milk Dealer.

FOR SALE.

Coolers, 14-ft ; 42-2 inch Tubes, all
14-ft. regenerative Reid with
steel direct expansion section. Com
with troughs and covers. Two
Creamery Package filters, steam d
milk pump, 2-inch size. Reid centri
heater; 6-ft. cooler; 7-ft. cooler; 40
Gaulin homogenizer, motor driven
gal. Cherry pasteurizer (new); tw
Laval separators, 40 and 41; new T
scale, overhead beam dial face. Al
above in good condition for sale o
change. What have you? Albert
2642 N. Hutchinson St., Philadelphia

FOR SALE—Powdered milk mach
very cheap. Will install and guar
Address: Box 884, Jamestown, N. Y.

FOR SALE—One 300-gal. Cresco
teurizer, belt drive, used but 18 m
$200. H. S. Holder, Hudson, Mass.

FOR SALE — National homoge
practically new, used less than
months, 500-gal capacity, direct
drive, complete with starter switch
Motor 20-h.p., 3 phase, 60 cycle, 220
$1,500 F. O. B. cars, Dallas, for
sale. First certified check gets ma
Metzger Creameries, Dallas, Tex

FOR SALE—Small refrigerating
chine, boilers, motors, lineshaft and
leys. Ice box suitable for small
plant equipped for refrigeration.
lar cooler and other equipment. Rea
gains. Producers' Dairy Co., Joplir

FOR SALE—300-gal. C-P direct
pasteurizer, white enamel finish; i
condition, used 9 months, $500; 15
belt drive Cherry pasteurizer, $100
sections cooling coil, $100; 150-lb.
drive De Laval separator. These ar
bargains A. E. Rost, 920-25th Ave.
waukee, Wis.

WANTED TO BUY

(Rate: 5c per word)

WANTED TO BUY—Second hand tu
cooler, capacity from 5,000 to 8,000 lb
hour. Wisconsin Milk Products Co.,
Mills, Wis.

WANTED TO BUY — Condense
creamery. Prefer to lease with pri
of buying. Address: D-129, The
Dealer.

WANTED—Used pasteurizing vats
ers, ice breakers, ice cream cans and
churns, etc. Send us list of what you
for sale. B. Riley Hauk & Son Con
201 South First St, St. Louis, Mo.

Have you the right man for the
position? If not, consult "The Milk D
Want Department.

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What would you do?

A

roduct

Just suppose that at 10:27 this morning, or any time when it would be most inconvenient, your only large capacity bottle washer stopped suddenly—damaged in some way or another so that immediate repairs could not be made — what would you do?

What *could* you do? Probably put every man that could be spared on to the job of washing bottles by hand. Dust off the old brush washer, remove the what-nots from the sink, and hope that the big machine gets fixed. Schedules all topsy-turvy—men not too pleasant—overtime—money lost—high bacteria count—it's a bad fix to be in.

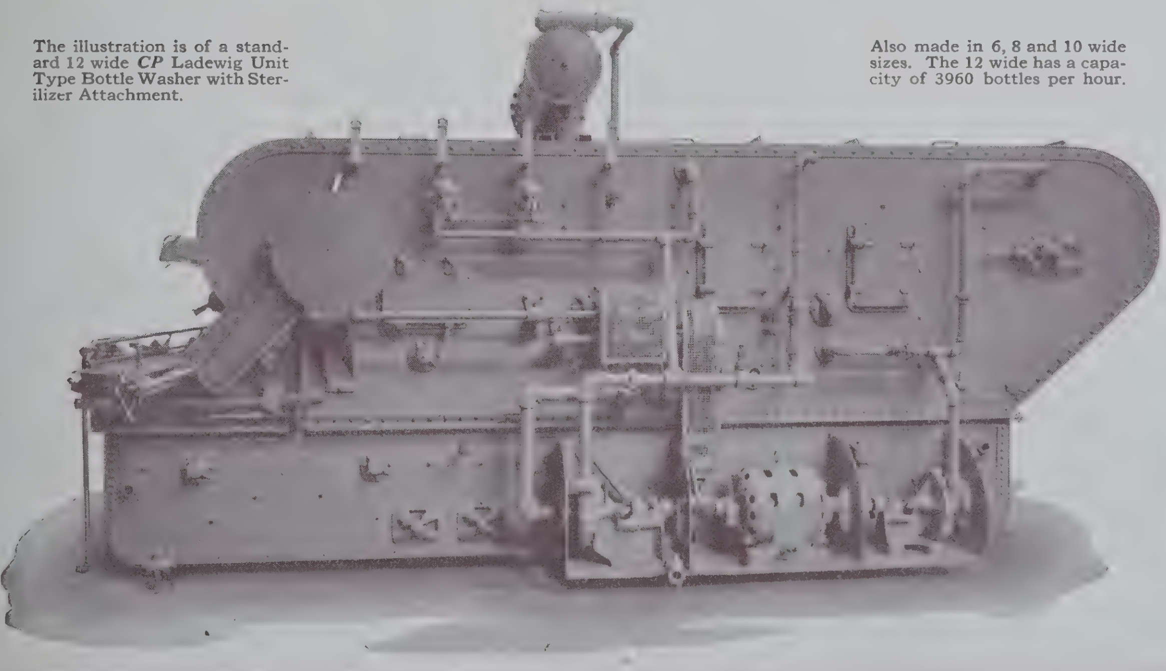
The *CP* Ladewig Unit Type Washer is constructed so that complete breakdowns are well-nigh impossible. Slow motion, simplicity and positive action, together with unusually fine construction of highest grade materials, is proof against serious trouble.

Day in and day out, the *CP* Ladewig will do the bottle washing job, and do it right. It never falters or acts up. It is reliable, dependable—as fine as can be built. When you must put all your eggs in one basket, why not put them in a good one?

Write for Bulletin 1131, which gives full particulars.

THE CREAMERY PACKAGE MFG. COMPANY
1243 W. Washington Blvd. Chicago, Illinois

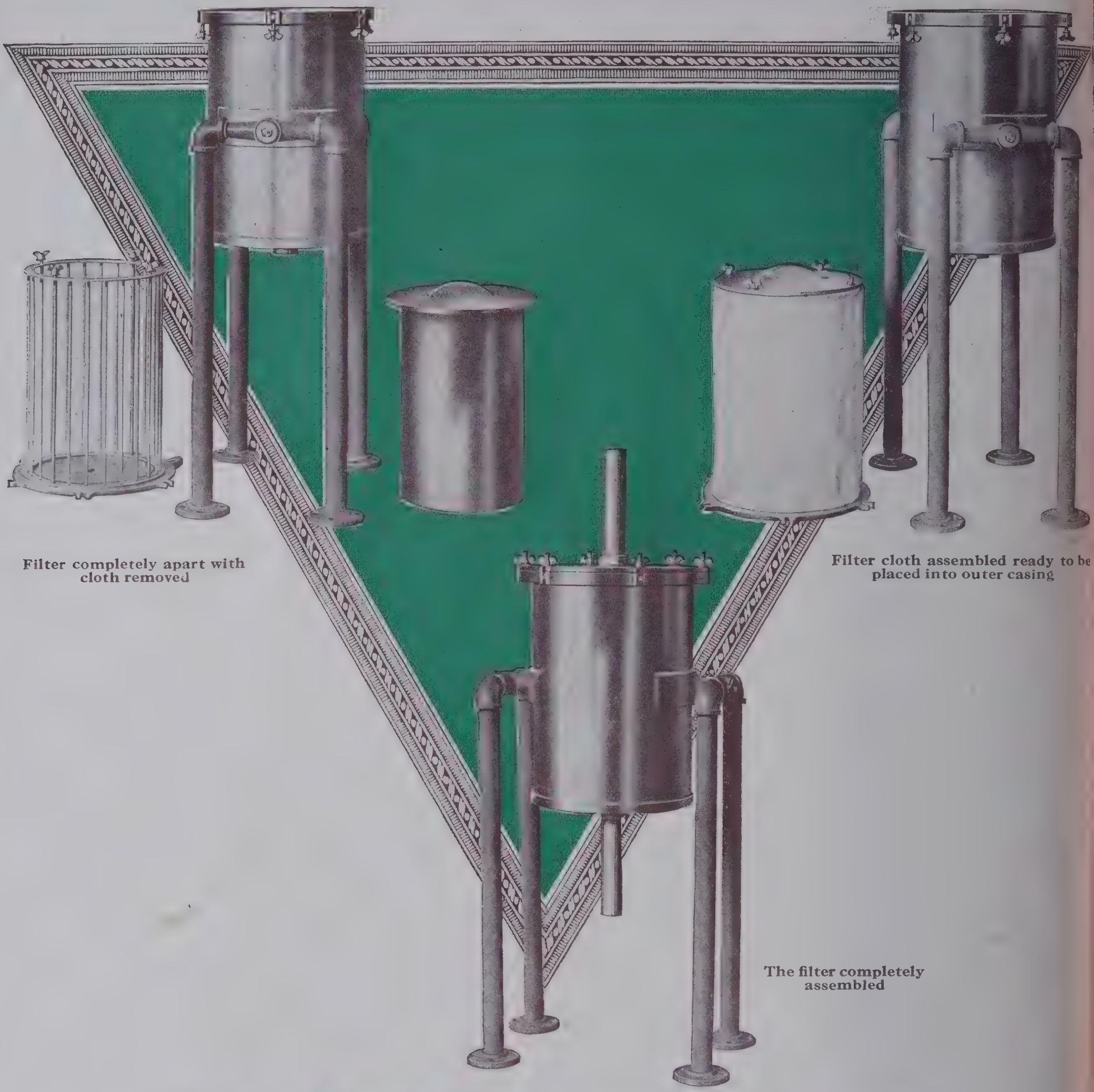
Sales Branches Everywhere.



The illustration is of a standard 12 wide *CP* Ladewig Unit Type Bottle Washer with Sterilizer Attachment.

Also made in 6, 8 and 10 wide sizes. The 12 wide has a capacity of 3960 bottles per hour.

"FOR BETTER MILK HANDLING"



Filter completely apart with cloth removed

Filter cloth assembled ready to be placed into outer casing

The filter completely assembled

The **YORK** No. 2 Filter

WITH a capacity up to 12,000 lbs. per hour the YORK No. 2 FILTER will meet the needs of practically any dairy.

It can be taken completely apart and cleaned thoroughly. There are no wires or screens to clog or catch the dirt.

The filtering cloth is easily removed and cleaned. The YORK No. 2 FILTER is made of 2-ply tinned heavy copper sheet and brass castings heavily tinned all over.

YORK MILK MACHINERY CO.

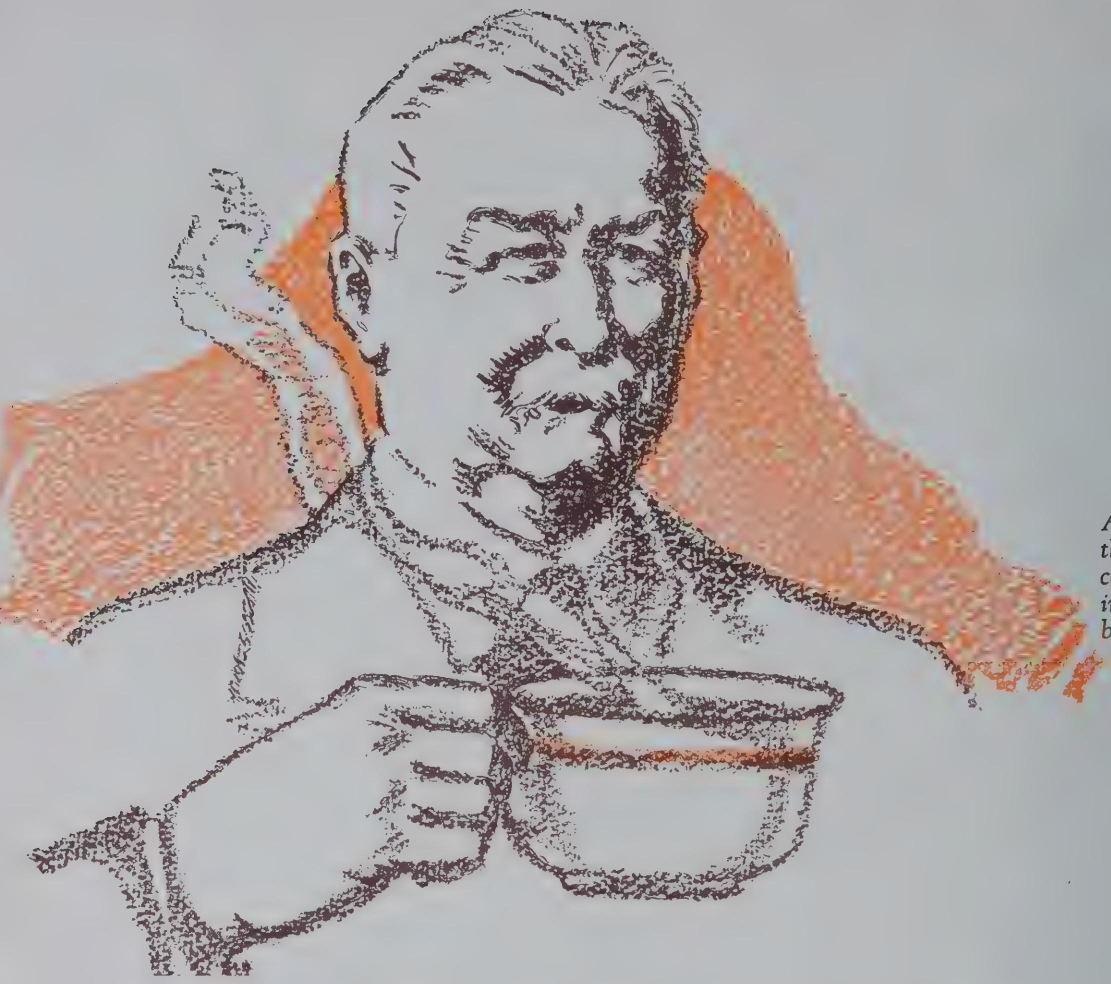
Manufacturers of Milk Handling Equipment

York Penna.

THE MILK DEALER

APR 18 192
UNIVERSITY OF ILL

Volume 16 April, 1927 Number 7



A new milk drink wi
the invigorating tang
coffee; zippy and refres
ing; wholesome and lik
by everybody.

Coffee Milk---A Zippy Special That Gets New Custome

Every day will bring you dozens of new customers for COFFEE-MILK in offices, shops, stores and homes.

ONCE let your driver-salesmen take out a few cases of Coffee-Milk over their routes and you will find out how fast Coffee-Milk boosts sales. It is a wholesome milk drink with the true, full flavor and tang of coffee. Not too sweet—just right; Coffee-Milk is fast becoming the most popular drink wherever served.

Made from full flavored, fresh roasted coffee, highly concentrated in syrup form. Easy to mix with milk; no equipment necessary. Never settles at bottom of bottle; no sediment. Write for prices and sample.

Sold in 12 oz. and 16 oz. bottles for home use and in one gallon and ten gallon jugs for milk dealers.

D. ABELSEN & SON, - - Providence, R. I.
Central States Representative: M. C. DRESHFIELD, 405 East Main St., Kalamazoo, Mich.

To insure prompt reply when writing for samples or information, address direct to factory.

ARABIAN BRAND COFFEE SYRUP

A Super-Eight Installation at the Manitowoc Farmers Co-operative Dairy Co., Manitowoc, Wis.

Perfect Temperature Control

Eliminates Bottle Breakage

in the New

LADEWIG-SOELCH *Super-Eight* BOTTLE WASHER

FROM the first rinse until the final washing the temperature of the water in the Super-Eight is carefully graduated and under complete control. This prevents breakage and saves many a dollar over a year's time. Bottles come out perfectly clean, sterile, and *cold.*

No adjustments for various sizes of bottles are necessary so that half pints, pints and quarts can be run through together. The clean bottles come out of the feed-in end, saving one man's time.

In design and construction, this Ladewig-Soelch Super-Eight is truly a masterpiece of mechanical engineering, yet it costs less than other washers of equal capacity. Write for complete information.

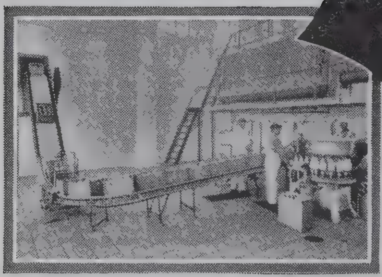
Distributed by
A. H. ARNOLD & CO.
718 W. Randolph St., Chicago, Ill.

Manufactured by
LADEWIG-SOELCH CO.
38th & Lapham Sts., Milwaukee, Wis.

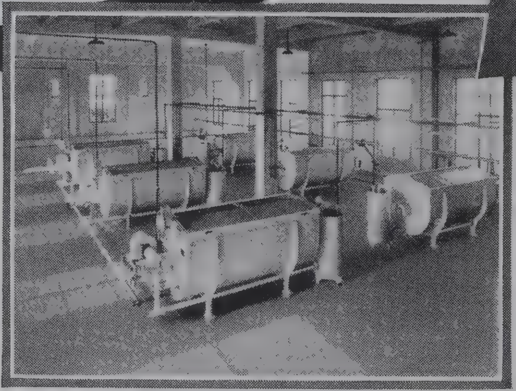
When writing to A. H. ARNOLD & CO. *please mention The Milk Dealer.*

Another Fine Milk Plant is *Cherry* Equipped

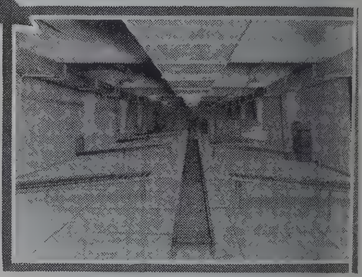
The buildings of this great plant cover 14 acres



Bottling Room



These Type L. Cherry Twin Coil Vats Pasteurize 300 Gallons of Milk per Hour



Cold Storage Room

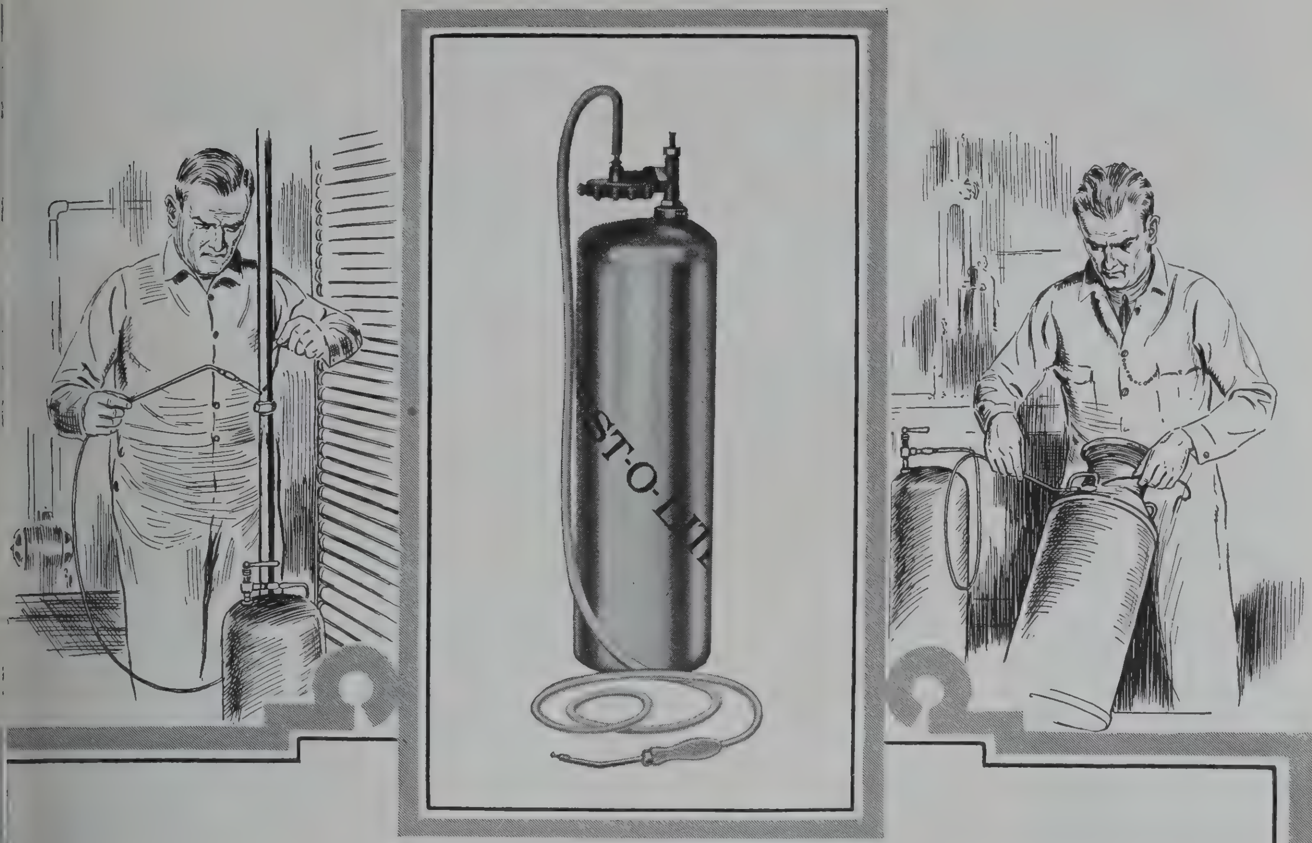
The Sanitary Gold Seal Dairy of Los Angeles determined to turn out a very fine quality of milk and to do so profitably and economically. So they installed Cherry equipment.

Ask us to show you how you can secure the same result.

J. G. Cherry Company, *Cedar Rapids, Iow*

St. Paul, Minn. Tama, Iowa Peoria, Illinois

When writing to J. G. CHERRY COMPANY *please mention The Milk Dealer.*



Use This Tank to Cut Your Overhead

UNDER old-fashioned methods of soldering vat coils, the better part of a day is often lost in removing and replacing the coil—the time that is consumed in doing the actual soldering is very short.

But in Prest-O-Lite soldering, vat coils can be repaired without having to remove them. Similar savings prevail in installing and repairing sanitary pipe lines, resoldering vats, etc.

Prest-O-Lite also excels in the speed and economy with which milk can handles can be resoldered, small leaks plugged up, etc.

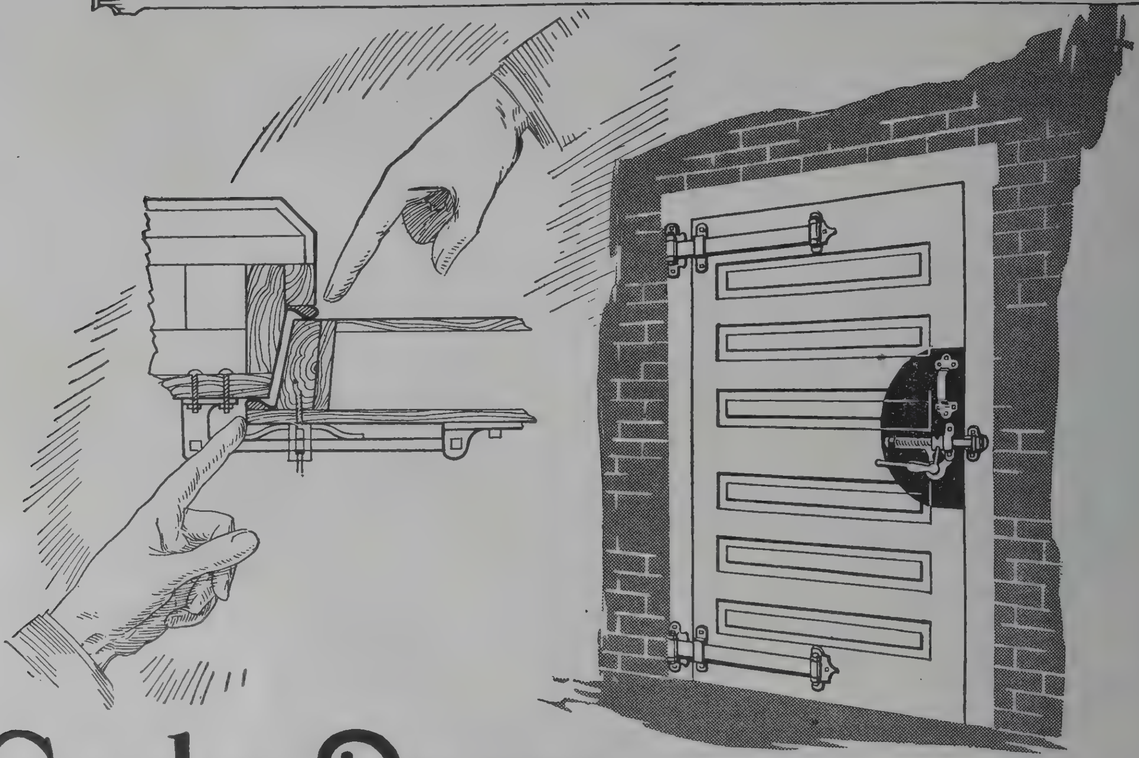
And the cost is most reasonable. For your convenience, Prest-O-Lite maintains more than 15,000 gas exchange stations where you can always get a full Prest-O-Lite tank for your empty one—paying only for the gas.

Write for full details and prices.

THE PREST-O-LITE COMPANY, *Inc.*
New York INDIANAPOLIS San Francisco
In Canada, Prest-O-Lite Company of Canada, Ltd., Toronto, Ontario
Unit of Union Carbide and Carbon Corporation

Prest-O-Lite
Gas
The Gas of a Thousand Uses

FACTS ABOUT COLD STORAGE DOORS ~ *No. 4 of a Series*



Cooler Doors ~
must have double *seals of contac*

Jamison Doors
JAMISON COLD STORAGE DOOR CO.

Our new catalog No. 13 gives complete information on Jamison Cooler and Freezer Doors, Automatic Ice Chutes and other Jamison Products. A. I. A. File No. 32C 1.

SPECIFICATIONS for a cold storage or refrigerating plant are a brass-tacks matter. Doors, for example, do not rest between the bronze portals the president favors and the panelled doors the treasurer prefers. Cooler and freezer doors have *work* to do.

Even a perfect door in a perfect wall is deficient—if the lines of contact are not complete. At every point of contact, Jamison Cooler and Freezer Doors are *doubly* sealed. No single gasket, however tight-fitting, can give the absolute proof against leakage that the confined dead air between these *two* seals provides.

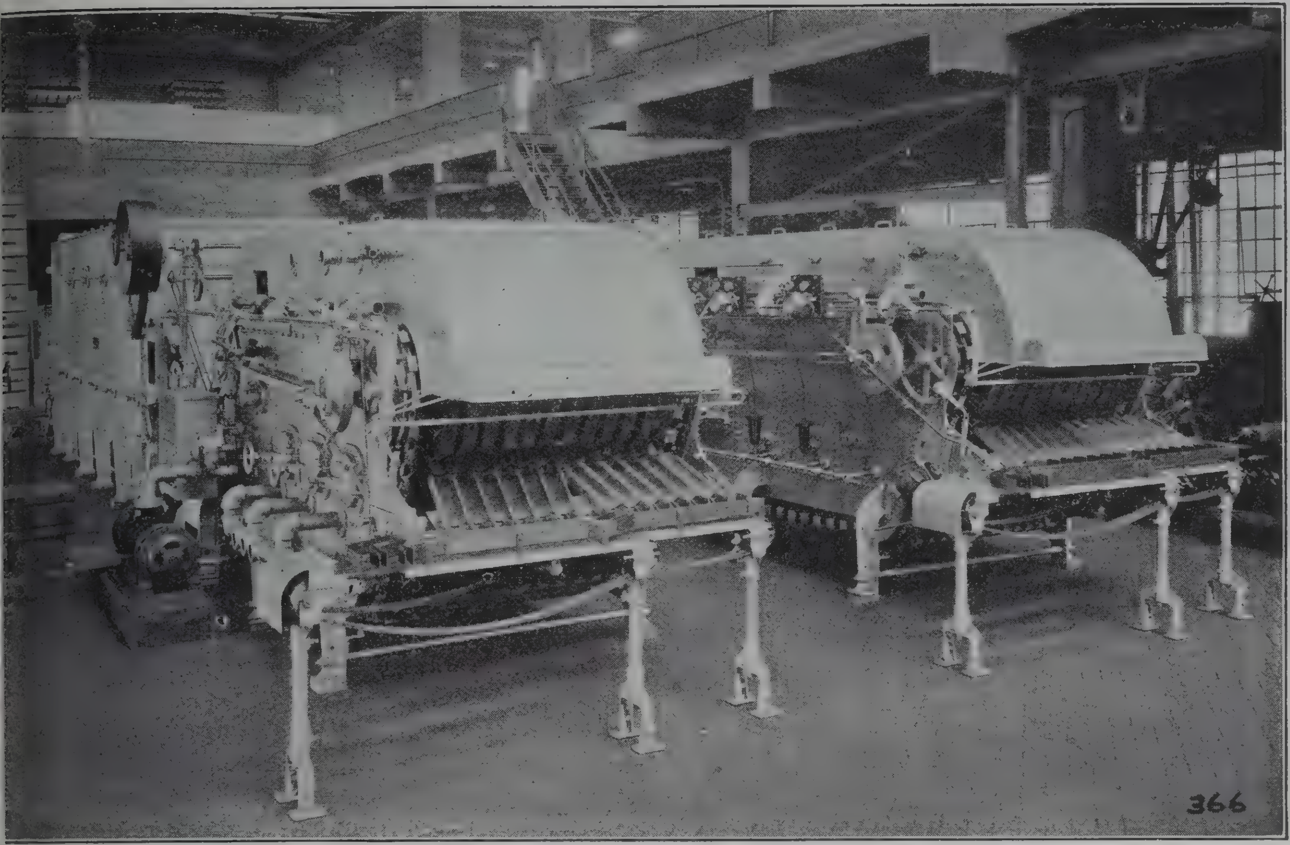
The double seals of contact principle costs more. But air leaks cost still more, and the Jamison method definitely minimizes temperature losses. . . Other points of Jamison construction have proved themselves creative of higher refrigerating efficiency. Heavier, surer pressure hinges; slam-proof Self-Tightening Fasteners; higher standards of insulation. And the fact that we have a large stock of standard size doors on hand ready to ship *now*.

Our catalog puts the whole successful story in your hands. May we mail it to you?

Jamison Doors

Jamison Cold Storage Door Company
Hagerstown, Maryland, U. S. A.

When writing to JAMISON COLD STORAGE DOOR COMPANY *please mention The Milk Dealer.*



The "ARISTOCRAT"

OF BOTTLE CLEANERS

APTLY NAMED BECAUSE IT IS IN A CLASS BY ITSELF

Above cut shows TWO large ARISTOCRAT units consisting of independent 5-COMPARTMENT SOAKER connected to our latest hygienic BRUSHLESS WASHER with Sterilizing and 3-Compartment Cooling attachments. Photo was taken on the assembly floor of our large modern factory.

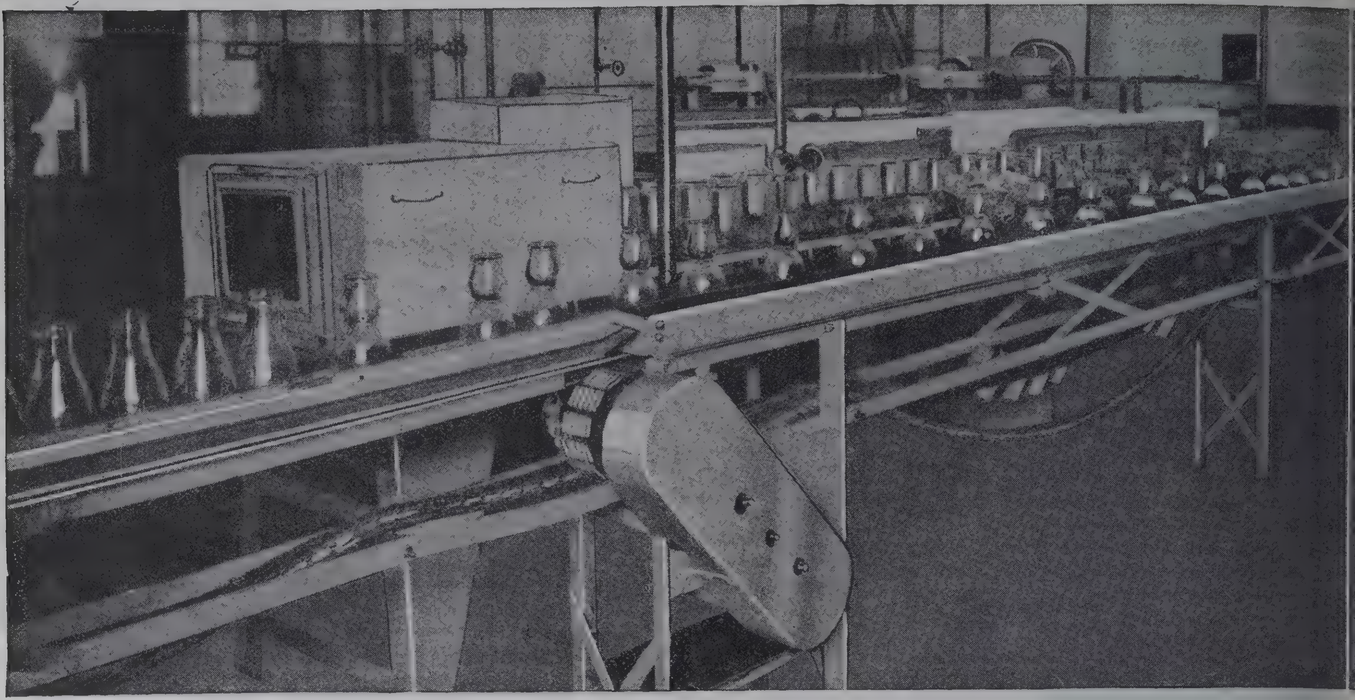
These units are now being installed in that new wonderful plant of SIDNEY WANZER & SONS, INC., CHICAGO, ILL., where the best was the main consideration. Write us for full particulars. Our engineering staff belongs to you. 26 years experience.

Sheffield Farms selects Barry-Wehmiller Bottle Washers, Soakers and Sterilizers for their *new Jamaica*, Long Island Plant. After using 2 Barry-Wehmiller machines for more than 2 years in their New York City Plant, 2 more at the Brooklyn Plant, 2 more at the Harlem Plant, and 2 more at the Bronx Plant, all of 6 to 8 compartments in size, they have for the *fifth time ordered 2 more for their new Jamaica Plant.*

Barry-Wehmiller Machinery Company

Pioneers of Bottle Cleaners and In-the-bottle Pasteurizers

4660 W. Florissant Ave., St. Louis, Mo., U. S. A. **New York Office: 18 West 25th St.**



View of a Miller installation at the Esmond Dairy, Sandusky, Ohio

Chemically Clean Bottles —At the Lowest Cost

IN the Miller Hydro there are no germ-laden brushes to contend with . . . no delicate mechanism . . . no parts that easily wear out with the brushes. Instead, this mechanically perfect soaker year in and year out goes regularly about its business of producing a continuous stream of chemically clean bottles at almost fifty per cent less washing cost.

The Miller Hydro can never wear out. No one has ever discovered a worn-out Miller Hydro even though 3500 machines are in daily use. It is built to give a lifetime of bottle-washing service free from any sort of expensive brush mechanism.

If you consider that the work of a soaker is to polish and scour every dirty bottle to a thorough degree of sterility at the lowest possible cost . . . then you owe it to yourself to install a Miller Hydro. It will soon pay for itself out of wasted profits and the satisfaction it gives will be worth ten times the reasonable purchase price.

Write us today for catalog and names of large dairies who have tested the Miller Hydro under every condition.

THE MILLER MANUFACTURING CO., Bainbridge, Ga.
Chicago Office: 1305 Monadnock Block New York Office: 105 West 40th Street

from Dirty
The MILLER-HYDRO
Bottle Washer and Sterilizer
ONE CONTINUOUS OPERATION
to Cle

When writing to THE MILLER MANUFACTURING CO. *please mention The Milk Dealer.*

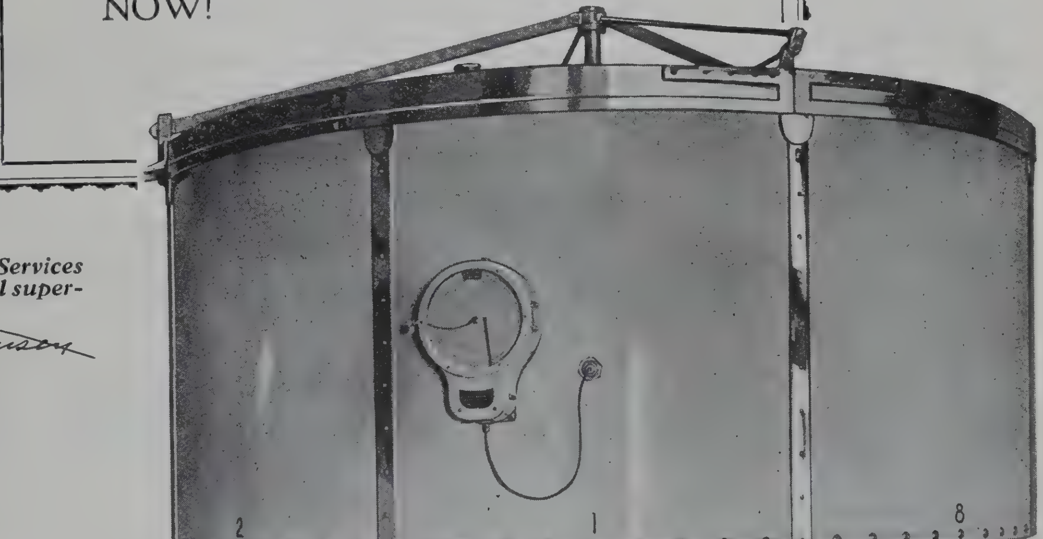
A fact worth considering before you make another purchase

The MORTENSEN Positive Automatic All Nickel Holder

will pasteurize more milk in a given area of floor space with less help and with absolute assurance of positive operation at correct pasteurizing temperatures than any other equipment available today.

You will find the complete details interesting. Send for them NOW!

'e in sizes from 2,500
,000 pounds per hour
ure nickel or tinned
per.



Our Milk Plant Engineering Services are always under my personal supervision.

C. Mortensen

tandard Milk
achinery Co.
corporated

Louisville,
Kentucky.

When writing to STANDARD MILK MACHINERY CO. *please mention The Milk Dealer.*

Built to fit

$670
¾-Ton Chassis F.O.B. Detroit

$1245
1½-Ton Chassis F.O.B. Detroit

$885
1-Ton Chassis F.O.B. Detroit

$1445
2-Ton Chassis F.O.B. Detroit
Dual Rear Wheels Optional at Same Price

Quality—
Volume—
Low Price

GRAHAM

SOLD BY DODGE BROTHERS
DEALERS EVERYWHERE

When writing to GRAHAM BROTHERS *please mention The Milk Dealer.*

your business

—for the Milk and Milk Products Industries

From more than Twenty-Two Million milk cows in the United States come products each year which exceed Two Billion Dollars in value. Between cow and consumer more than Fifteen Thousand firms handle these products—mainly milk, ice cream, butter and cheese.

Milk is indeed perishable. It must be handled with speed, with care and on a rigid time schedule.

In this exacting service several thousand Graham Brothers Trucks have added their performances day after day—in all sections of the country and under all conditions of road and weather—to the universal reputation of Graham Brothers Trucks for power, sturdiness, economy of operation and dependability.

Graham Brothers Trucks and Commercial Cars meet 91% of all hauling needs. They are sold complete with bodies to fit your business. Only great mass production makes such low prices possible.

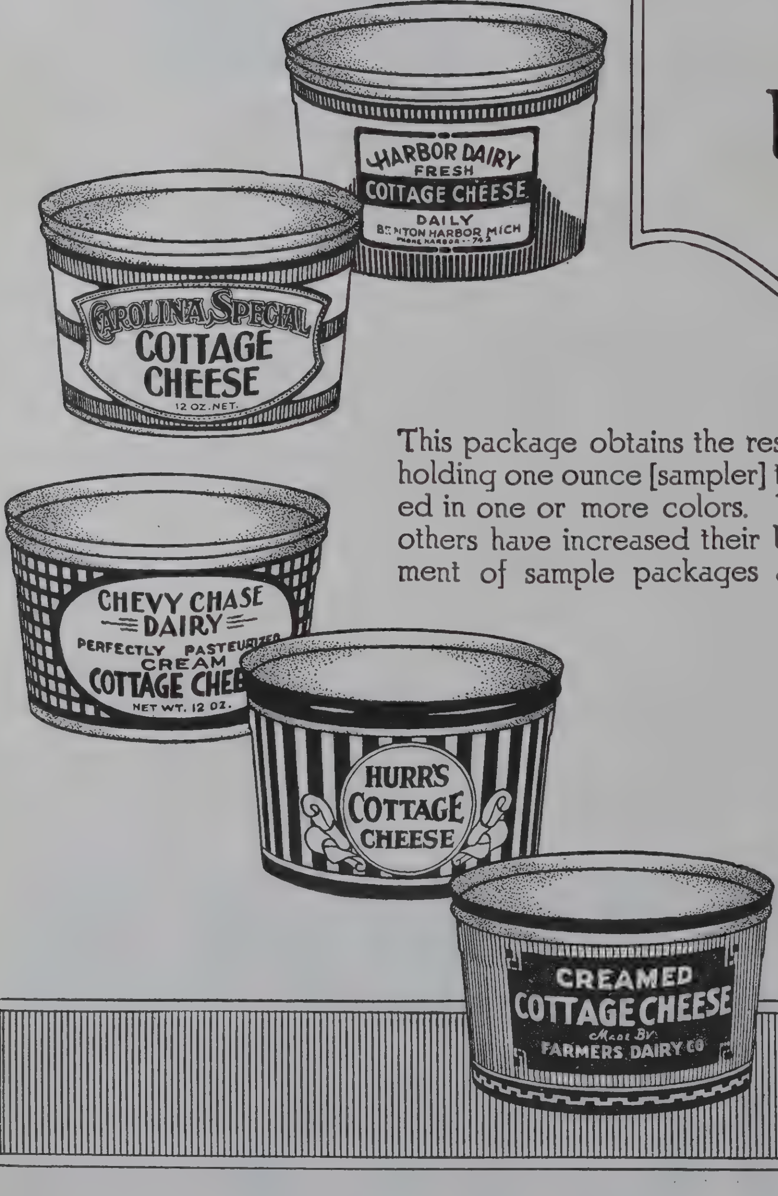
GRAHAM BROTHERS
EVANSVILLE – DETROIT – STOCKTON
A DIVISION OF DODGE BROTHERS, INC.
GRAHAM BROTHERS (CANADA) LIMITED, TORONTO, ONTARIO

Ask your local Dodge Brothers dealer for the Vocational Book which features the use of trucks and commercial cars in your particular line of business.

BROTHERS
—TRUCKS—

When writing to GRAHAM BROTHERS *please mention The Milk Dealer.*

Make your present market yield more Cottage Cheese business —


HARBOR DAIRY
FRESH
COTTAGE CHEESE
DAILY
BENTON HARBOR MICH
CAROLINA SPECIAL
COTTAGE
CHEESE
12 OZ. NET.
CHEVY CHASE
DAIRY
PERFECTLY PASTEURIZED
CREAM
COTTAGE CHEE
NET WT. 12 OZ.
HURR'S
COTTAGE
CHEESE
CREAMED
COTTAGE CHEESE
Made By
FARMERS DAIRY CO

This package obtains the results. Made in sizes holding one ounce [sampler] to ten pounds. Printed in one or more colors. Let us tell you how others have increased their business—an assortment of sample packages await your request.

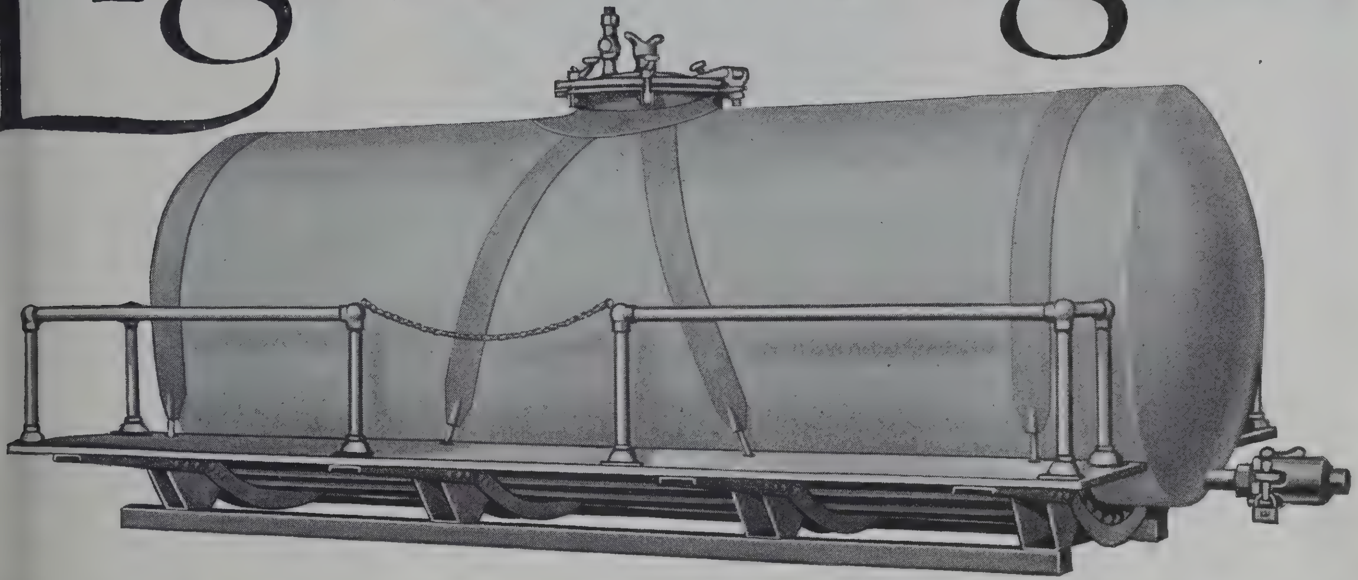
KLEEN KUP

The Package That Sells Its Contents

Mono Service Co.
NEWARK NEW JERSEY

When writing to MONO SERVICE CO. *please mention The Milk Dealer.*

Light-weight



GLASCOTE

Truck Tanks

USERS of Glascote Lightweight Truck Tanks are hauling 1200 gallons instead of 1000 under same road laws and saving time and expenses in proportion.

Glascote Tanks have perfectly round dished heads welded into a circular body, making the strongest possible construction.

Glascote mounting is designed to cradle the bottom of the tank completely, with cross members built like the chassis of a truck, giving the maximum strength and support with the least weight.

Glascote Tanks are cork insulated and have welded sheet aluminum protecting jackets, finished to take paint.

Equipment includes pressure and vacuum gauges, platform, railing and outlet valve with protecting cover and lock.

SEND FOR BULLETINS

PITTSBURGH.PA

Typical Glascote Tank in long distance heavy grade service.

THE GLASCOTE COMPANY, EUCLID, OHIO [Cleveland District]

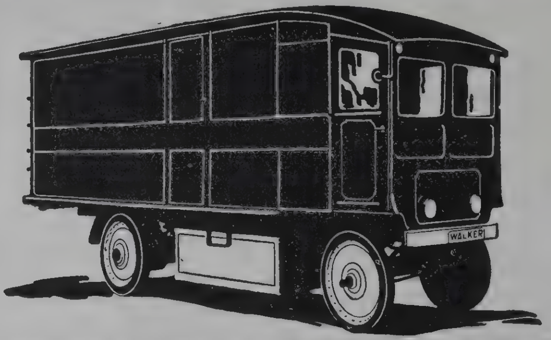
EW YORK OFFICE
15 Park Row
Barclay 1784

CHICAGO OFFICE
127 North Dearborn St.
Dearborn 9731

DETROIT OFFICE
1217 Book Building
Cadillac 0799

ST. LOUIS OFFICE
905 Carleton Building
Garfield 3561

When writing to THE GLASCOTE COMPANY *please mention The Milk Dealer.*



Where Low Operating Cost and Depreciation Dictate Purchases

One characteristic of business leaders is far-sighted scientific purchasing. Their capital position enables them to buy the best, so as to attain low depreciation and low operating expense. That is why hundreds of leaders in American business continually reorder more Walker Electric Trucks for their deliveries on city routes. They know that Walkers are the most profitable motor truck investment for frequent-stop city delivery.

16 different money making and money saving advantages of Walker Electric Trucks in city traffic. Ask us about them.

Order Walkers now!

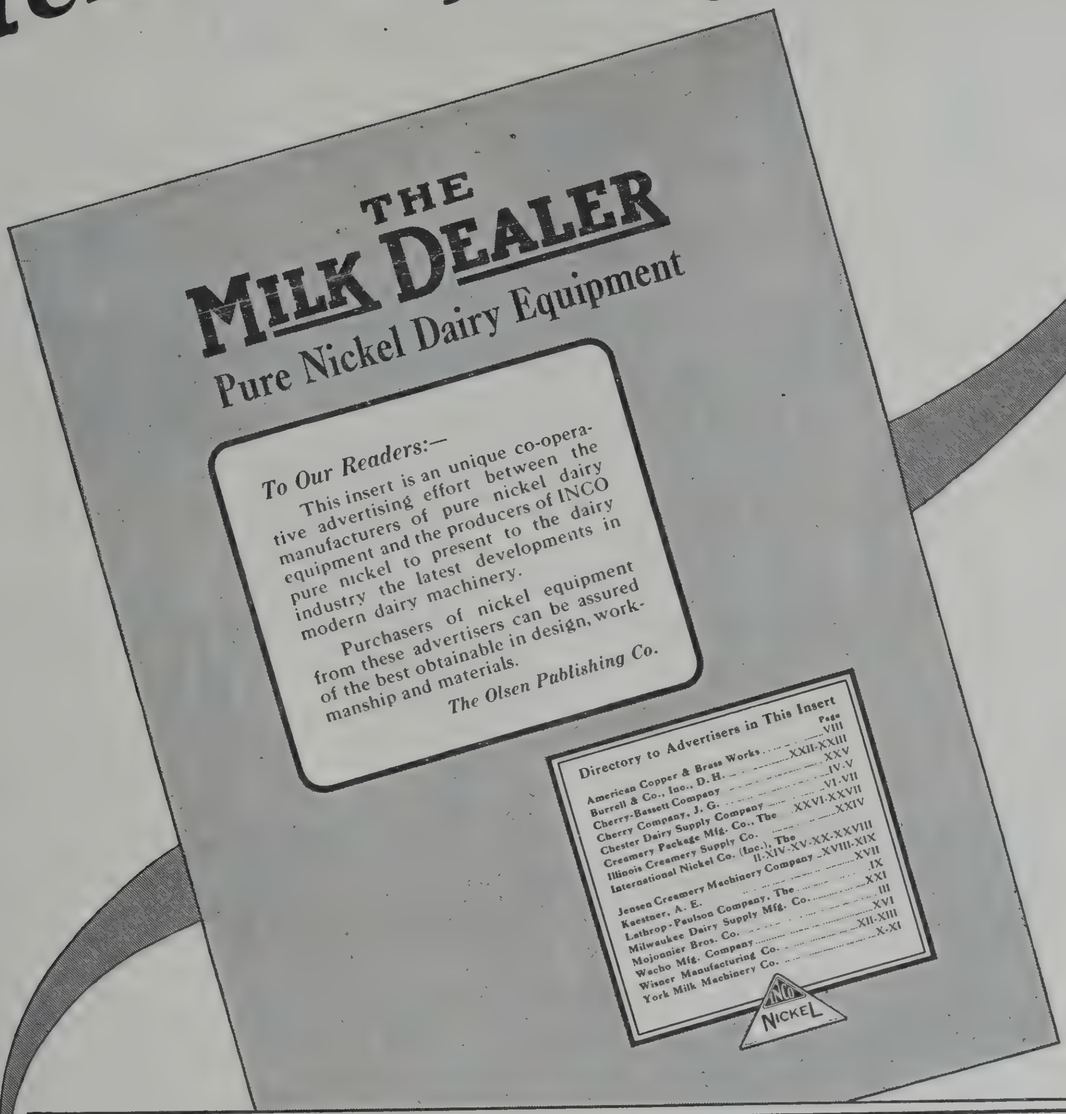
WALKER VEHICLE COMPANY
CHICAGO

WALKER ELECTRIC TRUCKS

LOWEST TRUCKING COST ON CITY ROUTES

When writing to WALKER VEHICLE COMPANY *please mention The Milk Dealer.*

Nickel is endorsed by leading manufacturers



THE
MILK DEALER
Pure Nickel Dairy Equipment

To Our Readers:—

This insert is an unique co-operative advertising effort between the manufacturers of pure nickel dairy equipment and the producers of INCO pure nickel to present to the dairy industry the latest developments in modern dairy machinery.

Purchasers of nickel equipment from these advertisers can be assured of the best obtainable in design, workmanship and materials.

The Olsen Publishing Co.

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INCO NICKEL

A 28-page Cooperative Insert Which Definitely Proves that INCO Nickel is THE metal for Dairy Equipment

WHEN the leading factors of the dairy industry join in the publication of a 28-page advertisement emphasizing the superiorities of one material, users of dairy equipment may well pause to consider the significance of such an effort.

It will be well worth your while to read their advertisements and consider not only their significance, but their message, as well. They prove that Pure Nickel protects your product from contamination, that it is easier to clean, and is more durable and sanitary. They also show that you can secure the finest equipment obtainable, made of Pure INCO Nickel.

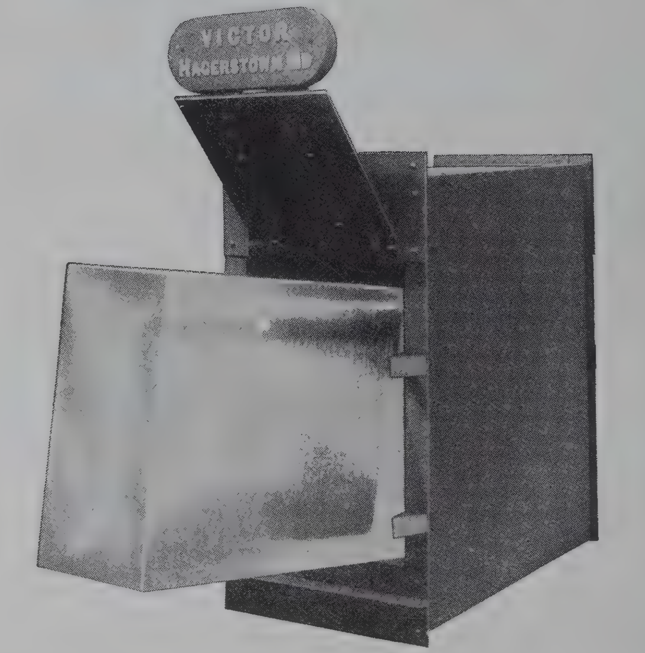
Even though you did not see this insert when it appeared in "The Milk Dealer", you can obtain YOUR copy by writing direct to us. Send for it today!

INCO NICKEL TRADE MARK **Nickel** INCO NICKEL TRADE MARK

THE INTERNATIONAL NICKEL COMPANY (INC.), 67 WALL STREET, NEW YORK CITY

When writing to THE INTERNATIONAL NICKEL COMPANY *please mention The Milk Dealer.*

Conserve!



To conserve is the first reason for refrigeration. Save ice,—eliminate spoilage. Victor "All-Steel" Ice Chutes are built with this thought of conservation of ice paramount.

Victor "All-Steel" Ice Chutes are constructed with patented curved door, cork insulated, carefully fitted with waterproof gaskets at points of contact, pivoted on cold, rolled steel shaft, carefully balanced, and require no springs to operate. No wood is used in the construction of Victor Chutes, all joints are riveted, with no bolts to work loose.

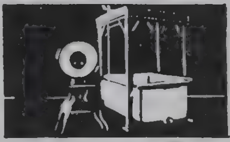
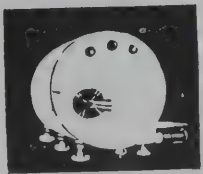
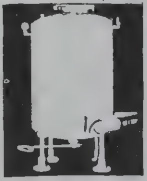
The photograph on the left shows installation in Ice Storage Room of the J. M. McCoach Cold Storage Company, Huntington, W. Va. Note the delivery end of chute and trackway for rapid handling of ice, in the lower right corner.

A postcard will bring you complete information as to the possibilities of Ice-Conservation in your plant, by the use of Victor "All-Steel" Ice Chutes. Address all correspondence to Hagerstown office.

VICTOR COOLER
DOOR CO., INC.

Main Office and Plant
HAGERSTOWN, MD.
NEW YORK, N. Y. CHICAGO, ILL.

When writing to VICTOR COOLER DOOR COMPANY, INC., *please mention The Milk Dealer.*

From a *glass-lined* truck tank
into a *glass-lined* weigh tank 
ilk is passed to a *glass-lined* receiving
nk after which it enters a *glass*
ned storage tank  and flows
to a *glass-lined* pasteurizer  then
nally bottled ~ it is served to
ou in a glass~~~

GLASS ALL THE WAY!!

Glass all the way means sanitation all the way. Any dairy operator finds it difficult enough to keep the plant sanitary without inviting additional hazards in the form of unsuitable equipment.

In all the years of progress no material has ever been devised that will take the place of glass. Metals are still subject to corrosion; wood is difficult to clean; consequently glass alone remains supreme!

By virtue of its inherent advantages over other forms of material, the suitability of Pfaudler glass for the Dairy Industry needs no further proof! Write for our Catalogs 673, 674 and 680.

E PFAUDLER COMPANY, *Dairy Division,* ROCHESTER, N. Y

Originators and World's Largest Manufacturers of Glass-Lined Steel Equipment.

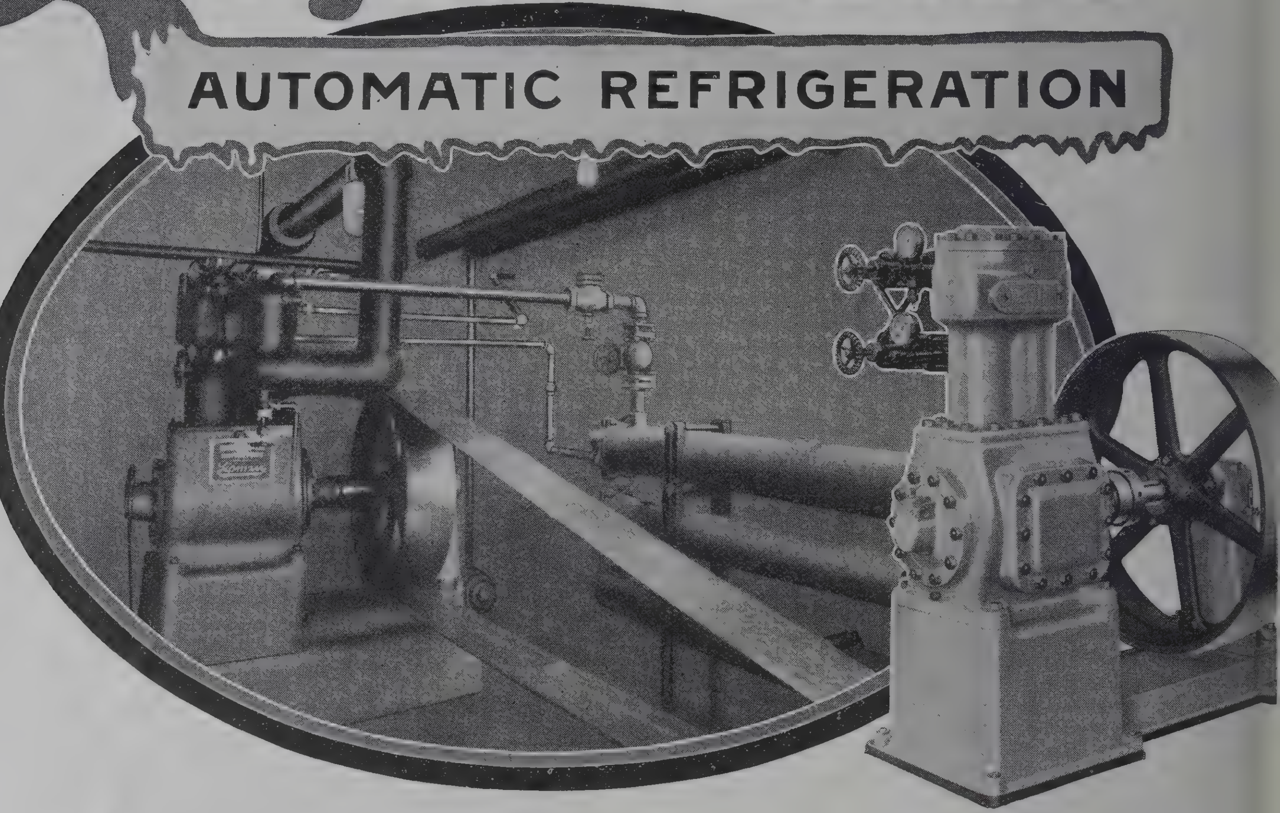
URER FOODS THRU GLASS LINED EQUIPMENT"

PFAUDLER

When writing to THE PFAUDLER COMPANY *please mention The Milk Dealer.*

Lipman

AUTOMATIC REFRIGERATION



"Same as our Salt Bill"

The Martin Dairy Company, of Little Rock, Arkansas, writes that "the operating cost of our entire plant, which includes one 30 H. P. motor on compressor, one 10 H. P. on marginizer, one 7½ H. P. on milking machine, one 2 H. P. on pasteurizer, one 2 H. P. on ice crusher, one 2 H. P. on well pump, one 1 H. P. on brine circulation and one 1 H. P. on water cooling tower is approximately the same as our salt bill when using the old ice and salt methods.

"This machine operates automatically and is giving us entire satisfaction."

Milk Dealers are invited to write for our folder on refrigeration for dairies. Sent free on request.

The Martin Dairy is refrigerated by one of our Model 3000 machines, the compressor of which is shown above. This Model has proven well-adapted to dairy refrigeration as it is very economical to operate, very rugged and dependable, and seldom needs attention. Controlled either by thermostat or by hand.

GENERAL REFRIGERATION COMPANY

116-194 Shirland Ave., Beloit, Wis., U. S. A.

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THE
MILK DEALER

PUBLISHED THE FIFTEENTH OF EACH MONTH BY
THE OLSEN PUBLISHING COMPANY
H. P. OLSEN
President and Manager
LESTER S. OLSEN
Vice-President
E. K. SLATER, Secretary and Editor
Also Publishers of
"BUTTER, CHEESE & EGG JOURNAL" and "THE ICE CREAM REVIEW"

FIFTH AND CHERRY STS. MILWAUKEE, WISCONSIN

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Entered as second-class matter December 1st, 1911, at the Post Office at Milwaukee, Wis., under the act of March 3rd, 1879

Requests for CHANGE OF ADDRESS must be received not later than the 10th of the month to insure delivery of that particular month's issue at New Address. **Old Address** as well as **New Address** must be given us as all records carried by us are "Geographically arranged" and not "Alphabetically arranged."

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Payable in Advance.

OFFICIAL ORGAN OF
The International Association of Milk Dealers
Dairy Products Association of Kentucky, Inc.

APRIL, 1927

BULLETIN *of* EVENTS

Dairy Products Association of Kentucky—Final meeting of the spring and summer season will be held in Cincinnati, O., on Wednesday, April 21, at the Gibson Hotel. Carlton Ball, 206 Republic Bldg., Louisville, is general secretary.

American Dairy Science Association—Annual meeting to be held at the Michigan State College, East Lansing, on June 22, 23 and 24, 1927. Secretary-treasurer, G. C. White, Storrs, Conn.

Dairy Industries Exposition—The second annual exposition of the Dairy and Ice Cream Machinery and Supplies Association will be held at Cleveland, Ohio, on October 24-29, inclusive. Roberts Everett, 1328 Broadway, New York City, secretary and manager.

International Association of Milk Dealers—Twentieth annual convention to be held in Columbus, O., on October 19, 20, 21 and 22, 1927. The Neil House will be convention headquarters. Secretary, R. E. Little, 139 N. Clark St., Chicago.

Pacific Slope Dairy Show—Seventh annual exposition to be held from November 14 to 19, 1927, at Oakland, Calif. Secretary-manager, Robert E. Jones, 1404 Franklin St., Oakland, Calif.

THE National Dairy Union cannot lay claim to being the oldest dairy organization but it can well claim to being one of the most successful. It has been in existence over 20 years. That covers a period which possibly is the most important period in the history of the dairy industry, past or future. A man who is so fortunate as to have been active in the industry during the past 20 years is in position to make comparisons and to appreciate the present efficient methods employed. When he contemplates the crude methods and practices of 20 years ago, especially in the manufacturing end of the industry, he can understand what wonderful progress has been made. It doesn't seem possible that the same progress can be made in methods and practices in the next 20 years.

During the past 20 years the National Dairy Council has come into being, and breed associations and
dairy schools have made their greatest development.
present day manufacturing and distributing me
were almost unknown 20 years ago. During this p
when such splendid advancement has been made
National Dairy Union has been functioning faith
and well. Through all these years it has had an a
single purpose and it has held to that purpose. It
well be termed "the watch-dog of the dairy indus
It is entitled to our continued support.

* * *

MOST folks are content with modern progres
quite willing to pay the price for it in the ca
most things. Some of them don't like it as it appl
the milk business. They know it costs more to ma
the family automobile than it used to cost to oper
top buggy, but they are willing to pay the pric
they attempt to reconcile the present prices of m
milk with the established price of long ago, they
only of the increased cost to the farmer. Then
they learn the price the farmer is paid for a qu
milk they think of the price they are paying and
hold up their hands in holy horror.

Not all consumers of milk make this error, of c
We are only considering those who are quite in a
with the fellow who doesn't know the war is over.
is an ever increasing large number of consumers
fully appreciate the changed conditions, most of
have been created for the consumer's benefit, not to
life more miserable for him.

The men in this milk industry have the job ah
them to educate the consumers of milk to a high
preciation of the service that the modern milk dist
ing organization renders. Most of our large deale
carrying on campaigns of education all the time.
rightfully consider the cost of these campaigns as
did investments.

Some of these campaigns do not sufficiently e
size changed conditions in the industry. They ar
heavy with facts about the food value of milk
that no one can successfully dispute. The consume
be fully convinced of the true food value of mil,
ugly obout the price asked for it. The milk that h
chased years ago at five cents a quart had quite as
food value as milk for which he may now pay the
four times as much.

He is thinking of food values in terms of "
units," or "calories," or "vitamines," or someo
more or less mysterious factors that make up hi
vidual measuring stick by which he judges food
and he is fully justified in doing so if he is not told
other values. He cannot be blamed for overlookig
value of purity, wholesomeness and service in hi
supply if not informed. During the good old time
dreaming about the city in which he lived pa
enough cows in the outskirts to provide the ne
supply of milk for the inhabitants. As the city
pasture lands became populated suburbs and cow
moved out into the country. Transportation pr

eased and the city milk distributor, with his horse- vn vehicles, was compelled to invest vast sums of ey in country receiving plants. Thousands of these ts now stand as monuments to changed conditions ie milk industry. Increased population has favored building of branch distributing plants and col- ng and delivery systems have been revolutionized. ines have been invested in expensive, necessary pment and the cost of operation and upkeep of this pment must, and of course is, added to the cost of .

'he cost of collecting, pasteurizing, clarifying, bot- and delivering a bottle of milk which the consumer s on his doorstep, no matter what weather condi- s may prevail, is high, but the consumer is the fel- who is benefited most by the changed conditions. should be and is willing to pay the price when he is aware of the facts. He wouldn't want to go back ie old "dip and carry" system of running the milk ness when milk was produced within the city limits. all our campaigns to increase the consumption of , let us not forget to set the consumer right on this stion of price. Keep right on talking food values but is also tell him the other valuable considerations he etting when he buys a bottle of milk produced in of our modern milk distributing plants.

* * *

'O ONE, we are sure, will think it strange that we believe in advertising. We also like to see other s act as if they believe in it. That is the reason we e pleased one day recently when an illustrated four- e folder, advertising the Columbus, O., convention hed our desk.

'hink of it! The convention doesn't happen until t October and here we find Secretary Little adver- ıg it in March. That is what we call real aggressive ertising.

* * *

'EW thoughts along the line of milk merchandising may be opened up by an article in this issue en- d, "Important Facts that Formerly Were Overlooked Iilk Merchandising." In a large way this is some- t of an indictment against our vision of advertising ibilities in the milk industry.

Regardless of what we think of this article and its ts against milk dealers, all of us should make up our ls to tell the milk story more clearly. Let's paint a , strong picture of milk and its benefits. Let's g out in a striking way what it stands for in human rs, "not what it **is**, but what it **does**," to paraphrase. Iilk is not just milk; it is a vital factor in life, just eal as any of our senses, emotions, feelings. It is gy, effort, achievement, success, victory, triumph. he past we have been selling milk. Now let's get n to business and sell the most important part of merchandise—the victory of milk.

'hat milk advertisement is not altogether complete h does not paint a picture of human satisfaction.

A BUSINESS must make money if it is to survive. A man with plenty of capital can lose money temporarily, and even enjoy it, if he is convinced that he is building for profits to come later. It's a dangerous position to be in, though, even temporarily.

A man with a good milk plant in which a considerable amount of money is invested, but who has few customers for his milk, is much in the same position that the editor finds himself in when he faces a piece of white blank paper with a long, sharp pencil, and nothing to write. Having been in this position, we are prepared to sympathize with anyone in it.

In this position one is in need of ideas. For ideas are the things you sell. People are not sold on milk; they are sold on the idea that it is good for the health of themselves and their children. Some may drink it for other reasons, but it is certain that no one buys it just because it is milk.

The milk business is going forward today on the vehicle of ideas—the presentation of ideas which make others want to have that which you sell.

The trouble with most of us facing the blank space is the habit of waiting for the ideas to come to us. If the editor had to wait for his ideas to walk right out before his eyes and say, "Hello there, aren't you glad to see me?" you might miss several issues of your paper. For ideas don't come to you, as some of us thoughtlessly say at times; they have to be sought out and dragged forth.

Ideas are merchandise. People pay big for them. The men selling the most milk are the men developing the best ideas.

* * *

WE KNOW a milk dealer who lost several good customers on a certain business street in a certain city because he didn't have the right sort of a salesman on that route. His customers had no complaint about the service they received, but they didn't like his unnecessary noises. On Sunday morning, particularly, when they were trying to get some extra sleep, this particular driver seemed to feel it his duty to wake up everybody in the neighborhood. On Sunday morning he was usually accompanied by a friend who evidently was busy elsewhere on weekday mornings. These two fellows made a lot of wholesome noise, calling to each other from various vantage points on the street; that is, their noise was wholesome to them, but not to the disturbed residents. Several of the ladies finally got their heads together and agreed not to patronize the dealer represented by the noisy driver.

The milk dealer may feel that he has some pretty exacting customers and that they expect too much in the way of service, but if he wants to hold their patronage, there is only one thing he can do, and that is to study their whims and humor them. Possibly that noisy driver who waked up his customers on Sunday mornings was contributing to the health and well being of those customers, but they didn't appreciate it.

Important Facts That Were Formerly Overlooked in

Milk Merchandising

By a Staff Writer of The Milk Dealer

Stronger Appea Necessary in Describing Wha Milk Does Fo Health Tha Simply Describing What Milk I

ADVANCEMENT in milk merchandising, the trade observers will agree, is coming through keener appreciation of the importance of creating a clearer picture for the background of dairy health. The merchandising art is the pillar of dairy economics, the very warp and woof fibre of the industry's structure. Yet it is only in quite late times that we have even approached anything like an artful manner of telling our sales story in this industry.

We haven't gone far yet. Although there has been noticeable increase—quite noteworthy increase, indeed!—in the advertising of milk and other dairy products, this industry for the last several years has followed in the hackneyed, stereotyped grooves of everyday advertising—except for a little spurt and flash now and then.

That little spurt and flash represent a regeneration in the industry.

Advertising. We are just now beginning to learn what it means. Formerly we turned to advertising because it was the thing to do. The sheep mind that controls most of us led us into widespread advertising of milk. It was not through any particular industry-thought that we were guided; it was more because of a sort of copy-book-maxim implanted in our minds regarding the value of advertising. Like "honesty is the best policy," we heard for so long the hue and cry that "advertising pays," that we soon, as a matter of course, began—advertising.

Serving the Purpose of Printed Salesmanship.

It is now clear that the milk industry did not lay down in the beginning, as it should, an advertising structure that would fit the peculiar aims of milk salesmanship. In other words, we just advertised — advertised milk and nothing more. To a great extent we still are following this practice, though here and there a brave spirit raises its voice once in a while to show that somebody dares to THINK in their selling campaign.

Advertising that does not present a true, clear picture of what milk **does** instead of what it **is**—that sort of adverti is far from serving the full purpose of printed salesm ship.

Milk as a commodity is pretty well known, since the oldest food product known to man. But milk builder of men, as a savior of childhood, as a blessin motherhood—that part of the story has not been cle pictured.

Printed salesmanship must be natural—must c the ring of reality. If it doesn't, it falls flat, just good story must ring true to life, just as a high v of art must give the natural at phere and make you feel that know such a scene, that you member having seen one.

In the last several mont have gone over a large numbe newspapers searching out mil vertisements, this with the id finding out what milk dealers doing in their selling campa just where their thoughts lie. results were not very encoura Many were just alike; nearl carried pretty much the thought, the basic thought "I want to sell you milk." ing particularly interesting that; it would be quite stran the milk dealer didn't. But —very few—brought out a pi that **could make the man i streets want to buy milk!**

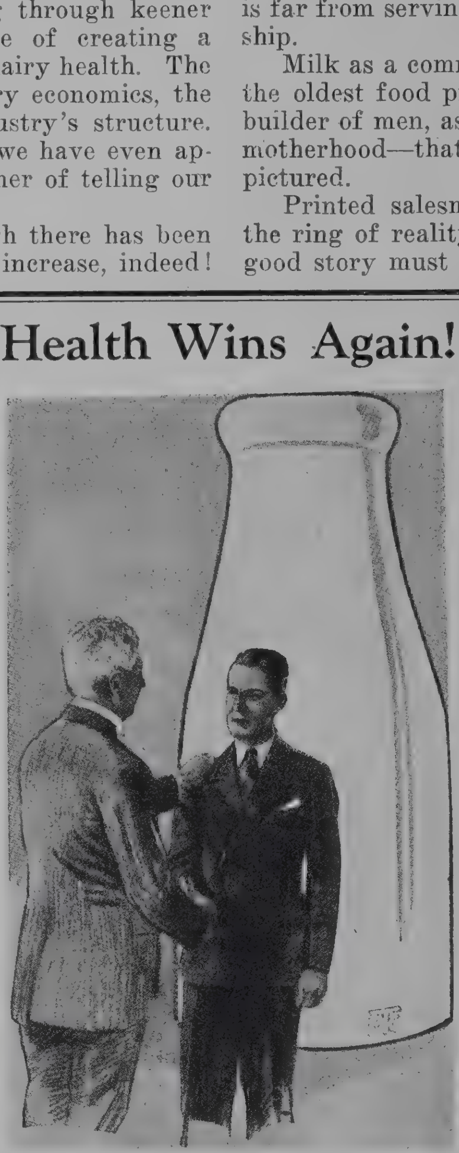
That's Art, with a capital

The Odd One-Tenth.

On the basis of my recen quiry through the advertising umns of a number of newsp I am prepared to believe that hundred and ninety-nine and tenths milk dealers are adv ing milk and nothing else. odd one-tenth is advertising more or less proper way, the story of why people should milk and more milk, why it m more to their health, happ and efficiency.

About the only thing tha average milk dealer can about is milk is wholeso "healthy," most of us say. is a grammatical point we do well to correct. For m not **healthy**; it is **wholeson**;

Health Wins Again!



PROMOTED!

"Jim," said the president, "you have made a fine record here. As a reward for your energy and achievements, we have decided to promote you to the head of the sales department—I congratulate you."

Rugged health, built on a balanced diet, with plenty of rich, bottled milk, was largely responsible for Jim's promotion. It had enabled him to work hard and to think clearly—two essentials to success. Thus, as usual, promotion went to the one mentally and physically fit.

You, too, can become fit and KEEP fit by proper eating and healthful living. By all means, include in your diet plenty of pure, rich, bottled milk—the greatest health food in the world. Authorities say drink bottled milk at meal-time and between, too.

s **men** healthy! You might as well say milk is y when it is **not**; it makes **people** happy.

is not for milk alone that men pay their money to men. True, most of us like milk, like the taste and of it, and most of us know it is appetizing, satisfy- But the great volume of milk sold today is sold gh the compelling thought that it will benefit us.

e must build up a greater, clearer, more vivid pic- or our background of dairy health. We must make er appeal to the imagination. We must study man- and mankind's peculiar habits and tendencies. We study human nature. You may rest assured that the other great industries have done much study- and still are studying—along this line. But they udying from the peculiar angles and viewpoints of industries, and we shall do well to keep far from thoughts, using our own original ideas that fit our eculiar angles of merchandising.

e can take tips, of course. We have done well with hild appeal—extremely well. It is to be wondered, gh, if we haven't overdone it. Possibly not inten- lly, but because we did not know how to get off the ct, perhaps, but the fact remains that we have just worn "mother's darling" threadbare.

's time that we give a little more thought to mother lf, and to dad, and to growing-up boys and girls. kindergartens and the schools and the various wel- organizations are taking pretty good care of the er people, but what are we doing to carry our sales age to the grownups in a convincing way? It stands ason that our "fairy-tale" way of telling the milk won't do at all in this larger, more ambitious field inted merchandising, where men and women want stories — even their romances — to be real.

Looking for Facts.

is peculiarly a realistic age, an age in which men women frankly face facts that formerly they blushed the dark. It is an age when men and women calmly the printed merchandising of articles of such inti- personal relationship that they formerly never even ioned in polite conversation, even to the closest of ds.

his does not mean that, although we are more of a rial and realistic people now than ever, we want to up the romances of life. Ten thousand times—no!. e the contrary. In this highly developed age of manship the merchandisers are calling upon all the of romance, all the sunkissed isles of fancy, all the als of adventure and daring, all the gods of the ents; and in this way building up illustrations for nost highly colored background possible, these tal- l merchandisers then draw upon their finest of ses, their most splendid rhetoric, their tersest, most riptive adjectives, all to show why the public ought y one particular kind of — what?

oilet paper!

A Picture.

efore me now as I write is an open page in one of reatest magazines in the world, a magazine that is ted with selling more merchandise for manufactur- nd producers than any other publication in the l.

here is a wonderful full-page advertisement. You at the beautiful illustrations a long time without ing just what the advertiser is seeking to sell. He es that illustration so vivid, so beautiful, so highly ed—and at the same time so natural, life-like!—that enjoy looking at it. It is a picture of a room full ndsome women, a well-appointed room with women well-dressed, modestly dressed, in good taste. All eyes of the women are in one direction—toward a beautiful winding staircase. The staircase is made the most outstanding "still" subject in the picture. But even more prominently shown than the staircase is a single beautiful woman moving down the stairway, slowly gliding along, every graceful curve of her body shown and she carries herself with the stateliness of a queen, yet with a pleased, happy look in her eyes.

The picture seeks to portray a woman of poise, a woman enjoying the happiest moment of a woman's life, a moment when she can, with perfect ease and satisfaction, walk into her living room and find gathered about friends and companions whom she knows and loves and is eager to be among.

Oh, but the story that illustration alone tells, without the need of words, without need of explanation! Nothing could be more charming, nothing more realistic and, at the same time, more appealing to fancy and imagination.

Yet, do you know what that advertisement was selling? An article of such humble purpose that it could not possibly be the subject of discussion among any group of people, not even among men—well-bred men, anyhow. It is just one of the things that we know exist, like the contents of the sewers, but just don't let our minds dwell upon.

Build a Sales Background.

The point I am trying to make is this: If all the grand magic of advertising art can be called into play to picture the benefits of so many obscure, humble and absolutely impossible commodities of sex and person, then in heaven's name why can't we, with the most romantic, the most inspiring product in the world, build up a sales background for milk that will fairly arrest the attention of everybody, gripping the imagination, seizing upon the strongest conviction, slashing to the bleeding vitals of an awakened health conscience!

Before we can sell milk we must tell what milk does, and then go farther. If it makes us healthy, we must tell what health is, for some of us human beings haven't any imagination to speak of enthusiastically. Health is happiness, achievement, a well-ordered, well-rounded life that is going somewhere, enjoying its every hour, drinking to the fullest of success at work, at play and at home. That's what people want in this world—success, well-being! Then let's play success, well-being to the limit!

Although we have many ways of seeking it, and although any competent philosopher or psychologist will tell you, most of us are going exactly contrarywise in the quest, the fact remains that the dominant thought in the lives of all of us is to be happy. It is the greatest human urge since the first man and the first woman began this strange puzzle of life.

Then let us show, in a highly colored background, what milk offers to health and satisfaction—to achievement.

Note the milk advertising in the papers and magazines you read. Study these advertisements and decide for yourself if they are good, bad or indifferent. Study them carefully and thoroughly, as though you were a man in the street, and then ask yourself, "**Would these ads make me want to buy milk?**"

That is just what every merchandising milk dealer ought to ask himself about every kind of advertising or other form of merchandising that he puts out—"Would this argument be convincing to me, a man in the street, and make me want to buy milk?"

(Continued on page 106)

Why Johnny Likes Mil

By HOLLIS S. STEVENSON
Illustrated by CLIFFORD B. KNIGHT

"Come, on, Johnny, drink your milk!"
"Aw, I don't like milk!"
"Well, eat up your prunes then."
"Shucks! I don't like prunes either."

MILK or prunes, Johnny just will not eat them if his mind is set against it. Maybe you can force them down his throat. But what good will that do?

But give Johnny an incentive. Then watch him go after that glass of milk! And he'll not only use up his quota, but in all probability he will persuade his friends to do likewise.

The Birth of an Idea.

And that is the basic idea of Uncle George's Kiddie Club, sponsored by the Mitchell Dairy Company in Bridgeport, Conn. Feeling the need of tying up with its best prospects, the children, the Mitchell Dairy welcomed the opportunity to put on a children's feature over the air. First of all, a three months' contract was signed with the local broadcasting station, WICC. A nominal rate was secured for "local circulation." Then, we engaged the services of a local cartoonist who was already a great favorite with the children. Every Monday night for a half an hour Uncle George related to the kiddies a chapter of the story of "Buster." This was no stereotyped children's story culled from a library book. It was an original real kid yarn, based on some of Uncle George's experiences with children, and containing a well-balanced tie-up with milk.

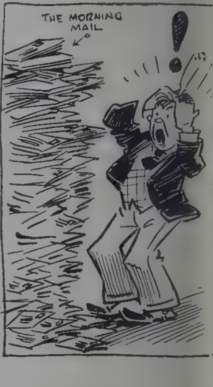
The Mail Problem.

Then the mail started to trickle in. The first week or two, Uncle George read the letters received during the previous week. But like the growth of a snowball, this mail soon began to assume unwieldy proportions. It became apparent that we could not hope to read all the letters that were received in one week. We found it necessary to prepare typewritten sheets containing digests of every letter. Every Monday night, Uncle George would wade bravely through this data, reading as many as he could, barely getting time to include the story. At best, he could not cover more than 40 or 50 in one evening. One night, when Uncle George was ill, "Uncle Charlie," the station announcer, pinch hitted for him and managed to read 107! However, it took him some time to recover from the effects. Uncle Charlie kept saying, "Oh, dear, what a lot of letters. Will I ever get through?" The next week's mail brought many a reference to Uncle Charlie's comments. And the mail kept growing until from 50 to 100 letters in one day was not an unusual mail. Not only did Bridgeport respond, but many towns in the state and others, away beyond our trading area were heard from. In fact, later on, we had to discontinue the reading of out-of-town letters, in justice to our local listeners.

The children did not hesitate to unburden their li
hearts to Uncle George. They told of their pets, t
parents' peculiarities, the amount of milk they consu
and many other interesting anecdotes.

For instance, Mary told us:

"Daddy just surprised Mother and I with a ra
It was quite dark when it arrived, and we were so anxious to hear it that Daddy and my Uncle Charles connected it with the bedsprings and the faucet, and we were delighted to hear your program. We had to laugh to think we heard you with this connection."



Some of the children had a distressing habit of enclosing samples of their favorite talcum in their letters. Uncle George once got some of this all over his hands and clothes, and had a great time explaining to "Aunt Georgia" that it was only a kid's prank.

Quite a few gems were culled from the mail. The
ters disclosed not a little talent. Here is one chi
efforts:

"I drink Mitchell Dairy Milk,
And so does Tabby, too.
But the way I like it best
Is in an oyster stew."

"How's that, Uncle George?"

Susie reported that her radio was raspy, but fa
had said it was because Uncle George's whiskers scra
the "mike." "Have you got whiskers, Uncle Georg

Another little girl said they used to get milk f
a cow, but now they used Mitchell's milk! Possibly,
may have been due to Henry Ford's efforts toward a
chanical cow.

Francis evidently knows the value of milk. Fo
put his thoughts in verse:

"If you can buy a dress of silk,
You can buy a quart of milk,
Because milk is 16 cents a quart,
A dress costs $16.00 just to sport."

Just as children think their father can do anyth
our kiddies had the idea that Uncle George was a j
of-all-trades. "My father bought us a goat, but we c
know how to milk it. We wonder if you would c
out to our place and milk it, Uncle George? We
Mitchell's milk." Fearing to lose a good customer
refused to consent to Uncle George's compliance
this request.

Johnny claimed that they raised the biggest r
melons in the world over at Long Island. "Why
grow so big that people go crazy after eating t
melons. Won't you come over next summer, U

e, and eat some of our melons?'' Absolutely not! rain of the program was beginning to tell on Uncle e as it was, and we weren't taking any more es with Uncle George's reason!

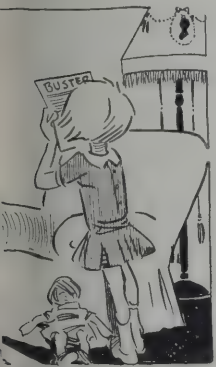
d probably the prize letter of them all contained ggestion that we let Billy bring his parrot over to udio to boadcast! In a rash moment, we agreed to Polly a tryout. But we stipulated most emphatical- t she must come in her cage. The station director utely refused to allow any wild birds to roam at large in his broadcasting studio. Greatly to our relief, the parrot developed a cold, and her debut had to be postponed. Whether pneumonia set in or if Polly recovered, we never did hear. If the truth must be told, we lost interest in the bird, and made no further inquiries as to the health of the patient.

The Idea Grows.

At this stage of the game, the question arose as to what use we should make of this steadily ing mailing list. And right here we formed a y that has been largely responsible for the suc- of the project. We decided to avoid any at- t to exploit the children for commercial purposes. you build up a good mailing list the natural nation is to work it to the limit. This tendency has largely responsible for the early demise of many a shing kiddie club.

e relied on wholesome entertainment to secure the will of our young friends. Milk was only men- d incidentally, and then from a health point of view. wanted the children to absorb the idea of a daily n of milk, through the influence of Uncle George. we supplemented his talks and stories with a little let on milk, containing outline pictures for the kid- to crayon.

t no time has a child been asked to drink Mitchell's . Even at that, many of the children have written say that they were boosters for our milk. And, the very first, the kiddies told us of their own d little stories about milk, and made up little s about it. We believe the parents have appreciated fforts in behalf of their children. For many of them have written in, telling of the enthusiasm of the youngsters for Uncle George and his program.



Children Love a Party.

Someone suggested we invite a few of the children down to the studio to see in person how broadcasting was done. So, we chose a half a dozen at random for the first night. After they had watched Uncle George do his stuff, the youngest was asked to pick six more for the wing Monday's studio party, by drawing six letters the mail bag. An interesting feature was that the l invariably chose the letters enclosed in colored lopes. The children were also allowed to say a piece greet their folks over the radio. We served some of hell's ice cream to our little guests and sent them home thrilled. These parties, of course, had a wonderful stimulating influence on the mail received.

Just previous to Hallowe'en we invited the entire membership of Uncle George's Kiddie Club to a Hallowe'en party at the dairy. Invitations were mailed to about 150 children. Did they respond? Yes. As near as we could figure, about 300 folks turned up at the dairy. They brought their friends, cousins, parents and sundry acquaintances. A local radio store hooked up a receiving set at the dairy for the evening. They listened to Uncle George for his usual talk. Then Uncle George appeared in person, accompanied by ''Ebeneezer,'' his hired man, another character that he had created in the story of ''Buster.'' The children nearly went wild with joy and excitement! A number of the kiddies themselves helped with the entertainment, in addition to the two favorites, Uncle George and Ebeneezer.

Big-hearted Uncle George, anxious to give the kiddies the time of their young lives, had engaged the services of a local magician. ''The magic man,'' as the children called him, brought along an amazing amount of paraphernalia. Included in his repertoire was the familiar trick of taking a rabbit out of a tall silk hat. In this case, being unable to secure the rabbit, he managed to pick up a couple of guinea pigs. When these little animals weren't crawling through the files in our office they were scaring the life out of our night watchman, who began to wonder whether this was a dairy or the winter quarters of the circus. After the perspiring magician had completed his trick, Uncle George presented the animals to a pair of twin sisters, much to the relief of the dairy officials, who were delighted to see the pets safely out of the building. The presentation was made not without a struggle. For, a dozen or more pair of hands all tried to receive the gift at once, which threatened to be disastrous to the poor guinea pigs.

Later, Uncle George received a tear-stained letter from the little girls. ''Uncle George, do you remember the guinea pigs you gave us that night at the Hallowe'en party? We are awfully sorry to tell you they died last night. They seemed very unhappy!'' Maybe it was just as well that they departed this vale of tears!

Ice cream and cookies were served, and the children were finally returned to their families. And then we made a solemn vow that ''never again would we hold another party at the plant.''

Shortly after the Hallowe'en party we decided to extend the broadcasting to a six months' period. Having developed such an enthusiasm among the kiddies, we were naturally anxious to get full returns from our efforts.

Cashing in On the Investment.

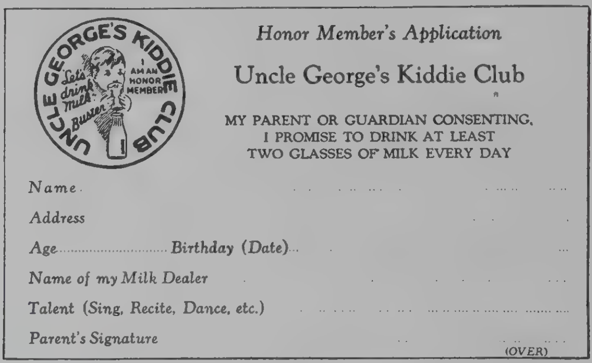
This entertainment certainly created good-will, but how could we get any direct benefit from this form of advertising. At this point we took stock of our assets. First, we had a mailing list of nearly 2,000 healthy, lively children. Second, we had Uncle George, a personality the children all loved and respected. And, most important, we had an investment that, properly developed, should result in sales of MILK. So, after six months of broadcasting, we decided to form the Kiddie

Club into a permanent organization. On the last day of broadcasting we announced that we would be off the air for a while, but that in a few days we would announce a new feature.

Uncle George's Kiddie Club is Launched.

Within a week each member received the first issue of "Buster," their own monthly magazine, a four-page house organ. This contained a chapter of the story of "Buster," extracts from some of the most interesting letters, an editorial by Uncle George himself, and a short message from the dairy. Enclosed was an application for honor membership. Each child was told that if he would agree to drink at least two glasses of milk a day, he would be put on the honor roll, and would receive a beautiful honor member's button (see facsimile of design on membership card. This was also used on letterheads. Lettering and illustration in black ink on a solid orange background. All other stationery, membership cards, etc., were imprinted with this button design.) The application had to be signed by the parent or guardian, so the folks would know what the child was doing.

The letters that have come in since the applications went out have been even more interesting. One youngster reports, "I am sorry to say that my mother has been using Blank's milk for the last 11 years"—even though we hadn't asked her to drink our milk. Another states, "I drink lots of milk. My pa keeps a goat." Best of all, Willie writes across his application, "Please send Mitchell's agent to our house." And so they go.


UNCLE GEORGE'S KIDDIE CLUB
Let's drink milk
Buster
I AM AN HONOR MEMBER

Honor Member's Application

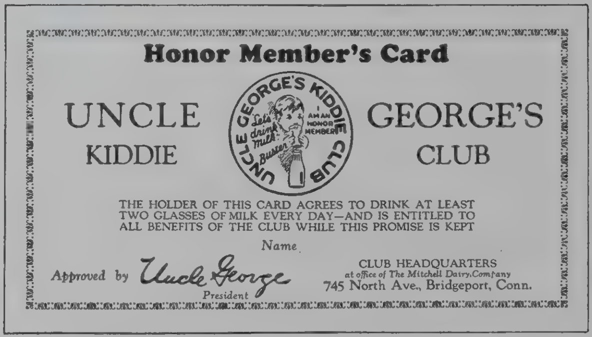
Uncle George's Kiddie Club

MY PARENT OR GUARDIAN CONSENTING,
I PROMISE TO DRINK AT LEAST
TWO GLASSES OF MILK EVERY DAY

Name
Address
Age .... *Birthday (Date)*
Name of my Milk Dealer
Talent (Sing, Recite, Dance, etc.)
Parent's Signature

(OVER)

Front of Membership Application.


UNCLE GEORGE'S KIDDIE CLUB
Let's drink milk
Buster
I AM AN HONOR MEMBER

Honor Member's Card

UNCLE GEORGE'S
KIDDIE CLUB

THE HOLDER OF THIS CARD AGREES TO DRINK AT LEAST TWO GLASSES OF MILK EVERY DAY—AND IS ENTITLED TO ALL BENEFITS OF THE CLUB WHILE THIS PROMISE IS KEPT

Name

Approved by Uncle George
President

CLUB HEADQUARTERS
at office of The Mitchell Dairy Company
745 North Ave., Bridgeport, Conn.

Facsimile of Membership Card.

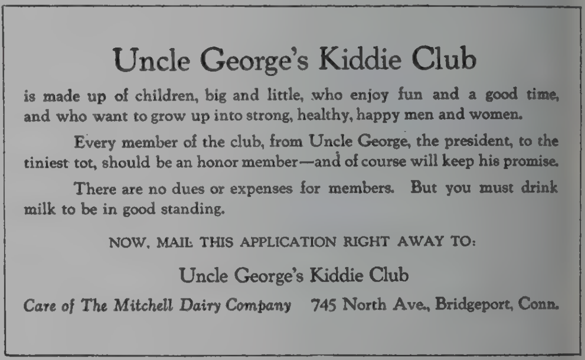
The Human Element.

The big feature of the whole campaign is, of course, the personal element. We plan to mention the children's birthdays in the month on which they occur. When it is found that milk is not purchased through our dairy, Uncle George sits down and writes a jolly personal letter to the kiddie, saying in an off-hand way, that he noticed that Johnny's folks don't get Mitchell's milk, but assuring Johnny that he isn't particular what dairy they buy from so long as Johnny drinks his two glasses of milk daily—which is the one and only stipulation on w he may become a member of the Kiddie Club. He writes a letter of sympathy in a case of illness, and every possible excuse to keep in personal touch with members.

These letters have given us a better idea of the situation locally. We feel that we have created a will that could not have been otherwise obtained, that our whole campaign will do its share towards s ulating the increased use of milk. As for actual s while no doubt a number will come in direct (and have been able to trace a few), the results will be ref ed in increased orders turned in by our route-sales For, when all's said and done, the sale is usually m at the point of contact, the route man. But he will a much better reception when he solicits the family Kiddie Club member. And, let it be clearly underst there is no direct solicitation from our mailing list. will not break faith with our members.

What to Avoid.

If we were to start all over again, there are many falls we would avoid. Studio parties would be held a month, or at longer intervals. (Possibly not at Many children appeared at the broadcasting station invited, and we hesitated to send them away. Ama talent for broadcasting would be carefully hand-pic We would eliminate young enthusiasts who play the monica or violin indifferently—or sing the latest tunes (in a shrill, childish voice). All talent woul chosen in advance, and the children would gently firmly be made to toe the mark. Letters from ou town children would not be encouraged. While s were very interesting, yet they held up the readin letters from our local kiddies, who are our logical p pects. One way of handling this situation would b more or less ignore these communications. While s ingly discourteous, in the end it is fairer to your l kiddies.



Uncle George's Kiddie Club

is made up of children, big and little, who enjoy fun and a good time, and who want to grow up into strong, healthy, happy men and women.

Every member of the club, from Uncle George, the president, to the tiniest tot, should be an honor member—and of course will keep his promise.

There are no dues or expenses for members. But you must drink milk to be in good standing.

NOW, MAIL THIS APPLICATION RIGHT AWAY TO:

Uncle George's Kiddie Club

Care of The Mitchell Dairy Company 745 North Ave., Bridgeport, Conn.

Back of Membership Application.

Would We Do It Again?

Having gone through the fire of an intensively in esting, amusing and sometimes troublous experience, question arises, "Would we do it again?" Decide yes. We know the children of to-day are our prosp and customers of tomorrow. We know that their pre good-will is well worth cultivating. And we also rea the influence they wield in the average family. A g illustration of this point is to be found in the cas Willie Jones. Willie had been drinking Mitchell's at recess in one of our public schools. But Willie's f take milk from Blank. One day Willie announce lunch that he wouldn't drink Blank's milk any m His folks insisted. The outcome was—Mrs. Jones takes a quart of milk from Blank. But she also h quart of Mitchell's Grade A left daily—for Willie!

GELATINATED BUTTERMILK

Experiments at Oklahoma College Prove That the Addition of Gelatine Increases Viscosity, Prevents or Retards Wheying Off and Produces a Slightly Detrimental Effect on Flavor.

By A. D. BURKE[1]; S. O. GRAHAM; C. REYNOLDS*; W. O. SELBY*; J. McCARTY**

Published by permission of the
Director of the
Experiment Station.

ULTURED buttermilk, a delicious, palatable and healthful drink, proven by extensive use, experimentation and study to be:

High in food value.

A valuable source of easily digested protein to ody.

A remedial agent in certain intestinal troubles ther diseases.

An aid to digestion.

ikewise gelatine, a palatable protein product proven imilar extensive use, experimentation and study :

High in food value.

A sparer of protein in the body.

A remedial agent in certain specific intestinal les and other diseases.

An aid to digestion.

addition gelatine possesses the distinct characteris- f being an efficient emulsifying agent and of im- ng the body, texture and flavor of dairy products ich its use has become general.

is not unreasonable to assume that a combination vo such desirable foods as gelatine and cultured rmilk should produce a product of superior ties.

survey of opinions appearing in the February issue e Milk Dealer leaves the issue somewhat in doubt health officers siding both pro and con. Those st, base their statements on the fact that aside from se of gelatine being prohibited by some state laws, a product distinctly foreign to buttermilk.

n the other hand, many dairy authorities appear able on the assumption of improved food value and ased digestibility. However, disregarding various ons, both groups closely agree on a requirement dopting universal labeling of gelatinated butter-

or information on the use of gelatine in butter- we must depend largely on a series of experiments axis (1) from which he drew the following conclu- :

1. Churn or normal buttermilk will 'whey off,' dless of whether it had been kept in warm or cold erature. The addition of 0.25 to 0.5 per cent gel- remedies this 'whey off' condition and produces oother drink which is preferred by the consumer.

2. In artificial buttermilk, where a higher acid- developed, there is some danger of using too much ine. Gelatine 0.25 per cent is sufficient to prevent ying off' for five days, provided the product is at a temperature of 40 to 45 degrees F.

3. It was observed that the addition of gelatine rtificial buttermilk retarded the development of ty in the product. This is important from an economic standpoint because most consumers prefer buttermilk with a fairly low amount of acid, about eight per cent."

M. Messcher (2), claiming to have performed a series of experiments, is quoted from a recently published letter as follows:

"I have run several experiments and find that the use of gelatine in buttermilk will be one of the main factors to make the public drink more buttermilk, for the gelatine improves the texture and especially the flavor of the buttermilk.

"I have given samples of buttermilk which contained gelatine to people who never liked buttermilk and after they tasted the gelatine buttermilk they wanted more and wished to know why they cannot buy buttermilk which has as pleasant a flavor. The only answer I could give them was that the health department does not allow the use of gelatine in buttermilk.

"If the health departments of big cities would allow the manufacturing of commercial buttermilk containing gelatine, and have the can or package properly labeled, the public would drink more buttermilk, which is now in the flush season of the milk production, run into the sewer by thousands of pounds and is a big loss to creamerymen.

"You take, for example, the ice cream. If the health department would not allow the use of gelatine and sugar in ice cream, which is a dairy by-product, what would there be left for the ice cream industry?

"I have made experiments on cultured buttermilk and used gelatine and sugar. This buttermilk was the most pleasant drink and if a milkman would put up a drink of this kind properly labeled, he would sell all of his surplus milk in the form of buttermilk, under a certain trade name, and the health department could not forbid the sale of such product for it will be a pure food and up to the standards of the pure food laws, for edible gelatine or sugar and gelatine, added to buttermilk, will be an industry, different than the regular creamery, and be a separate department, as the ice cream industry is today."

A short time ago one of us † received a letter from a foreign country indicating a detrimental effect on flavor when gelatine was added to cream in an attempt to make a heavy bodied product. Criticism was offered of an abnormal flavor which investigation proved to be due to the gelatine.

On the basis of such differences of opinion it seemed advisable to conduct more extensive experiments on the use of gelatine in cultured buttermilk to determine:

1. The effect, if any, on flavor.
2. The effect on appearance.
3. The effect on viscosity.
4. The effect on wheying off.
5. The effect on keepeing properties.

(Continued on page 116)

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ssociate in Dairying, Oklahoma Agricultural and Mechan- ollege.

enior students in the department of dairy manufacturing.

† Burke

Motorizing the Dairy Busines

How One Firm Spends over a Half Million Dollars in Getting Its Products to Its Customers. 277 Motor Vehicles and 544 Horses Employed.

THE progress toward size and success achieved by the Crescent Creamery Co., with main office at 237 Winston Street, Los Angeles, since it was started here 18 years ago until the present time, has been nothing less than phenomenal. Hardly making a ripple in the industrial pool of southern California at the time of its inception, nearly a score of years ago, now it is one of the outstanding institutions of its kind in the far West. Growing constantly and steadily it has come more and more into the public eye until now its fleet of delivery trucks and wagons is one of the most common of sights on the streets of municipalities and along the highways of the state from the Tehachapi Mountains south to the Mexican border. In fact, to hundreds of thousands of the inhabitants of southern California the name of the Crescent Creamery Co. has been made familiar by this sight. Of the company, and of the immense machinery of organization behind it, the public in general knows little or nothing, but it does know the concern because its wagons and its trucks bring it constantly to mind. Therefore a brief account of this fleet, telling of what it is composed of, how it is organized, how it is managed, and how it functions, may be of interest, not only to the general reader, but more particularly to other creamery organizations elsewhere in the country.

At the present time the Crescent fleet consists of 277 motor vehicles, ranging in size and capacity from a ¾-ton truck to 5 and 6-ton trucks, and 544 horses with corresponding wagons. With this fleet the company services 125 wholesale routes and 279 retail routes, covering as with a network all of southern California. Over a half million of dollars annually is spent by the concern for the upkeep and operation of this vast fleet. More particularly, the cost of the motorized portion of the fleet is $402,450.19 a year, and of the horse drawn portion of it, $152,204.34.

It must be evident that the efficient and economical management of a fleet of this size, and the control of the expenditure of this fortune in money every year, must demand executive ability of a high order to the end that the best results shall be attained from both. In order that this might be attained the Crescent Creamery Co. instituted a transportation department just about a year ago and placed at its head a man as superintendent of transportation who is held responsible for both the efficient and economical administration of the department.

In accordance with the policy of the company to develop its own executives from the ranks farther down in its organization, it promoted to this position a man who had been serving the company for the few years preceding his promotion in the company's service department. Lee B. Bevier, the man chosen for the position of transportation superintendent, has been with
company for seven years. Prior to coming to south
California he had been a motor car dealer at Clin
Ia., where he had gained an intimate and exten
knowledge of motorized equipment, its operation
maintenance. Upon his arrival in southern Califo
he was given the position of manager for the Ora
County branch department of the company and du
the four and one-half years he served in that capa
he demonstrated his ability as a transportation ex
of parts, which reputation he extended still furthe
his activities as service manager for the company u
his assumption of that position at the Los Angeles o
so when the transportation department was institute
was placed at its head.

In his administration of his department Mr. Be
but reflects the ideals of the higher executives of
Crescent Creamery Co., so what he has to say about
manner in which he meets and solves the various tr
portation problems of the company may be regarde
an expression of what the men higher than himsel
the organization of the company, from the presi
down are striving for and hoping to attain.

"In the first place," says Mr. Bevier, "it is ne
sary to see that there is a proper apportionmen
equipment best adapted to meet the conditions and
quirements peculiar to each of the several departm
of a business so extensive as is this. This business g
very rapidly, with the result that equipment was ad
to its fleet with the immediate and individualistic n
of this or that department in mind without any thou
toward a coordination of the various fleet units to
end that each one should be most efficiently emplo
The result was that every department wanted to m
tain at all times as many units as would serve to
its peak requirements, without considering that t
so necessitated many units lying idle a goodly por
of the time in order that they might be available w
they were needed. This made for a duplication of
pensive motor units and their inefficient and unecon
employment.

"An instance in point is our peak load for ice cr
delivery is about July 4 every year. Demands for
livery at this time are enormously numerous and eq
insistent. Every unit of our wholesale fleet can be
should be in service at that time. Under the old re
many of our trucks were being held in other de
ments beyond their requirements, while the ice cr
department was compelled to go out into the by
and hedges and hire extra equipment for the occasi

"A reapportionment of our truck fleet saved the
uation last year and will save it upon every si
occasion henceforth. Last Fourth of July we did

o hire a single extra delivery unit nor did we have end a cent for outside assistance—every require- was met with our own fleet. This was accom- d by an intensive study of seasonal conditions and ements affecting each and every one of our depart- , by centralizing the control of our motor truck under one single department and giving to the de- ent the right to assign motor units here and there l when they are most needed. How much this con- es to the efficiency and economy of operation of a o one can know who has not had the experience.

Another very important function this department ed upon to perform is to see that the full efficiency fleet is maintained at all times. In other words, ust know that when we send a motor truck out it e in such condition that there shall be no reason- loubt about its completing its task within the time ed for it to do so. Every unit in our fleet, whether driven or horse drawn, must cover its assigned with all of the accuracy and precision with which ad trains are run. Especially is this essential on etail delivery routes. Every customer must be l with precision every day at the same time. Our s and wagons must be as regular as clock work. wise our business will suffer—how much it is im- ole to say, but the housewife must be served when ants to be served, else some other creamery will be to serve her. The housewife has no patience at and will neither excuse it nor make allowances for ected contingencey. Regularity is the very life r business.

This high degree of constant efficiency is attained coordination between our inspection department ur service department. The inspection department der the jurisdiction of this department, while the e department, represented by our various garages ther service installations, is not. But service fol- inspection, and, if that is rigidly maintained and tly performed, the efficiency of the fleet is assured.

The head of the inspection department, working the transportation department, is Richard Law- , a man who has been with the Crescent Creamery or 12 years, and who appears to possess a positive niness when it comes to spotting motor ills and for ribing remedies for them. He is a motor truck ostician par excellence.

But inspection starts with the driver. Every day he turns his truck into the company garage he sign a card which must state whether in his opinion ehicle requires attention for any ills it may have oped. If this attention is for minor repair only it ndled by our emergency service department, but appears to be more serious it comes under the ex- attention of Mr. Lawrence. He has the authority rect the course and extent of the service that the cular unit may require, all the way from minor rs to complete overhaul. Our garages are com- ly equipped to handle any repair job any unit in eet may require and all of our repair work of what- r kind is done by the 30 or 40 mechanics we employ.

The trucks in our entire fleet are each designated distinctive number which indicates its classification capacity. Each unit has its card and every driver he starts out must have a clear card, indicating the vehicle he takes out is in the best of condition he starts out with it.

This rigid inspection not only maintains a high ge of efficiency in the fleet as a whole, but it keeps overhead in the service department and in a major- f instances makes the overhaul a regular seasonal r rather than an emergency matter.

"Another matter which this department has under its control is the maintenance of a clean and neat appearance of the individual units in our fleet. We are purveyors of food products and a neat and sanitary appearance for every delivery unit we use is essential, both for the maintenance of our own reputation and as well for the health of the public. For this purpose we maintain our own auto washing department, our own painting department and our own polishing department. We take a pride as an institution and as individuals in the spick and span appearance of every piece of transportation equipment we employ, and our inspection department pays as meticulous attention to the outward appearance of a motor truck as it does to its mechanical efficiency.

"In other words, ever since the company instituted its transportation department it has demonstrated its value as a very important factor in contributing to the efficiency, economy, appearance and operation of a large and varied fleet of motor and horse drawn vehicles."

NEW MILK DISTRIBUTORS' ASSOCIATION.

Organization of the Spokane Milk Distributors' Association, with more than 26 dairy concerns as members, has been announced. Following are the officers and directors of the association: A. H. Poston, Stadacona Dairy, president; William Robb, Western Dairy Products Co., vice-president; A. A. Wagner, Hillyard Dairy, treasurer, and William C. Sohns, Pine Creek Dairy Co.; Mr. Anderson, Early Dawn Dairy; Mr. Olson, Victor Dairy, and F. B. Flood, Broadview Dairy Company, directors.

Mr. Poston stated the objects of the association are as follows: Improvement in the dairy industry; co-operation with the health office to improve the milk supply so that Spokane may be noted for its good milk as it is noted for its good water; co-operation with the agricultural bureau of the chamber of commerce to put the dairy industry on a more substantial footing; securing figures on costs of producing, processing and distributing dairy products, and to correct abuses in the business, including unethical practices, such as rebating.

AFTERNOON DELIVERIES PROVE SUCCESSFUL FOR COLD MONTHS.

At the Hosler Dairy Co., in Toledo, O., the afternoon delivery of milk and cream to their customers through the colder months of the year is proving out very successfully. A. J. Hosler, the owner, states that this method not only assures the customers fresh morning's milk for their evening dinners, but it prevents freezing of milk, breakage of bottles, loss of product and better results all the way round. This company practices this method successfully during all the colder months of the year and during the warmer months, the milk is delivered in the early morning.

This is a progressive dairy, started four and one-half years ago, and making rapid progress in business in the city of Toledo. A new bottle washing machine has recently been installed in this plant.

ABOUT READY FOR OPERATION.

Elmer Koch, purchasing agent for the Pet Milk Co. of St. Louis, Mo., advises as follows:

"Practically all material, machinery and equipment for the Bowling Green, Mo., plant has been ordered and shipped. We expect to start operation in the near future."

"Lets Get Down to Busines
Selling Milk!"

That's What Mr. Milk Dealer is Tell-ing His Staff Heads in this Day of Highly Developed

Modern Merchandising Methods

THREE successive stages in the development of the milk industry in America stand out as plainly as the ages in the evolution of mankind. The rough-stone age of the milk business was in those days when the problem was quite elemental—producing the milk and delivering it. Then came the smooth-stone age of getting the milk, handling it properly, distributing it properly—and selling it.

Today the milk industry stands at the same point of advancement as the world in general. We are in the highly advanced rotary age. In other words, today is the age of the wheel, symbolizing the cycle of a perfect economic system—that is, perfect as we creatures of human clay know perfection.

The economic scheme in the milk business, a truly fascinating science as the liberal arts of trade go, is one of the most intensely interesting subjects that ever challenged a student's imagination, well worthy of this great nation of magnificent sciences.

Let us compare it for a moment with the American economic scheme, which is defined as the science that investigates the material means of satisfying human desires. That being true, milk economies well may be called the science that investigates the material means of putting before the greatest possible number of people the greatest food in the world.

This brings us to the present stage of development in America's milk economics. We have gone through the problems of production and distribution; we have gone well into the problem of selling milk.

But the problem to day is—selling **more** milk!

Perhaps it were better to say the problem of selling milk has resolved itself into the **opportunity** to sell more milk.

It is surprising at the number of people in the milk business who overlook the salient features of their business. It is surprising at how few milk dealers really are measuring up to their industry's present challenge.

Milk dealers are business men. Call a business meeting of some of your friends to go into an important matter. Five or six will gather around the table with you, exchange a few little preliminary pleasantries and then begin fingering at their watches.

"Let's get down to business," one man will say. And that's the spirit of them all; they want to get through with the little nonessentials—and get down to business! They haven't time to waste. They want to get at once to the heart of their subject. Quite naturally. That's business.

Yet, for some reason, the average milk dealer stays so occupied with the various little operations of his business day in and day out that he steadfastly keeps off the most important subject that he has today—the opportunity to sell more milk. He is neglecting his educational opportunities, or he is not pushing them as eagerly as one would imagine a man would go after a
thing he knows he can get.

There is a take-it-for-granted attitude in the
industry that was fairly well described to us the o
day in conversation with a gentleman who has had
siderable experience in handling the sales problem
some of the largest milk concerns in the country.

"The average milk dealer," this gentleman said,
spent so many years with milk that he forgets that o
human beings don't know what he knows. The a
age milk dealer is well informed as to his product
other class of American business men will compare
him in knowledge of his goods. But he is doing
tremely little toward letting others know what he kn
and he seems to think it strange that somebody
should feel qualified to help him sell his milk. E
busy with the mechanics of his business all the t
and he knows the mechanics of his plant, the rou
the scientific control, the mechanical operations,
but he positively balks at the suggestion that he sh
go further into the mechanics of merchandising, t
one of the most scientifically involved propositions
we have today."

We listened and did considerable thinking on
subject.

"But," protested a milk dealer to whom we
with this statement, "why should one expect **me** to
interested in some high-pressure plan to sell **my** m
What can I say that others can't say? We have
so far in this industry today that there is little one
can say that another can't. I sell good milk—so d
competitors. All of them have milk just as goo
mine. I haven't any brand, no particular license.
welfare workers, the health officials, the govern
agents—all these people have spread the gospel of
until there is little more we can say."

For some reason we felt that this dealer furni
ample evidence of what the milk merchandiser had
complained of—a self-satisfied sort of spirit of we-h
done-all-we-can.

It so happened that on that same day while we
dining with a friend comment was passed upon ou
dering milk.

"You drink milk regularly?" the friend asked.

"Yes."

He was silent a moment as though in thought a
something.

"Ever suffer from constipation?"

"Why, no—why?"

"That's funny," he declared, "as everybody k
milk will cause a man constipation if he drinks it
enough."

This wasn't an ignorant man; he was a bright
ness man, one of the leaders in his community.
what were milk dealers doing while that man was f
ing his silly notion about milk?

Just a few mornings later a neighbor happene ılong just as we were gathering the morning paper he usual two quarts of milk from the front porch.)on't you know better than to drink that stuff?'' eighbor asked.

What's the matter with it?'' we asked in surprise. 't you drink milk?''

Not that kind,'' the other man snorted. ''I used nk it, back home, when I knew where it came from. don't drink this stuff they put up in cities now- . Why, do you know, they put starch in that bot- nilk to disguise its appearance, because it is so old it is delievered that no one would want it if they t doctor it. Say, you ought to let me take you home and get some real milk. I never will forget Mrs. Jorgenson used to pass it over the fence— ɔle gallon bucketful at a time. Yummm, that was I knew where it came from.''

'e do, too, and that's the reason we don't want any But what were the milk dealers doing all the this man was forming his foolish ideas about mod- nilk plants? No welfare worker ever will reach nan; he is a person of affluence, the head of a big ess, a prominent spirit in his church and a man questioned in community matters.

ıere's only one thing that ever will reach that man, hat's a sales campaign that will go direct to him. ıst be a carefully laid out sales campaign that will TNT and dynamite in both arms, for it will re- a terrific mental upheaval before he will ever budge those convictions formed after the meaningless ɔn we human beings have of deciding a thing is g because we don't understand it.

ıere is an unfortunate psychology about closed . They breed suspicion. It is a good thing that dealers are going in more and more for glass par- s and sunlit plants. But even so there are limita- to what we can do to throw open the plant to the c's eye. Then, let's do the next best things—let's the plant to the public. Let's take counsel with ıandising genius and take the true story of this food to the homes of rich and poor, learned and rned. Such a campaign should be ably and intel- :ly directed by expert advice.

ıese cases we have just mentioned are extremes, of e, but there are people of this kind in the world— more than we dream. And there are still many, more who are not opposed to milk but yet don't t or don't buy as much as they should. All of us that the great majority of human beings still feel nilk is more or less too expensive.

efore we call ourselves really worthy of this great age of milk economics, let's get down to the ap- science of merchandising and study out this great tunity before us today.

other words, let's get down to business—**and sell milk!**

milk men would only get out a little more and de- a closer contact with the people who buy—or d buy—the product, they would discover surpris- vidence of a lack of information about milk that never before dreamed existed. They would realize reat necessity for sales effort today.

ersonally we feel sure that public ignorance is a r that can be overcome without great effort. We ather patient with public opinion after many years ıtact with it in various forms. We know that grown ɔn the whole want to be fair, and when the facts ut before them they will be interested.

ıt every time we think of certain grown people and of their queer ideas about milk, we can feel more nt and chuckle more freely regarding that little girl of a certain popular joke, the little girl who turned great wondering eyes up to her monther and said:

''Mumsy, I surely will be glad when we go back to the country so I can get some of that milk that comes from cows.''

Some grown people don't know much more about milk.

IN GOOD HANDS.

The Columbus, Ohio, convention of the International Association of Milk Dealers next October is in good hands. The program will be arranged by the following committees:

Controllers' Council.

H. H. Neel, D. H. Ewing's Sons	President
John M. Gullans, Bowman Dairy Co	Secretary
H. R. Hamilton, Telling-Belle Vernon Co.,	Chn. Program Com.

Laboratory Section.

Geo. B. Taylor, Chestnut Farms Dairy	Chairman
R. C. Fisher, French Bros.-Bauer Co	Secretary

Plant Management Section.

Tilford A. Ewing, D. H. Ewing's Sons	Chairman
A. J. Dreux, Rieck-McJunkin Dairy Co	Secretary

Production Section.

H. D. Davis, Supplee-Wills-Jones Milk Co	Chairman
Walter D. Hunnicutt, French Bros.-Bauer Co	Secretary

Sales and Advertising Section.

F. A. Webb, Borden's Farm Products Co	Chairman
Milton Hult, Superior Dairy Company	Vice-Chairman
W. J. Burnap, Rieck-McJunkin Dairy Co	Counsellor
L. H. Heller, Northland Milk & Ice Cream Co	Counsellor
K. L. Carver, Crescent Creamery Co	Counsellor

Twentieth Anniversary.

The 1927 convention will be the twentieth anniversary of the association and obviously a program must be arranged to be worthy of the occasion.

KEEP UP THE GOOD WORK, PAINTSVILLE.

A new plan is being carried out by the Parent-Teachers' Association of Paintsville, Ky., by which the lower first grades of the public schools will be served with milk. It is hoped to later extend this plan so that all the children of the lower grades will profit by it. One hundred twenty half pint bottles of pasteurized milk will be brought in each day for the students. This will not interfere with a child's appetite for noon dinner, but will be better than the candy generally consumed at recess time. It is felt by everyone concerned that the students will show appreciable development with this extra allotment of ''the perfect food,'' make swifter progress in their school work and show physically in brighter eyes, stronger bodies, and more alertness the good results of mid-morning nourishment of milk.

THE NATIONAL PLAYGROUND ASSOCIATION.

What is advertised as a ''Consummation Banquet'' is to be held at the Edgewater Beach Hotel, Chicago. Thursday evening, April 21, by the National Playground Association. The big affair will start at 6:30 P. M. and big things are promised in the way of special dishes and entertainment. The office of the association is at 64 West Randolph St., Chicago.

Milk Over the Soda Fountain

Sales Show Considerable Increase as Result of Pushing. How a Connecticut Milk Dealer Helped His Dealers to Build up Sales

By HENRY FROMMES

IN ADDITION to the increasing sales of market milk over the soda fountains of the country there are other reasons why the dealer should further cultivate this outlet. There is some good advertising in it if the dealer is able to get his wall and counter cards in enough of these places and to get the retailer to push the goods.

The demand for milk by the glass over the soda fountain counter always has been considerable but within the past two or three years milk and buttermilk dispensed by the glass have succeeded in crowding out many of the fancy ice cream combination drinks which were so popular a short time ago.

A really surprising volume of sales in fresh milk are being made over the counter in the larger cities of the Middle West and the East. The soda salesman manager of one of the largest drug store chains in the country recently told the writer that their fresh milk sales were running as high as 3,600 gallons daily with a jump to as high as 4,500 in the early summer.

"We have consistently pushed milk over our 500 soda fountains," said this manager, "largely because we make a good margin on its sale, also because it is easy to handle and what is more important yet, the demand is dependable. Milk drinkers with the habit drop in at our fountains regularly because they know that our milk is always fresh and of high test. We hope to increase our milk sales by 1,000 gallons this summer."

As a matter of fact, the large chain drug stores and confectioneries sell more market milk per unit than do the independent drug stores, perhaps for the reason that the chain stores are more progressive in their merchandising methods, study the public taste more carefully and abide by the results of these studies. The average independent druggist hasn't yet seen the established demand for fresh milk by the glass though you can get it in nine drug stores out of ten at present.

Dealers Must Cultivate Market.

In the smaller towns and cities it is largely up to the milk dealer to cultivate this over-the-counter market and after all, it hasn't proved to be a very difficult one to cultivate.

Last summer a New Haven, Conn., milk dealer with wide distribution found he was selling as high as 11 gallons a day of fresh, high test milk to the leading soda fountain. He checked up on this outlet and came to the conclusion that the retailer had built up his daily milk business by cultivating it—by serving a light luncheonette for 35 cents in three combinations, each of which gave the customer the option of a glass of fresh milk. This was what developed his milk sales and as he made more profit on the milk than on coffee or cocoa, he was perfectly satisfied to push it as a feature of his luncheonette.

With this information, the milk dealer had a salesman visit other large fountains in the city, giving them the facts and suggesting that they, too, offer the public something of the kind. Several of them did it. The effect was that the sale of milk over the fountain counter in this city alone probably runs higher than any one of its size in the whole country.

The small, outlying drug store fountain and co tioner isn't the best prospect for fresh milk sales- downtown store with a heavy noon hour business is worth while at least in the early stages of the dev ment of this market.

In order to capture this business and secure active selling co-operation of the worth-while dispe discounts have to be good enough to enlist his int and active co-operation.

Providing the milk dealer can get his trade nam other insignia in the store, he can probably get an a return on the resultant advertising.

Need for a Practical Dispenser.

It has been demonstrated in the beverage bus that a visible dispenser of the inviting kind will cold beverages ten times faster than bottle display w may account for so many of the nationally adver beverages being openly displayed in season in sp dispensers. Many of these dispensers which have re eration facilities, will serve for fresh milk though s thing might be gained by having the milk in the tainer visible to the eye of the customer.

There are plenty of good dispensers on the ma for fresh milk but they are largely for cafeteria o taurant utility and do not expose the milk to the e the customer. Hence, something in the glass or escent line is needed.

Such a dispenser, even though supplied by the dealer with a binder as to retailer's bulk purch would be worth the price if the dispenser is consid in the light of a generally valuable advertisemen the milk plant or its trade name.

As it is now, small fountains are dipping milk the cans in a more or less unsanitary fashion v doesn't tend to interest the consumer looking on. course, the better fountains are utilizing their s containers for fresh milk but these have the disa tage that they do not hold enough and make for i venience, especially when milk sales are brisk.

Though familiar with the milk merchandising o country, I have not yet seen a milk dealer with any attractive to offer the retailer in the way of advert milk dispensers which is somewhat surprising.

Fountain operators at present are much conce over their overhead costs. Labor is high, rents are and there is a slender margin of profit in fancy dr due to numerous other causes, so that beverages su fresh milk which are simple to serve and which ha established demand appeal very strongly at the pr time.

What Kind of a Dispenser?

To properly display fresh milk to the patrons of fountains, the dispenser should hold not less than gallons, should be well made and attractive, with a a portion of glass as a means of tempting the eye the freshness of the milk within. It should carr name or trademark of the dealer supplying it and should be with it some dealer help material design sell it over the counter. Such a dispenser would to be so constructed that daily sterilization is po

DE LAVAL

New Series De Laval skims to 1/4 of 1/100 of 1%

MR. AUGUST F. SCHROEDER of Algoma, Wis., obtained a No. 70 New Series De Laval Separator through his purchase of the cheese factory formerly operated by Mr. A. P. Stengel of the same place. He writes:

"The De Laval has made a wonderful showing. We have tested it in every conceivable way and it has made the record of skimming to the degree of perfection of ¼ of 1/100 of 1%."

The above letter should put an end to the doubts any cheesemaker may have as to the ability of the New Series De Laval to recover enough additional fat from whey to pay for itself in a reasonable time.

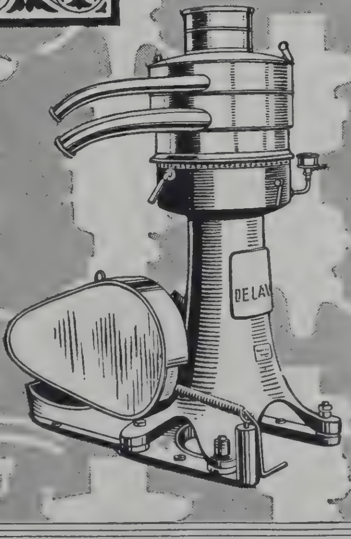
Judging from the letters so far received from cheesemakers, the skimming efficiency of these new machines is improved to an even greater extent with regard to whey than in the case of milk.

However, with either milk or whey at a normal separating temperature, at full rated capacity and with all other conditions equal, the New Series De Laval skims cleaner than any other separator ever built.

DE LAVAL

The De Laval Separator Company

NEW YORK CHICAGO SAN FRANCISCO



When writing to THE DE LAVAL SEPARATOR COMPANY please mention *The Milk Dealer.*

and so that the dispenser can draw it quickly and without waste.

Milk, after all, is one of those foods that sell on the appeal of the eye—it looks good when it is good and persons who never would think of ordering a glass of milk over the soda counter on a hot day need only to have the suggestion made to them in some such fashion as that described above.

As a matter of fact, one of the leading chain store groups have done some experimental work along the line of getting fresh milk and syrup combinations which would find ready buyers over the counter. Even milk and gingerale have been experimentad with though we have not yet any definite results of the tests.

Undoubtedly, there are combinations at the fountain with fresh milk as a base and perhaps if enterprising milk plant can devise a new combina there would be a big market waiting for it.

Milk goes fairly well with carbonated beverag certain kinds. It is at present the base for half th cream sodas made and sold in this country which form of milk consumption over and above that sold and alone, by the glass.

In this connection, the two methods of selling through soda dispensers present great opportu for the milk wholesaler and it behooves him t about to broaden that market now that summer i far off.

How to Make Italian Cheese

One Way to Utilize Surplus Skim Milk. A Plant Superintendent Predicts that Eventually Every Drop of Skim Milk Will be Utilized

By H. W. VETTERLEIN*

THE season will soon be here when many plants will be at a loss to know what to do with all the surplus skim milk. New York City, and some others with a large Italian population, offer a good market for well made cheese.

Some special equipment is needed, such as a 350-gallon cheese vat, a steam ejector, a 350-gallon jacketed copper kettle, with the steam pipe extending into the water jacket. A single kettle, without jacket, can be used, but the coil of steam pipes must extend into the cheese and are hard to keep clean because the cheese burns to the pipes. So it pays to get the jacketed kettle. A draining table, made very cheaply from one-inch boards, is necessary. This table is to hold the perforated tin molds, which are filled with the pot cheese.

Wooden shipping cases with a hinged cover are used. They are made large enough to hold twelve of the filled molds. Six on the bottom, separated from the top six by a piece of zinc.

I will outline the way one successful company makes the cheese. They employ an experienced Italian cheese-maker, who is not afraid of long hours, or hard work. The milk is separated at 90 degrees F. and piped to the ordinary 350-gallon cheese vat. Skim should be perfectly sweet. Run in 300 gallons of skim. Dilute four ounces of good rennet in one quart of water. Mix thoroughly into this 300 gallons of skim, but be sure it is 90 degrees F. In about 30 minutes it will be coagulated, but watch carefully so that it is firm enough, but still not wheyed off. Cut into one-half inch cubes and stir thoroughly with a rake until curd settles on the bottom of the vat. Then insert the ejector hose and pump the whey to the copper kettle.

To this whey add five pounds cheese salt, 12 quarts 40 per cent sweet cream, 50 gallons skim and 15 gallons starter. This starter is made from sour cottage cheese whey, to which is added two gallons good vinegar to 50 gallons whey. It should be made a few days before you start making cheese, and then can be carried along just like any starter, adding whey and vinegar as needed.

The best way is to heat the whey in the kettle to 140 degrees, and add the 50 gallons skim, and at 160 degrees add the 12 quarts 40 per cent cream and five pounds cheese salt, and continue heating to 190 degrees. The cheese will now come to the top, and must be dipped off with a perforated special cheese dipper and put into the perforated molds, which will hold five pounds of fin cheese. Keep at 190 degrees and dip off the cheese it stops coming to the top. Then drain off whey an the remainder from the bottom of the kettle. When the molds of cheese are covered with parchment and allowed to drain over night. In the morning are packed into the shipping boxes and sent on the train to New York City. This cheese should be cold, because it spoils easily. The curd that is left i cheese vat, after the whey is pumped out, is pile and when firm is cut into pieces with a cheese The pieces are about 10 by 12 inches, six inches thick is called Italian slab cheese. It is ground up f mixed with cream, and molded into pear shaped weighing one pound each. These are hung up allowed to dry before being sold. To make a riche cheese two per cent milk is used. This must be h to 96 degrees before adding rennet. To make full curd slab cheese, use whole milk and heat to 100 de before adding rennet.

The starter is kept in two ordinary 50-gallon barrels, with a good cover.

I believe the best way to handle this cheese is to arrangements with some reputable Italian firm, them furnish the kettle, etc., and just sell them the and cream, and furnish steam, and transportation t railroad.

There are many ifs and buts to this business, can be worked out with profit. The time is coming every drop of skim milk will be utilized.

SOME GOOD SLOGANS.

In Sandusky, O., they are firm believers in slogans for their dairy products and two exceptio good ones were recently noted and recorded.

The Wesley L. Till butter plant in that city be in educating the populace that their brand of but "Gol Durn Good Butter." Perhaps not all people that language, but everyone understands it and a of the Till product cannot help but convince the sumer to agree with the slang phrase that it is Durn Good Butter."

The Esmond Dairy Company has selected a clever slogan and Sandusky residents are constant minded everywhere that the Esmond milk is "A Re tion in Pasteurization."

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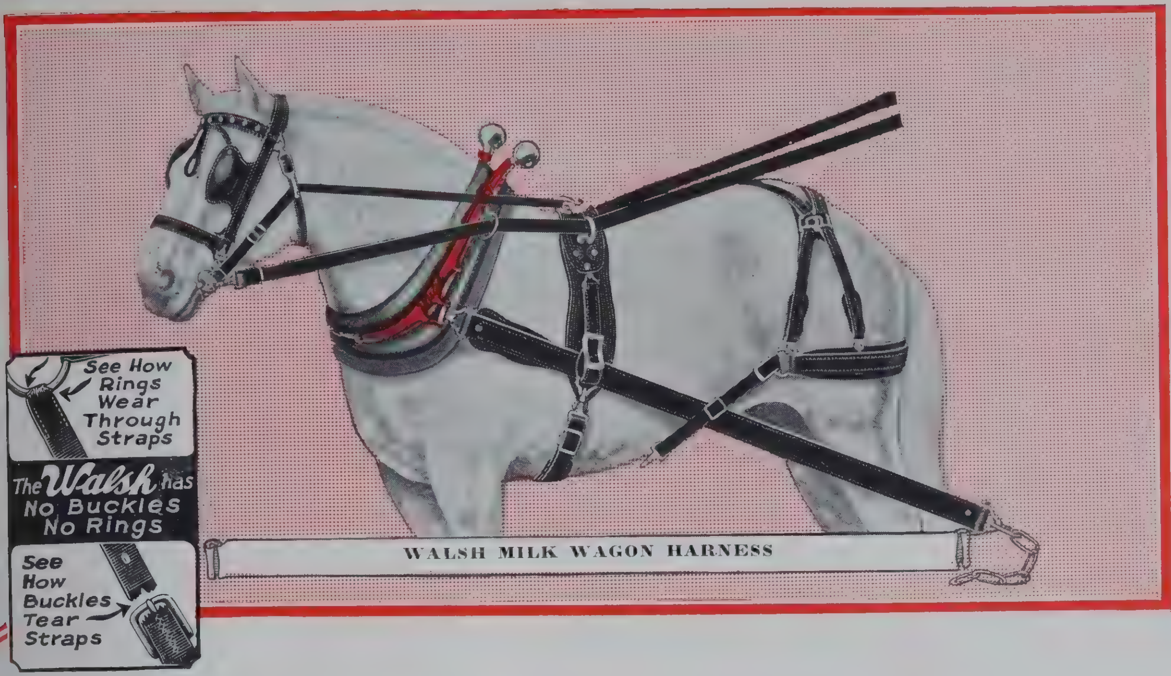
* Sanquoit Valley Dairy Co., Utica, N. Y.


See How Rings Wear Through Straps
The Walsh has No Buckles No Rings
See How Buckles Tear Straps
WALSH MILK WAGON HARNESS

A Great Advance in Harness Making

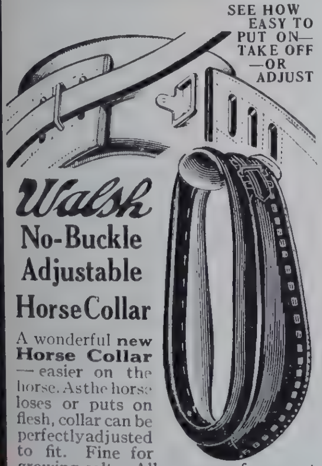
Walsh Milk Wagon Harness

A new kind of a harness that cuts out repair bills, greatly improves the looks of your horses, is much easier and quicker for drivers to hitch and unhitch and costs less than ordinary harness.

The Walsh No-Buckle Harness has proven an amazing success among farmers of America. Now milk dealers are taking advantage of this greatest of all harness improvements.

Good Looking and Fits Perfectly

A Collar as good as the Harness


SEE HOW EASY TO PUT ON—TAKE OFF —OR ADJUST
Walsh No-Buckle Adjustable Horse Collar

A wonderful new **Horse Collar** — easier on the horse. As the horse loses or puts on flesh, collar can be perfectly adjusted to fit. Fine for growing colts. Allows room for sweat pad. Read all about this amazing new collar in my big free Harness Book.

Walsh Harness can be adjusted to fit any horse perfectly. Made of the best harness leather ever tanned. It is exceptionally well made, perfectly sewed and finished. Large production enables us to make such a high grade harness at the price of ordinary harness.

Lowest Repair Costs Ever Known

With no buckles to cut straps, no rings to wear straps in two, and no holes to weaken the straps, Walsh Milk Wagon Harness is not only three times stronger than any other harness, but cuts repair costs as low as ten cents a year.

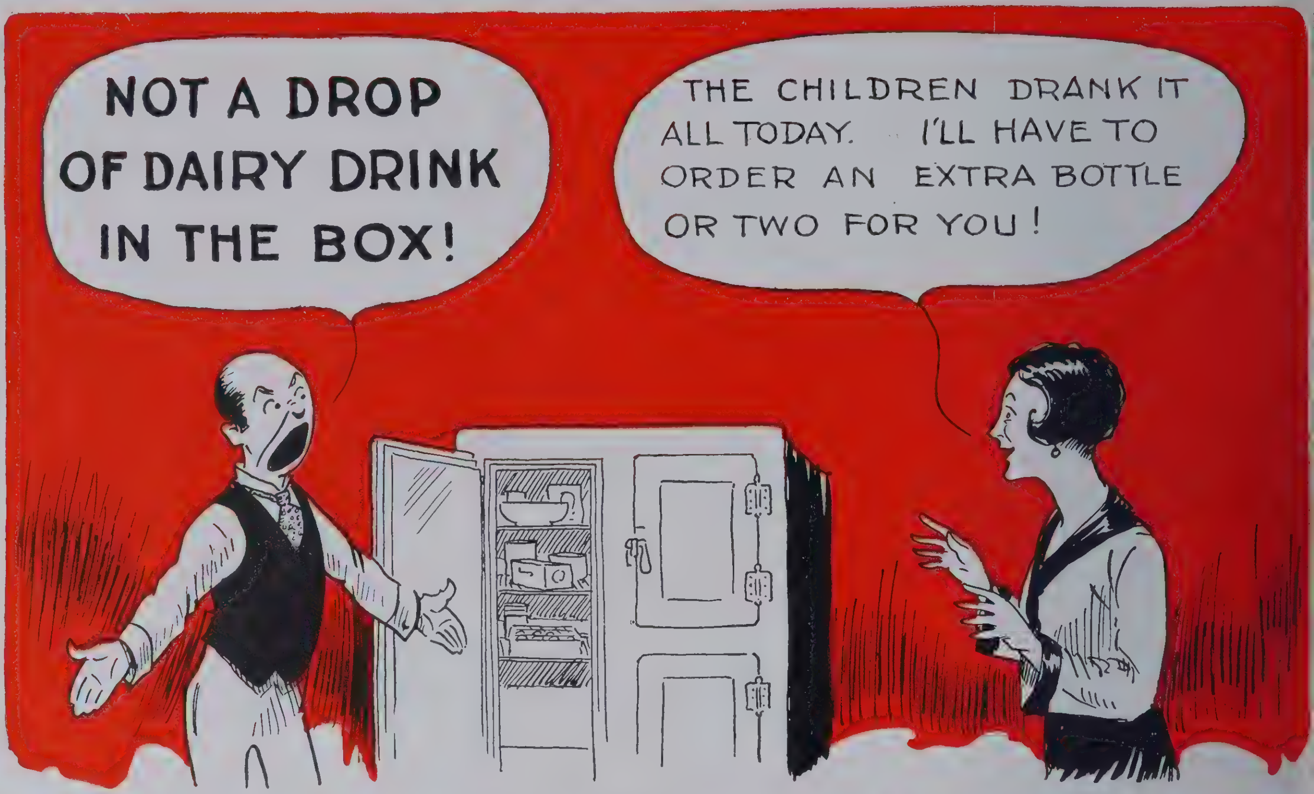
Many farmers, who are hard on harness, have used the Walsh as long as ten years without a penny for repairs.

It will pay you to investigate and post yourself on this new way of making harness. Write at once for free book.

JAMES M. WALSH CO.
123 Wisconsin Ave. DEPT. 930 **Milwaukee, Wisconsin**
World's Largest Harness Manufacturers.

More than 75,000 Sets of Walsh No-Buckle Harness in use in the United States and Canada.

When writing to JAMES M. WALSH CO. *please mention The Milk Dealer.*


NOT A DROP OF DAIRY DRINK IN THE BOX!
THE CHILDREN DRANK IT ALL TODAY. I'LL HAVE TO ORDER AN EXTRA BOTTLE OR TWO FOR YOU!

Leave More Milk
At Every House—Every Day

One taste—and children are "sold" on milk, when it's mixed with Chocolated Dairy Drink Syrup. That's hard on dad, for he likes it too. The mellow chocolate flavor wins them all—even those that formerly had to be coaxed to drink milk.

Chocolated Dairy Drink Syrup is so good and so pure that physicians endorse it. It offers milk dealers a big, new opportunity for additional business. You can sell it mixed, or in the big, handy glass jar for general household use—a wonderful value for 35c.

Try a sample and note its rich, satisfying flavor.

Sent free—on request, with copy of our "Milk-Cap Folder," one of the best dealer helps ever devised.

DAIRY DRINK COMPANY
4830 S. TURNER AVE. CHICAGO, ILLINOIS

CHOCOLATED
Dairy Drink
SYRUP

CHOCOLATED
Dairy Drink

FORMERLY "400"

JOBBERS

A. H. Barber-Goodhue Co.
Chicago, Ill.

J. G. Cherry Co.
Cedar Rapids, Iowa

National Dairy Equipment Co.
Utica, New York

Stevens-Adams-Cyr Co.
Charlestown, Mass.

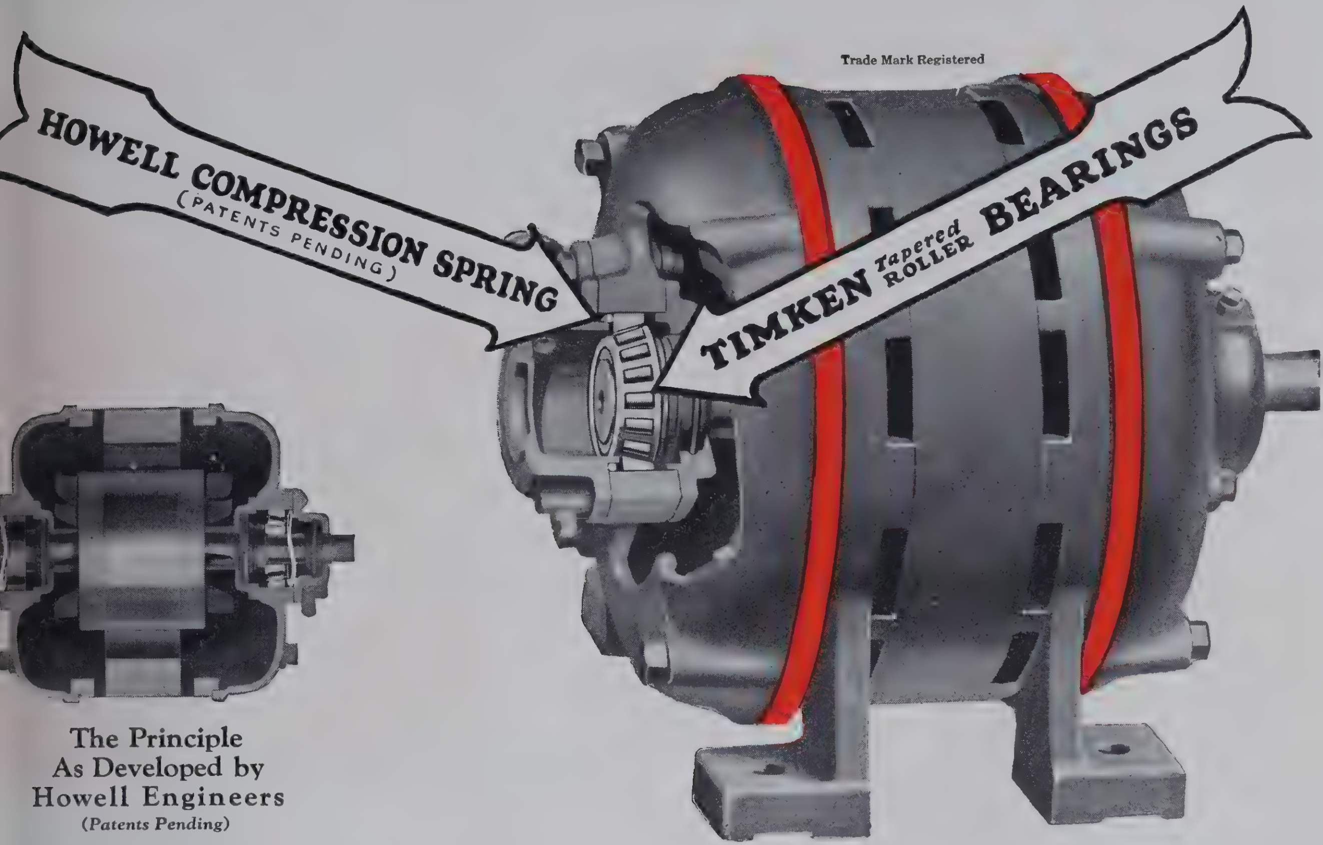
Beatrice Creamery Supply Co.
Denver, Colo.

Intermountain Dairy Supply Co.
Salt Lake City, Utah.

Corll Dairy Supply Co.
Youngstown, Ohio

Oakes & Burger Co. Inc.,
Cattaraugus, N. Y.

When writing to DAIRY DRINK COMPANY *please mention The Milk Dealer*



The Principle As Developed by Howell Engineers

(Patents Pending)

The outer race or cup of The Timken Tapered Roller Bearing is fitted into the housing of the motor end bell with a sucking fit which allows creeping of the outer race. The bearing is shimmed with a compression spring which is held tight against the outer cup of the bearing by a grease cap. The action of the spring pushes the cup tightly against the rollers thereby keeping the bearings snug at all times—automatically taking up wear and eliminating noise, and removing practically all chances of bearing trouble.

Timken Roller Bearings *plus*—an Automatic take-up!

The Howell method of roller bearing application (illustrated above) is the last word in electric motor construction. It practically eliminates all bearing trouble (and 95% of all electric motor trouble can be traced to bearing failure). It insures a continuous uniform air gap in which any looseness in the bearing caused by wear or otherwise is instantly and automatically taken up. It keeps the rotor centered at all times and allows for any lateral expansion of the shaft which might occur due to heat.

Howell Red Band Motors have always been known for their ability to master hard jobs—equipped with Timken Bearings they are even more dependable, more staunch than ever.

Howell Red Band Motors with Timken tapered roller bearings are offered in all sizes and types in addition to the regular motors with re-centering sleeve bearings. Get in touch with the Howell representative in your locality or write direct to the factory for complete information.

Give Red Bands your hard jobs

Howell Electric Motors Company
Howell, Michigan

(90)

Howell RED BAND ELECTRIC Motors

Make Good on the Hard Jobs

When writing to HOWELL ELECTRIC MOTORS COMPANY *please mention The Milk Dealer.*

Quality Milk Bottle

Machine Made -- Glass Evenly Distributed -- Accurate Capac

Universal
SUPER-
STRENGTH
GLASS
U.G.P.

Cut Your Bottle Cost and Increase You Profits

Write Us for full Information and Prices.

UNIVERSA
GLASS PRODUCTS C
MANUFACTURERS
PARKERSBURG, - W.

DISTRICT SALES OFFICES

NEW YORK	INDIANAP
Suites 404-405 200 Broadway	Indiana Te Warehous

REPRESENTATIVES at

6442 S. Paulina St.,	Chicago, Ill.
611 McCall Bldg.,	Memphis, Tenn.
42 Adams St.,	Hartford, Conn.
3829 Cottage Ave.,	St. Louis, Mo.

IDEAL BOTTLES FOR MILK AND CREA

Water

A Blessing and a Curse to Your Business

A Blessing in view of its use to flush and clean machinery, floors, etc. In view of its conversion into steam to heat with, to pasteurize with, to obtain power from. In view of the fact that it represents 87% of milk by volume.

A Curse in view of its presence in the form of condensation on the walls, ceilings, floors, machinery, pipes, belting, etc., with the resultant unnatural depreciation of these things.

In view of its effect on the health of your workmen when they are exposed to a high relative humidity, wet floors, dripping ceilings and cold drafts.

In view of its effect on the quality of your product when it causes mold due to a water saturated condition of the air.

This Curse Can Be Removed From Your Business

Removing the excessive moisture from the air of your plant will effect a tremendous saving in depreciation of building, machinery, pipes and belting. It means more efficiency from your workmen as well as a more healthy working condition. It will help you produce a higher quality product because of improved sanitary conditions.

Knowledge of the types of machinery and equipment used in your plant together with a thorough knowledge of the "handling of air" in milk plants and creameries by the King Ventilating Company's engineers puts us in position to render you a most valuable service.

WRITE FOR OUR BOOK.

KING VENTILATING CO.

OWATONNA, MINN.

ENGINEERS AND MANUFACTURERS

Milk Plant and Creamery Heating and Ventilating Systems

When writing to KING VENTILATING CO. *please mention The Milk Dealer.*

The Truth about Chocolated Mi

WE started it in the South at the Army Camps during the World War and it has now spread over the entire country and is a growing success where the Milk Dealers are using

CHOC-O-LISHUS

[TRADE MARK REG. U. S. PATENT OFFICE]

There is no reason for using imitations.
The original Choc-O-Lishus is just as cheap and it goes further.

It has the true Chocolate Flavor.
It is the best by test.
It deserves your support.

The manufacturers of Choc-O-Lishus are the oldest and largest manufacturers of Chocolate Syrup in the world.

THE CHOC-O-LISHUS CO.

NORFOLK, VIRGINIA

Subsidiary of H. B. HUNTER CO., INC.

When writing to THE CHOC-O-LISHUS CO. *please mention The Milk Dealer.*

Big Texas Dairy Discovers Way to Increase Milk Sales

THE Tennessee Dairies, Inc., Dallas, Texas, saw many dairies throughout the country increasing milk sales by tying-up to Thatcher Bottle slogan "A Bottle of Milk Is A Bottle of Health." Anxious to increase profits, this well known dairy decided to try out the idea, with the following result:

> *"Thatcher Advertising in The Saturday Evening Post and other magazines has borne fruit in Dallas. There is great interest here in milk as a health builder and more people than ever are drinking milk. We believed we could reap a good harvest by tying-up to Thatcher advertising by using Thatcher Posters. We were right—in one year sales increased 10%."*

From Texas to Wisconsin, from Maine to California, dairymen testify to increased sales through this simple and easy method. If you are not identified with this big and popular movement, write us today.

"MORE TRIPS PER BOTTLE"

The most important item in buying milk bottles, is the final cost per bottle to you. The first cost or purchase price means little or nothing to you. From the actual experience of dairymen and from exhaustive laboratory tests, it has been definitely proved that Thatcher Superior Quality Milk Bottles will give you more trips per bottle. For Thatcher Bottles are tougher, more uniform in quality, have a better distribution of glass, and consistently perform better in actual service than any other bottle made.

Specially designed lehrs, used exclusively by Thatcher, help to give Thatcher Bottles that Superior Quality and wear-resisting toughness not found in ordinary bottles. The Thatcher Trade-mark is blown on every Thatcher Bottle for your protection and guarantee.

Then too, millions of milk users see and read the celebrated "A Bottle of Milk Is A Bottle of Health" advertisements of Thatcher Bottles in The Saturday Evening Post and Good Housekeeping Magazine. If you want to increase your milk sales, fill in and mail the attached coupon. It will pay you to act at once.

THATCHER MANUFACTURING COMPANY
Elmira, N. Y.

Operating several plants, throughout the country, each strategically located and devoted to making Superior Quality Milk Bottles. Prompt, efficient service—always.

Mail This Today

THATCHER MFG. CO., Elmira, N. Y.

(1) Send me prices and further information regarding Thatcher Suoerior Quality Milk Bottles. We use approximately............bottles a year.

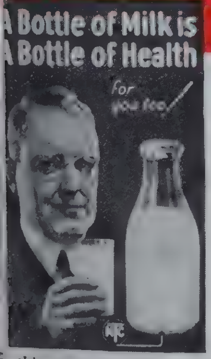
(2) Send me.........Thatcher Posters. I intend to use these Posters on my wagons....... windows........

Name..

Address...

City.......................................*State*...........................

ost Less Because They Last Longer



this Attractive Poster on
r Wagons and Windows.
Get your supply now.

Tested and Approved
Serial No. 2517
by
Good Housekeeping Institute
Conducted by
Good Housekeeping Magazine

THATCHER
Superior Quality
MILK BOTTLES

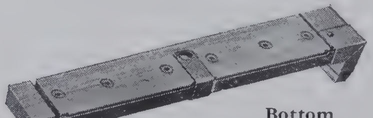
When writing to THATCHER MANUFACTURING COMPANY *please mention The Milk Dealer.*

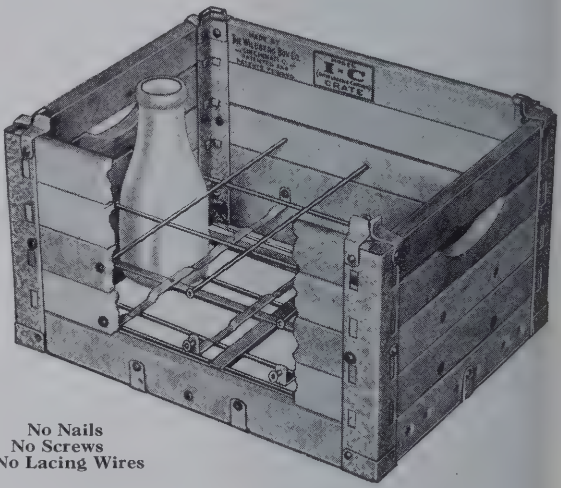
BOTTOM RUNNERS on your BOTTLE CRATES

The Bottom Runners on

The MODEL **I-C** (Interlocking Corner) **CRATE** are the only runners on the market which provide the crate with a perfectly smooth surface [with nothing to catch on conveyors or floors], yet at the same time take nothing away from the strength of the bottom slat.

To apply all other runners the manufacturers either wood-work away part of the thickness of the lumber of the bottom slat and weaken it to the point of splitting at the first hard blow it receives, or have numerous rivets, holes for which are bored against the grain of the wood, also greatly increasing the likelihood of splitting and breaking off.


Bottom
End Runner



No Nails
No Screws
No Lacing Wires

Ours is the only Bottom Runner to *actually strengthen the bottom slat,* due to the *Patented Clips that reinforce bottom, inside and outside* of the slat above the bottom row of wires on the ends and above the brace wires on the sides.

And—if you use hand trucks in your plant, you will find that the nose of your truck will slide under the I-C bottom runner at any angle at which it strikes the crate. It won't with most others.

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION INC.

The MODEL **I-C** (Interlocking Corner) **CRATE**

MANUFACTURED BY

The Wildberg Box Company

Cincinnati, Ohio

"World's Largest Manufacturers of Milk Bottle Crates"

UMMER MEETING FOR AMERICAN DAIRY SCIENCE ASSOCIATION.

a recent meeting of the executive committee of merican Dairy Science Association, it was decided ld the annual meeting at the Michigan State Col- Lansing, one June 22, 23 and 24, 1927. At the as- ion's last annual meeting a thorough discussion iven to the dissatisfaction which has been in evi- concerning the organization's annual meetings, pinion being that it would be more advantageous nedule the event at a time which did not conflict other activities in the industry.

ne committee announced that the Lansing meeting e in the nature of a trial meeting and it emphasizes t is important for all who believe a summer meeting ve superior advantages to support it by giving it d word and by attendance in person.

ficials point out that it will offer the following ct advantages:

Come at a time when college is not in session in educational institutions.

Be held where living costs are more reasonable in large cities ($1.00 for room).

Make it possible for several members to motor her in a pleasant overland trip.

The three days' program can go forward without ference or disturbance.

Be possible to stress the social relationship more. l says, "We are planning a fishing trip and every- .")

ccording to announcement by G. C. White, Storrs, ., secretary-treasurer of the association, it is prob- that a banquet will continue to be a feature at the onal Dairy Exposition and he believes that at the of the summer meeting some of the committees l come together to get important work under way. an arrangement would add to the effectiveness of ommittee activities and committee reports at sub- ent summer meetings, if such a plan should be con- ed.

on-members will be welcome at these meetings, but ey are eligible they will be invited to join the or- zation. The secretary will be glad to send you ks if you can help in any way in getting a new ber.

rof. White also announces that less than half of the members have paid their 1927 dues. He urges that ose in arrears take care of the matter at an early so that attention can be given to other things.

tentative program has been arranged and the ss of the proposed program depends upon the nse of the membership. The committee asks member of the association and especially those ng administrative charge of dairy departments of ges to give the matter of program prompt attention. estions are invited regarding the program in gen- Members desiring to present papers are requested nd title and author at once. Papers presented on rch program may be in the nature of an abstract paper to be presented for publication later, or may report of work in progress or completed and not in- d for publication; or a discussion of plans and ods of research.

Program Committee.

Hayden, Experiment Station, Worcester, Ohio.
. Ruehe, University of Illinois, Urbana, Ill.
Eckles, chairman, University Farm, St. Paul, Minn.

NAPACANS
FOR
COTTAGE CHEESE

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TOLEDO — OHIO

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W.C.RITCHIE & COMPANY
831 W. VAN BUREN ST.
CHICAGO, ILL.

Ventilating the Milk Bottling Plant

Heat and Ventilation Problems Should be Considered as One. Old Notion that a Dairy Plant Must be Wet is Exploded by One Who Knows

I WOULD like to call your attention to a picture I saw recently in a dairy magazine. It is a picture of a new milk plant, just completed and ready to start operating.

It was built with an idea of modernism and permanency. It has evidently been equipped with the finest machinery available for use in a milk plant.

Looking at the building from the outside, one cannot help but get the idea of permanency from the brick and limestone exterior. You can imagine the bright, sunny interior as you note the abundance of windows.

Going inside, one would find the walls and ceilings finished in white. Possibly tile extends from the floor line to the bottom of the windows. The machinery and equipment literally glow with cleanliness, "sanitation" impresses itself on your mind as your gaze takes in the enamel and nickel plated vats, coils, fillers, washers, etc.

All this is as it should be, in view of the nature of the product to be handled. Milk must be kept clean, fresh and free from disease-carrying germs.

This plant has been built, not only to conform with laws requiring certain sanitary conditions and equipped for profitable handling of the product, but with a view toward displaying to the public the cleanliness with which the product is dealt with.

Let us return to this plant the day the wheels start to turn and operations are begun.

Practically everything that goes on in the plant entails the use of water.

The product itself is 87 per cent water. We find open sinks full of water. Churns and other equipment, as well as floors, must be flushed and cleaned with water. Milk may be pasteurized in vats causing clouds of steam to fill the air, bottles and cans must be washed, adding more water to the already overloaded air.

How It Happened

One day not long ago a modest young man, who is recognized as a heating and ventilating authority, dropped in on us for a chat. We like to listen to a man who knows his business.

We got to talking about heating and ventilating milk bottling plants and we asked him to write us a story on the subject.

The accompanying article is the result. He doesn't want us to use his name, that's just how modest he is, but we are going to add that his firm is well known in the ventilating field.

Water is both a blessing and a curse to the plant.

It is a blessing in view of its many uses in operating a milk plant.

It is a curse, in view of its effect on building, equipment, machinery and the health of the employees when appearing in the form of condensation on walls, ceilings, pipes, belting, etc., and when causing too high a relative humidity condition of air.

Now let us return to this same plant a few years later.

We find machinery rusted, equipment in bad condition, "corrosion" has set in. Ceilings and walls covered with condensation, causing the paint to peel off. A feeling of heaviness pervades the air, possibly we are chilled if the temperature is below normal.

Without question, attempts have been made to maintain the beautiful sanitary condition that existed when the plant was first opened, but these efforts were along the lines of covering up and repairing rather than of eliminating the cause of the damage.

If we were to go to the owner of the plant and say, "When you built this plant considerable emphasi put on sanitation, cleanliness and beauty. Tod your plant there is every evidence of decay, cond tion and mold. I should think you would do some about it."

His reply would probably be typical of those we right along that this is a condition he must get with in his business, that it is a necessary evil, i always been this way in the milk business and that ing can be done about it. Of course, he tries to things as clean and bright as possible, but it's a l fight and at best requires frequent replacement o chinery and equipment, of painting and refinishing

Let us analyze Mr. Owner's problem for him.

To begin with, if conditions were to remain as were in the plant before starting operations, the l ing and equipment would be subject to only "nat depreciation of "aging."

The equipment and mach must be used, of course, to ate, and if "air conditions" remain the same during oper as before the machinery then be subject only to the na depreciation caused by usag differing as material and manship differ. The bu would still remain as befor

However, we are dealing an unnatural and as we ho prove an unnecessary deprec caused by a faulty "air tion" over which the ma turer of building materials chinery and equipment has n trol.

We can easily establish fact, that the causes of this f air condition can be succes dealt with, by methods prov repeated application.

Let us assume that operations are begun in the during the summer and at the time the temperatu the work rooms is 70 degrees, the temperature o being as high or higher.

The relative humidity of the air we will place per cent before starting operations.

To begin with, the air passing over open sinks, up a certain amount of water and the relative hum gradually rises, steam emitted from pasteurizing adds considerable more and the R. H. rises more ra additional steam from bottle and can washing mac and water absorbed from the flushing of floors an chines, soon fills the air with all the moisture it is ble of holding at the temperature prevailing an have a relative humidity of 100 per cent or com saturation.

Steam emitted into the air being at a higher perature than the air or surrounding surfaces conc and settles on convenient contact spots.

Classifying the causes of high relative humidit resultant condensation, we arrive at the three sour be dealt with.

First, open receptacles holding water, wet su *here interiors are painted with this*

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Sunlight
Reg. U. S. Pat. Off.

Washing removes the dirt but not the paint—

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You can wash Barreled Sunlight clean any number of times without the least injury to its lustrous white surface.

This is because Barreled Sunlight is so satin-smooth that dirt can find no foothold—and so durable that repeated washings will not wear it away.

Made by the exclusive Rice Process, Barreled Sunlight is guaranteed to remain white longer than any gloss paint or enamel, domestic or foreign, applied under the same conditions—also, not to flake or scale if properly applied. It is economical in application, too, flowing on freely with brush or spray at the *lowest cost per square foot of surface covered.*

These are the practical reasons why thousands of industrial plants prefer Barreled Sunlight to any other paint for their ceilings and walls.

Sold in 55- and 30-gallon churn-equipped steel drums, and in cans from ½ pint to 5 gallons. Where more than one coat is required, use Barreled Sunlight Undercoat first.

The coupon will bring you an illustrated booklet and a painted sample of Barreled Sunlight.

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of floors and equipment caused by flushing with water. This is usually a permanent condition, especially in the former case and affects the relative humidity of the air 24 hours a day.

Second, pasteurizing vats emitting steam which rises naturally to the ceiling, owing to its lighter weight due to higher temperature. This condition exists only part of the working day.

Third, bottle washing and can washing machines throwing off large volumes of steam under pressure. This condition varies according to the type of machine being used, some equipment being designed to eliminate the escape of steam from the machine when in use.

The effects of all three of these causes may be multiplied many times by insufficient heat, or heat which is not advantageously applied. Another fertile cause of difficulty is the too frequent or continuous opening of doors and windows.

In considering ways and means of relieving the air of the excessive moisture being thrown off continually, it is necessary that we consider each of the three foregoing causes separately for reasons that will be obvious.

It is clearly understood by all that a pool of foul, stagnant water could hardly be purified by merely mixing it with a stick, but would soon be cleaned out if strong currents of fresh water were run rapidly through it.

Thus also is it necessary in the relieving of an excessive moisture condition of air to have pure fresh air from outside replace the moisture laden air inside.

It should be obvious to all that the quantity or rate of air change provided should be no more and no less than that which is economically necessary and conducive to healthy working conditions.

The problem of arriving at the most desirable standard of air circulation, as well as arriving at the most efficient apparatus to use in obtaining it, should be left to experienced engineers who have specialized in the study of all the phases of milk plant and creamery buildings, machinery, equipment, and the business itself. In addition they should have a proven knowledge of the handling of moisture laden air ventilation.

Returning to the three classes of moisture laden air problems, let us consider ways and means of dealing with them.

In the first case, we have the permanent condition of open sinks, flushed equipment and floors. The amount of moisture absorbed into the air from this source is relatively small and therefore requires a relatively slow air change to maintain the proper relative humidity. However, this condition is a general one requiring that all the air of the room be moved. During the summer this air change can be accomplished with reasonably good results by the opening of doors and windows. In cold weather, however, this method is impracticable, costly and dangerous.

The inadvisability of using window ventilation in cold weather need not be dwelt upon as loss of heat, lack of air control and danger of drafts is clearly evident.

To properly handle the excessive moisture condition, brought about by the exposed water surfaces in the winter, it has been found to be most economical and most practical to harness natural forces. A natural draft siphon ventilating system properly proportioned and distributed as to units, designed to change the air of the room completely and at the rate of change necessary to the conditions, can be obtained at reasonable first cost and will eliminate the operating cost of mechanical apparatus.

This natural draft system should be considered the basic unit of a complete installation, as its work is continuous and permanent while the balance of ventilating
apparatus necessary, serves only as an auxiliary
used as occasion demands.

The natural draft units should be designed to
all of the air of the room, from points near the floor
to conserve heat and remove air with the greatest
centage of moisture, admitting fresh air near the
ing with ducts designed to avoid drafts and to pr
the warm air being siphoned out.

Very successful installations of this nature have
made by engineers specializing in this work. By re
ing the foul, damp air near the floor level with as
outtakes as will draw the air from a given radius
by placing small intakes at frequent intervals abou
room, both units equipped to prevent backdrafting
properly designed natural draft system will hav
minimum effect on the room temperature when pr
ly operated.

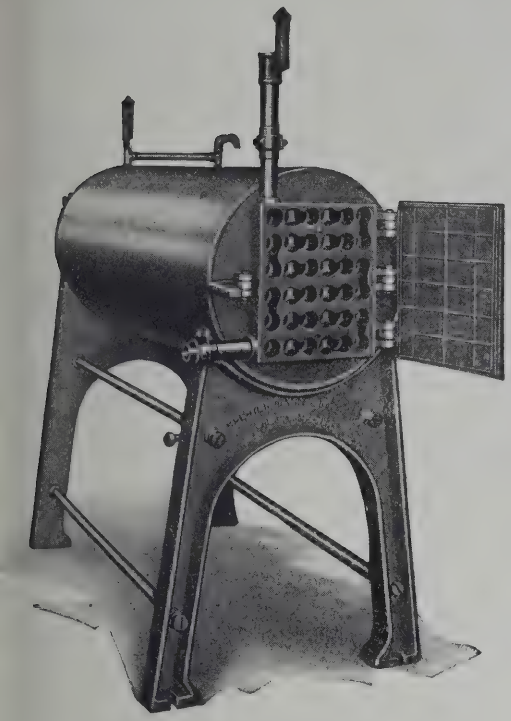
The next source of moisture to be dealt with i
pasteurizing vat or similar receptable from which s
rising in slow clouds soon saturates the air beyon
moisture-carrying capacity. In dealing with this, as
as all problems of removing impurities from the a
should be borne in mind that the most direct me
possible should be used. This is true because it a
for a concentration of the impurities in a small
and has a considerable bearing on the retention of
in the room. In our first problem of moisture rem
we need to deal with the air of the room general
the source of moisture in this case cannot be loca
In considering the class of problem under which w
pasteurizing vats and similar equipment, we find
source of moisture localized to the piece of equip
itself. It would probably be more satisfactory to
the moisture emitted by direct connection of ventil
apparatus to the vat if this were practical. This
the case, however, as anyone familiar with the past
ing vat knows. Therefore, in view of the fact that
leaving this equipment rises directly to the ceilin
cause of its higher temperature than the air of the
it has been found most practical to locate suction
at convenient spots in the ceiling over the main stea
points. The steam drawn through these suction
should be carried out of the building by ducts le
to the roof and exhausting through a stationary
siphon ventilator. Mention is made of the type of
tilator head advisable in view of the fact that war
carrying quantities of moisture, coming in contact
outside air of low temperature, will cause conden
and often ice formation that seriously affects th
sults obtained from a revolving type ventilator he

Returning to the mechanical apparatus necessa
the removal of steam from pasteurizing vats, etc.
riving at the size and number of suction fans nece
their displacement capacity and location, two f
must be considered. First, the size, number, typ
method of operation of equipment emitting the
Second, the volume of air in the room where this
ment is located.

It has been found most practical and highly ec
ical to leave the solution of all this to experts tr
in the handling of moisture laden air, men who sp
ize in the ventilation of milk plants and creamerie

Owners who have turned these problems over in
entirety to engineers who have made a specialty
work have found they accomplished the desired r
at much less expense than those who attempted to
their problems themselves or had others, not quali
do it, handle the job for them.

We now come to the third and last class of ve
ing problems presenting itself in the average milk
and creamery. In this class we will list can wa
machines, bottle washing machines and similar



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DONGLOS DAIRY
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(3 Machines)

These machines are being used with various types of holding apparatus and are meeting all sorts of local conditions. If you will advise what your heating problem is, we will be glad to offer you a solution.

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ment from which steam is emitted in large volumes and under pressure. Machines of this kind that are designed to prevent steam from getting out cannot be considered in this class but to some extent should be considered as affecting the problem we listed under the first class.

In the case of machines not provided with apparatus to prevent steam leaving the machine, we are confronted with the necessity of forcing the machine to swallow its moisture in order to prevent the air in the room from becoming saturated. Because of this it is necessary to get as directly to the points of origin of steam as possible. This can usually be accomplished by connecting an exhaust flue either directly to the machine itself or by constructing a hood cover over the machine with an exhaust flue leading to it. A pressure exhauster must then be provided to draw the air directly through the machine and exhaust flue and then out through the roof of the building.

The designing and application of this apparatus should also be left to men experienced in the difficulties to be overcome when dealing with various types and sizes of machines as well as the conditions affecting the movement of air through the machine.

In viewing the three classes of ventilating problems just discussed we come to the following conclusions.

The natural draft ventilating system, because of its never-ending task, should be considered the main part of the installation, mechanical draft units required by the other two classes of moisture production being auxiliary. For reasons of economy and space saving all three units of the ventilating system should be correlated in so far as is possible.

A great number of milk plants and creameries throughout the country have successfully solved their moisture problems by installations of complete ventilating systems such as has been described in this article. They have turned the responsibility of providing the proper standard of air circulation over to competent engineers.

However, there are still a great number of plants in operation that have either overlooked the importance of this matter or have imposed the problem on individuals not equipped with the requisite experience and knowledge. In both of these cases the depreciation and repair losses alone have far exceeded what would have been the cost of a complete installation made by specialists in this work who would have assumed all responsibility for delivering the proper standard of air circulation.

In quite a few cases of new buildngs, the owner has left the planning and specifying of the ventilation to the architect designing the plant. Even though the architect was one specializing in this particular kind of building, it is an imposition on the part of the owner to hold him responsible for the delivery of the proper air circulation. It is recognized that the task of handling even the simpler ventilation problems is one requiring specialized knowledge. In the case of the milk plant and creamery, we have anything but a simple problem. Granting that the architect designing the plant had the specialized knowledge and experience necessary to lay out the ventilation we are faced with the fact that he does not manufacture and install the necessary apparatus and in the event of the latter being insufficient he could not and should not be held responsible. Then ensues the familiar condition of "buck passing" inevitably ending with the owner "holding the bag" and doubting whether anyone knows anything about this "ventilating proposition."

If the problem of studying the building, equipment, arrangement, etc., the analysis of every factor affecting the condition of the air and the movement of the air, had been turned over to recognized authorities spec ing in milk plants and creameries, who in turn desig manufactured and guaranteed a ventilating syste the building, then money would have been saved, d ciation and repair costs considerably lowered an air condition conducive to healthy, satisfied work have been accomplished.

Without any question the most satisfactory sol to the problem of securing the proper "air condit in a new milk plant or creamery has been obtaine the following procedure.

The owner or architect, or both, selected a repres tive firm of moisture laden air ventilating engin who were charged with designing and supplying complete installation. The architect then submitt preliminary set of blue prints of the proposed buil to the latter who in turn drew in all details of the tilating system. The architect then specified that contractors bidding must purchase and install the plete equipment from the firm of engineers and m facturers whose services were called for.

This has resulted in a most pleasing installation from a standpoint of appearance and of results. A s of the total cost to the owner of the ventilating sy installed in such a case as this, as compared to where makeshift systems designed by inexperie people were accepted would soon convince the most s tical of the wisdom of such a course.

In the case of the plant that is already built, with an unsatisfactory air condition, either from a st point of the building as a whole or in some partic room, the following action would be well advised.

The owner should call upon the services of moi laden air ventilating engineers and have a trained cialist study the existing problems. After a thor survey of things influencing the condition and move of the air, together with a plan of the building sho locations of machinery and equipment, a proposa the furnishing of a ventilating system will be off The system itself can then be installed in the buil by either a local contractor or the manufacturers t selves.

In arriving at the proper "amount" of heat in t milk plant and creamery, we, of course, have the factors to be dealt with as in any other building, br mean average minimum temperature, size of space, and window exposure, building construction, air cha intermittent heating, heat absorbed by evaporation

However, this article will deal with types of hea units, their limitations and relation to ventilating in milk plant and creamery.

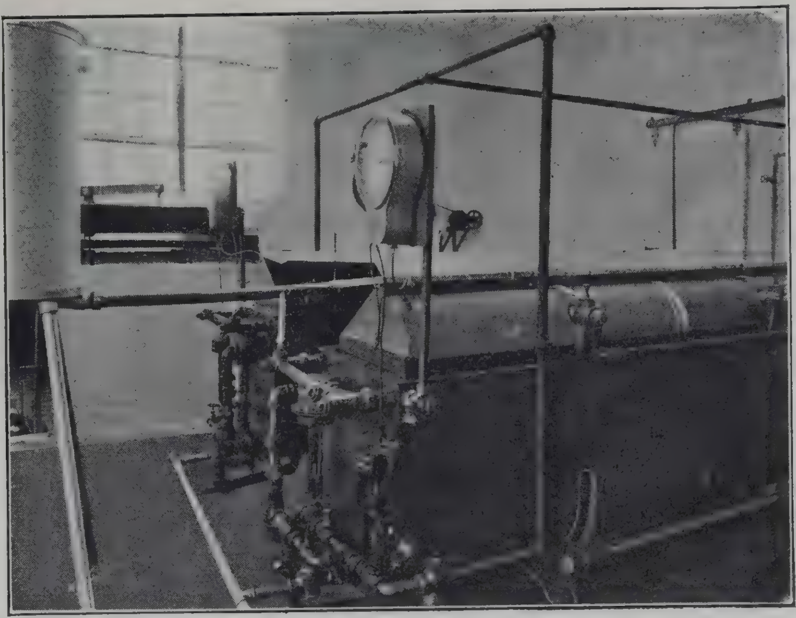
First off, let it be remembered that heat and ven tion are two distinctly separate problems but mus considered one in relation to the other. This ca readily appreciated when we consider that the am of heat required depends upon, among other things number of air changes provided a given space. Pu it the other way, in obtaining satisfaction from a tilating system, providing varying air changes for removal of excess moisture, it is advisable to have ficient heat available to maintain a given maximum perature at all times.

Failure to give proper consideration to these "air conditioning" units in their relation to each is the cause of most of the trouble experienced wit cessive moisture.

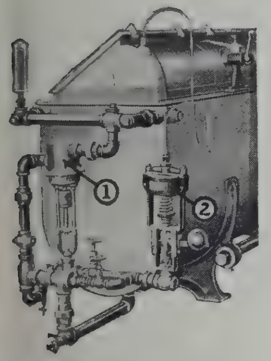
In view of the fact that air will hold more moi at a high temperature than at a low one, it is ob that temperature at a given point in a room will ha bearing on the lack or presence of visible moisture.

A ventilating system, designed to provide ce air changes, and based on a given mean room tem

In the Plant of the
Parker Dairy Company,
Saginaw, Michigan



We Never Overheat a Batch of Milk!"



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is composed of two simple, in-
endent and entirely automati-
ly-operated devices. Device
ber one is the *temperature con-*
ler which maintains the circu-
ng water at the desired tempera-
throughout the pasteurizing
. Device *number two* is a *tem-*
ture limiting unit, which shuts
he steam when the milk reaches
pasteurizing temperature; this
s the circulation of the heating
er, and prevents overheating of
milk. These features, combined
the *automatic* circulation of
heating water by the *steam-*
rated ejector, make the Burrell
ractically an *automatic* Spray
Pasteurizer.

"Largely on your recommendation," writes the Parker Dairy Company of Saginaw, Michigan, "we installed the automatic steam controls on our new Burrell Spray Pasteurizers in our new plant. We have been operating these controls for several months, and results have fully verified your claims for this equipment. We are able to produce uniform recording charts—*never overheat a batch of milk*—and the temperature is controlled more evenly than is possible by hand. The direct result has been *improved uniform cream lines* on all our milk every day with practically no variation."

Like the Parker Dairy, many plants that are now using Burrell Spray Pasteurizers, equipped with *automatic temperature controllers,* are able to maintain their heating water at a *uniformly low temperature.* And they have found that this *constant, automatic control of temperature* not only ensures *uniform heating of the milk* and *maximum cream lines,* but permits the operator to perform his other duties without continually interrupting his work to observe the progress of the pasteurizing run.

The experience of the Parker Dairy is but one instance of how this *automatic temperature controller* has successfully met the demand for a temperature regulator that would combine *simplicity* with *perfect operation.* It is absolutely self-contained—with no air compressor or other auxiliary equipment. Its very simplicity is the secret of its easy and efficient operation. And the automatic temperature controller not only eliminates the necessity of the operator's constant attention, but its initial cost is surprisingly low.

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Dairy Creamery Cheesery and Milk Plant Apparatus

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ture, might still deliver the same number of air changes at a lower temperature with visible results entirely unsatisfactory.

The temperature desired for the work rooms of a milk plant and creamery is generally agreed upon to be within a very limited margin. To maintain, consistently, this desired temperature and to prevent condensation of excessive moisture, the first step is to provide the proper system of ventilation, analyze the varying air changes provided by the system and install heating apparatus capable of maintaining the desired temperature according to reasonable extremes to be dealt with.

However, this does not mean that in such cases where a ventilating system is providing, let us say, six air changes per hour, temporarily, that the amount of heat provided should be figured accordingly. The very manufacturing process which temporarily demands a rapid air change may also be the source of sufficient heat to offset the difference in the number of air changes at that time over another time.

Thus it can be seen that the many factors affecting the related problems of heating and ventilating a milk plant and creamery are sufficient reasons for consulting specialists who are familiar with them.

Any investigation will prove that this course not only means a satisfactory solution but a most economical installation results.

In making the statement that air will hold more moisture at a high temperature, it must be remembered that it would be difficult to determine at what temperature all of the excessive moisture could be suspended in the air. Granting that this could be determined, the temperature required would be so high in the average plant, that it would be unbearable. In addition, as soon as the temperature dropped, as over night, the air like a sponge would squeeze the water out and condensation would form on convenient surfaces.

If the changes from hot to cold, wet to dry, were continued, a more rapid decaying condition would prevail than under a consistently wet or consistently dry condition. This is borne out by the pile, standing in water, which rots at the water line first.

Thus we establish the fact that to properly condition the air, we must carry out of the building the excessive moisture being added to it at all times and then provide sufficient heat to maintain a reasonably consistent temperature according to the evident requirements.

This heat can be obtained in many different ways. Heat can be classified, however, into two types, direct and indirect.

The latter is rapidly replacing the former in use in milk plants and creameries as well as all industrial plants. The original type of direct heat used, the stove, was replaced by steam radiators. The steam radiator, the present form of direct heat in general use where indirect heat is not installed, has many disadvantages that are causing its rapid replacement by the latter type. Direct radiation takes up a considerable amount of valuable floor space as compared to the indirect system of like capacity. It takes a considerable longer time to raise the temperature of a room from one point to a higher with direct radiation than with the indirect system of the same rated capacity. This is true because of the necessity of the heat from the radiators traveling through the air while the indirect system recirculates the air over the heating surfaces. In addition, it is usually true that the air of the room can be kept at a
even, consistent temperature by the use of recir
ing system than by direct radiation. Indirect sy
can be obtained for which many other advantage
claimed, hower, let it suffice to say here that the
larity of this type of heating system for milk plant
creameries is increasing each year.

Some plant owners have purchased recircul
heating systems with a view toward removing thei
densation from the building as well as to heat the
It is a mistake to confuse the purpose of a heatin
tem with that of a ventilating system. Recirculatio
heating air does not reduce the actual amount of
in air by volume, but merely increases the car
capacity. A room made comparatively air-tight
filled with steam, could quite possibly be heated
degree that would remove all visible presence of
ture. If the temperature arrived at is higher tha
consistently desirable, however, the presence of moi
will be evident as the temperature is dropped to no
Air is like a sponge, heated it expands and holds
moisture; cold it contracts and squeezes the moi
out in the form of condensation on surfaces cooler
the air itself.

The only way excessive moisture can be actuall
moved from a closed space, is to change the heavily
air inside with drier air.

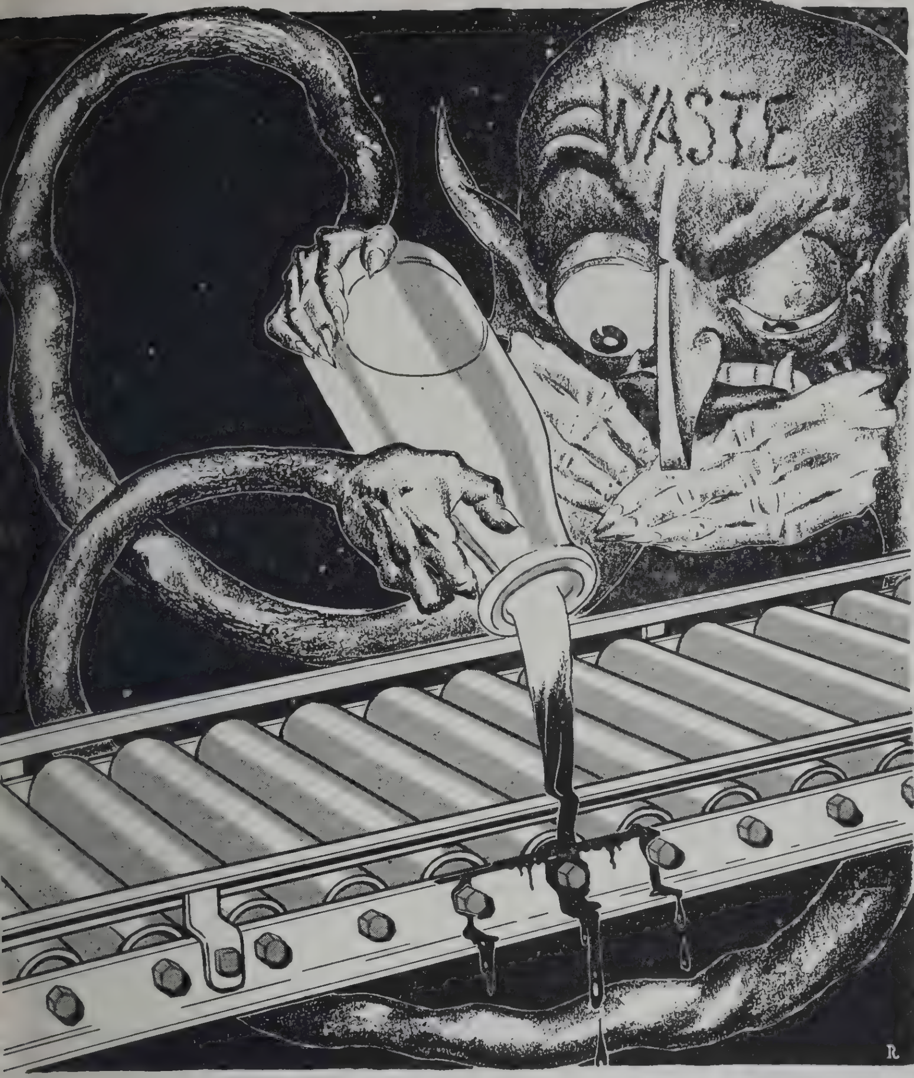
Some recirculating heating systems have bee
stalled that are provided with by-pass ducts, mixi
limited amount of outside air with the air in the
in the heating system. Then an out-take duct has
placed at a convenient spot, for removal of the
damp air. This is at best only a slight improveme
view of the fact that in most cases, the actual air ch
in the room is insufficient and the cost of heating is g
er than it would be were the fresh air admitted in
quantities near the ceiling at various points and
slow rate of speed.

Another objection to this type of so-called hea
and ventilating system can be found in the spring
fall. There are quite a few months of the year whe
heat is desired, but steam escaping from vats,
washers, etc., demands a rapid air change. Unle
ventilating system to handle these conditions has
provided, the condensation resulting will be both
gerous and costly. If the recirculating heating sy
were relied upon at this time, it would not only
partially handle the condition but would raise the
perature of the room far beyond the point where it w
be comfortable.

Summarizing the economic facts concerning heat
ventilation in the milk plant and creamery, it ca
readily established that the task of each system is
tinctly different. At the same time, effect of one u
the other makes it necessary to consider them toge
in order that the best results under prevailing condit
may be accomplished.

Not a little loss of prestige, time, health and m
has resulted from a careless or misinformed atti
toward these two problems on the part of plant ow
and operators.

An employee's health has been lost, valuable
chinery allowed to spoil rapidly, building materials h
given out long before their time, efficiency decreased
an inferior product allowed to reach market when
aceptance of the services of experienced specialists
milk plant and creamery heating and ventilation mi
have saved all!



Resist the deteriorating effect of acid

In *three ways*, Lamson Sanitary Conveyors are protected against acid-deterioration.

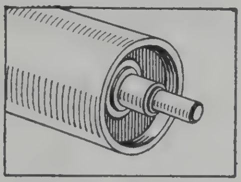
In addition—they are "bridge" braced against stress and strain—guarded from moisture-corrosion—engineered to reduce wear and tear. Therefore, they

Last Longer

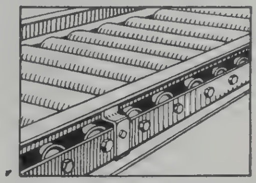
Know *all* the reasons why Lamson Conveyors work for *lower operating cost*. Send the coupon!

ast longer. THE LAMSON COMPANY
SYRACUSE, N. Y.

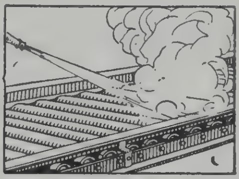
LAMSON
SANITARY
CONVEYORS



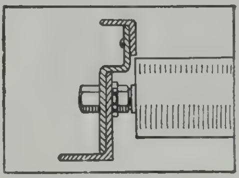
1 *Moisture can't get in.* Corrosion comes with moisture. Keep moisture out and you prevent corrosion. Lamson Rollers extra-heavy throughout, have heads *welded in*. No joint through which moisture can enter. No inside corrosion. Remember that.



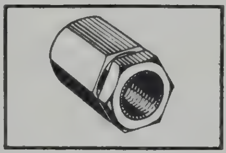
2 *Special guard rail over roller ends.* This heavy angle iron guard rail, setting in over the ends of the rollers, prevents can-chimes from dropping off and blocking the conveyors. *And this saves wear.* Sliding cans over rollers that can't turn wears out the rolls and the cans, both. The Lamson conveyor never stalls or blocks.



3 *Stands up under flushing and steaming.* Turn the hot water on it as often as you please. Steam it often as you want. You can't harm the bearings, you can't force any moisture into any part where it will be harmful. Lamson has designed this conveyor to stand a limitless amount of cleaning.



4 *Practical mounting.* The frame is so designed that it forms a cup-like protection to keep moisture and milk away from the shafts and bearings. This mounting maintains dryness of the moving parts, even in conditions where a great deal of moisture is present. It adds greatly to the service of Lamson conveyors, and helps to prevent rolls from sticking.



5 *Non-corrosive bearing of special design.* The bearings are cast of non-corrosive alloy. They are extremely resistive to all corrosive action. They are hexagonal in shape, so inserted in the frame that they can never turn with the shafts. Consequently they cannot freeze, and always operate.

The Lamson Co.,
Syracuse, N. Y.
I am interested in finding out **all** the reasons why Lamson Sanitary Conveyors operate at **low cost.**

Name ....
Firm Name ....
Business Address ....

When writing to THE LAMSON COMPANY *please mention The Milk Dealer.*

The Re-Discovery of Mil

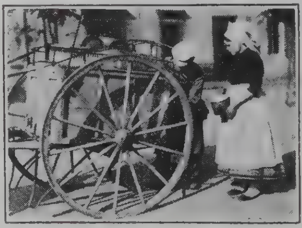
Man's Most Important Food Product During all the Ages. "Come, Buy Wine and Milk Without Money and Without Price."

By
PROF. R. M. WASHBURN
MINNESOTA

WHY did our fathers and grandfathers think so lightly of milk as a food, regarding it a little better than an agreeable drink when peoples for ages past have known its food value? Not only did antiquity know and teach milk, after their fashion, but throughout the intervening ages some people have known milk well and some men amidst all civilized groups have taught the use and the value of milk.

From the advertising that has been given to milk and milk products during the past few years, it might be thought that the product, milk, were a beautiful new discovery, like radium. It is, in fact, more a re-discovery, or better, a blooming, because of science, of the bud which has been growing for thousands of years by common experience.

Butter Seller of Persia.



Somewhere in Germany

Reviewing briefly the literature of the past and bringing down the quotations and references, we have a continuous chain of statements which prove the high regard in which milk and milk products were held by various people, as for example the following:

Genesis 18:8 "And he took butter and milk....and they did eat."

Genesis 49:12 "His eyes shall be red with wine and his teeth white with milk."

Joshua 5:6 "....A land that floweth with milk and honey."

Judges 5:25 "He asked water and she gave him milk; she brought forth butter in a lordly dish."

Proverbs 30:33 "The churning of milk bringeth forth butter...."

Isaiah 55:1 "Come—buy wine and milk without money and without price."

Lamentations 4:7 "Her Nazarites were purer than snow, they were whiter than milk; they were more ruddy in body than rubies...."

Ezekiel 25:4 "....They shall eat thy fruit and they shall drink thy milk."

1 Corinthians 3:2 "I have fed you with mink and not with meat; for hitherto ye were not able to bear it...."

Hebrews 5:12 "....and are become such as
need of milk, and not of strong meat."

1 Peter 2:2 "As new born babes, desire the si
milk of the word that ye may grow thereby."

The wise King Solomon not only encouraged
keeping of dairy animals, but he issued this comma
his followers: Proverbs 27:27 "Thou shalt have g
milk for thy food, for the food of thy household,
for the maintenance of thy maidens."

Josephus, the great historian, 37 to 95 A. D., a
temporary of St. Paul, wrote "Abel brought milk
the first fruits of his flocks as offerings." Some orie
have a tradition about milk to the effect "that the
rivers of Paradise consist of **milk, wine, honey** an
and Adam, who required no food, drank of the
and tasted of the fruits." Thus we note the commo
of the knowledge regarding milk and the high pla
which it was held among oriental peoples.

Here are a few more pictures of the past. H
(9th century B. C.), a poet of Greece, frequently
tioned milk and cheese as articles of food. Herod
(5th century B. C.) also wrote of the use of milk
food. Hippocrates (5th century B. C.), speaking o
Scythians, described
great minuteness
processes of making bu
and highly commends
as a most healthful and
ishing food. Among
Asiac Russians mare's milk was gathered in wooden vessels for general use and it still is done in much the same way.

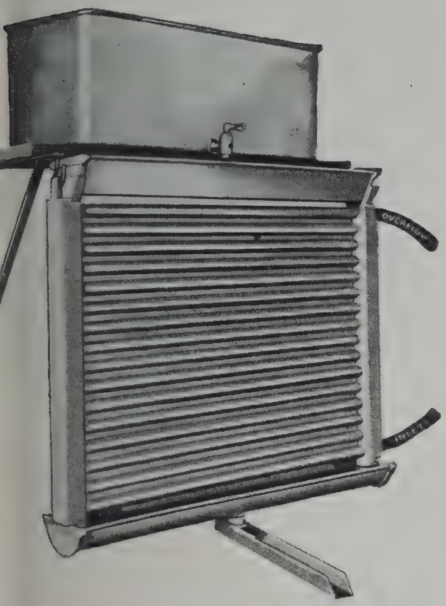
High, High, High up in the Alps

An Oriental Milk Distributor

"Ancient Rome was built by hunters and herdsmen. Romulus, its founder.
years B. C., traced a furrow around the Palatine
with a plough drawn by two milk-white cattle, and ca
the area within the furrow to be inclosed with a wa
earth; he then poured out libations of milk to propi
the gods. Eight hundred years afterwards Pliny
lates, that the devotional offering of milk, in comm
oration of the custom of their fathers, was still
tinued."

In this connection it is interesting to note that

QUALITY Uhlmann-Kinsey Co. Incorporated PHILADELPHIA. PENNA. COOLERS



Encourage Your Patrons to Buy a Quality Cooler!

Eight years ago, the first U-K Farmers Cooler was exhibited at the National Dairy Show in Chicago. It was an immediate success. Dairymen from every part of the country voiced their hearty approval of it because this U-K Cooler was then far in advance of any other milk cooler. Even the smallest details showed that the best brains and engineering skill had been expended upon them.

and Reduce Acidity

Today the U-K Farmers Tubular Cooler is the accepted standard for cooling milk on the farm. Several improvements have still further increased its cooling efficiency; and we have customers who are regularly receiving milk throughout the hottest weather with only 14½% acidity.

Be certain of getting low acidity milk by having your patrons install U-K Coolers. Don't accept anything else as a substitute. Insist on U-K Coolers. They mean better milk and increased profits to both you and your farmers.

U-K Coolers are made exactly like the larger coolers for milk. Either water or brine can be used. Made of copper and bronze and will withstand 150 pounds pressure. Can be had in large or small capacities, with or without pump, stand, reservoirs, etc. Write to nearest supply house or direct for illustrated literature and prices.

UHLMANN-KINSEY CO., Inc.
25-27-29 South 20th Street PHILADELPHIA, PA.

When writing to UHLMANN-KINSEY CO., INC., *please mention The Milk Dealer.*

instead of wine recently was used in christening a Grand Trunk ship built at Manitowoc, Wisconsin, ship building yards.

In connection with the laying out of the City of Rome, it is of interest to note that the very name "Italy" is said to have been from the ancient Greek language and so called because of the abundance of oxen in it.

Pliny (writer of natural history, 1st century A. D.) refers to several eastern nations whose people subsisted largely upon milk and "who so managed their stocks as to secure an abundant supply of milk through the year."

Strabo (Greek geographer and historian, 1st century B. C.) gives much the same account of Aethiopians, Lusitianians and other peoples" among whom milk was one of the chief means of subsistence."

Virgil (Roman poet born on a farm 70 B. C.) devoted his Third Georgic to the subject of breeding cattle.

Apicius (famous Roman writer on cookery, 3rd century A. D.) and others of his day made the quality of milk the subject of special study.

Aristotle (4th century B. C.), often considered the "father of natural history," in his book on "Animals" gave many interesting pictures relating to milk and cheese and duly appreciated both as articles of food.

Records from East India show that butter was used at least as early as 2000 years B. C. and still is.

Thus in general terms but none the less positively, milk was appreciated, cultivated and used by men. From the Swiss highlands to the Holland marshes; from the southern plains to the Scandinavian, Finnish and British hills; from the wide open ranges to the closely inhabited centers, cows were the answer to man's prayer for life under hard conditions. In America at present cows are kept profitably from Cuba to Alaska, from the tide meadows to the mountainous plateaus; from sparsely settled prairies to densely populated centers; from the low priced farms on the outskirts to the high priced farm in our central states; from the semi-arid sections of our western plains where there is but 15 to 20 inches rainfall per year to the Pacific slope where the annual rainfall is 10 feet or more, cattle, cows and milk are the answer.

Glancing back again to an early date, we quote the following from Hartley: "The milk of animals is more generally used as aliment by man, than any other description of animal food. That of the camel is chiefly confined to Africa and China, and of the mare to Tartary and Siberia. In China, especially about the city of Canton, no other milk, it is said, can be obtained but that of the sow; while in India, the milk of the buffalo is preferred to that of the domestic cow. In Lapland and in some other northern countries, the milk of the reindeer is highly valued and extensively used. Goat's milk is more generally used in Italy and Spain, than in other countries in Europe. The animals are driven into Leghorn, Florence, Madrid and other towns in flocks early in the morning, and milked in the streets. Ewe's milk is gradually wearing out of use." Caesar reported that the Germans lived on milk, cheese and meat. And rugged people grew thereon.

Holinshed Chronicles (1577): "I find among the writers that the milk of a goat is next in estimation to that of the woman, for that it helpeth the stomack, removeth oppitations and stoppings of the liver; and looseth the belly. Some place also next unto it the milk of the ewe, and thirdly that of the cow."

Thomas Coghan, Master of Arts and Batcheler of Physicke, London, England, in "The Haven of Health" (1636) states:

"The art of Physicke (right honourable) by the judgment of the learned, hath two principal parts: the one declaring the order how health may be preser the other setting forth the means how sickenesse may remedied. Of these two parts (in mine opinion) tha more excellent, which preserveth health and preven sickenesse. For as much as health is the most per state of man's body in this life, and the onely enc mark whereunto the physician directeth all his doin ..Even as it is better to stand fast still than fall rise againe, better keep still a castle or city, than a we have suffered the enemy to enter, to rescue it aga —-Asclepiades, that famous physitian, learned in manner and the use of medicine, bent all his study the order of dyet.

"And some that bee of a sound constitution by ture, doe yet through intempreancy so corrupt t complexion, that either they live not untill they be or else their old age is most fulsome and lothsome... this number chiefly the courtiers, lords, ladies, gen men and gentlewomen, though not all, yet moe than the common people. For these live not so long as inferior sort.

"A third kind of meats, which is neither fish flesh, commonly called white meats, as egges, milk, ter and cheese. Henne egges are best.

"Milk is made of bloud twise concocted, for un it come to the paps—or udder, it is plaine bloud, afterward by the proper nature of the paps it is tur into milk. Deo sco givith this commendation to m generally. Lac genevasum omne boni succi eft, cor alit, aluum emollit slomachum and intestina exat.

"But this last inconvenience may bee holpen, as teacheth after word 'minus inflat quodcunque se ferve factum est.'

"And I was want to helpe it by putting in a li pepper, cloves and mace.

"Milke, not withstanding that it seemeth to wholly of one substance, yet it is compact or made three severall substances, that is to say in effect, creame whey and curds, of creame is made butter of curds cheese of which I shall entreat afterward. of milke there is great difference, nor onely concen kinds, but also touching the time of the years. For milke is thickest and the milk of the cammel is thinn and the milke of a goate is between both. Wheref is the governance of health, goats milke is best and milke is next. Yet the goodnesse of the pasture help much to the goodnesse of the milke; for ill pasture m ill milke, and good pasture make good milke; for s as the food is the bloud and such as the bloud is, suc the milke....And touching the time of the years I that in the spring time milke is thinnest and at the of the leafe it is thickest and best according to that saying—'When ferne waxeth red, then is milk good bread.'

"And, how naturall and nuirishing a meat, milke may be perceived not only by children who live and better with that, than with any other thing; but men and women, who being used from their childh for the most part to milk, and to eat none or little ot meat but milk and butter, appeare to be of good c plection and fashion of body and no morvaile; for w milke is well digested, it engenderth good bloud, giveth great nourishment, yea it is a restorative to th that bee wasted or in a consumption or be lean as peareth—in Scho. Sal. in these words—

"Lacs hecticis sauum, caprinum, post camelinum nutritivum, plus onini bus ast asininum plus unt vuum vaccinum, sic ovinum ad sit si febris, caput doll fugiendum est.

"Whereby it appeareth that goats milke is princi in a consumption because it is not so thinne as can milke or asses milke, nor so fat and thicke as

GABEL CREAMERY COMPANY
REFRIGERATOR MILK SERVICE

e Gabel Creamery Company, Detroit, is widely known as a successful Creamery organization. Fruehauf Semi-Trailers with Refrigerator bodies nd Fruehauf 4-Wheel Trailers with Tank bodies—are helping Gabel to get record-breaking results from their operations in the Detroit territory.

OTAL ANNUAL SAVING OF $31,132

READ this brief summary of savings effected in Milk distribution by the Gabel Creamery Company, of Detroit, through the use of Fruehauf Trailers:

Seven 10-ton Semi-Trailers and two tractor-trucks are used to distribute cases of bottled Milk to Branches. Oldest Trailers have been in service every day for two years. Daily tractor route covers 41 miles. Average Trailer load is 18,500 pounds ---300 cases. Daily hauling unit cost is $24.11 for tractor, four Trailers and two "Dollies." Cost per case is $.0201.

5-ton truck could carry 280 cases and make same deliveries, but in longer time---at a cost of $.0303.

Trailers reduce hauling cost over $.01 per case, *saving $16,892 a year.* Reduce handling labor cost. Eliminate need for refrigeration at Branches. *Total annual saving is $31,132! Returning 134% on investment annually.*

It will pay you to get the complete details of this interesting experience in low-cost transportation. Write today for your copy of a Survey made by the A. C. Nielsen Company of Chicago---a neutral firm of Engineers---in collaboration with Mr. Herman Koelz, President of the Gabel Creamery Company. Your inquiry will not obligate you in the least.

FRUEHAUF TRAILERS

Oldest and Largest Manufacturers of Trailers

FRUEHAUF TRAILER COMPANY

BRANCHES AND DISTRIBUTORS IN ALL PRINCIPAL CITIES

2 Harper Avenue **Detroit, Michigan**

When writing to FRUEHAUF TRAILER COMPANY *please mention The Milk Dealer.*

milke or sheepes milke, yet common experience proveth that womens milke, sucked from the breast is without comparrison best for all in a consumption. (Here the author notes the example of the Earl of Comberland who was nursed back from fever to health on the breast of a woman.)....milke is hurtful to them that have the cholicke, but is especially good for them which be oppressed with meloncholy, which is a common calamity to students, and for this purpose it should be drunke in the morning, new milked warme from the udder.... Take milke warme from the cow, or else new milked, and heate a gad of steele or iron glowing hot in the fire, and quench it therein, so doing nine or ten times, together, then drinke it fasting and it will helpe.''

The author here goes on to tell how to boil (boyle) leaves of certain herbs in the milke to improve flavor and make more medicinal. Again he urges women, who have children to raise, to provide abundance of May butter.

Schola—Salerni saieth ''Lenit, humectat Soluit, sine butyrum.''

In speaking of cheese he says....

''Cheese should not be white as snowe is, nor ful of eyes as Argos was, nor olde as Mathusalem was, nor full of whey and weeping as Marie Magdalen was, nor rough as Esau was, nor full of spots as Lazarus was.'' Some cheese he had.

''The second thing that is to be considered in meats is the quantity, which ought of all men greatly to bee regarded, for therein lyeth no small occasion of health or sicknesse, or life or death. For as want of meat consumeth the very substance of our flesh, so doth excesse and surfet extinguish and suffocate natural heat wherein life consistheth....The quantity of meat be such, as may be well digested in the stomach. That is according to the nature of him that eateth, not always—according to appetite....

''Pone gule metas, ut sit tibi longior etas esse copis sannes? sit tibi parca manus—

''But the greatest occasion why men passe the measure in eating, is variety of meats at one meale. For such is our custome by reason of plenty weare served with sundry sort of meats at one meale. Yea the more we would welcome our friends, the more dishes we prepare, and when we are well satisfied with one dish or two, then come other more delicate, and procureth us by that means, to eate more than nature doth require.

''Thus variety bringeth us to excess and sometimes to surfit also. But Physicke teacheth us to feed moderately upon one kinde of meat only at one meale, or at the least wise not upon many of contray natures.

''And if nature bee so strong in many, that they be not sicke upon a full gorge, yet they are drowsie and heavy, and more desirous to loyter than to labour, according to that old meeter—Distenus venter villet dermire libeuter.

''Yea the minde and wit is so oppressed and overwhelmed with excesse, that it lyeth as it were drowned for a time and unable to use his force—for true it is according to that olde say—'When the belly is full the bones would be at rest.' ''

Then follows description of Oxford and Cambridge students who live for the most part on one or two meals per day and only one or two kinds of food per meal.

''And doe live and like very will therewith, and for the most part are as cleane men of personage as may be seen (in England).''

In the above quotation we have several pictures of the period in England but we also receive in this, a picture of the status of knowledge regarding milk, of what it was composed, and its general handling.

The Mayflower, in coming to Plymouth Rock, di bring cows but ''Edward Winslow, having been se England as an agent for the colony, on his retur 1624, brought three heifers and a bull, which were first neat cattle brought to Plymouth. The settler course, had been destitute of milk, the first four y In 1630, there was another importation of twenty- cows, but ten were lost at sea.'' Horses were first ported to the colonies in 1644 according to col records.

Edmund Burke (1729-1797) stated: ''Milk is the support of our childhood. The component parts of are water, oil and a sort of a very sweet salt called s of milk. All of these when blended have a great sm ness to the taste, and a relaxing quality to the skin

John Burns, M. D. (1817) wrote: ''Milk consis cream, curd and whey; and the whey, the greatest tion of which is water, is the only part that bec sour. The quantity of cream is greatest in ewe's next in that of woman, the goat, the cow, and then ass and the mare. The proportion of whey is gre in the milk of mares and women and then the cow the sheep. Woman's milk contains more cream cow's milk, yet no butter can be made from it.'' he goes on to explain that cow's milk should be mod for infants and gives a method very similar to those being advocated.

Robert M. Hartley, New York, in his classic ''E on Milk,'' 1842, says: ''Next to water, which is natu own beverage and the proper diluent for man, milk, in our artificial modes of living, is an article of i pensable necessity, and universal use....Holdin medium place between animal and vegetable diet, pure it is at once the most palatable, healthy, and n tive aliment with which our nurseries and tables ca supplied. It is not surprising, therefore, that imm quantities are used, or that so much importance sh be attached to it as an article of diet for children.''

The Alchemy of the ancients, seeking directl convert cheap metals into gold, got nowhere in partic while modern chemistry, s ing to serve man in every possible, produces health economy from which sp true wealth. The present chemistry, delving patie into the hidden secrets of composition of foods, fe soils, fabrics, woods, d paints, metals, and a m tude of other special fi has unlocked for us som the truths we all need. T the long close study in dairy chemistry reveals t that milk is a complex mixture of compounds, each ing its own nature and its own service to perform. ash of milk is composed of eleven mineral salts w service it is to build bone and teeth and to assist ot wise in regulating bodily conditions. The fat of mil in reality an intimate blend of nine fatty compou some of which are volatile, others non-volatile, som which melt at a low temperature, others at a high perature and altogether furnishing energy and war to the body. Though milk is not particularly swee is rich in sugar which is a mild warmth and ene giver, especially adapted to the needs of the yo children. The fat, serving much the same purpos better adapted to the stronger, it being 2¼ more hea than sugar. The cheesy constituent of milk is ca and with it in milk is associated albumin, closely sim to the white of egg in nature, and these together

Battery of Cold Storage Rooms—Somerset Farms Creamery, Boston, Mass.

IT'S INSULATION TIME!

Now.....

is the time to think of that new insulation work which you will require.

YOU KNOW that your investment in insulation for Cold Storage Rooms, Tanks, Pipe Lines, etc., brings you a return that is larger than probably any other portion of your equipment. Even so, any expenditures for repairs or improvements, should be held to a minimum. ¶ For twenty years—Owners, Architects, and Engineers have relied upon "UNITED'S SERVICE" for their insulation work. They have learned that the most economical and efficient Cold Storage Rooms are obtained when the installation is made complete by UNITED, using CRESCENT 100% PURE CORKBOARD. ¶ Each installation is made by thoroughly trained mechanics working under the personal supervision of experienced engineers. Only modern—tho time-tested-methods of application are used. Consequently the resulting installation is the best that can be produced. ¶ The smallest to the largest plants in the country avail themselves of "United Service."

Specify— **Crescent 100% Pure Corkboard and "United Service"**

for efficient as well as economical Cold Storage Rooms.

United Cork Companies

ew York—50 Church St.
hiladelphia—1042 Ridge Ave.
oston—45 Commercial Wharf
altimore—801 Whitaker Bldg.
artford, Conn.—143 S. Highland St.

Main Office and Factories:
Lyndhurst, N. J.

Chicago—1151 Eddy St.
Cleveland—1200 W. 9th St.
Cincinnati—Cin. Term. W. H. Bldg.
Pittsburgh—1331 Penn. Ave.
Milwaukee, Wis.—Federal Asbestos & Cork Insulation Co., Agent.

several other proteins are the building materials for muscle and blood. Now come vitamines, all the kinds of which are found in milk in varying quantities, whose function it is to regulate bodily glands, promote growth and ward off various diseases.

No wonder then that Herbert Hover said in 1917: "The white race cannot survive without dairy products."

And yet despite these long ages of intelligent experience, augmented by modern science with its thousands of tests on all kinds of animals, including the human, with its tons of excellent literature and its years full of lectures, all of which confirm, explain and amplify earlier convictions regarding the unique value of milk, there are still those among us who think of milk as a mere drink, rather than as a food, who cut down the consumption of milk at first opportunity and complain at the price regularly, all because ignorant of values. "Scientific experience" is gaining, however, especially because of the excellent work done in our schools, our hospitals, our sanatoriums and our homes for the needy of all ages.

There are foods, near-foods and super-foods and milk is a super-food; super because, while doing the work of a plain food, it at the same time corrects and balances the shortcomings of other foods.

Dairying is the greatest stabilizer of agriculture and milk in liberal amounts is the greatest promoter and stabilizer of health.

KENTUCKY MANUFACTURERS HOLD ANNUAL MEETING.

The luncheon and annual business meeting of The Dairy Products Association of Kentucky, held at the Kentucky Hotel, Louisville, 12:30 P. M., Wednesday, March 9, was the most successful occasion of this nature that this association has ever enjoyed from the standpoint of attendance, interest, fellowship and entertainment.

President Vohlkamp opened the meeting on scheduled time and the same precision was continued through all of the affairs of the afternoon and evening. A record membership was recorded. There was apparently no laxity of interest in the various procedures and good fellowship seemed to be universal.

Secretary R. L. Hammond of the Indiana Manufacturers of Dairy Products; F. C. Laskey and R. L. Hardy of Nashville, Tenn., and S. E. Boyle of Mt. Vernon, Ill., were the non-member guests from without the state.

Mr. Hammond addressed the general session on the intangible results of association work and cited a ber of timely examples of his own recent experi Messrs. Hardy and Laskey expressed the general will of the Tennessee manufacturers toward their petitors in Kentucky. C. O. Ewing, whom the Kent association holds in very high esteem as one of its h members, spoke of the high standard of work tha been maintained by the association and likewise sister organizations in Indiana and Ohio. He for a promising future for the dairy industry in Kent and Tennessee. Mr. Ewing concluded his remark complimenting President Chas. G. Vahlkamp, fashion well deserved, for the able manner in whicl management of the association has been directed the interest of the membership sustained.

The election of officers followed. A previously pointed nominating committee, composed of W. D. nicutt, Cincinnati; D. A. Harkness, Jellico, Tenn., F. C. Gunn, Louisville, presented the names of 18 didates for the nine managing directorships of the ciation. The ballots were spread and the majorit votes cast in favor of the following who later met chose, from their own ranks, the special officers o association and its divisions:

* Chas. G. Vohlkamp, City Consumers' Co., Padu president.

* John H. Kloecker, Dixie Ice Cream Co., Lexin treasurer.

(Carlton Ball, 206 Republic Bldg., Louisville, pointed to act as secretary of the board of direct

Ice Cream Division.

* Louis J. Hollenbach, Frozenpure Ice Cream Co., L ville, chairman.

* Harry Cuscaden, Cuscaden's Ice Cream Works, L ville, secretary.

Butter Division.

A. N. Gossman, Armour Creameries, Louisville, c man.

* W. A. Horneman, Sugar Creek Creamery Co., L ville, secretary.

Milk Division.

*Charles Ewing (2nd), D. H. Ewing's Sons, Louis chairman.

* Geo. W. Schneider, Gray-Von Allmen San. Milk Louisville, secretary.

Director at Large.

O. J. Bischoff, Merchants Creamery Co., Cincinnati

The election gave way to the divisional mee where the current questions of the season were g special attention. The members were asked to special thought to the possibilities of the Kentucky l lature which will convene next winter.

At the conclusion of the association's functions the day, the body was adjourned from the Kent Hotel to the Brown Hotel for dinner which was ac panied by vaudeville and unusual entertainment w were supplied by the Louisville manufacturers and supply firms, to the delight of all present.

The next meeting, the final general meeting fo spring and summer seasons, will be held at the Kent Hotel, Louisville, 12:30 p. m., Wednesday, May 4.

CARLTON BALL,
General Secretary.

*(Re-elected as a director.)

◆

Send news items to "The Milk Dealer" and see well they look in print.

MILWAUKEE FILLERS and CAPPERS

Borden's—3rd Ave.—Brooklyn

6 Type "NH" Fillers

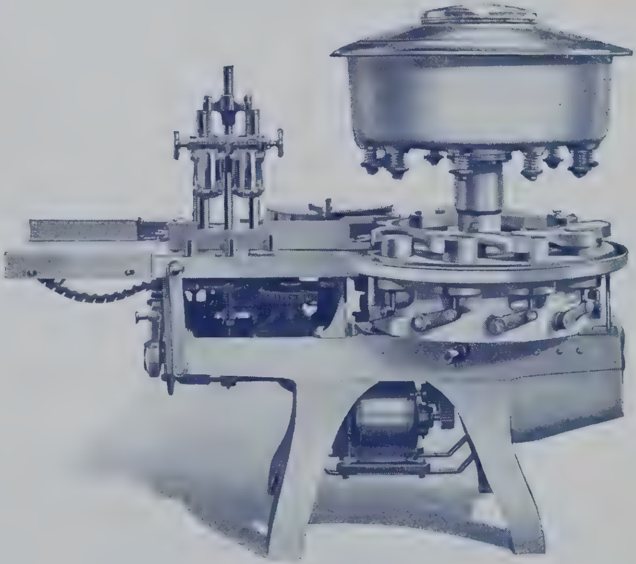
228 to 288 per minute

A TYPICAL view showing the possibilities of the "NH".

There's a type to suit every situation.

Strong
Compact
Simple
Precise
Sanitary

The Type "NH"
10 Valves
2 Cappers
Capacity 38 Qts. to 48 Pts. per minute.
Tank Capacity 24 Gallons.



Sold by Best Dairy Supply Houses Everywhere.—Ask Them.

Milwaukee Dairy Supply Mfg. Co., Milwaukee, Wis.

M-W
CUSTOMER
O.K.'s SHIPMENT

M-W Milk Can Jacket

Protect Milk, Sweet Cream and Ice Cream Mix from extremes of temperature while in transit, insuring shipments arriving in good condition.

Increase your sales by reaching new territory and add to your profits by eliminating adjustments caused by shipments spoiling.

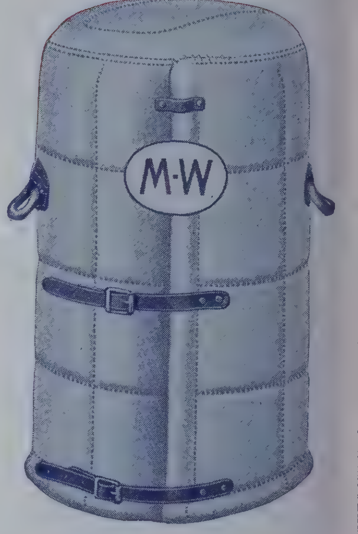
Milk or cream shipped in "M-W" Jackets is kept at a temperature that complies with requirements of the Health Authorities. Their use will please your customers.

Made by the manufacturers of the original

"M-W" Iceless Delivery Jackets

"The Jacket That Defies Heat"

Montgomery - Washburn Co., **Saugerties, N. Y.**



MISSOURI DAIRY
MISSOURI
DAIRY

Now! ALLOVA Garments in New Fab
—*Stronger and Heavier*

$3.25 EACH

Less In Quantities

For three years, one of the finest cloth mills in the United States has been working diligently in our behalf perfecting an overall cloth made according to our own standards and specifications.

And now it's ready! The Allova Work Suits, Work Coats and Caps you buy now are made of our new material, with the name "Allova" at frequent spaces along the fabric. Thus you can identify the genuine "Allova Cloth."

These new fabrics are eight-ounce cloths, closely woven, and stronger, heavier, longer wearing! In order to guard against the inevitable shrinkage, we cut all garments oversize, and make them two inches longer than ordinary work clothes. Measure an Allova Suit against an ordinary work suit and see for yourself!

These precautions make Allova Work Clothing the outstanding value for the money—in comfort, in service, in long-wearing satisfaction!

Yes, Sir! These new Allova Work Garments are built for real service—"he-man" suits and coats, made in attractive colors, and lettered with the *individual name, trademark or monogram of the wearer!* Advertising that walks and talks!

Workmen take a new pride in their appearance and the appearance of the premises, when they are outfitted in Allova Garments. S uniforms give an air of "class" to any pla business—and yet cost but little more nondescript, shabby overalls.

Sturdy, one-piece, Allova Garments wear and well. Cut big and roomy. Every stitched to stay. Pockets reinforced with d thickness of material. All buttons co Your choice of many colors: solid blue; white; solid khaki; blue and white striped; and khaki striped. Sizes 34 to 56.

$3.25 Each—*for Suits or Co*

12 Suits or Coats........	**$3.00**
25 Suits or Coats........	**2.88**
50 Suits or Coats........	**2.75**

Sizes 46 to 56 are 10% addition

Caps	**40c**

One Suit or Coat FREE with dozen ordered at above price.

Your dry goods, department or clothing can supply you ALLOVA suits at the prices. If not, order direct from the Moto Manufacturing Company.

We embroider names, trademarks or grams in fast colors for 25c per garment. of any color embroidery. 24 to 72 hour se

MOTOR SUIT MANUFACTURING C

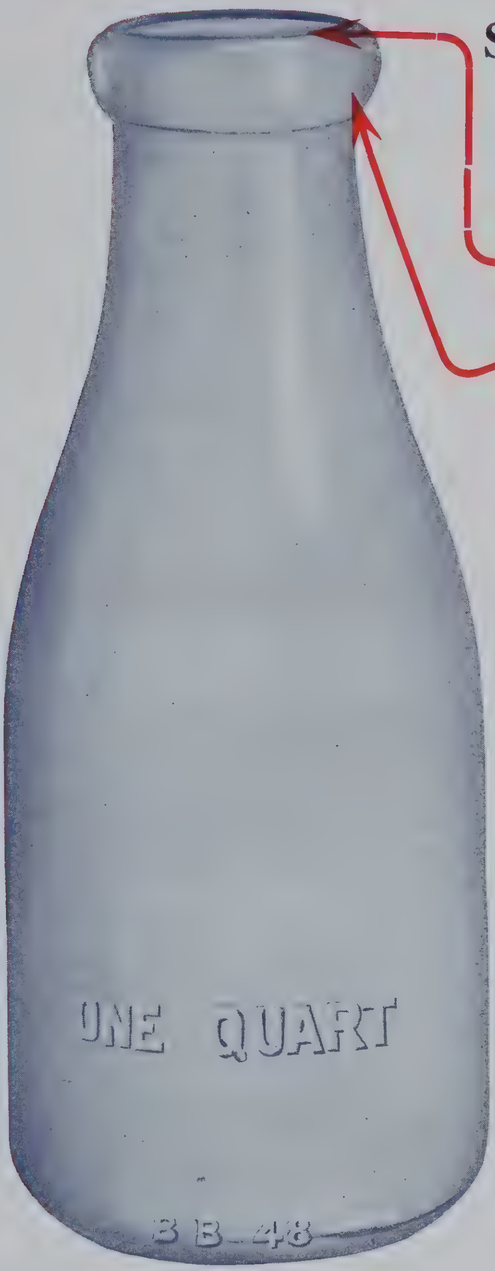
—DEPT. 289—

Plants:

Manufacturers Exchange Bldg., Kansas City, Mo.
327 S. Market St., Chicago, Ill.

107 N. Austin St., Dallas,
53-55 Walton St., Atlanta

Automatically Processed
Milk Bottles of Quality



Six Little Details All Big

1. Round cap seats that hold the cap
2. Well formed heads designed to obviate chipping
3. Accuracy in capacity uniformly maintained
4. Glass clear in color
5. Scientifically annealed (tempered) giving maximum strength
6. Grace in design, making a pleasing package

Our Motto:

Quality

Economy

Dependability

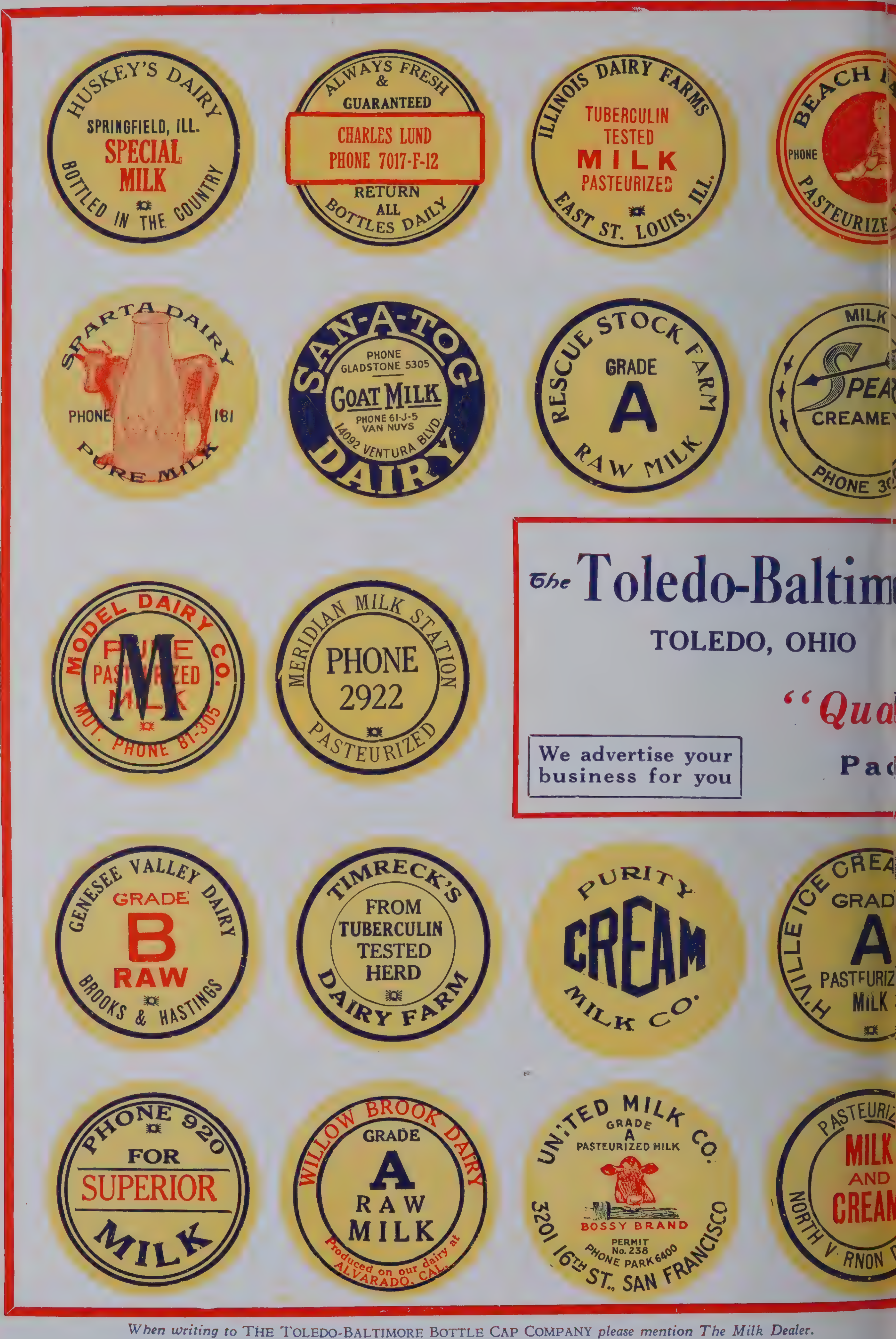
You Want Quality
Let Us Serve You

BERNEY-BOND GLASS COMPANY

Main Office-Factory: CLARION, PENNA.

CHICAGO Representative: A. F. MARTIN, 1654 Cleveland Avenue, Chicago, Ill.
MICHIGAN and OHIO Representative: Lock Box 56, Redford, Mich.
NEW YORK, N. Y., Hudson Terminal Bldg., 50 Church St.
BOSTON, MASS., 170 Summer St.
PHILADELPHIA, PA., Abbott Bldg., Broad and Race Sts.

When writing to BERNEY-BOND GLASS COMPANY *please mention The Milk Dealer.*


HUSKEY'S DAIRY
SPRINGFIELD, ILL.
SPECIAL MILK
BOTTLED IN THE COUNTRY
ALWAYS FRESH & GUARANTEED
CHARLES LUND
PHONE 7017-F-12
RETURN ALL BOTTLES DAILY
ILLINOIS DAIRY FARMS
TUBERCULIN TESTED
MILK
PASTEURIZED
EAST ST. LOUIS, ILL.
BEACH
PHONE
PASTEURIZE
SPARTA DAIRY
PHONE 181
PURE MILK
SAN-A-TOG DAIRY
PHONE GLADSTONE 5305
GOAT MILK
PHONE 61-J-5 VAN NUYS
14092 VENTURA BLVD.
RESCUE STOCK FARM
GRADE A
RAW MILK
MILK
SPEAR
CREAMEY
PHONE 3
MODEL DAIRY CO.
M
PURE PASTEURIZED MILK
MUT. PHONE 81-305
MERIDIAN MILK STATION
PHONE 2922
PASTEURIZED
GENESEE VALLEY DAIRY
GRADE B RAW
BROOKS & HASTINGS
TIMRECK'S
FROM TUBERCULIN TESTED HERD
DAIRY FARM
PURITY
CREAM
MILK CO.
H'VILLE ICE CREA
GRAD
A
PASTEURIZ
MILK
PHONE 920
FOR SUPERIOR MILK
WILLOW BROOK DAIRY
GRADE A RAW MILK
Produced on our dairy at ALVARADO, CAL.
UNITED MILK CO.
GRADE A PASTEURIZED MILK
BOSSY BRAND
PERMIT No. 238
PHONE PARK 6400
3201 16TH ST., SAN FRANCISCO
PASTEURIZ
MILK AND CREAM
NORTH V RNON

The Toledo-Baltim

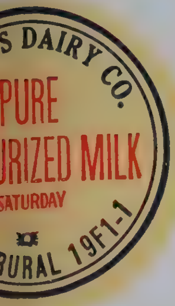
TOLEDO, OHIO

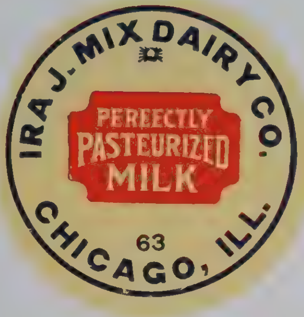
"Qua

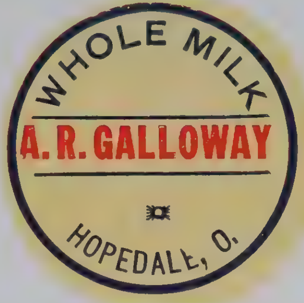
Pac

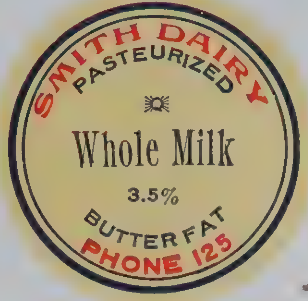
We advertise your business for you

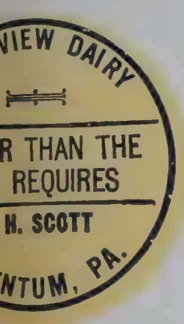
When writing to THE TOLEDO-BALTIMORE BOTTLE CAP COMPANY *please mention The Milk Dealer.*

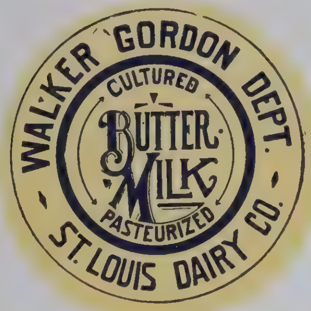

S DAIRY CO.
PURE
URIZED MILK
SATURDAY
RURAL 19F1-1

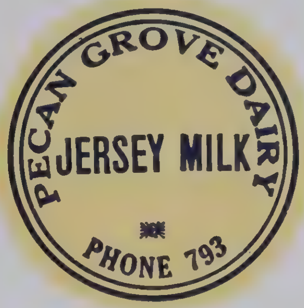

IRA J. MIX DAIRY CO.
PERFECTLY PASTEURIZED MILK
63
CHICAGO, ILL.

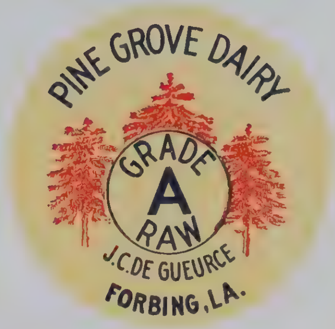

WHOLE MILK
A. R. GALLOWAY
HOPEDALE, O.


SMITH DAIRY
PASTEURIZED
Whole Milk
3.5%
BUTTER FAT
PHONE 125


VIEW DAIRY
R THAN THE
REQUIRES
H. SCOTT
NTUM, PA.


WALKER GORDON DEPT.
CULTURED
BUTTER MILK
PASTEURIZED
ST. LOUIS DAIRY CO.


PECAN GROVE DAIRY
JERSEY MILK
PHONE 793


PINE GROVE DAIRY
GRADE A RAW
J.C.DE GUEURCE
FORBING, LA.

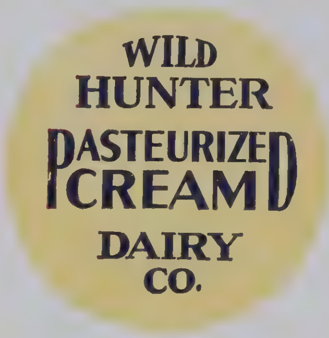
tle Cap Company

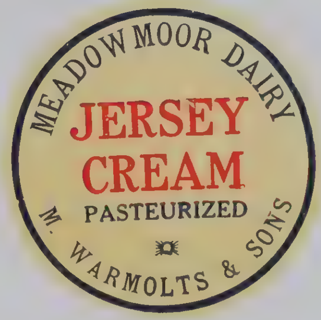
1345 Miami Street

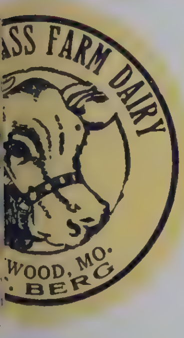
le Caps''

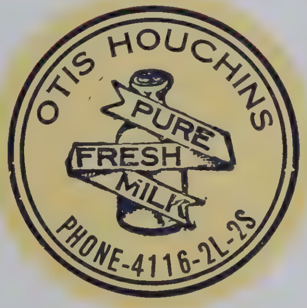
ood

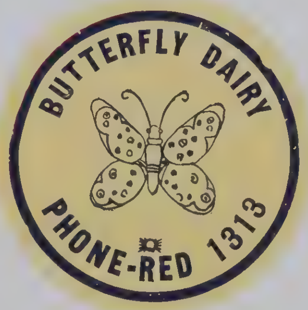
Makers of Bottle Caps for Progressive Dealers

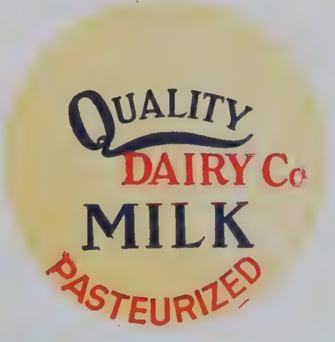

WILD
HUNTER
PASTEURIZED
CREAM
DAIRY
CO.

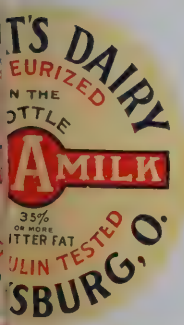

MEADOWMOOR DAIRY
JERSEY
CREAM
PASTEURIZED
M. WARMOLTS & SONS

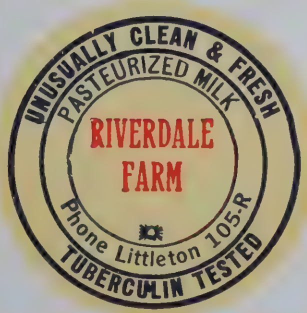

ASS FARM DAIRY
WOOD, MO.
BERG

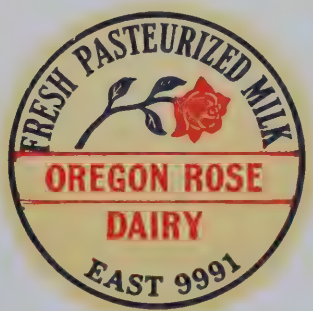

OTIS HOUCHINS
PURE
FRESH
MILK
PHONE-4116-2L-2S

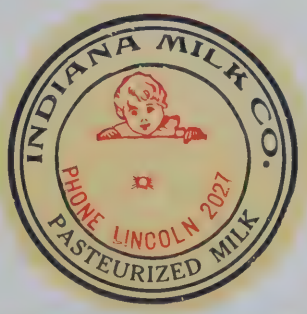

BUTTERFLY DAIRY
PHONE-RED 1313


QUALITY
DAIRY Co
MILK
PASTEURIZED


T'S DAIRY
EURIZED
N THE
OTTLE
A MILK
35%
OR MORE
TTER FAT
ULIN TESTED
SBURG, O.


UNUSUALLY CLEAN & FRESH
PASTEURIZED MILK
RIVERDALE
FARM
Phone Littleton 105-R
TUBERCULIN TESTED


FRESH PASTEURIZED MILK
OREGON ROSE
DAIRY
EAST 9991


INDIANA MILK CO.
PHONE LINCOLN 2021
PASTEURIZED MILK

When writing to THE TOLEDO-BALTIMORE BOTTLE CAP COMPANY *please mention The Milk Dealer.*

The BEST BULWARK

CLEARNESS
ACCURACY
STRENGTH

CLEARNESS

—that the customer may see the quality of milk you are distributing.

ACCURACY

—that the customer may get the amount that he or she buys.

STRENGTH

—that the bottle may last the dealer as long as possible. Bottle loss is one of the milk distributor's problems. Less breakage, less cost.

ATLANTIC
Milk
Bottles

ATLANTIC BOTTLE CO.

FACTORY: BRACKENRIDGE, PA.

90 W. Broadway, New York

327 S. La Salle St., Chica

When writing to ATLANTIC BOTTLE CO. *please mention The Milk Dealer.*

etting Quality into owdered Milk

By Which Surplus Milk is Turned to Greater Profit !

THE Rogers Way of reducing Surplus Milk to its most concentrated form results in a product highly superior in texture, color, solubility and minimum moisture content.

Experienced buyers readily appreciate the quality milk powder made the Rogers Way. It assures a better market and a better market seldom fails to reflect itself in more profit for the seller.

The Rogers Way

Let us tell you all about the Rogers way of reducing surplus milk to powder—the market for the product and the experience of users.

USE THE COUPON.

. E. ROGERS
31 Witt St. Detroit, Mich.

C. E. Rogers,
8731 Witt St., Detroit, Mich.
Tell us how to make more profit out of surplus milk.

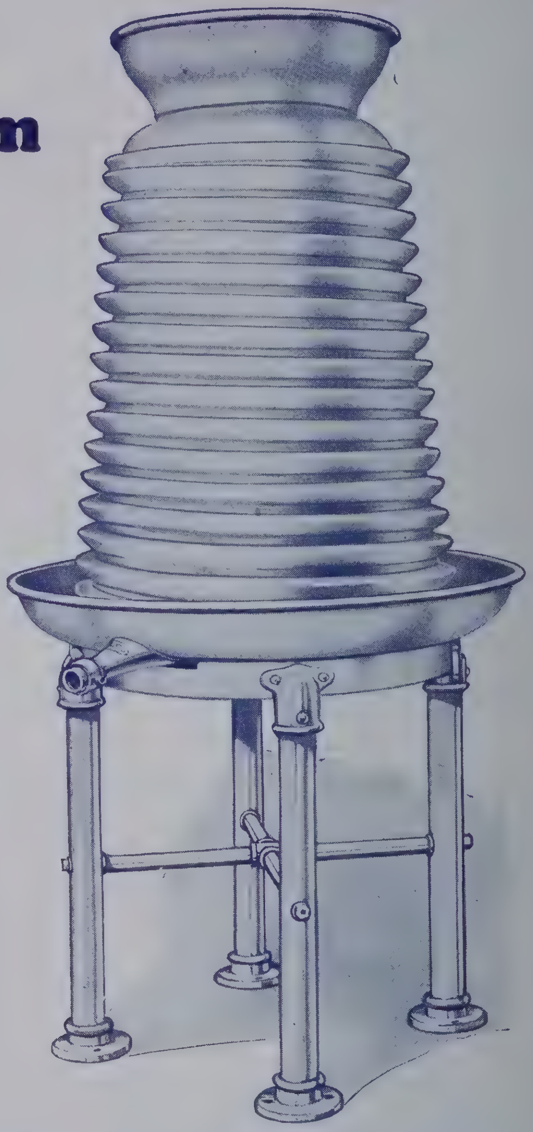
Company ....
By ....
Street ....
City .... State ....

When writing to C. E. ROGERS *please mention The Milk Dealer.*

THE
H·H·MILLER INDUSTRIES CO.
CANTON, OHIO.

Chilly King Milk and Cream Coolers

Unexcelled for the cooling of Fluid Milk, Heavy Cream and Pasteurized or Homogenized Ice Cream Mix.



Made in sizes
1,000 to 10,000
lbs. per hour.

Also manufacturers of MILLER BRINE ICE CREAM FREEZERS, MILLER PASTEURIZERS, AUTOMATIC MILK HOLDING MACHINES, VATS, TANKS, M&M BOTTLE WASHERS, ETC.

Please Ask for Bulletin and Prices

When writing to The H. H. Miller Industries Co. *please mention The Milk Dealer.*

IS THE CUSTOMER ALWAYS RIGHT?

By Chas. F. Schwager.*

w does your business look to the outsider? What your service and management corporation do, and s there need for such an organization? Could an er improve your business?

ese and many similar questions come up to the or head of a business. Recently, in conversation he vice-president of one of the largest restaurant ns in the country (this man is very successful), he ked that the customer is always right. I quite l; but I wanted his reason, so I led him to an expla- . He told me all, in one sentence:

o matter how good we may think our pies, if the ners, taken as a whole, think the pies somewhere e better, there is where they go to eat."

it is with every business. It is not what the own- the bosses think of their business, not what you of your buiness, but what the customers think of t determines whether you rise or fall. An out- properly qualified for such work, can quickly give e customer's viewpoint.

ur problems have all been solved by someone. Ex- in research laboratories and in patent work con- y come across "inventors" who have spent years ing to discover something that is already known. stance, during the world war it became necessary certain results through combining of two chemi- A year and a half and $180,000 were spent and the m was solved to the great satisfaction of the ex- enters. When it became known that the lengthy ments were made, an outsider said, "Why didn't ook on pages so and so of the "Combination of cals?"

ery man suffers at some time or other, from ob- ed vision. Those who show no signs of this malady eir successful years simply have found, through means or agency, a way to correct it.

n have their visions obstructed by carrying too responsibility; more often, however, by carrying responsibilities too far, and too long. When your is obstructed, troubles look bigger than they really

is really difficult to keep from getting too close to business. Too much concentration on one phase or rt or one objective can easily keep one from seeing al trouble. A certain industrial engineer, in look- er a set of plans, noted changes that would reduce st and increase the income. He wondered why the ect had failed to see these. The more he thought he matter the more he became convinced that the ect had gotten "too close" to the work.

outsider with the necessary training, wholly free esponsibility and whose sole function is to improve methods, can quickly see the answer to the prob- hat the manager, because of his obstructed vision, not solve. Such help is certain to result in reduc- time and costs and an increase in net profits.

other illustration may be found in a game of check- chess. The players catch each other on omissions. centration alone will obscure the vision with noth- stake, it is much more likely to do so when one is ng an economic burden.

s a well known fact that when other great packing ns were not making money, were even in financial , one outstanding company was in excellent con-

, this did not deter them from employing experts them study efficiency methods. To further this

---

vice Sales Corporation, Omaha, Neb.

Protection
for Your
Powdered Milk!

In Storage or Transit is
assured when packed in

Tongued and Grooved
Slack Barrels
OF CORRECT GRADE

THE experience gained in years of close cooperation with powdered milk producers in the development of proper packages places us in a unique position to be of assistance to those contemplating the production of powdered milk.

Your inquiry will have immediate and courteous attention.

Illinois Cooperage Mfg. Co.
General Office: **220 S. State Street, Chicago**

work, they transferred one of their ablest men to South Omaha, and in little more than a year he effected a net saving of more than a quarter million dollars.

The milk dealer is having his troubles right now, and there is a tendency for them to get more serious. In the last seven years more than ten million people have left the farms. To that extent they have increased the competition in the cities. The result is higher levels for farm products and a decrease in the purchasing power of the public. A narrowing margin on milk is unavoidable.

⁂

Who Said "Weaker Sex?"

Woman Runs Dairy for 14 Years When Husband is Ill.

Traditions may have taught us since time began that woman is of the "weaker sex," but the story of Mrs. Theodore Ensign of Cleveland, O., is telling us that as time goes on the division may grow to be about fifty fifty, and that some women certainly cannot be classified in this category.

"It's three o'clock in the morning. Time for my dairy chores." That was the song of Mrs. Ensign, off and on, for 14 years. When she became a bride her husband was stricken and was very ill for two years. Mrs. Ensign jumped into the harness and became manager of his dairy.

MRS. THEODORE ENSIGN.

She dipped the milk brought in by farmers from the ice cooled cans into bottles, capped the bottles and then peddled them. Horses were more in style in the first few years of her dairy work. Now she drives a coupe and a truck when delivering milk.

Mr. Ensign still insists that his wife is manager. He oversees the dairy and delivers milk to 16 factories.

Mrs. Ensign sells milk near several factories at the noon hour and peddles milk to homes early in the morning in summer, and in afternoons in winter. She has made 200 calls in three and one-half hours, with a boy to carry the bottles back and forth. She does all the clerical work and collecting.

Mrs. Ensign is very enthusiastic about her job. "Women who have seen me deliver milk to their homes for years say to me, 'Haven't you a husband?' They have never seen him and they wonder.

"But times have changed for us and it is not now necessary that I work in this manner. But I like it so well that I keep at it occasionally. My father is a Cleveland dairyman, as is also my brother-in-law; so you see I'm at home on the job." She further states that one of the most interesting things of their lives is her husband and her at work together. They are friends at it.

This is splendid team work and Mrs. Ensign's sacrifices and hard work to keep the team work up is just the work of one of the thousands of unsung heroes living in the United States today.

ASSOCIATION MEMBERS PREPARE FOR DA
INDUSTRIES EXPOSITION SPACE LEASIN

Membership leasing of display space in the great
Dairy Industries Exposition begins Monday mor
April 25.

The exposition will occupy the entire effective ar
the great six million dollar Cleveland public hall a
large connected annex. The exposition will open o
tober 24 and close October 29. The National Associ
of Ice Cream Manufacturers' 27th annual conve
will be held in Cleveland, at the Hotel Hollenden, Oc
24-27, inclusive. The 20th annual convention of th
ternational Association of Milk Dealers will be he
the Neil House, Columbus, Ohio, October 19-22, inclu
the latter half of the week preceding the Monday
ing opening of the exposition in Cleveland.

The Machinery and Supplies Association, from
address to which it has just moved in order to o
necessary quarters, 225 West 34th St., New York
has notified its nearly 200 member houses scat
throughout the country, of the "zero hour" of the
ing of reservation opportunity in this year's u
showing, for all the dairy products industries here
abroad, of the complete range of essential machi
equipment, materials, supplies, services, access
processes, etc. Reservation of space is made by telep
telegraph, letter, etc., from the various executive o
of these member houses.

Last year the first five days of the leasing period
90 per cent of the entire area of the Detroit Dair
dustries Exposition reserved by member companies.
fact so heavy were the reservations made, that a ge
appeal had to be made by the association to member
panies to reduce their space holdings in all possible
It will be recalled by the nearly 9,000 trade visito
the Detroit exposition that, as finally assembled,
year's great show extended, and without wasteag
space, over some four acres of area.

To facilitate the membership leasing, which will b
on April 25, it is necessary, the association announce
arrange for additional temporary telephone connect
and for special branch office telegraph service for a
eral days' period.

The exposition committee of the association, and
association's permanent staff have been working
months on the completion of the necessary arrangem
both in Cleveland and through the association's
York offices, which must precede the preparation
issuance of a leasing plan, their activities having
authorized and checked, in accordance with usual
cedure, by the board of directors of the association
executive committee.

⁂

DAIRY COUNCIL WORK ORGANIZED IN INDI

Dairy Council work is to be conducted in
Haute, Indiana, through the Indiana Dairy and
Council, following completion of a local organizati
a part of the National Dairy Council.

Under the direction of trained women the In
Dairy Council has been working more recently in
cennes. With the organization of a Terre Haute Co
the Indiana service is extended to another city.

Milk dealers and producers in Vincennes and
Haute are financing the dairy council's broad pro
of promoting child health and human welfare, as
ducted by the National Dairy Council.

Gaulin-For Chocolate Milk!

tandard
of
fficiency

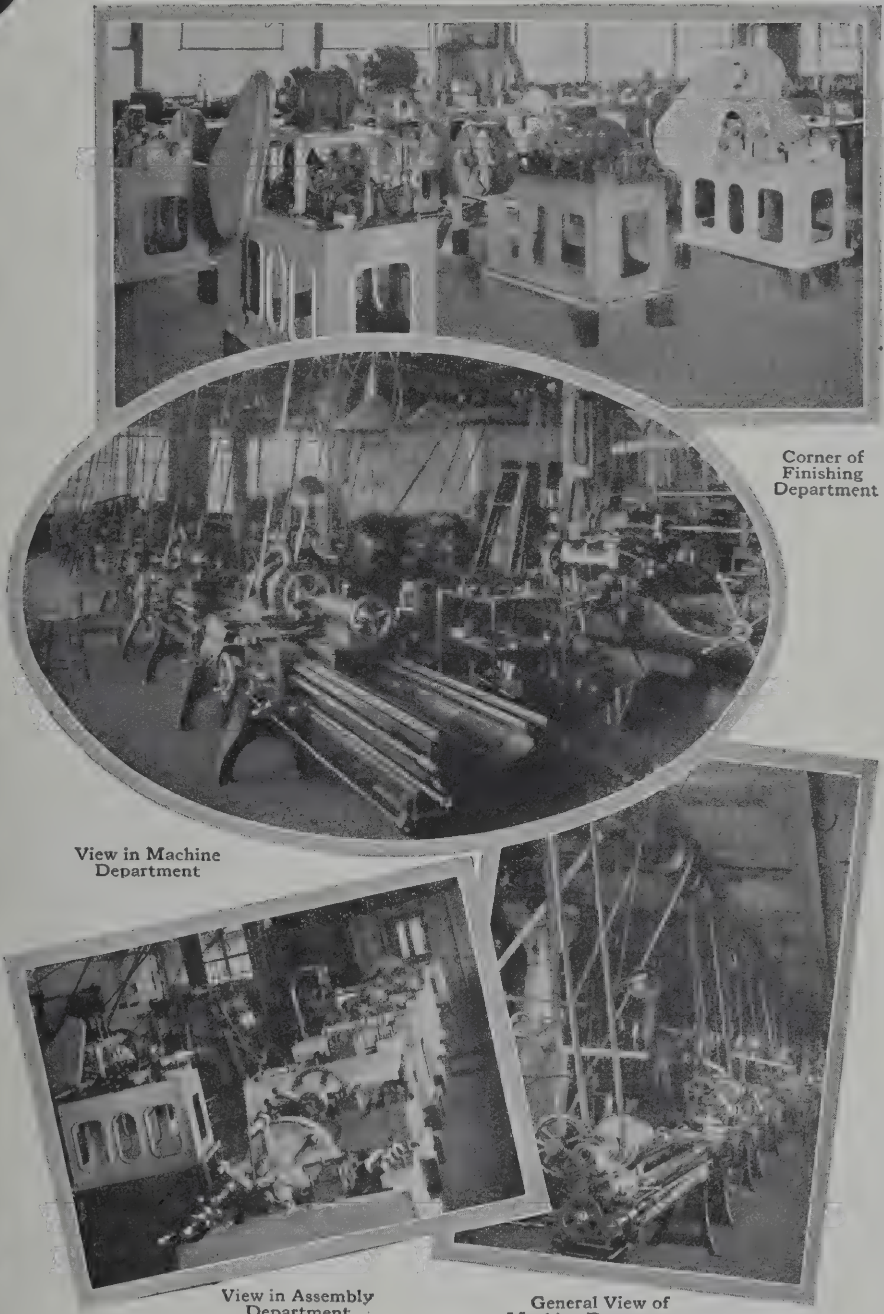
nequalled
in
urability

tage Valve
quipped
% Efficiency Increase
Positively Controls Viscosity

Designed
and built by
Engineering
Experts

In use
the world
over

Standard
Equipment
in
Majority
of
Ice Cream
Plants



Corner of Finishing Department

View in Machine Department

View in Assembly Department

General View of Machine Department

HERE is illustrated the extensive Gaulin Manufacturing plant. For *16 years* we have constantly devoted our efforts *exclusively* to the building of Gaulin Homogenizers. The fact that our energies have been concentrated on *one product* permits us to render an *unequalled service* and a superior machine. *Send for the Gaulin Catalog to-day!*

ANTON-GAULIN MFG. CO. Gaulin TRADE MARK 11 Elkins St., BOSTON, MASS.

"Only Gaulin can build a Gaulin"

When writing to MANTON-GAULIN MFG. CO. *please mention The Milk Dealer.*

Special Training of Truck Drivers

Driving Habits That Save Dollars Can Be Instilled. Economical Operation Means Efficient Operation

By S. K. HARGIS*

WITH milk plants throughout the United States going in more and more for completely motorized cartage service, and in the face of the particular needs of the trade in that respect, a great deal can be saved in time and money by a proper and special training of milk truck drivers. Most milk plants doing a large wholesale business are learning, as other industries have learned, that privately owned truck fleets are just as efficient and worth while as the drivers who man them. The milk trade has a demand for a higher type of driver than have many manufacturing industries and as transport is a large item in milk plant operation, efficiency depends to a great extent upon securing the right type of driver.

There is wastage of product to be considered and the necessity for promptness. Whether in terminal haulage or route work, the milk industry demands well trained truckmen, especially with regard to their careful and economical handling of the units under their control.

Cartage contract hauling has not proved successful in all cases in the market milk business. That is why so many large plants have totally eliminated the system from their business.

Milk plants are finding out that with proper driver regulation the operation of private truck fleets become an actual economy though mismanagement will result in heavy losses.

The main points of instruction for truck drivers in the trade may be classified under definite headings:

Wastage in Driving with a Foul Plug. Untrained truck drivers in the trade habitually drive for long distances with fouled plugs, doing great damage to the truck engine as a result. Here is a waste of fuel that runs into heavy figures in a short time. The plant pays the bill.

About one-quarter of the value of the fuel is lost with one fouled plug. Do your drivers carry extra plugs to meet these conditions? Do you impress upon them that they must not drive your trucks with a missing plug?

Drivers "Race" Engines in Cold Weather. The greater percentage of the truck drivers employed in the trade habitually "race" engines when starting in cold weather with the idea of getting off faster. It is generally agreed by garage bosses who know their business that bearings are often burned out in this way owing to the failure of the cold oil to circulate promptly. The time spent to gradually warm up the oil and thereby get circulation is more than offset by the danger of burning out bearings. A large percentage of the burned out bearings in plant trucks are the result of this driver carelessness.

Do you see that your drivers refrain from racing cold engines at the start off?

Gas Saved by Low Throttling. A large concern in the trade, with sixteen trucks, made a big saving in gas by requiring all drivers to throttle down all motors when idling at terminal points. It was found that all of the drivers regularly "raced" their engines while waiting.

The unloading of a large truck at a terminal poi, at a major delivery point may take up enough tir use up several gallons of gasoline if the engine is all to "race." "Racing" under these conditions is mo less of a habit with truck drivers in the industry. result shows up on the fuel bills. Do you impress your drivers regularly that this practice is forbidde?

Uneven Acceleration is Wasteful. Any large cor in the trade will find it a paying proposition to in through constant coaching, the habit among their t drivers of stepping on the gas only when really ne sary. Many drivers have the little habit of steppin the foot throttle needlessly when about to pick up. is obviously poor and wasteful driving. Frequen celeration, even when idling, is a habit that is hard t out of the system of the average truck driver int trade. It is not always simple to convince him in respect, though he may be wasting much of the gas that the firm places in his tank. One of the largest pl in the trade recently made a test that proved the effi of careful gas feeding in truck operation. Two tr of identical capacity and engaged in identical work carefully checked up. "A" truck was manned notoriously wasteful driver, the other, "B", by the t fleet boss himself. The experiment covered a w Here is the figures on the results:

	Mileage	Gals. Gas	Oil	Deprecia
A	408	47.01	4 gals.	4%
B	570	31½	3 gals.	3%

Careless and needless acceleration is uncalled for. you instruct your drivers against this habit?

Savings in the "Coasting" Habit. Many of the l plants constantly impress upon their drivers the sav to be when possible, in coasting. Even at the cost o starting the engine, at the other end of the grade, c ing pays. It is true that hills where coasting is fea are not always plentiful within the trucking rang many plants. But even though they are not, a lot of is saved on a heavy truck if the driver habitually c where he can.

The little habit of coasting a truck up to all sto a good one and saves a lot of gasoline. Many drivers fer to race up to a stopping point and then come dead halt by the use of the brakes. This works a h ship on the truck in general. Besides, it is dange Do you caution your drivers concerning this matter

Testing Brakes for Heat. In one large plant I re ly visited, drivers are now required to test brakes at quent intervals in order to see if they are dragging

The test is simple. After running a short dist without using the brakes, the driver stops and gets d to feel the drums. If the drums are heated, the br are dragging.

Do you post your drivers on this precaution?

Reports of Trouble. It is now customary an drivers of the largest trucks in the trade to report as as possible of the occasions when the unit "doesn't to be running just right."

One large Eastern plant now supplies drivers

---

* Industrial management consultant.

HADLEY 1288 M. C. OLDHAM, MGR.

THE PHENIX DAIRY
PASTEURIZED MILK
WHIPPING CREAM, PLAIN CREAM,
BUTTERMILK
POLK & SMITH STS.
HOUSTON, TEXAS

February 2, 1927.

ion Engineering Co.,
Cleveland, Ohio

ntlemen:

Regarding the Bestoval
ttle Washer we purchased
om you and installed in
ir new plant on November
h,1926, wish to say that
is machine is performing
ry satisfactorily in fact
ter a few minor adjust-
nts when installed we have
d no trouble with it.

The bottles discharged
om it are sparkling and
lear and we would heartily
ecommend this type machine
anyone in the market for
large size bottle washer.

Yours very truly,

CO:K THE PHENIX DAIRY.

MORE PROOF!

of the SUPERIORITY of the

CLEVELAND BOTTLE WASHER

MR. OLDHAM of the Phenix Dairy, Houston, Texas, after having carefully studied all makes of bottle washers for more than three years, decided on the **CLEVELAND** for his new plant, which is one of the largest and most up-to-date in the South.

He was thoroughly convinced that the **Cleveland Method of Pressure and Dormant Soaking in Conjunction with Clean and Sterile Brushes** would give him the cleanest and most sterile bottles to match his unexcelled product. Furthermore he knew that the Cleveland Bottle Washer was the machine for service due to its rugged construction and simplified design and this has been conclusively proven by the fact that **The Phenix Dairy erected and put their bottle washer into operation themselves without the assistance of any representative of the Union Engineering Co.**

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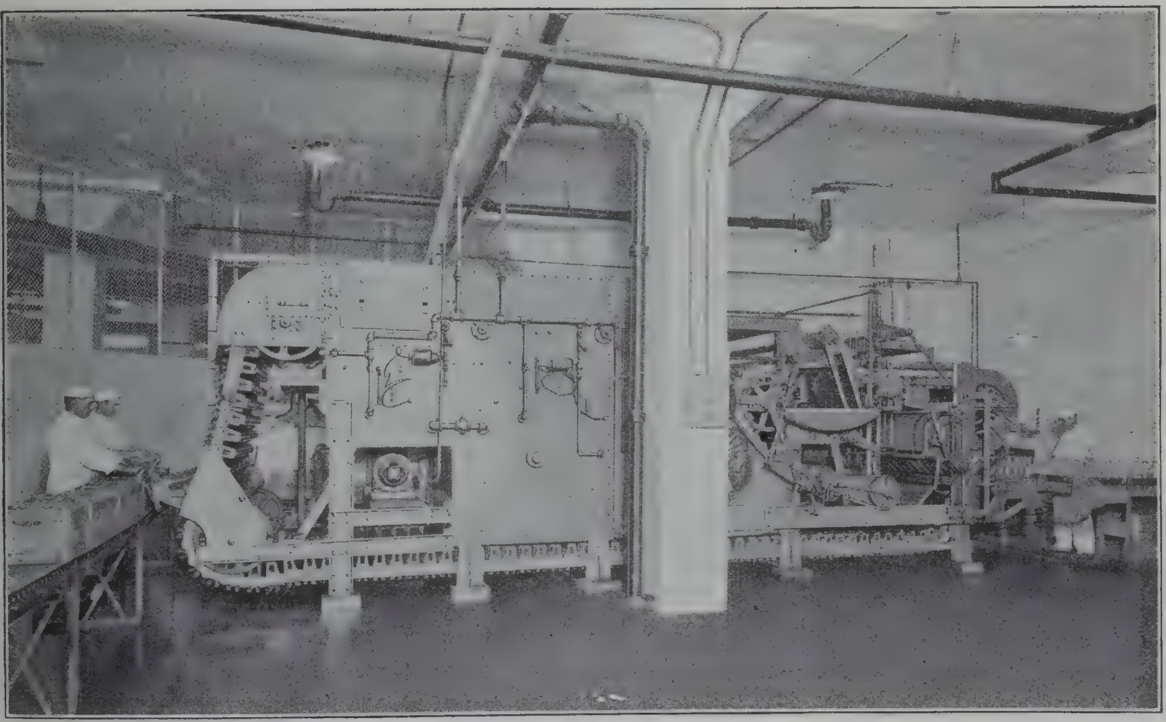


Guaranteed Cleaning Efficiency 99⁹⁄₁₀%

Clean and Sanitary Soaking Solutions with from 30 to 50% Less Alkali.

Clean and Sterile Brushes.

No. 120—CLEVELAND BEST-OV-AL in The Phenix Dairy, Houston, Texas

HE UNION ENGINEERING CO.

CLEVELAND, OHIO

LIST OF AGENTS

erico Dairy Supply Company	Cincinnati, Ohio
sire & Company	Indianapolis, Indiana
rry-Bassett Company	Philadelphia, Pennsylvania
ois Creamery Supply Company	Chicago, Illinois
Jensen Creamery & Supply Company	Oakland, California
Meyer-Blanke Company	St. Louis, Missouri
Wright-Ziegler Company	Boston, Massachusetts
Hughes Sales Company	Seattle, Washington

form cards which are filled out and turned in whenever the truck they are driving doesn't function properly. When a driver fails to make such a report and something goes wrong, he is called to account.

These are the chief points in truck operation which will go farthest to save operation costs.

The question is: How shall the plant management enforce such a set of rules?

In some cases they resort to a series of penalties, mostly in the form of cash deductions from wages, where the same offense is repeated. But the most efficacious method is to ingrain these habits into the drivers. I know one fleet boss for a large plant who makes himself something of a nuisance to his men in his determination to get them into the right driving habits.

He checks them up on all major points and watches results closely. The cost sheets of each truck tell him just what his men are doing out on the streets. He believes that economical driving is merely a matter of good driving habits. And that it is easy for the driver to get into the good habits as into the bad.

Many of the truck drivers who apply for work in the trade have acquired bad driving habits. These have to be overcome.

Every truck driver poses more or less as a wise guy, and resents anybody trying to show him how to drive, and the boss should never approach him in that spirit. He should, rather, show the driver a few little tricks that will save the concern's gasoline and oil, as well as parts. Where the plant has no fleet boss, the job of training drivers along lines of economy is harder yet.

It is now generally accepted as a fact in the trade that to pay truck drivers a higher wage in order to get their co-operation in economical operation is a wise policy.

If, by careful driving, the truckman can save the plant a hundred dollars a month, it is good business to give him a share of it in the form of a bonus, or higher wage. For economical operation also means efficient operation and better results.

SALESMEN TURN ADVERTISING ARTISTS.

The Salesmen's Club of the Dairy and Ice Cream Machinery and Supplies Association a number of weeks ago announced a contest among its more than 1,000 members who call upon the dairy products plants throughout the United States and Canada—a competition in suggestions of phrasing and design for an advertising poster to give announcement to the great Dairy Industries Exposition which will occur in Cleveland, O., in October.

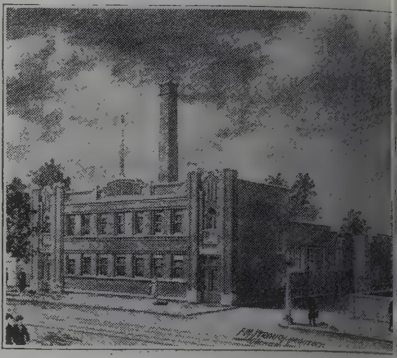
Many of the members of the club—which includes, in some instances, executives as well as the territorial sales representatives of member houses of the parent association — participated in the competition, and successful commercial artists were asked to pass upon the suggestions submitted. Recently the club announced that "while no one particular sketch or idea submitted has been accepted in detail, it has been decided as an evidence of appreciation for work well done, to award prizes of equal value to the following club members." The club announcement then listed, as co-equal winners:

Mrs. Louis F. Nafis, Louis F. Nafis, Inc.; W. H. Badke, The Milk Dealer; Walter C. Gindele, P. Wall Mfg. Supply Co.

The club announcement also included honorable mention of: Fred L. Ryon, Citrus Products Co.; Baldwin L. Jagger, Bloomer Brothers Co.; John W. Newton, Foote & Jenks; D. L. Brodie, Wildberg Box Company.

ANOTHER FINE MILK PLANT IN CHICAGO.

Benson's Dairy, 4842 West Walton St., Chicago, just completing a fine modern milk plant at 1240-46 Cicero Ave., about a block from their old location. new plant is spacious and well appointed and embra many of the best ideas of good milk plant construction.



Gust. Benson, the owner, has studied not only the layout but the equipment with the idea ever before him of making this one of the neatest and most sanitary dairies to be found anywhere. The production of high grade, uniform milk is the constant thought of "Gus

Mr. Benson, who is one of Chicago's younger m dealers, commenced business for himself in a small v about eight years ago. Through thrift, hard work a service to customers he has built up a business comp ing about 20 routes, a new plant costing upward of $1 000.00, and the good will of a host of satisfied patrons

NEW TREATMENT FOR MILK.

Prof. Samuel C. Prescott, head of the biology a public health departments of Massachusetts Institute Technology, gave an address entitled, "Milk and Sanitation and Relation to Public Health," to memb and guests of the Milk Dealers' Association, Bost Mass., at the monthly meeting of the association.

Prof. Prescott discussed the importance of milk a food, went into detail to explain milk and microb and also fully explained tests that he and other expe have made in a development in the milk industry t he says is very far reaching and a distinct step forwa The latter part of his talk was with reference to the el tropurification of milk, a process which, he claims, t have proven kills off pathogenic organisms, reta flavor, cream line and excellent keeping qualities. It i rectangular piece of equipment with carbons form opposite sides, and the milk acts as an electrolite, o conductor of the current from the two poles.

There are 220 volts, 60 cycles of alternating curr passing through the milk, which produce infinite lines electrical force working to bring the temperature to cell, or the molecule, of the milk without waiting fo film of definite thickness to be penetrated by the abso tion of heat from a heated surface.

According to Prof. Prescott, the individual work on the farm is the cause for much of the bacteria in m "Figures show that in the state of Massachusetts alo there are 1,300 human typhoid carriers, which is a v good argument in favor of the electropurification milk. This treatment of the milk began in England 1914."

COVALT DAIRY CO. COMPLETES NEW PLANT

The Covalt Dairy Co., of Muncie, Ind., has just co pleted their new plant at a cost of $10,000 and equip it with all modern machinery at a cost of $6,000. company does both a retail and a wholesale business.

Cleanliness
Purity
and
Long Life

The one ideal
Metal for you
to Specify for
your Plant ~
Equipment is

American
Nickel

FREE
FROM
COBALT

MALLEABLE

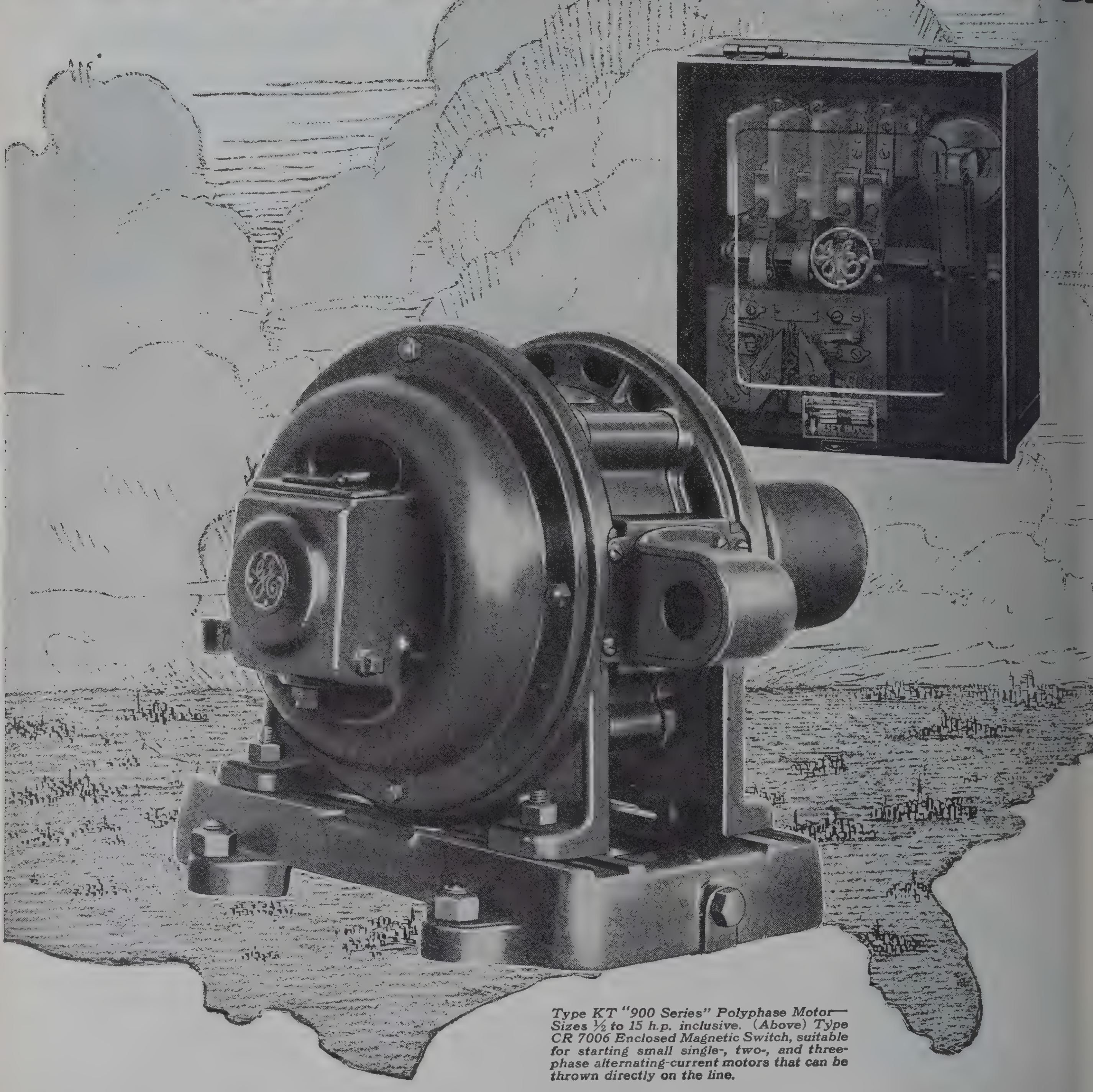
99%
PLUS

AMERICAN MOND NICKEL COMPANY
CLEARFIELD, PENNSYLVANIA

Exclusive American Representatives of The Mond Nickel Co., Ltd.

When writing to AMERICAN MOND NICKEL COMPANY *please mention The Milk Dealer.*

A Nation's Standard



Type KT "900 Series" Polyphase Motor—Sizes ½ to 15 h.p. inclusive. (Above) Type CR 7006 Enclosed Magnetic Switch, suitable for starting small single-, two-, and three-phase alternating-current motors that can be thrown directly on the line.

GENERAL

GENERAL ELECTRIC COMPANY, SCHENECTADY, NEW YORK

-E Motorized Power

Four improved motors for general industrial uses

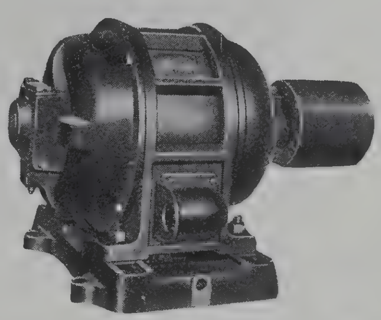
When you specify G-E Motorized Power, G-E specialists will study your electric drive problem—they will recommend the form of drive best suited, select the proper motor or motors from the extensive G-E line, include the suitable control equipment, and then see that the installation is satisfactorily made and serviced.

Whatever the circuit requirements or demands of service may be—whether the work be ordinary or extraordinary—whether you need a 1/200 h.p. motor or a giant of 22,000 h.p.—there is a G-E Motor to fit your need.

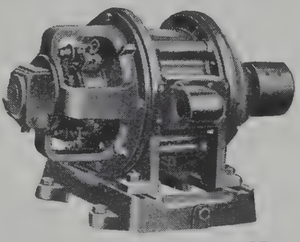
And for every G-E Motor there is suitable G-E control equipment—whether the requirements for starting, stopping, reversing, or motor speed regulation be simple or complex.

G-E Motorized Power is a practical means of increasing the productive ability and capacity of available man-power. "Built in" or connected to all types of industrial machines, G-E Motorized Power provides lasting assurance that you have purchased the best.

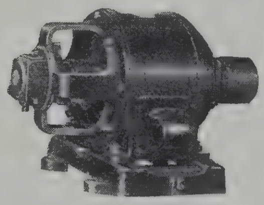
To obtain full value from your investments in electric motor drive, ask your nearest G-E office—or G-E Motor Dealer.



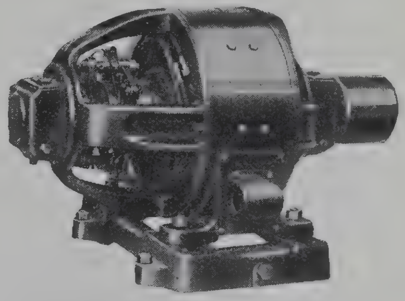
Type KT "500 Series" Induction Motor —Sizes 10 to 200 h.p. inclusive



Type SCR Single Phase Motor —Sizes ¼ to 10 h.p. inclusive



Type BD Direct Current Motor —sizes ½ to 3 h.p. inclusive



Type CD Direct Current Motor —Sizes 3 to 200 h.p. inclusive

Motorized Power
-fitted to every need

7B-45

ELECTRIC

SALES OFFICES IN ALL PRINCIPAL CITIES

When writing to GENERAL ELECTRIC COMPANY *please mention The Milk Dealer.*

Attention-Getting Displays—Nothing Les

"Get 'Em Up To Your Booth if You Want to Sell 'Em." How Our Firm Makes Good Use of the Fair Exhibit Space

By A. E. RICHARDSON*

IF THERE is any good reason for manufacturers and distributors of food products, household appliances, gas and electric equipment, and a thousand and one other businesses, to participate in food fairs, health expositions, industrial exhibitions, etc., surely the milk industry should also be represented. The fair, as a meeting place for buyer and seller, has existed for centuries. The bazaar, which antedated the fair, is the earliest known method of merchandising.

To purchase space and install an attractive exhibit for a display of a week or a fortnight, is expensive, nevertheless many of our shrewdest merchandisers continue to participate in these shows year after year. They must obtain results or they would not continue to make the investment.

Whiting Milk Companies exhibit in practically all of these exhibitions held in Boston. It gives them an opportunity to meet a great many of their customers as well as prospective customers, under most favorable conditions, and affords them an occasion to demonstrate their products and distribute samples.

Keen competition for attention always exists among exhibitors at these fairs. Each exhibitor strives mightily to attract the public to his particular booth. At a recent food fair held in Boston, Whiting Milk Companies succeeded in making their exhibit unusually distinctive through the introduction of a rather novel program. They displayed at their booth an attractive little house, freshly painted white, with green blinds, red chimney, etc. This miniature home was called "The House of Health." The entrance to the home was in the shape of a milk bottle with an attractive little door. Over the door was the inscription, "The Door to Health." This little door was fastened with a padlock. Thousands of little keys attached to cards were distributed to visitors to the show each day. On the cards were printed invitations to visit "The House of Health" displayed at the Whiting Milk Exhibit (giving the space number and directions), to see if the key attached to the card would unlock the "Door to Health." Each day several master keys were included among those distributed. Throngs eagerly gathered around the booth to find out wh
or not they were holders of the lucky key. The f
nate ones were awarded a prize of a quart of Grade
milk a day delivered to their home free for one week
Whiting booth was constantly surrounded with visi
Mechanical exhibits that told the story of Whiting
vice were among other exhibits that held the intere
the visitors.

At another show a large glass jar was displaye
the corner of the Whiting booth. It was filled
Grade "A" milk caps and seals. The public was in
to guess the number of caps in the jar. The lucky pe
guessing the nearest to the correct number was awa
a quart of Grade "A" milk a day for one month
second prize was a quart for two weeks, and the
prize a quart for one week. A splendid list of pros
was obtained as a result of this novel and inexpe
idea. Display cards referred to the guessing co
and reminded the public that there was no guess-
concerned with the production, processing and han
of Whiting's Grade "A" milk. Other cards and
tures gave detailed information regarding both G
"A" milk and other products.

Mechanical displays always command attention
add much to the effectiveness of an exhibit. Suc
least, is the experience of Whiting Milk Compa
Perhaps the most popular novelty ever distribute
our company in connection with their show and ex
tion displays was a little cowbell attached by a ri
to a celluloid button, on which the company's adve
ment appeared. One of these little souvenirs was g
to everybody making a purchase at the booth. Thi
only resulted in stimulating sales, but the tinkle, t
of the bells spread our advertising throughout the
bition hall, on street cars, and in the home.

The big job in connection with this form of adve
ing begins after the space has been purchased and
exhibit installed. The fair management only u
takes to provide the attendance; in other words,
circulation is assured. But to get your share of th
tention of the visitors in order to put over your
message, means that you must provide an attention
ing display and an interesting exhibit. Nothing le

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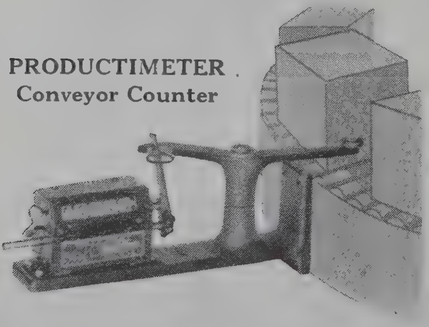
* Advertising Manager, Whiting Milk Companies.

COUNT 'EM ACCURATELY—BOTTLE or CAS

PRODUCTIMETER
Conveyor Counter



Productimeters recording daily volume on important machines or operations give you an accurate count, in plain figures, quickly and dependably. They tell you at a glance just what has been done in a given period of time; make it easy to figure costs, bottle and case requirements, etc.

Built in various models—to fit washing, filling, sealing machines, conveyors, and to tally bottles, cases, packages, boxes. Our Service Department advises you which model is best for particular applications. Write for the Productimeter Catalog, telling us what you wish to count.

Durant Mfg. Co., 663 Buffum St., Milwaukee, Wis.

Productimeter Bottle Counter

CLIPPER CASES

ARE A MARK OF PROGRESS

Where is the wood stave equipment that was found years ago in so many milk plants?

Where are the bacteria laden wooden buildings that were the milk plants of the past?

They have given way to progress—to steel, to hard, clean, indestructible surfaces of metal and stone.

If you recognize wood as unsatisfactory for milk plant and equipment purposes, then there is no question but what

CLIPPER CASES

the all steel bottle cases are 100% sanitary

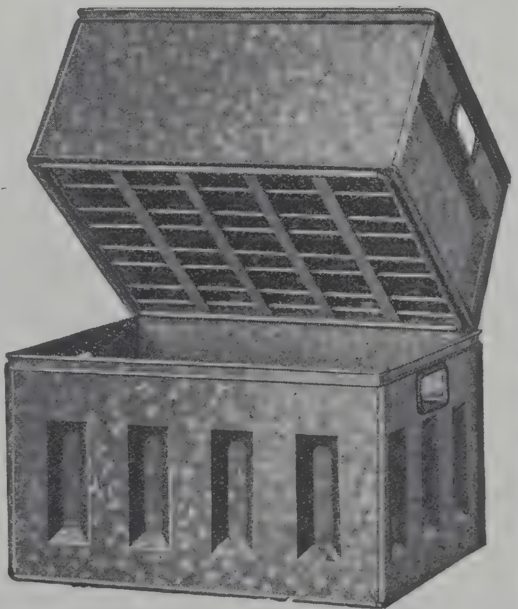
Their use makes your plant 100% progressive. Their greater sanitary features are appreciated by the public.

Their indestructibility and freedom from repairs mark them as the 100% economical bottle case to use.

These Jobbers Sell CLIPPER CASES

J. G. Cherry Co.	Cedar Rapids, Ia. St. Paul, Minn.
Meyer-Blanke Co.	Birmingham, Ala. Dallas, Tex. St. Louis, Mo.
Haines-Carpenter Dairymen's Co.,	St. Louis, Mo.
Miller-Lenfesty Supply Co.	Jacksonville, Fla. Miami, Fla. Tampa, Fla
N. A. Kennedy Supply Co.	Kansas City, Mo.
Apothecaries Hall Co.	Waterbury, Conn.
Teague Hardware Co.	Montgomery, Ala.
Gowing-Dietrich Co., Inc.	Syracuse, N. Y.
John W. Ladd Co.	Detroit, Mich. Cleveland, Ohio Columbus, Ohio Cincinnati, Ohio
A. L. Davis' Son	Binghamton, N. Y.
Cherry-Bassett Co.	New York, N. Y. Syracuse, N. Y. Baltimore, Md. Philadelphia, Pa. Pittsburgh, Pa.
E. K. Owens Hardware Co.	Susquehanna, Pa.
National Dairy Equipment Co.	Utica, N. Y.
Hagan's Dairy Supply House	Greensboro, N. C.
Chester Dairy Supply Co.	Chester, Pa.
M. G. Newell Co.	Greensboro, N. C
Oakes & Burger Co.	Cattaraugus, N. Y.
Ft. Wayne Dairy Equipment Co.	Ft. Wayne, Ind
Thompson-Bremer & Co.	1750 Carroll Ave., Chicago, Ill
John Pico	New Orleans, La

Let us tell you how others have conveniently shifted to Clipper — all steel cases.



The Defiance Pressed Steel Co.

DEFIANCE, OHIO

When writing to THE DEFIANCE PRESSED STEEL CO. *please mention The Milk Dealer.*

The Why of Credit Losses and a Reme

A Common Sense Approach to the Problem for the Milk Dealer. Day to Day Check-up Necessary and it Must be Thorough

By E. J. CLARY

THERE is no easy and royal road to collections for the milk retailer, though many dealers are ready to try out numerous schemes and systems for getting magical results in this connection. But you can't beat the collection proposition with a system any more than you can, with certainty, break the bank at Monte Carlo with one. It is possible, however, to approach this problem in milk distributon with common sense and, while the results will not be magical, they will be satisfactory.

By common sense approach, I mean a solution of past due account problems in the light of practical experience. And experience has taught the milk dealer that out of every hundred accounts he takes on his books, a certain percentage will prove to be either costly to collect from or will not pay up at all.

The custom in most cases is to close the door after the horse has been stolen—whereas common sense will tell the dealer to close the door before the horse can be stolen. But how many in the milk trade do it?

There are two ways of spending money on credit protection:

(a) Investment of time and money that will sift out every applicant for credit before it is given.

(b) Investment of time and money in trying to collect accounts from people who can't or won't pay.

The second method is the common sense one.

The writer has made a study of retail credits for many years and has been surprised recently to learn the conditions as they exist on the books of the average milk retailer. Perhaps there is a reason for the loose method by which the milk trade extends credits, but I can't see that there is no more reason for it than there is for the butcher or the grocer. The milk dealer is extremely lenient in the matter of credit extension, even when quantity buyers are concerned.

How can the losses suffered by the trade in this connection be reduced?

By applying certain common sense principles which I have found to exist in one of the leading plants of the country.

Greater Value of Good Accounts.

The sifting of applicants for credit, especially in connection with the restaurant, bakery, hotel and club trade, the milkman should consider in the light of practical experience. Mere sales volume is meaningless when you achieve it at the cost of heavy losses in bad credit risks.

Even in the retail domestic trade, the milk plants in the East are giving more attention to their credit extensions, each applicant being required to prove that he or she deserves credit before it is given.

A common sense view of this part of milk plant management calls not only for a more careful sifting of credit customers but also a practical follow-up that will meet with the conditions as they really exist.

There are said to be over 50 causes for delinquency in the domestic retail trade which means that it is pretty hard to work a "system" on any given lot of milk plant
customers who are in arrears. There is a very grea
ference between the tactics needed to collect fro
home that won't pay, and the home that can't pay
for this reason common sense demands that colle
work on the part of the milk dealer be placed u
more individual basis.

Of course, the milk plant has collection facilitie
common among retail merchants in its route men
are able to keep a watchful eye on accounts, thoug
is not a final solution of the matter by any means;
men are not effective collectors and most of the p
disregard their usefulness in this respect.

And while the route man cannot be asked to
the matter of delinquencies in the full sense of the
he certainly offers the plant a safeguard as to its c
when they become long overdue.

One large Eastern milk dealer makes collection a
sonal matter, the route man merely reports on each
when it becomes delinquent, with any comment he
have to make as a result of his personal contact. C
tions are then made by the office man, or by a sal
collector.

Where Most Losses Occur.

Milk plants lose most of the money that they d
through bad credit risks as a result of certain c
which are eliminated by adopting a common sense
point of the matter:

I. Tendency to let accounts become inactive.

II. Failure to set time limits to accounts and
strictly by them.

III. Extension of credit without reasonable inve
tion of the applicant's ability to pay.

It has been the experience of credit men that
business such as the milk trade, where there are
small accounts to be followed up and where there
daily sale unit, the ratio of bad risks increases wit
element of time, that is, a milk account that runs be
the 60 day period is a poorer risk than a clothing ac
that might run beyond that period.

For this reason the persistent pushing of delinq
is necessary.

Most milk dealers suffer a greater percentage of
through their dealings in the commercial field as ag
domestic business, and the commercial accounts ar
easiest to check up from the standpoint of credit r
It would appear from this that carelessness in cred
tension is largely to blame, since the dealer can
line on any druggist, restaurant or hotel that wish
open an account with him.

It is a good point in handling milk plant accou
extend credit only as a privilege to the customer, a
make this plain at the time that the courtesy is exte
The plant must stand the cost of exending this pri
to customers and when business is done on this ba
the beginning the milk dealer has a stronger case
he finds it necessary to demand a settlement.

On every milk route there are customers who
lost their credit standing with local dealers and wh

YOU know only a few of your customers
But—YOUR customers ALL know you

SUMME
DAIRY CO.

STRAIGHT SILL

e Hesse
owagon
4 Case
pacity

The Modern
Milk Wagon
42 Case
Capacity

They form their opinion of you—your plant and your entire business thru their daily contact with YOUR DELIVERY EQUIPMENT.

- ***Is it safe?***
- ***Is it quiet?***
- ***Is it well designed and built?***
- ***Is it modern--up-to-date?***
- ***Is it conducive to better salesmanship on the part of your drivers and more courteous service?***
- ***Does it add to the life and appearance of your horses?***

Is it representative of your business?

The HESSE Autowagon

fills these requirements. They will gain you much favorable comment—that means good will—and good will means business.

SUMME
DAIRY CO.

DROP SILL

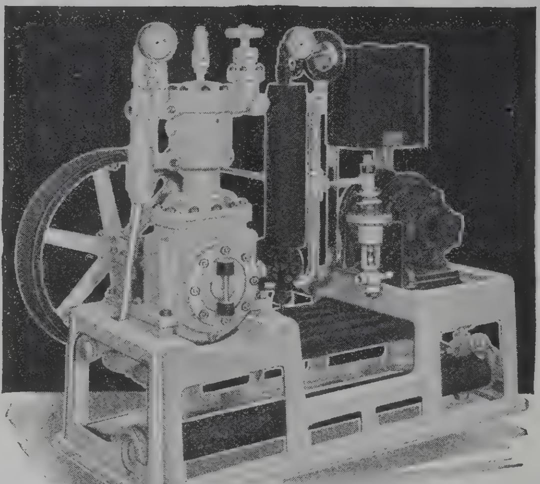
ne Hesse
towagon
24 Case
apacity

The Up-to-date
Milk Wagon
42 Case
Capacity

THE HESSE MANUFACTURING CO.
LEAVENWORTH, KANSAS
WAGON BUILDERS FOR SEVENTY YEARS

When writing to THE HESSE MANUFACTURING CO. *please mention The Milk Dealer.*

ROME
FULL AUTOMATIC REFRIGERATION



Installed Easily and Economically

A wise old Milk Dealer once said, "You can't beat our milk, BUT you CAN whip our cream."

Without doubt the above remark was made because the Milk Dealer had already installed a Mechanical Refrigerating Machine.

The ROME FULL AUTOMATIC is quickly, easily and economically installed and on such reasonable terms that no Milk Dealer need be without a Rome.

Rome Manufacturing Company
Refrigeration Dept. Rome N. Y., U. S. A.

compelled to do business on a cash basis, and people should be known to the plant. Trade associa are able to offer some help in this connection, whic management would do well to take advantage of.

Apply Common Sense.

The collection problem in the milk trade is j matter of applying common sense. Sift your credit tomers with reasonable care and follow them up r lessly. Don't let anybody get deep into your book fore you get the alarm. That's the way most losses o

There should be a day to day check up on the c tion of each account on the plant books, and re from drivers should be complete and regular. Don't tate to sut off service at a point where you conside matter risky. The attitude of the customer may h lot to do with the matter, as well as his ability to his obligation.

GROUP INSURANCE FOR ROSZELL EMPLOYE

The J. D. Roszell Company, ice cream manufact and milk distributors of Peoria, Ill., has adopted operative program providing more than $125,00 group life insurance for its employees. Besides th insurance, liberal weekly benefits are provided health and non-occupational accident policy. The is being underwritten by the Metropolitan Life I ance Company on a co-operative basis, whereby th ployer and employees contribute jointly tow premium payments.

Under this arrangement, each employee in the classification covered receives $1,000 of life insu at a low rate. In addition to this, health and acc benefits are payable for a maximum of thirteen secutive weeks. They amount to $10 a week, and payable when an employee is unable to work du sickness of any sort, or injury received off the job.

Besides the death benefits created for an emplo family or other dependents, the life insurance estab a temporary fixed income for the worker himself, in he becomes totally and permanently disabled befor age of 60. In such event, he will receive the full am of his life insurance in monthly installments.

The insurance company furnishes sick or dis employees insured under the plan, with the servic a staff of trained visiting nurses. Supplementing pamphlets on disease prevention and health cons tion periodically are distributed.

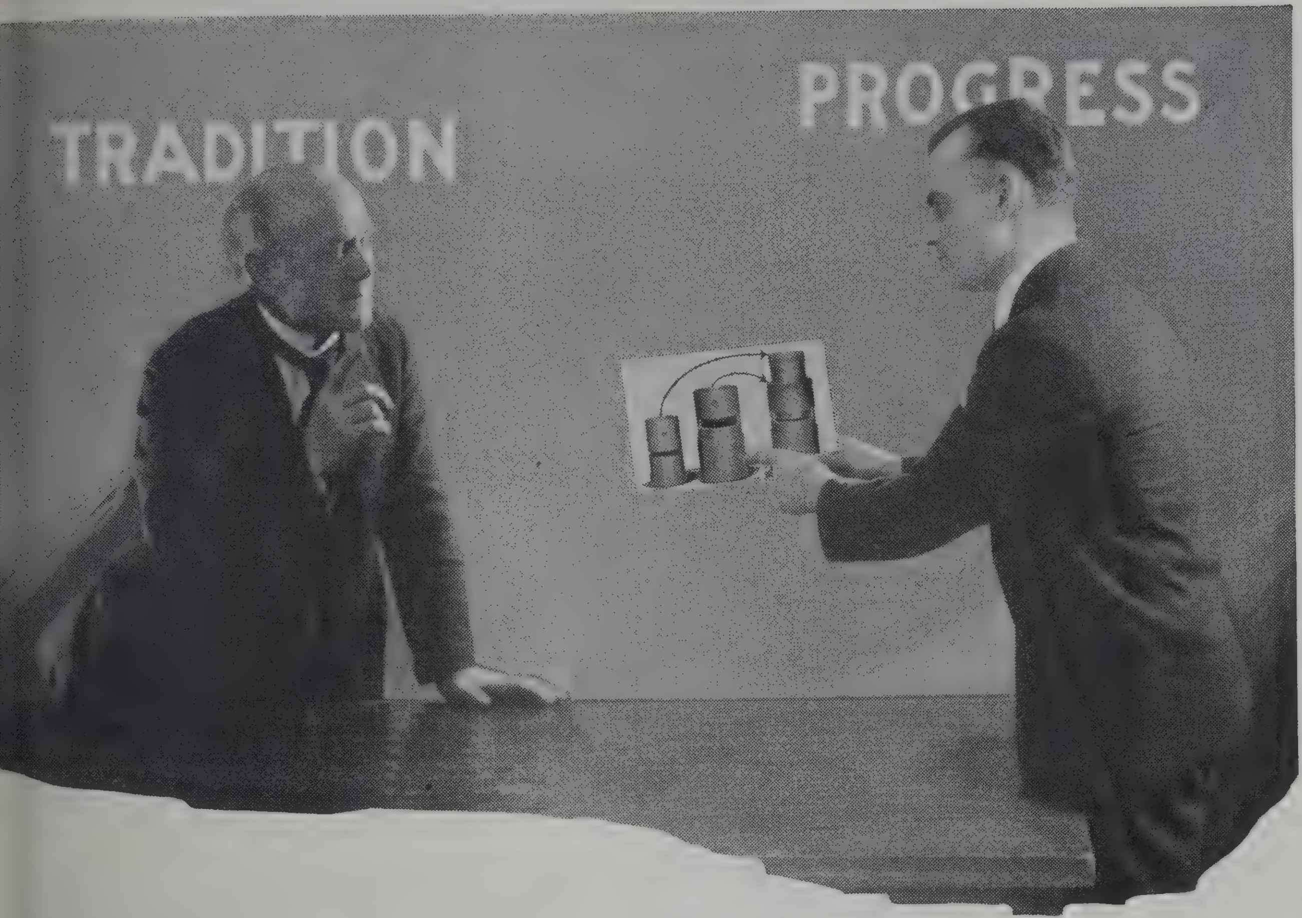
DEATH TAKES A. J. RYNER.

A. J. Ryner, part owner and manager of the Milk Products Company, Perry, Ia., died Februar 1927, at the age of 57 years.

At the time of his death Mr. Ryner was preside the two leading civic organizations of the city, the ufacturers' Association and the Perry Community He was also a member of the local Rotary Club.

Mr. Ryner was born in Peoria county, Illinoi his father's farm. His boyhood was spent in that tion. Later becoming connected with the Ame Telephone and Telegraph Company his home was cessively at Minneapolis, Chicago and Omaha. Pri his removal to Perry he was employed with that pany as an executive at the Omaha office. Since chasing the local plant Mr. Ryner has been the dent manager in charge, while his brother, half o in the plant, had charge of the sales and purchasing of the work.

is just getting his bearings



ook, Lad—

they tell me out in the shop that it t the motors that are bad, as *you* said, that the bearings cause all the trouble are having. Can't you get some better rings to save us all this repair expense?"

"No, Pop—

you're like the fellow who said that the egg wasn't bad—it was only the yolk that was just a lee-tle bit hatched.

Here's a picture I had taken, showing one of the bearings from the estimable motor you are standing up for.

See how nicely it fits down into the bearing from a LINC-WELD motor of the same rating. (Rating is a funny term . . . look into it.)

Those flapper size bearings that cause all the trouble have a bearing surface of about 4 square inches.

This amazon LINC-WELD bearing gives you 7¼ square inches.

You know that the bigger the bearing, the less the trouble.

You've fallen smack against the very reason why I told you to forget your old crony motor salesman. That friendship doesn't extend as far as motor operation."

The Lincoln Electric Co., Dept. 25-4, Cleveland, Ohio

MA-6

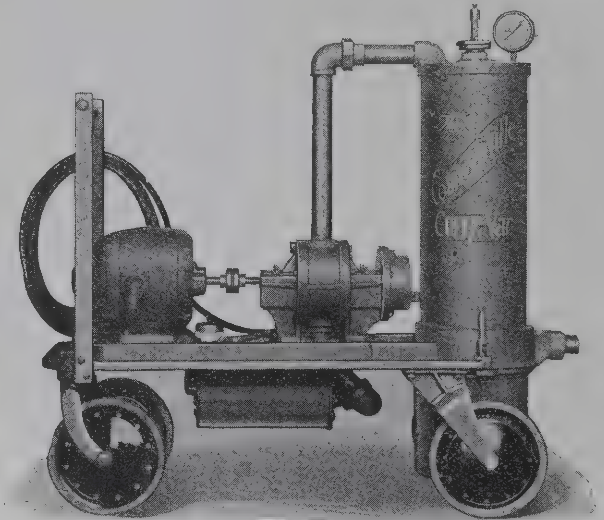
"Linc-Weld"

LINCOLN MOTOR

When writing to THE LINCOLN ELECTRIC COMPANY *please mention The Milk Dealer.*

Saves Time!

With a Connersville Curry-Vac, cleaning time can be reduced almost 50%. The time saving in machines over hand currying is practically the same whether cleaning horses or cows. Time saved is labor saved. Labor saved is money made.



Connersville Curry-Vac

Increases Production

Cows that are regularly cleaned by Curry-Vacs produce more and better milk than they do when hand cleaned. The massaging effect of the vacuum tool, and the thoroughly clean skin with open pores are the causes of the increased production.

Reduces Bacteria

Connersville Curry-Vacs greatly reduce the bacterial count of milk. By removing all the dirt, keeping the cows' skin clean and eliminating dust which is such a nuisance in hand currying.

(Agents in All Principal Cities)

Please send information on ( ) Truck ( ) Stationary Type Curry-Vac for cleaning ( ) Horses ( ) Cows.

Name ....
Address ....
City ....

United Vacuum Appliance Corp.
CONNERSVILLE Dept. M4 INDIANA

DATES SET FOR PACIFIC SLOPE SHOW

Following a meeting of the Pacific Slope Show's executive committee at Oakland, Secretary ager Robert E. Jones announced that dates had be cided upon for the seventh annual exposition to b at Oakland. The event is scheduled for November 19, 1927. This is the fifth consecutive year for the Slope Dairy Show in Oakland, where permanent quarters are located at 1404 Franklin St.

Two new members sat with the show executive mittee for the first time. They were C. O. Hagen Angeles and A. J. Cowell of San Francisco. Dr. Roadhouse, president of the association and head dairy industry division of the University of Cali at Davis, presided. Oather members of the commit attendance were E. A. Green, C. E. Gray, J. J. O'N H. Greene, Geo. W. Prising and Robert E. Jones.

Prior to the meeting, the show executive com was entertained at luncheon in the Athens Club by bers of the Alameda County Milk Dealers' Associ Dr. C. C. Wing; head of the Oakland milk inspecti partment, was the principal speaker at the lun

Dr. Wing brought out the remarkable fact t ten years the consumption of milk in the East Ba increased from 17,600 gallons daily to more than gallons daily. Thus the increase in milk consun has been greater than the increase in population, cating a larger per capita consumption than in He attributed much of the increase to improvem quality of the product.

ANYTHING FROM SOUP TO NUTS.

According to D. W. Ashcraft, of the College of inary Medicine, at the Ohio State University, a by-products may mean anything from the milk we to the buttons we wear on our clothes.

A large number of the by-products form a nec part of human diet. Milk, butter, and cheese a amples. Casein, a protein product obtained from milk, has extensive and varied uses. We use abo million pounds of casein a year. Two-thirds o amount is imported from other countries.

Casein has been used in finishing the heavier, grades of paper used in books, magazines, and th Mixed with lime-water, casein makes a substance t exceptionally resistant to water. During the war, was found to make the only glue or cement that stand up under the demands of the airplane.

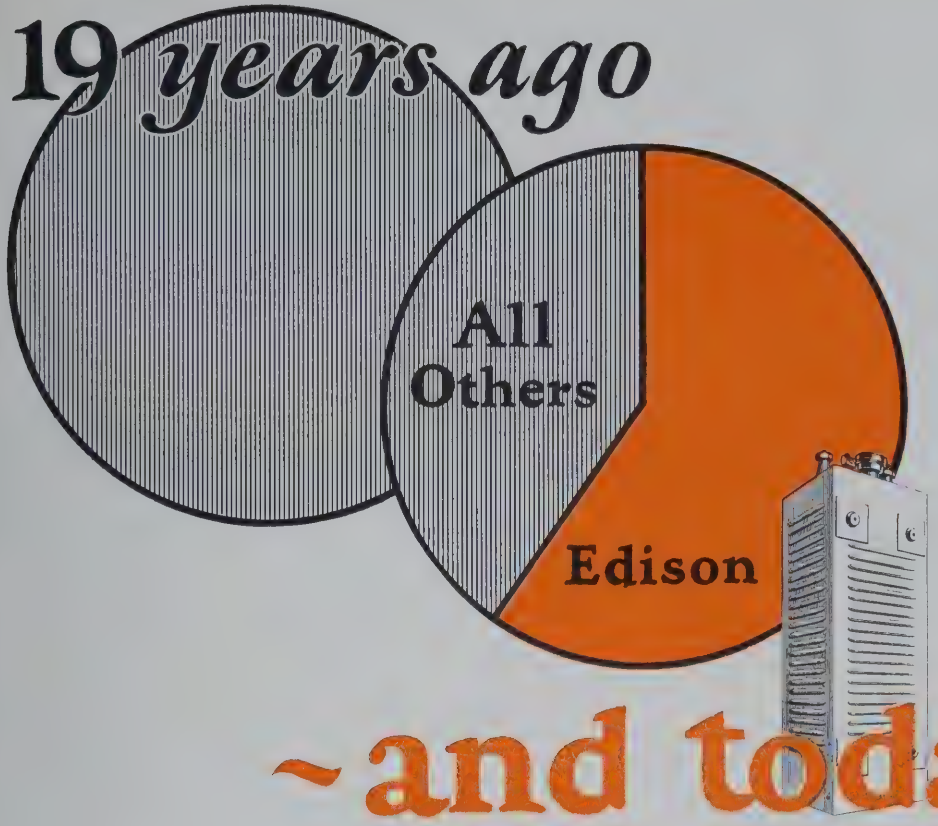
This by-product of milk, Mr. Ashcraft obser also used in cold water paints and in printing wall The plastic materials used in making buckles, bu novelties, beads, fountain pens, and automatic p originate in casein.

GOATS GIVE 10 QUARTS 11 OUNCES OF M DAILY.

J. Merrell Kurtz, who owns a farm near Boston bought five Toggenberg milk goats and placed th his farm. Toggenberg goats have a record of giv high as 10 quarts 11 ounces of milk in one day.

Milk from this class of goats is now selling in ville at 50 cents a quart, according to Mr. Kurtz. terfat from this milk runs from 8 to 10 per cent. goats were first imported to the United States Toggenberg, Switzerland, in 1904. Thirty thous these goats are now being milked daily in Californ

19 *years ago*



~ and today

Less than twenty years ago, Edison Batteries were commercially unknown. Today over 61 per cent, *nearly two-thirds,* of all motive power batteries are Edisons.

This leadership in the field is the leadership of low costs due to Edison low maintenance, dependability, greater pay-load capacity and a life of from two to three times that of any other battery of commercial importance on the market.

As one operator of electric delivery trucks in Baltimore expresses it—"The twenty-six trucks we have in both plants are all Edison equipped, *therefore we have no worries.*"

Let us send you the three-quarter-of-a-million-dollar proof of Edison savings! This is the certified record of operating savings accomplished by ten well known users, from a survey by the A. C. Nielsen Company of Chicago—an independent firm of engineering accountants. Your request will bring this report free of cost by the first mail out of Orange.

EDISON STORAGE BATTERY COMPANY, ORANGE, N. J.

Thos A Edison

Built like a Watch—Rugged as a battleship

Edison

STEEL-ALKALINE*

TRUCK BATTERIES

*There is no iron at all in any battery of commercial importance except the Edison. There is no nickel at all in any battery of commercial importance except the Edison. There is no lead at all in the Edison Battery. There is no acid at all in the Edison Battery.

ATLANTA BOSTON BUFFALO CHICAGO CLEVELAND DETROIT HUNTINGTON LOS ANGELES
NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH SAN FRANCISCO SEATTLE ST. LOUIS WASHINGTON

Export: 26 West Broadway, New York *Canadian Distributors: International Equipment Co., Montreal, Quebec*

HAUL MORE FOR LESS MONEY

What's in a Bottle of Milk?

A Bottle of Milk is a Bottle of Milk, but When Analyzed for Its Human Benefits It's a Bottle of Milk Plus

WHAT is milk? It is action. It is achievement. It is the force behind great undertakings. It is the keynote of great industry—the power behind the machines. It is the dynamic charge that sets off human vigor and vitality.

The scientists can give you many statements regarding the component parts of milk, but those interested in the science of marketing milk will do well to put this analysis in a popular language, in an appealing language.

Lime? Every man and woman can remember how boresome was the study of lime in physiology while in grammar school. Yet we are forever talking about lime, lime, lime. Why not talk about what it is?

Lime is health, beauty, personality. It is one of the contributing factors to that mental state which a great authoress has called "It." Lime makes for fine, pearly teeth, the kind wanted by every woman who wants to be beautiful, and by every sensible man who recognizes the importance of good teeth to health. It makes for good, clear complexion, the wish of every daughter of Eve.

"Vitamines!" we shriek at the top of our voices, and the chances are we go over the heads of a great number of people, while on the other hand there are thousands of people who know in a general way what vitamines are, but can't picture them clearly. Vitamines, we know, are those invisible forces in food that make for life—Vitamine A has its office, and Vitamine B its office, and Vitamine C still another purpose. Let's bring out these purposes, these acts—not just their catalog serial numbers.

There are two things about human beings every merchandiser should know. First, they haven't much imagination and, on the whole, don't do much thinking—not much thinking for themselves, that is. True, man is a political animal, with associating instincts, but in many ways his mind still is on the order of the lower kingdom—he permits other people to do his thinking.

Second, the average human being can't see the picture unless you present it to him so graphically, so clearly, so strongly, so convincingly that it almost knocks his hat off.

Talk to him until you are blue in the face about the component parts of milk and the average man will be like the Indian in Oklahoma who made a lot of money out of oil and was asking an auto salesman to give him a demonstration. After two or three hours of careful explaining about the inner workings of a flivver's motor, the Indian nodded gravely and said, "I see, but what makes it go?"

We must show the public what makes milk go! We must show the public how and why it is a source of energy, power, magnetism.

There is much about personal magnetism in the magazines these days. We go to far lengths in this day and time in quest of that mystic, elusive strand of life that makes for—what? Some of us think it is for wealth and position that we are seeking. But the basic thought behind our actions is something else. It is one of the saddest commentaries of life that so few of them know what that Something Else is.

In a popular book now out a woman author calls that Something Else "It." This "It" is what men have
when they are masterful, convincing, swaying, lea
directing, controlling. "It" is supposed to be the c
of manner that makes and holds friends, the dign
easy use of power that controls the actions and tho
of others, the intangible quality that makes other
things we do. In other words, "It" represents per
magnetism, human attraction.

It would be impossible to enumerate the vast nu
of hokus-pokus medicine men of modern society wh
making much money by telling foolish human b
how to acquire power.

Few of them know that what they want, what
seek, is to be obtained in a simpler and more direct
ner. Few know that the great Something Else of
in a bottle of milk.

Health is the foundation of true achievement.
we can trace back through the pages of history and
how many of the great creators of the world's m
pieces were invalids, were sick men and women,
afflicted in many ways. Many of them dissipated,
no attention to the laws and rules of life.

We must consider, however, that these men,
the inspiration of genius, succeeded despite thems
with great wills that rose above their afflictions, th
ural as well as those self-imposed.

The men at the head of great movements toda
forceful men, convincing men, men who are alive
alert, enthusiastic, filled with confidence in thems
faith in their works and conscious of their abilities

The man who is going to cause the world to
more milk is the man who best succeeds in draw
picture of milk as Force, as Power, as the intan
energy that explodes all the creating influences
man's nature.

Remember that. We can go a long way in ta
about milk without getting any further from that
It is the basic point.

Let us keep in mind that milk is the creator o
great Something Else in life, the intangible some
that is missing from the makeup of most of us.
is? All of the wise men of all the ages may debat
point, but we frankly don't know for sure. Wha
it is, however, we are convinced it is the great cont
ing factor to what we all want—happiness!

Milk, then, the builder of health and happiness
make out a pretty good case for itself as the great
thing Else.

Milk is "It."

* * *

THE CARE AND HANDLING OF MILK.

Problems concerned with the production and
tribution of city milk are covered exhaustively in a
book of about 400 pages, "The Care and Handli
Milk," by Prof. Harold E. Ross, Cornell University
book is intended as a text for dairy students and f
others who are interested in the care and handli
milk and its use as a food. Sent postage prepaid
receipt of $3.00 by The Olsen Publishing Com
Milwaukee, Wis.

* * *

The more things man is ashamed of, the more re
ble he is.

Over 500 Dairies are using

KOKO-MALT

It's Making a Big Hit !

for their

Chocolate Malted Milk Drinks

HERE is a new product which is blended from a special Dutch-processed, double milled cocoa and pure barley malt extract with special flavoring to intensify the full chocolate flavor and absorb the bitterness of cocoa.

DAIRIES bottling chocolate milk should be interested in this new preparation. It means a great saving in your syrup purchases. The cost of one gallon of delicious chocolate malted syrup made from KoKo-Malt, which is sufficient to flavor 10 gallons of milk, is 75 cents.

We will be glad to send a sample of KoKo-Malt sufficient to make one gallon of syrup to those interested in this new hit.

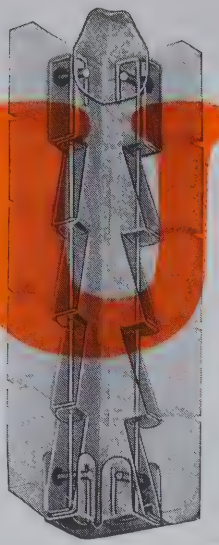
THE DAIGGER CORPORATION

Manufacturers

WASHBURN'S PRODUCTS

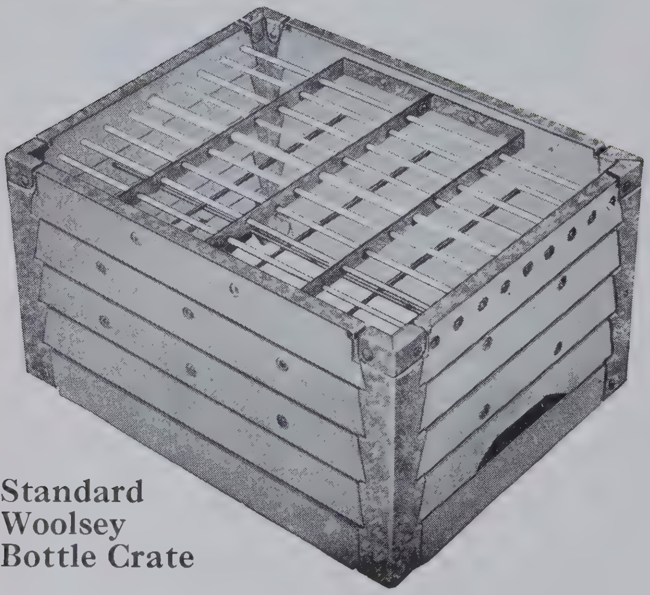
413-415 Beethoven Place CHICAGO

When writing to THE DAIGGER CORPORATION *please mention The Milk Dealer.*



Unequalled

in principle
of construction



Standard
Woolsey
Bottle Crate

Woolsey

WIRE LACED

Bottle Crates
and
Butter Boxes

Summer is coming

Your Butter and Specialties will need protection against heat.

The Woolsey Butter Box

has a separate ice compartment and insulated cover. It keeps your products cold, fresh and clean. It stacks perfectly with standard crates. A convenience and necessity for every wagon.

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION INC.
ASSOCIATE MEMBER NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS

The Northwestern Collapsible Carrier C

Ask These Jobbers:

A. H. Barber-Goodhue Co.,
Chicago, Ill.—St. Paul, Minn
Indianapolis, Ind.

The W. E. Barrett Co.,
Providence, R. I.

E. A. Kaestner,
Baltimore, Md.

Meyer-Blanke Co.,
St. Louis, Mo.
Birmingham, Ala.
Dallas, Tex.

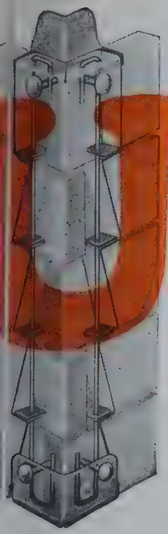
N. A. Kennedy Supply Co.,
Kansas City, Mo.
Oklahoma City, Okla

Oliver M. Dean & So
Worces

Beatrice Supply Co.,
Den

Ohio Creamery Suppl
Clevel

When writing to THE NORTHWESTERN COLLAPSIBLE CARRIER CO. *please mention The Milk Dealer.*



Unsurpassed

in ability to give Long Service

SINCE Woolsey pioneered the interlocking metal corner with wire laced unit slat construction, where has there been any greater improvement made in milk bottle crate construction?

Service and the economy that results from long service are the only things that have placed the Woolsey crate in so many prosperous milk plants today.

The milk plant operator who has not given the Woolsey wire laced bottle crate a thoro trial in actual service on his wagons is cheating himself out of a good many dollars of profit yearly.

If the Woolsey Principle of corner construction and bottom protection were wrong, there would not be such wide imitation of these features. Imitations at best are only makeshifts. The long service lies not in the metal at the corner, but how this metal corner is made and in the WIRE LACE which makes the Woolsey Crate the only FLEXIBLE CRATE able to absorb shock and arrest its transmission to the bottles in the crate.

Send an order today and prove to yourself the dollars that Woolsey Crates will save through longer service.

Talmadge Ave., S. E.,
MINNEAPOLIS, MINN.

& Equipment Co., Pittsburgh, Pa.
Bros., New Haven, Conn.
nond, Ltd., Toronto, Canada

Kennedy & Parsons Co., Sioux City, Ia.—Omaha, Neb.
Geo. G. Mill Co., Great Falls, Mont.
N. W. Creamery & Dairy Supply Co., Seattle, Wash.

1821 Callowhill Street,
PHILADELPHIA, PA.

T. C. Power Co., Helena, Mont.
Oakes & Burger Co., Cattaraugus, N. Y.—Erie, Pa.
Phoenix Seed & Feed Co., Phoenix, Ariz.
C. Peterson, Hartford, Conn.

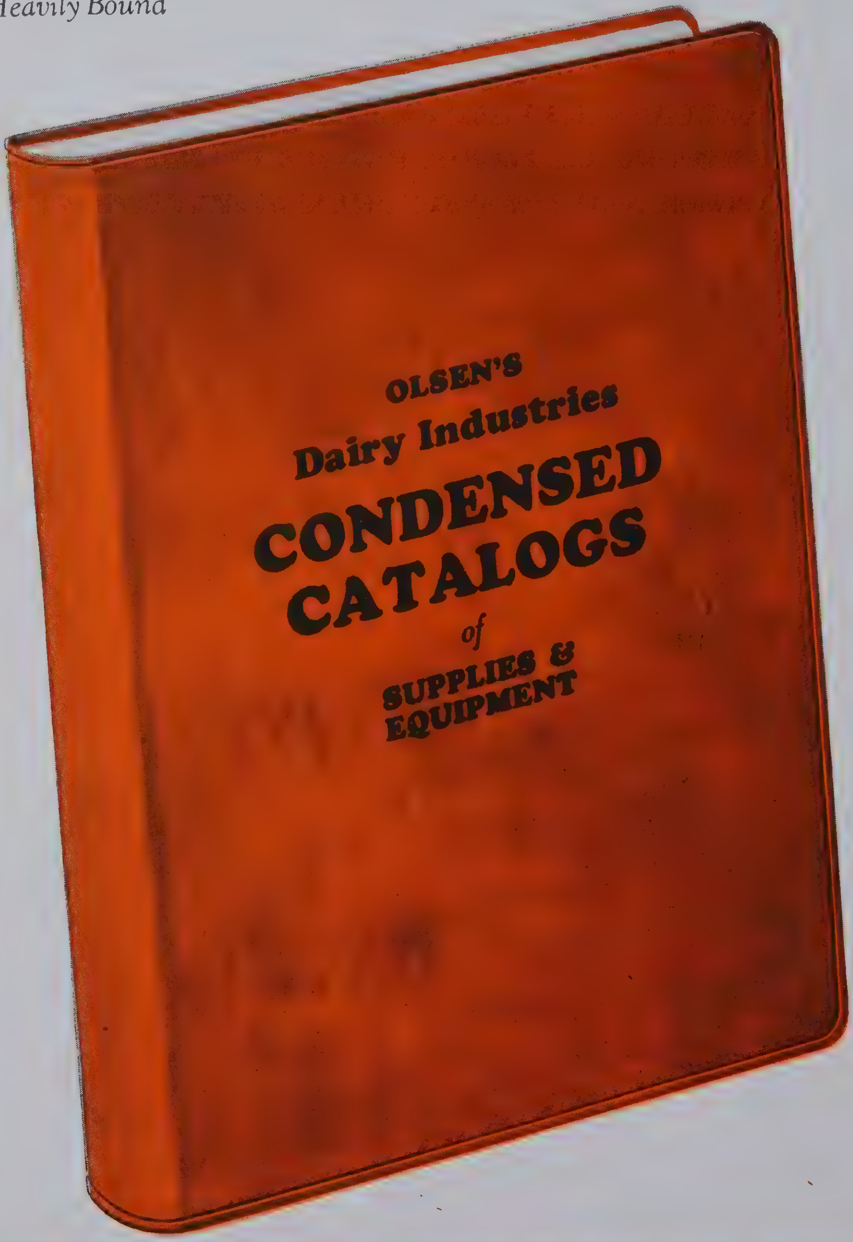
Geo. W. Prising Co., Inc., San Francisco, Calif.
The Smith-Comstock Co., Bridgeport, Conn.
United Dairy Machinery Corp., Buffalo, N. Y.
Warr Supply Co., Los Angeles, Calif.

When writing to THE NORTHWESTERN COLLAPSIBLE CARRIER CO. *please mention The Milk Dealer.*

A Roomful of Catalogs in One Volume—

HERE is one of the most helpful and important works ever undertaken in the Products Industries. Now, when you need buying information, you don't ha rummage through files looking for catalogs and literature that has been faultil or, more likely, lost. Just look up the product or service in Olsen's Dairy tries Condensed Catalogs. You can buy directly from this book because it contains de data and information, specifications, tables of weights and sizes, illustrations and descri of the more important products and services used in all branches of the Dairy Pr Industries.

Size 9x12 inches.
Heavily Bound



This Book is FR to Dairy Industr Buyers

Olsen's Dairy Industries Condensed C is given to you on a registered loan free of charge. Each year it is replace a new volume. It is heavily bound, sta ized in typographical form, and cross i so that you can quickly find complete information and specifications on any p or service in which you are interested. a roomful of catalogs condensed int handy volume—always at your finger

Olsen's Dairy Industries Catalogs ready for distribution within a short To get your copy early, please send i request now.

Here is what two of the Country's L Dairy Products Concerns say:—

"We understand you are getting up a industry reference catalog, giving specifi and data, on various types of dairy equi Please be advised that we are most anx have you send us one of these as soon a are ready for distribution. We think this be a most useful catalog to have in a plant."

"I think your idea of publishing the c dated catalog for the Dairy Products Ind will prove to be one of the best helps I k for the buyer. It is a thing that I hav looking for for a long time and I am su it will prove an invaluable help. The many times I want to obtain references fo article which we use around the plant is sometimes a week or two before I am locate anyone handling it. If there is an we can do to further assist you in you kindly call on us."

◆

ATTENTION EQUIPMENT AND SUP CONCERNS

This is not an advertising medium, in f display advertising is accepted.

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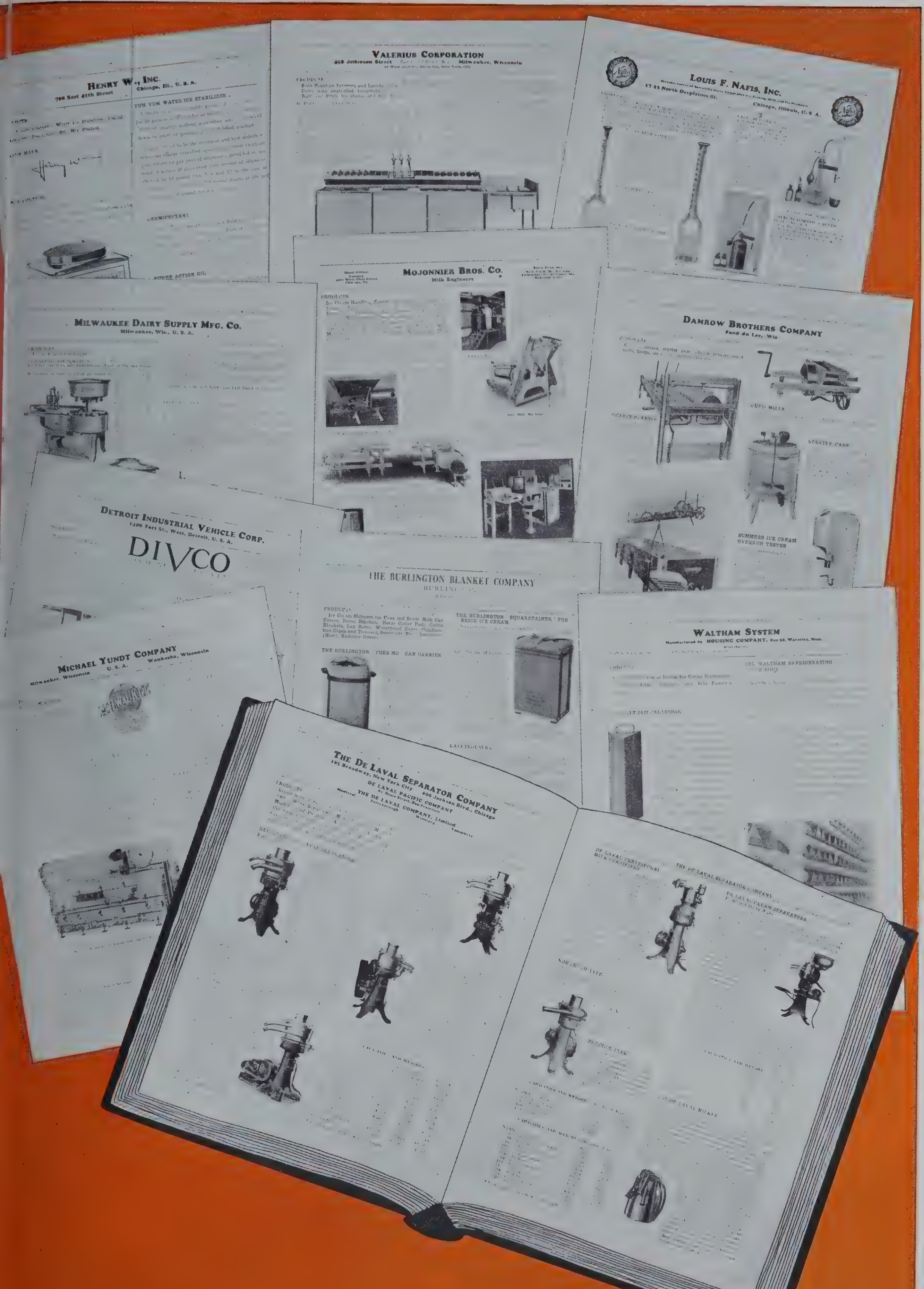

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DETROIT INDUSTRIAL VEHICLE CORP.
1400 Fort St., West, Detroit, U. S. A.
DIVCO

THE BURLINGTON BLANKET COMPANY
THE BURLINGTON SQUARETAINER FOR BRICK ICE CREAM
THE BURLINGTON THERMO CAN CARRIER

WALTHAM SYSTEM
Manufactured by HOUSING COMPANY, Box 40, Waverly, Mass.
THE WALTHAM REFRIGERATING

MICHAEL YUNDT COMPANY
Milwaukee, Wisconsin U. S. A. Waukesha, Wisconsin

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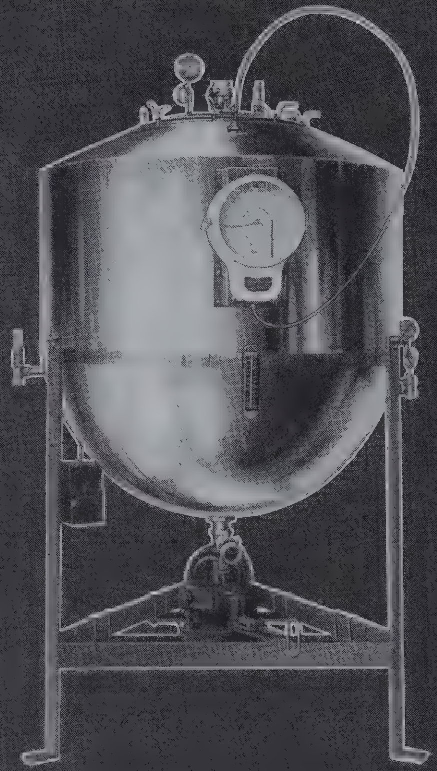
These are pages taken from some of the Condensed Catalogs in Olsen's Book of Catalogs



utmost in Sanitation!

No Solder—Stronger than Steel—Lighter in Weight and Seamless

NICKEL is the cleanest and most ideal metal container for goods and dairy products of all kinds. The purity of 99% Nickel renders it absolutely impervious to corrosion, a metal that will withstand wear and abuse far beyond the life of equipment now in use.

By our ingenious method of casting joints, 99% Pure Nickel Sheets are joined into containers of almost any size and shape. When ground and finished, the article is seamless and equally strong throughout its entire surface.

This ideal construction aids sanitation and ease of cleaning and eliminates the use of solder entirely. You will never need to refinish the containers, 99% Solid Nickel being used for all our equipment.

We are now in position to supply you with 99% Pure Nickel equipment from the smallest food utensil to the largest milk tank. Our engineering department will be glad to analyze your particular requirements, anytime.

NINETY
NINE %
NICKEL

SALES OFFICES
Detroit, 1226 Bagley Ave. Bldg.
Boston, 518 Little Bldg.
Chicago, 718 Crilly Bldg.
Philadelphia, 516 Packard Bldg.
New York, 1512 Borden Bldg.
Canandagia, N.Y., 113 Park Avenue

NICKEL FABRICATING CORP.

PHILIPSBURG, ~ PENNA.

STATE OF CALIFORNIA
Department of Agriculture
G. H. Hecke, Director
Executive Office
Sacramento

March 1, 1927.

. K. Slater, Editor,
ilk Dealer,
Publishing Company,
herry St.,
ukee, Wis.

ar Sir:—I have been interested in your development question concerning the use of gelatine in buttermilk ppears on page thirty-six of your February issue, (Vol- 6, Number 5) which was built around a circular issued s bureau and published in your January issue, and later uted with a circular to health officials. Personally, my on to all such proposals is this; Show me first that you pport your claims for improvement, not by testimonials, y actual demonstrations. If then you can further show at in accomplishing these, other advantages which we njoy will not thereby be sacrificed, then I am willing dorse your proposition and to recommend changes in es which will permit its adoption.

e must recognize that in response to a questionnaire casted to secure opinions on a question of this character formation which is received represents merely the pres- action of those who reply, rather than mature opinion on thorough consideration of well founded scientific

rankly, my first reaction to this specific question of the f gelatine in buttermilk is this: Are those promoting the principally concerned in the sale of gelatine or in the vement of cultured or artificial buttermilk? This much now, that cultured buttermik properly made from the sort of materials is a most excellent product and does equire the use of gelatine in order to prevent wheying hich seems to be the principal difficulty that can be over- by adding gelatine and is the principal reason that un- d manufacturers of the product become interested in its In other words, by using gelatine less skill is required ake cultured buttermilk that will get by. Also, poor ials can be used and still make a marketable or pre- ble product.

hen the question is presented to health authorities it is er set of arguments which are called upon to put the across. In this case it is the food value of gelatine which essed. No one doubts that good gelatine is a good food, he amount of gelatine that is required to be added in to give buttermilk of poor quality the consistence and ing" quality of buttermilk of good quality is so small it does not deserve serious consideration.

hese impressions are still uppermost in my mind and they have been dispelled by appropriate demonstrations will withstand the test of scientific scrutiny I, for one, be unwilling to endorse any move to modify our present ations which prohibit the use of gelatine in buttermilk, would serve only to mask defects in this most excel- ood.

Very truly yours,
(Signed) J. J. FREY,
Chief, Bureau of Dairy Control.

* * *

ARENTS SELECT COWS WHOSE MILK IS RESERVED FOR BABIES.

een Mary has personally selected the cows that are pply Her Baby Highness Princess Elizabeth with The campaign against tuberculosis is being tack- nost scientifically and not only are all the farm als subjected to strict inspection periodically, but, special precaution, selected cows are kept apart their companions in sequestered fields. They are prize animals and the farmers often find it quite od advertisement to allow parents to select the in- ual animal whose milk will be reserved for their ts upon payment of a fixed fee.

Friendly Talks on the Important Subject of Sterilization

Conducted by
J. W. YATES
formerly Dairy & Food Commissioner, Health Dept., Kansas City, Mo.

Talk No. 6

Chemical Sterilization of Utensils at the Farm Cheaper and More Practical Than Any Effective Heat Method.

The greatest source of bacterial infection in fresh milk is the utensils, equipment and containers used AT THE FARM. Bacteria is the greatest influencing factor of quality in milk or milk products. It is practically impossible to deliver a can from the milk plant that will be in fit condition to receive milk AT THE FARM. *The bacteria that survive the cleaning process at the plant, grow to uncountable numbers before the can is used AT THE FARM.*

It is essential that the bacteria be eliminated if good quality milk is to be obtained. Heat methods are expensive and consume more time than the producer can afford to give. With kerosene at 16c a gallon, it costs more than 7c to heat 10 gallons of water from 60° F. to 160° F., and this is the **minimum** volume of **water** and the **minimum temperature** that can be effectively used.

One tablespoonful of B-K added to 1 gallon of water of any temperature is more effective as a sterilizing agent. This costs but one and one-eighth cents per milking. It is used simply as a final rinse, making contact with all surfaces that the milk touches. With less than 1% of the dairy farms in the United States equipped for heat methods of sterilization, B-K provides a readily acceptable method that farmers may use when they will not use anything else.

Write me:

(1) your personal problems. Every plant or factory has its own particular sanitary problems I will be glad to give you the benefit of my years of experience.
(2) for plan of promoting better care of milk AT THE FARM, where it is produced.

J. W. Yates.
Consultant in Sanitation.

GENERAL LABORATORIES
Dept. 13D MADISON, WIS.

B-K
Bacili-Kil

Rosy Cheeks and Happy Voices

Health Workers in Wisconsin Put on Follow Up Campaign to Revive Interest in the Big Milk Advertising Campaign of Four Years Ago. Best Results is in Improved Health of Children

By NELLIE KEDZIE JONES*

DURING the week of February 14-19, Miss Mary Brady, the nutrition specialist in Milwaukee county, assisted by Miss Gladys Stillman, the milk specialist of the home economies extension department of the college of agriculture in Madison, Wis., staged a "follow-up milk campaign" in Milwaukee and Milwaukee county. This was designed to revive the interest aroused in a milk campaign carried on some four years ago.

As a result of the first campaign, many schools have found it to their great advantage to serve to the children sometime in the forenoon, a bottle of milk which, taken through a straw and with a graham cracker, made not only good nourishment for the children, but a sort of picnic as well. Every child looked forward to the milk hour as a diversion and the consequence was that many children who, before that time, had not been willing to drink milk, were eager to get the bottle of milk and the straw which made a new experience in the middle of the school forenoon.

This follow-up milk campaign last month was carried on in a little different manner from the first one. During the first campaign, every school in the city and county was visited by a speaker. This year, instead of having the speakers go to every school, Miss Brady and Miss Stillman visited each school principal and arranged for the distribution among the children of many of the grades, blotters which reminded the children that they ought to drink enough milk for health. This pretty blotter carrying the happy boy face and his bottle of milk made every child think about drinking milk when he got home. Sixty-five thousand of these blotters found their way into the hands of the children. Pamphlets, plays and stories suitable for use in the various grades were left for the teachers who will use them as occasion permits. The teachers are happy to co-operate in all this work. The children were invited to enter a milk song contest and some of them sent in very clever little "poems." Ribbons were awarded for the two best poems in each school. These are some of the verses written by small children:

"I like milk and milk likes me,
I'll not quit the cow till the cow quits me."

Another verse runs:

"Milk is to the body what gas is to the car,
If you don't drink it, you will not run far."

Another:

"The milk I drank for supper
Is the milk that gives me thought.
When I get to school in the morning,
I am ready to be taught."

There may be some question as to poetic value, but there are wholesome suggestions to the child who repeats these jingles.

In the very early grades the Milk Fairy story and sometimes a little play were given in all the schools. The third and fourth grades had "Mother Goose Land Stories" and usually some suitable play. The fifth sixth grades also had stories and plays, while the enth and eighth grades an especial play called "M on Trial" was put on. The "Mother Goose Reel" shown in many of the schools and this reel being adap from Mother Goose stories which emphasize the use milk, was of great value in arousing interest in plays. The stories and plays, poems and songs wh were used in the schools come from the home econon extension department at Madison and may be secu by teachers from the office of Miss Mary Brady, nu tion specialist in Milwaukee.

In addition to the material given to the schools the talks given in schools, the two nutrition speciali Miss Mary Brady and Miss Gladys Stillman, spoke fore more than one hundred organizations of women, cluding parent-teacher associations, women's clubs, societies, etc. They also visited several of the noon clubs and spoke to the men, urging that both men women see to it that the children in their homes h sufficient milk for health. Through the co-operation the junior chamber of commerce, several fine wind displays were put up in the business section of Milw kee. It was a bit unusual to see cows gazing from plate glass window of a great retail store. It might startling, but almost everybody stopped to read legends which were put beside the cows in the wind and certainly everyone who saw and read, went ho feeling that he had seen an unusual sight and was minded of the value of milk as a food.

The children in the lower grades were given butt to wear and every child who wore the button show the bottle of milk and the legend "Milk for Health" more inclined to drink his milk when mother put it the table. The hotels and restaurants were co-operat in their use of the labels which were sent them and th labels were suggestive, as they showed the happy fa boy on the blue background, bringing to the notice every observer the bottle of milk.

All this means that more people are hearing about value of milk as food and are using more milk in th homes than ever before. When women come to particularly what they can do to get a child to dr milk, when a mother comes and says, "My little gir underweight, but she doesn't like milk. How can I her to take it?" Then the nutrition specialists are their glory, for they have many suggestions to make through their suggestions many children are conver to the idea of eating or drinking more milk. The ch who perhaps cannot drink enough milk to keep him good health can often eat the foods made with milk.

Whatever else is accomplished by these milk c paigns, the very best result is seen in the improved hea of school children. Rosy cheeks, happy voices, bet lessons, more work, and in the years to come, bet citizens because of better bodily health during childho

We are told that "health is wealth." Increased of our state's best product, milk, means greater st wide wealth.

---

* State leader, home economics extension, college of agriculture, University of Wisconsin, Madison, Wis.

Tycos

WITH THE BENEFIT OF PUBLIC APPROVAL

Just a Few Plain Facts

NO enterprise—or the product of its effort—can long survive without the benefit of public approval.

The instruments known by the identifying name of *Tycos* Instruments for indicating, recording, and controlling temperature in all its varied applications, industrial and domestic—have been manufactured by the *Taylor Instrument Companies* for seventy-five years.

The consistently increasing demand for these instruments, now numbering more than 8,000 distinct units for industrial and home use, is proof positive that they have the fullest endorsement of public approval.

To indicate and control record temperature honestly, faithfully, and with scientific accuracy is the chief function of all *Taylor* Instruments, from the humblest home thermometer to the most delicately calibrated industrial calorimeter.

The same policy of honesty is translated into our relations with our customers, in a sincere endeavor to serve you faithfully and well.

There is a *Tycos* Temperature Instrument for every purpose. Tell us your need, and we will send you full information—and our Catalog.

Tycos

Taylor Instrument Companies

ROCHESTER, N. Y., U. S. A.

CANADIAN PLANT
TYCOS BUILDING, TORONTO

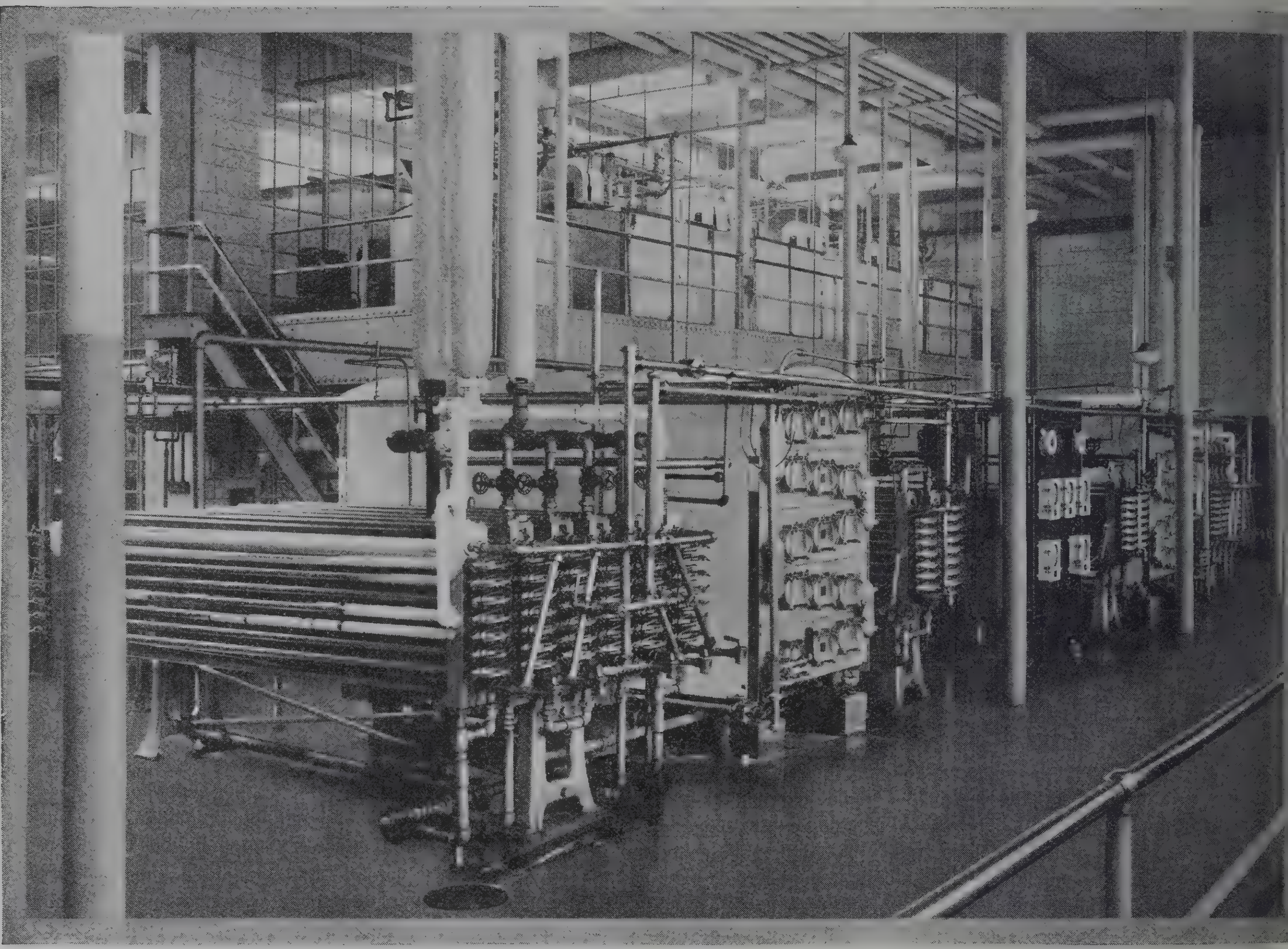
MANUFACTURING DISTRIBUTORS IN GREAT
BRITAIN, SHORT & MASON, LTD., LONDON

Tycos

When writing to TAYLOR INSTRUMENT COMPANIES *please mention The Milk Dealer.*

Barber Goodhue

Everything for the Dairy Industry



Burrell Simplex Tubular Pasteurizing System

THE complete Burrell System is composed of three units—(1) Simplex Internal Tube section for heating, (2) Simplex continuous flow pasteurizer or holder, (3) Simplex Internal Tube sections for cooling.

The Internal Tube heating and cooling sections do away with the need of special cooling rooms. They protect milk flavors because there is no possibility of leakage of water or brine into the milk. They prevent loss by evaporation. They provide rapid heating and cooling, without excessive agitation of the milk, so important to its proper handling and creaming ability. Easily and quickly sterilized.

The pasteurizer unit, operating on the continuous flow principle, is entirely free from valves and pockets. Proper temperatures are accurately maintained and every particle of milk is held for exactly the right length of time.

Both holders and cooling and heating units are built in sections so that the system can be expanded by simply adding additional units.

We should be glad to discuss with you, without obligation, your pasteurizing needs and to recommend the kind of equipment that will best meet your requirements.

A.H.Barber-Goodhue Company

TWIN CITY OFFICE
2490 University Ave.
ST. PAUL

Home Office
300 W. Austin Ave.
CHICAGO

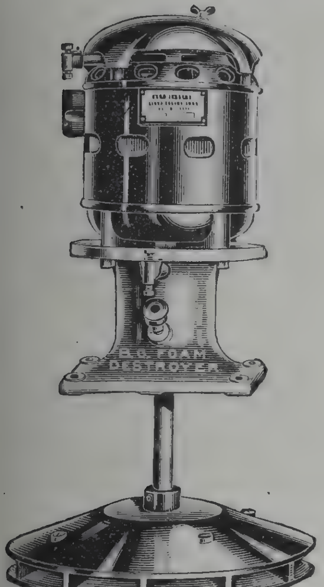
216 South
Pennsylvania St.
INDIANAPOLIS

When writing to A. H. BARBER-GOODHUE COMPANY *please mention The Milk Dealer.*

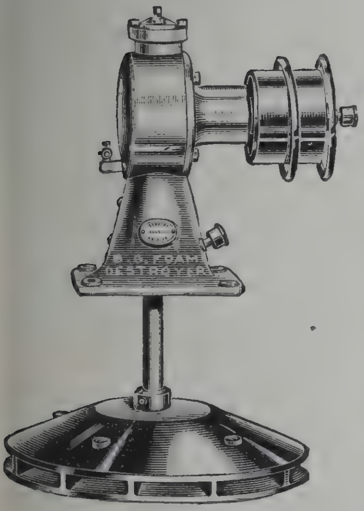
arber Goodhue

verything for the Dairy Industry

ON DAIRY PRODUCTS ALL THRIVE



Motor Drive
B-G Foam Destroyer
One size only 3 Ph. 60 cycles 220 volt A. C. motor.



Belt Drive
B-G Foam Destroyer
Rapidly revolving 2 part metal fan sucks in foam at the center, separates liquid from the air thus completely destroying foam.

NOW—
Troublesome Foam on Skim Milk *Completely* Eliminated

THE new, B-G Foam Destroyer is a machine milk plants with reasonably large production have needed for a long time. It's a positive, thorough worker—so efficient, so speedy in action—*foam on the skim milk from three 10,000 pound separators has been successfully destroyed with it.*

Appreciable savings are effected with the B-G Foam Destroyer by eliminating waste of valuable skim milk solids through overflow. It will improve the quality of your product—do away with annoying foam troubles completely.

Furnished with or without tank—motor or belt drive. Absolutely dependable, sturdily built, perfected to a high point of efficiency. The B-G Foam Destroyer should prove an indispensable unit of equipment in many milk plants.

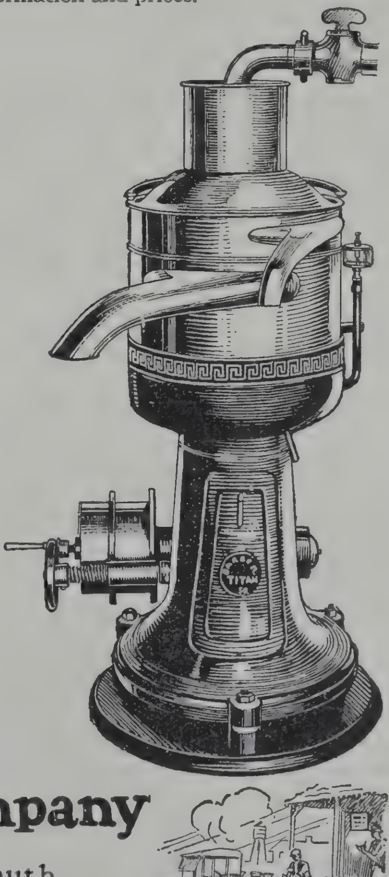
Learn all about this remarkable machine. A few lines addressed to us now will bring you full information and prices.

TITAN

Largest Capacity Separator

This giant capacity, finely built power milk and whey separator has been making good on the most exacting, big production, separating jobs everywhere — for years. Users seldom hesitate to praise the TITAN enthusiastically for its brilliant performance — its exceptionally close skimming qualities, its economy of operation, of time, of labor, upkeep, space. Easily handles 11,000 lbs. of milk per hour or 15,000 lbs. of whey.

We maintain complete stock of parts and a service department for the TITAN. Special catalog and prices yours for the asking.



A.H.Barber-Goodhue Company

TWIN CITY OFFICE
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ST. PAUL

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216 South
Pennsylvania St.
INDIANAPOLIS

When writing to A. H. BARBER-GOODHUE COMPANY *please mention The Milk Dealer.*

FRED WEHMILLER.

Fred Wehmiller was born in St. Louis on November 10, 1873.

The only son and youngest child of John Henry Wehmiller (engaged in the flour brokerage business) and his wife Henrietta (nee Jebker), was educated in the public schools and the Manual Training School of St. Louis.

In 1891 he became assistant surveyor for the Terminal R. R. Co. in connection with the construction of the Merchant's bridge, and remained with that company until 1894. He then secured a position as draftsman for Essmueller & Barry, and a change in the organization in 1897 led to the adoption of the firm style of the Barry-Wehmiller Machinery Co. Mr. Wehmiller became the secretary thereof and continued so until 1903 when he was elected president and treasurer.

FRED WEHMILLER.

Mr. Wehmiller was also vice-consul for Brazil in St. Louis.

In May, 1905, Mr. Wehmiller was married to Miss Lillie Widman, who was a daughter of the late Fred Widman, a prominent architect of St. Louis. Their children are Dorothy, Frederick W. and Paul K.

He was well known in Masonic circles, belonging to the Scottish Rite bodies and Moolah Temple of the Mystic Shrine, and was also a member of the Liederkranz Club and the Cedar Crest Country Club, as well as the National Playground Assn.

⁂

A COMPLIMENT TO THE BORDEN MILK COMPANY.

Geo. W. Marble, the editor of the Fort Scott (Kans.) Tribune-Monitor, in speaking of The Borden Milk Co., which recently established a branch in Lewisburg, Tenn., said in part as follows:

"Permit me to say that I could conceive of no greater good fortune to an agricultural community than to have the Borden Company become interested in it to the extent of establishing one of its manufacturing plants there. The Borden Company not only has the facilities and the markets for development of a big industry at Lewisburg, but you will find it to have a soul. It will take into account both sides of the milk production business and will have regard for all the obstacles and handicaps of the producer of raw materials and help to solve them. Milk is becoming one of the great industries of the country. Milk consumption is increasing at an enormous rate. There is no top to the market the Borden Company provides for a community in which it locates.

⁂

DRINK MILK AND MORE MILK FOR BEAUTY.

Dr. Henry J. Schireson, famous Chicago dermatologist and facial plastic surgeon, who has won fame by beautifying motion picture, musical comedy and vaudeville stars, has one infallible prescription for the at ment of beauty. It is: "One quart of milk a day hour of sunshine, and repeat adlibitum."

Dr. Schireson continues: "Beauty specialists cosmetic makers would be driven out of business few weeks if all the women of America would their quart of milk a day."

⁂

WHAT PERCENTAGE OF TOTAL CIRCULAT READ A GIVEN NEWSPAPER ADVERTISEME

By John T. Bartlett.

"No advertiser," says Rolland Hall, in his "Retail Advertising and Selling," "need deceive self into thinking that because he uses a newsp reaching from ten thousand to one hundred thou readers he has a good chance to interest all of readers, or even a large proportion of them. He most difficult undertaking to command and hold attention of even five or ten per cent, with an adve ment of ordinary size."

There is not enough visualization by retail a tisers of the problem of commanding and holding a tion of readers. This statement of Hall's—and ex enced advertising men will confirm it—clearly re that apart from the problem of persuasion, the adve has opportunity to increase wonderfully the effecti of his advertising.

Five and ten per cent of a two thousand circula such as dailies in small cities do not often exceed, i hundred or two hundred. Those percentages ap to five thousand give us two hundred and fifty and hundred. Even with a circulation of one hundred t and, the newspaper advertiser may not get his me read by more than eight hundred or one thousan best.

One of the soundest methods to increase percen of readers is building up a "following." The adve builds readers for his advertising in exactly the way that the newspaper builds readers and subsc for the entire publication—through giving the p that which causes it to "repeat."

Let a newspaper reader discover it is to his ad tage to read certain advertising regularly, and likely to do it. Every community has hundreds hundreds of housewives who will consistently follo vertising—and the advertising of any particular ness—if they believe it is to their interest to do so.

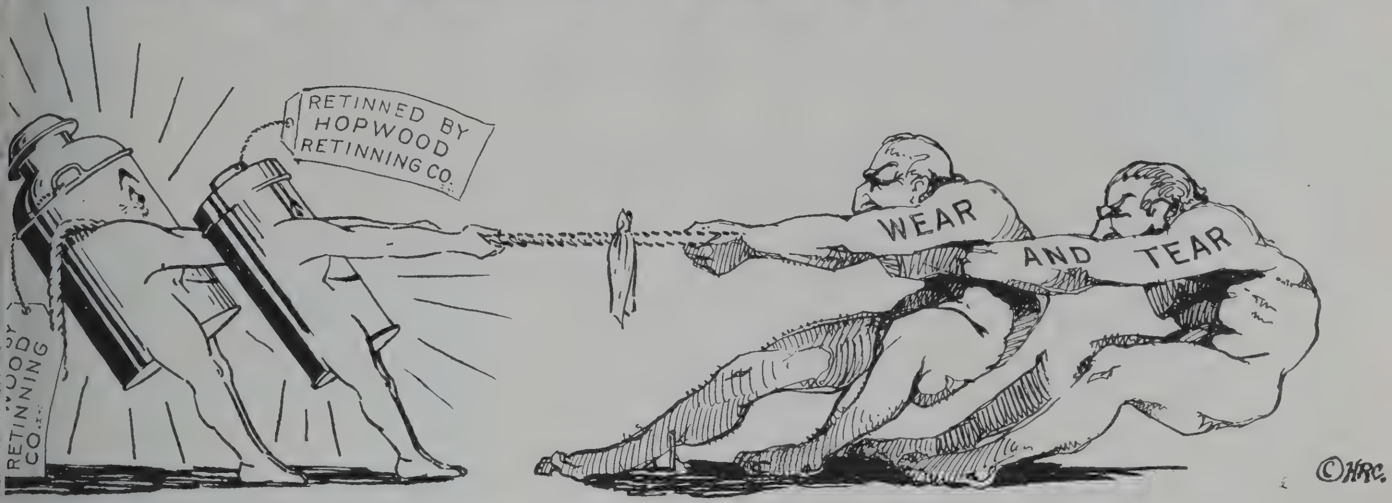
Well-written interesting copy, newsy copy, which arouse desire, build followings. It is when lar readers are added to chance readers of advert that the real results begin to stream in.

Special plans to draw attention are used. Big s naturally, is the simplest route to a righ percenta readers—but it is an expensive route.

Whether or not readers of a newspaper read it vertising, in an especially active manner, is highl portant. Advertisers in all fields continually con the experience of small circulation pulling far gr total results than large circulation. The explanati in "reader interest," as the publishers call it. A cation which is well-read with confidence by its rea pulls far greater results than the much larger circul of casual readers having no special attachment fo publication.

Always when an advertiser's insertions are not ducing results, one fact for him to ponder is the bility that very few are actually reading his copy. counts is not the total newspaper circulation, bu total number reading the advertising. Concent effort should be expended to increase this percenta

OLDING THEIR OWN


RETINNED BY HOPWOOD RETINNING CO.
RETINNING CO.
WEAR
AND
TEAR
©HRC.

Ship your rusty or leaky cans to us for re-tinning. We are a Reliable, Experienced Concern.

High Quality, Quick Service at Right Prices.

We have been connected with the manufacture and re-manufacture of Milk Cans and Ice Cream Cans since **1898**

HOPWOOD RETINNING CO., Inc.

n Office **56 Commercial Street** **Brooklyn, N. Y.**

E 64

CONFIDENCE

Confidence in their own ability and the courage to try new methods has built many business successes.

So, likewise, with the "Wyandotte" method of dairy sanitation where once it was tried by the courageous few, it is now the method depended upon in thousands of dairies, creameries, and cheese factories.

They are finding the use of

Wyandotte
Dairyman's
Cleaner and Cleanser

not only productive of that sweet, wholesome, sanitary cleanliness which means quality insurance to valuable milk products, but which also is proving the most efficient and economical sanitation obtainable.

Indian in Circle

In Every Package

Ask your supply man for "WYANDOTTE"

Are you using Wyandotte C. A. S. [cream acidity standardizer] for standardizing the acidity of your cream?

The J. B. Ford Company *Sole Manufacturers* Wyandotte, Mich.

What Is Good Milk?

The Grading of Milk and the Control of City Milk Supplies. A Subject of Vital Interest to Milk Dealers Discussed by a Missouri Educator.

By PROF. WM. H. E. REID.*

THE regulation of public milk supplies was attempted long before sanitary science became established. The Senate of Vienna in the latter part of the 15th century forbade the sale of milk, butter, and cheese for a time on account of an epidemic which was believed to originate from dairy products. The city of Paris, in 1743, passed a milk ordinance which regulated the feeding of cows, goats, and asses. An attempt at hygienic milk production was made by John Peter Frank in the latter part of the 18th century, as is indicated by the following extract: ''Milk should not be handled in vessels of zinc, lead, copper, or brass. In Paris, where milk is handled in copper vessels, whole families have perished from poisoning with vertigris.'' The same author calls attention to the sanitary conditions in the cow stables, and quotes a case where a cow was bitten by a mad dog and as a result the farmer and his family contracted rabies. Another sign of progress came in the passing of a milk ordinance in Hamburg in 1818. Recently a great impetus was given dairy development in this country by Dr. Coit's plan for certified milk.

Milk control involves unique difficulties, as milk is usually consumed twenty-four to forty-eight hours after production, while meat and other foods are held for considerable periods. Therefore milk control must cover a large field of inquiry, and can be effective only in reference to general supplies, and not to individual cases. Inspection of milk supplies assumes special importance when it is considered that the bulk of the population cannot afford to purchase certified milk. Babies of the poorer classes of people must be fed on a milk costing a lesser price and there should be available another milk of a reliable quality.

To give consumers a choice of different grades of milk is a policy which shows the public that milk may differ in quality. This has been amply demonstrated in New York, where the different grades of milk have been sharply defined by the board of health. The regulations in force in New York City are concise and in many respects worthy of imitation.

The following extracts are taken from a paper on this subject, read at the forty-sixth annual congress of the Incorporated Sanitary Association of Scotland by Arthur Grofton, F. R. C. V. S., chief veterinary inspector of the city of Edinburgh. This paper, in part, lends principles and practices which are applicable to many communities in this country. Mr. Grofton saw various indications that the early introduction of the official system of grading of milk was seriously contemplated by the central health authorities and make the following observations on the subject:

''It would appear reasonable to suppose that the official grading of milk, if definitely decided upon, would be a matter of growth and development than of immediate general application. The official certification of the higher and better qualities, which are likely always to constitute a relatively small proportion of the total supplies, would be undertaken in the first instance, and w sufficient experience had accumulated the princ would be extended gradually to the other classes, p vided the value of the results achieved justified the c of securing them. Under any circumstances, it wo not be possible to make any system of grading wh might be devised generally operative immediately a its introduction. A lapse of time would be essential d ing which the information necessary to permit the gro ing of milk into the different categories would be ac mulated. A single test would not be a fair criterion the average qualities of milk derived from any sou and would neither justify inclusion in a particular ca gory nor exclusion from it. A fair and just estim could only be formed by a series of tests spread ove period of time. Nor could any system of grading gu antee that a particular milk would conform at all tin to a definitely specified standard. Only by check te repeated at relatively short intervals would it be po ble to obtain a degree of assurance that the requi standard was being maintained.''

''Milk may be graded on the basis of chemi composition, hygienic qualities or a combination each. A combination of the chemical and hygienic qu ities would constitute the only sound procedure. T official grading of milk could only justify itself p vided it proceeded along lines calculated to gain the c fidence of the consumer by conveying an assurance t the milk purchased was in a sound, wholesome conditi and possessed not less than a minimum nutrient value measured by a fixed chemical standard. It would a serve as a constant stimulus to the producer to aim maintaining and improving the quality of his prod by excluding from classification milk which did not c form to the minimum standards both nutrient a hygienic, and by conferring the right to demand a hig price which bore a distinct relationship to the standa of quality which he had succeeded in attaining.

''If the official grading of milk is to be undertaken is essential to realize the importance of grading on t double basis, no matter whether the principle is to applied generally or only to a limited extent. The ne for improvement in the hygienic quality of milk is mitted, and it is being strongly impressed on the pub but too little attention is being directed to food valu There is thus more than a possibility that the importa of the latter may be obscured by the prominence giv to the former. Efforts to improve the hygienic a nutrient qualities of milk ought to go hand in hand. grading is to serve a really useful function, and is justify the cost of its application, the scheme must well balanced and have for its object an all-around a not a one-sided development.

''The fat content of milk provides the simplest mea of arriving at a measure of the nutrient properties milk and in grading on a basis of chemical composit the butterfat percentage must constitute the standa It is eminently desirable that a minimum legal standa of milk should be set up which should be the pres

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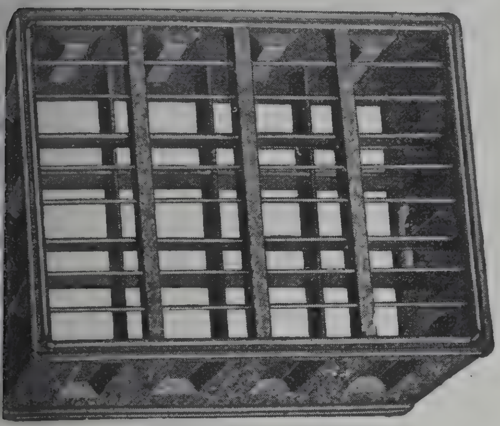
* Associate Professor Dairy Manufactures, University of Missouri, Columbia, Mo.

Don't Wait 'til the "Flush" is on and Then Buy New Cans

Let us recondition your old cans NOW



CLIPPER ALL STEEL

Bottle Cases will do away with repairs and broken cases. Try them.

Made by DEFIANCE PRESSED STEEL CO.

Prompt service will bring them back quickly and they will be good as new. Besides you will have saved many dollars and you will have plenty of good cans for handling the larger volumes of milk to come.

Line up a shipment of cans today.

Thompson-Bremer & Co.

We do Retinning and Rebuilding of All Kinds

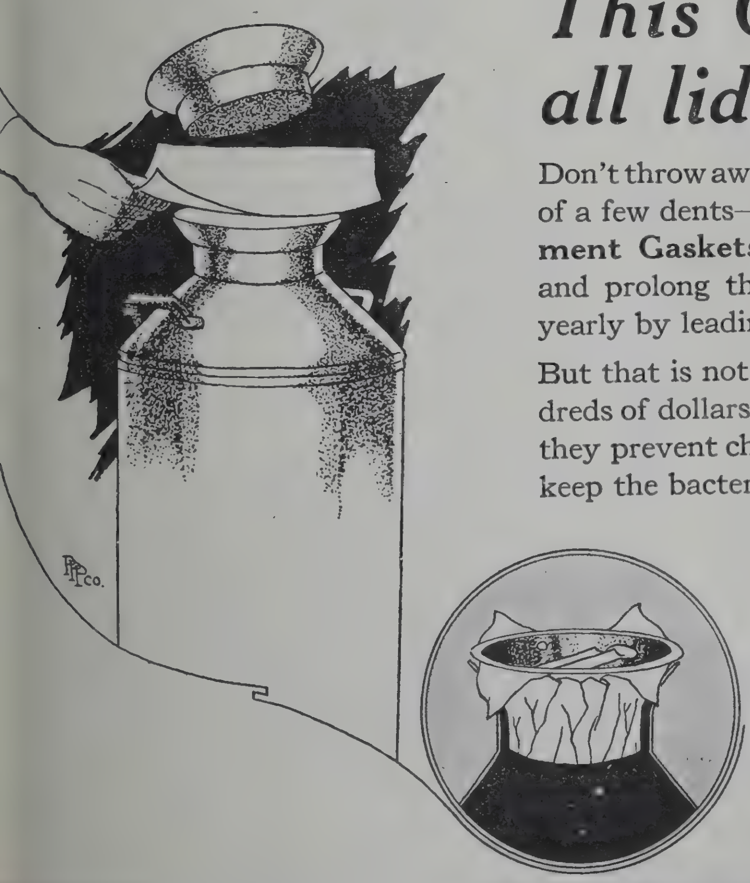
We Can Quote You on Good Quality New Cans.

1750 Carroll Avenue :: CHICAGO, ILL.

This Gasket makes all lids fit like new!

Don't throw away perfectly good cans or lids because of a few dents—use **Paterson Vegetable Parchment Gaskets.** They make all lids fit like new and prolong the life of every can. Millions used yearly by leading milk shippers.

But that is not all! Parchment Gaskets save hundreds of dollars worth of "spilled milk and cream"; they prevent churning of cream in the lid and help keep the bacterial count where it belongs.



Parchment Gaskets are easy to use. They come cut to size in packages of 1000. **Soak them thoroughly in clean water,** place over neck of the can and jam down the metal cover.

Samples and prices from your Dairy Supply House or write direct

The Paterson Parchment Paper Co.
Passaic, New Jersey

PARKER
STANDARD
MILK BOX
REG. U.S. PAT. OFF.
Applied for

Steady House-to-House Trade the Year 'Round with a—

PARKER
STANDARD
MILK BOX
at every door!

THIS solid, well-built Parker Milk Box will help your driver to enlarge his route and build up sales. It guards your milk against theft, neighborhood animals, and the extremes of heat or cold.

Housewives appreciate the Parker Box because it is the most convenient and sanitary way of delivering milk. Losses through broken bottles are decreased, and the Parker Box beside the door is a constant reminder to your customer to return the empties.

IMMEDIATE SHIPMENTS
---WRITE FOR PRICES!

Parker Standard Milk Box Co.
228 WARREN AVE. :: SAGINAW, MICH.

presumptive standard of three per cent fat, and
cent of solids not fat."

The fundamental weaknesses of a bacteri
standard lies on the necessity of basing it almost
on members of bacteria irrespective of kinds, bu
used in conjunction with supervision by inspecto
teriological standards are of material value in pr
a test of the efficiency and adequacy of inspecti
the application of bacterial standards to the gra
milk the choice lies between the numbers and th
of bacteria present.

It is not contended that numbers do not posses
nificance from the public health and from an ec
point of view. Heavy bacterial contamination in
a carelessness in product and subsequent handli
indifference to the fact that contamination can
differentiated from the indifference to the nature
tamination. Dirty milk containing large numbers
teria is more likely to contain pathogenic organism
the milk over which careful supervision has bee
cised. Large numbers of bacteria also indicate t
terioration and souring have already commenced,
take place rapidly; they are evidence that the qua
soundness and freshness have been impaired.

Assuming numerical bacterial standards wer
used for the purpose of grading milk, it would be
sary as a preliminary procedure to standardize th
ods of examination in every detail. Bacterial co
not claim to be more than estimates of the nu
bacteria in milk and without standardization
methods it would be impossible to obtain results
would be even approximately comparable. The
applying numerical bacterial standards in any sy
grading milk would be heavy and would const
serious objection to their use. The force of this
tion would be strengthened by the fact that the i
tion gained would not be proportionate to the
securing it. Numerical standards are fundament
fective, inasmuch as they consider numbers on
take no account of this kind. In this respect th
stitute an unsound guide to the quality of milk
pathogenic bacteria being infinitely more cap
harm than millions of the saprophytic organisms
always constitute the majority of the bacteria fo
milk. Numerical bacterial standards have a most
place in administrative work, but it would be diff
justify their inclusion as a fundamental part of
eral system of grading milk.

If it were possible to determine the different k
bacteria present in milk by a simple and rapid pro
valuable information for the purpose of classifyi
would be available, but, unfortunately, the me
rapid and accurate differentiation do not exist.

The bacillus tuberculosis is an exception to th
eral rule and it is by far the most common of the
genic bacteria found in milk. The tuberculin te
vides the means whereby an assurance can be ob
that this dangerous organism will not be present i
from a particular source. It also provides a v
means whereby milk may be graded definitely an
ply into two main classes — milk from tubercu
herds and milk from non-tested herds.

Beginning about 1893 the use of the tuberculi
vealed a large amount of tuberculosis in dairy
and the public was impressed with the danger of s
ing tuberculosis through milk. Later investigatio
ticularly those made during the last fifteen year
fully demonstrated the danger of tuberculosis
transmitted to children from the cows by way
milk. Occasional epidemics of septic sore thro

Effective Pasteurization

There is 100% Assurance

The Faultless Way

Ineffective pasteurization is just a waste of time and money. Unless the milk is heated to proper temperature and held there the proper length of time—not just some of it but all of it—then your pasteurization is ineffective.

There is no question about the effectiveness of the Faultless Way of Pasteurization. Each self-contained unit of the Faultless Positive Holder is automatically filled, held and discharged by compressed air. There are no valves to get out of order, no complicated mechanism to adjust. Just a simple, fool proof, common sense equipment that pasteurizes milk scientifically correct.

Positive
Automatic
Valveless
HOLDER

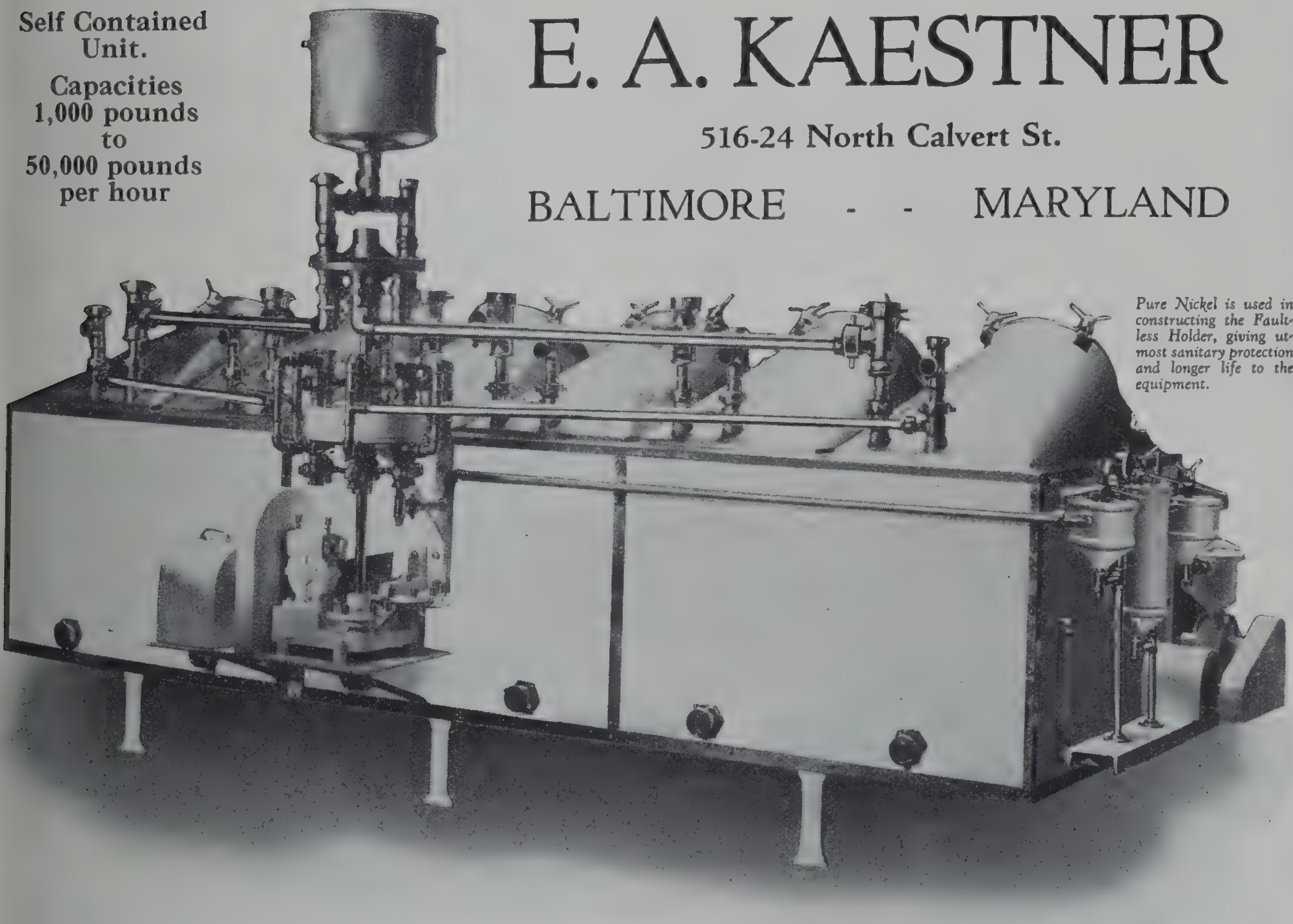
The Faultless system of Positive Automatic Pasteurization is easily and economically adapted to rapidly expanding milk plants.

SEND FOR THE FULL DETAILS

Self Contained Unit.
Capacities 1,000 pounds to 50,000 pounds per hour

E. A. KAESTNER

516-24 North Calvert St.
BALTIMORE - - MARYLAND



Pure Nickel is used in constructing the Faultless Holder, giving utmost sanitary protection and longer life to the equipment.

typhoid fever and the less frequent epidemics of scarlet fever and diphtheria transmitted in the same way have given good grounds for the suspicion regarding the healthfulness of ordinary milk. The amount of danger from this source is commonly overestimated, but its existence, particularly in the case of children, is beyond question and should not be overlooked.

It has also been recognized that tuberculosis is only one of a series of diseases that may be distributed through the milk supply. Any plan which is to make milk a safe article of food must take into account, not only the disease that may be transmitted from the cow but also the more formidable list of diseases that may be transmitted from the people who handle it to the people who consume it. The history of certified milk has made it evident that a careful medical supervision of both animals and men will reasonably protect the milk from danger of transmitting human diseases, but the expense of such supervision is large.

It is not enough that a bottle of milk shall have abundance of cream in order to be accurately characterized as good milk. If such milk should contain even a limited number of virulent typhoid fever organisms, it would be rejected by anyone who was acquainted with the fact. While the milk business is conducted primarily because milk is a valuable food, the occasional appearance of an epidemic spread by the use of milk has made the public suspicious of the healthfulness of the milk. This public suspicion is a severe handicap to the milk business and any procedure that will remove this suspicion and stimulate the increased consumption of milk will be of great economic benefit to the dairy industry as well as to the consumer.

In order to conform to the general opinion of a good milk, it is not sufficient that a milk have a good food value and be free from disease. If at the bottom of the bottle of milk there is a distinct sediment, the purchasing public will uniformly reject the milk as being of poor quality. The public is justly desirous of having a clean food supply, and there is probably no food supply regarding which it is more particular than milk. The extreme sensitiveness of the public in this regard is due to the fact that milk more readily lends itself to inspection. The white milk forms a natural background against which any foreign matter stands out with startling distinctness. As a result of these physical conditions the unaided eye is able to detect the presence of foreign matter in milk when it is present in such minute quantities as to defy detection by analytical methods. The sensitiveness of this inspection is shown by the fact that it is possible to find traces of dirt in a quart of milk
which is critically examined, regardless of the care
cised in its production.

Pasteurization of milk was early advocated as a m
of safe-guarding the consumer from dangers, not on
tuberculosis but of other communicable diseases. As
the tuberculin test, so with pasteurization, many p
cal difficulties are encountered in allying the proce
the milk supply.

The studies of Theobald Smith and of Russel an
Hastings, which pointed out the practicability of
teurizing milk at 140 degrees Fahrenheit for 30 mi
mark the real beginning of successful milk pasteuriza

The pasteurization of milk should be between
limits of 140 and 150 degrees Fahrenheit. At 14
grees Fahrenheit the minimum exposure should b
minutes. In order to allow a margin of safety u
commercial conditions, the temperature during
period of holding should be made a minimum of 1
145 degrees Fahrenheit and the holding time 30 min

The process of pasteurization must be under ca
supervision, and the supervision should be under
personal inspection of the milk commissioner. Th
tervals between inspection should not be more th
month. Each pasteurizing plant should be score
means of the score card. Specimens of milk for
terial analysis should be taken at the different stag
pasteurization and subsequent handling.

All modern plants handling 800 to 1,000 quarts of
or more a day are now equipped with automatic te
ature regulators, flow regulators and recording therm
eters. The records of these should be examined b
department of health not less often than once a m

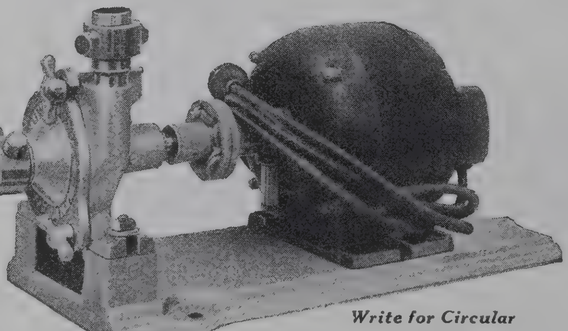
The fundamental objects in grading milk are:

1. To aid in a constructive way in making saf
drinking purposes all milk which can legally be sol
drinking purposes.

2. As a means of distinguishing between class
milk, which, while they may be safe, are of differen
grees of excellence in respect to handling and cle
ness. Each community should make an effort to g
its milk supply so as to best attain these objects wit
departure from the broad general principles set f

Considerable progress has been attained in a na
wide way toward separating market milk and cream
grades on a definite basis of sanitary or market
and many cities and some states have established de
grades chiefly on the basis of sanitary quality as a m
of safe-guarding the consuming public. Such a m
ment is in just keeping with business practice in
lines of endeavor. A workable or practical syste
grading will do much to insure the milk producer b

SPECIAL—NEW SIZE—CENTRIFUGAL
Milk Pump



Write for Circular

Capacity — 1000 to 2500 lbs. per hour.
Complete with ¼ H. P. Motor, 1 phase, 60 cycle, 110 volts.

Model "O" $65.00

Mfd. by

R. G. WRIGHT & COMPANY
BUFFALO, N. Y.

Old Way—*Dragging*

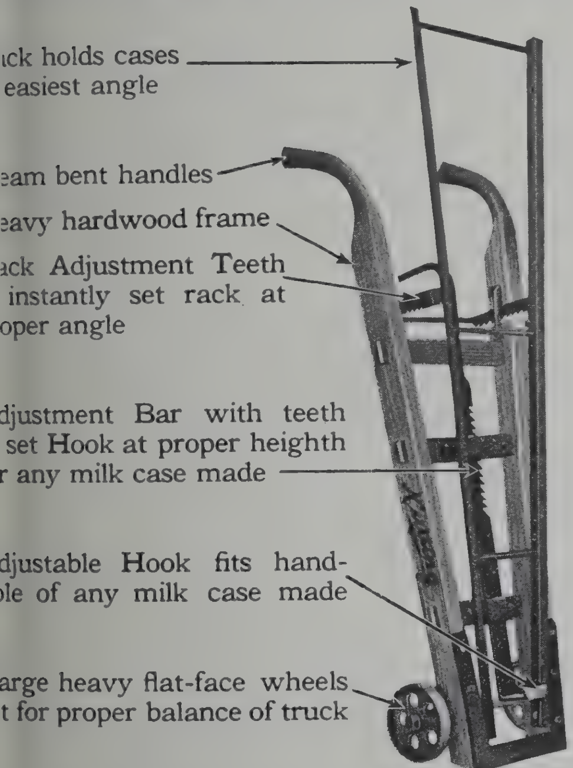
The *Nutting* Way—*Rolling*

rab and Go!

Stack at a Time!

lays, "traffic jams," wear on case bottoms
ll are ended by this speedy, sturdy truck
handling cases of bottles—the

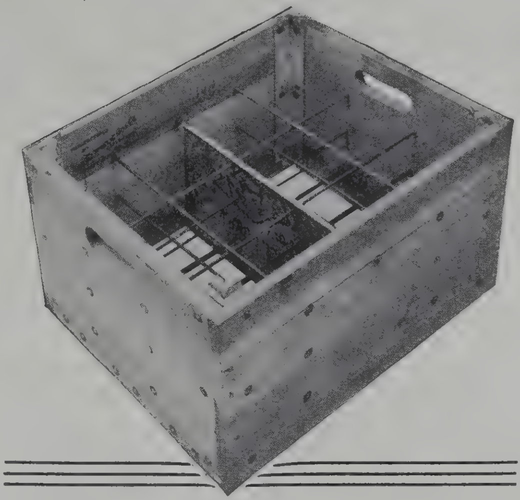
utting Milk Case Truck


ck holds cases
easiest angle
eam bent handles
eavy hardwood frame
ack Adjustment Teeth
instantly set rack at
oper angle
djustment Bar with teeth
set Hook at proper heighth
r any milk case made
djustable Hook fits hand-
le of any milk case made
arge heavy flat-face wheels
t for proper balance of truck

ves time and work in both large and small plants.
der from your jobber. Write us for catalog on floor
cks for the dairy industry.

NUTTING TRUCK CO.
DIVISION STREET FARIBAULT, MINN.

Nutting Floor Truck Specialists Since 1891



You Get Extra Strength in

REPUBLIC Bottle Crates

"As Strong as the Republic"

LIKE the spokes in a wire automobile wheel, the strong, galvanized stacking irons in Republic Bottle Crates are riveted solidly through the sides and ends. This gives them an extra margin of strength to withstand sudden shocks and the wear of constant handling.

Besides this, "Toncan," the highest grade of galvanized metal obtainable, gives Republic Bottle Crates longer life and greater resistance to rust.

Before you buy, get complete information and prices. You will save money on Republics.

◆

THE REPUBLIC BOX CO.
1693-1711 Merwin Street
CLEVELAND - - OHIO

paid on the basis of the quality of his product. It will also make it possible for the consumer to purchase the grade desired. Kansas City has made a detailed organized study of its own conditions and the procedure followed by this city will serve to show how milk may be properly graded to the mutual gain of all concerned. These grades of milk are set forth in the ordinance as passed by the common council of Kansas City and enforced by the food and dairy division of the health department.

Requirements for All Grades of Milk.—(a) Veterinary Examinations.—Each and every grade of milk as defined in this ordinance shall be obtained only from cows free from disease as determined by tuberculin tests and physical examinations made by a qualified veterinarian authorized by the state in which such tests and examinations are to be made or by the United States Department of Agriculture, and, having a certificate issued by the board of hospital and health of Kansas City, Mo. (b) Medical Examinations.—Examinations to determine the physical conditions of persons required to be examined by the provisions of this ordinance shall be made by a qualified physician. Wherever any evidence suggests that any person producing or handling milk is a carrier of any infectious disease the board of hospital and health may require that such person be given, by a qualified physician, the special examination necessary to determine the presence of such infection. (c) Procedure and Frequency of Bacterial Testing.—Bacterial tests of milk and milk products shall be made in conformity with the standard methods recommended by the American Public Health Association. The bacterial count of milk, skimmed milk and cream, of any grade, shall be determined from samples of the raw material and finished product taken at following points. (d) Cooling.—All milk, cream, skimmed milk and buttermilk shall be cooled to a temperature of not more than fifty (50) degrees Fahrenheit before being placed in the final container and maintained at such temperature until delivered to the final consumer.

Provided that milk is bottled and pasteurized within one hour after the completion of milking such milk need not be cooled until immediately following the completion of pasteurization. (e) Only One Grade of Milk to Be Produced, Bottled or Canned at One Plant.—No grade of milk, skimmed milk or cream shall be produced, bottled, canned or placed in any final container in the same dairy farm or milk plant where any other grade of milk, skimmed milk or cream is produced, bottled, canned or placed in other final container.

Standards and Requirements of "Grade A Raw" Milk, Skimmed Milk and Cream.—"Grade A Raw" milk, in addition to other requirements of this ordinance, shall be obtained from cows free from disease, tuberculin tested semi-annually and examined physically each month in the manner provided for in this ordinance; and shall be produced and handled by persons free from disease as determined by a monthly medical inspection made by a qualified physician and under such sanitary conditions that the bacterial count shall not exceed thirty thousand (30,000) colonies per cubic centimeter at the time of delivery to the consumer.

Milk in this grade shall, immediately upon being drawn from the cow, be cooled to a temperature not higher than fifty (50) degrees Fahrenheit, and shall within one hour after the completion of milking, be put and kept in the closed final container.

"Grade A Raw" milk, skimmed milk and cream shall be sold in bottles only and be delivered to the consumer within twenty-four (24) hours after production.

Producers of "Grade A Raw" milk shall be pr
with a steam boiler or independent supply of
water adjacent to the milk house.

Caps of all bottles containing "Grade A Raw"
skimmed milk or cream shall be white with black
ing with the grade and designation "Grade A
milk, skimmed milk or cream as the case may
name and address of the dealer, the place of produ
the day of bottling and the word "Certified"
authorized by a medical milk commission in acco
with the state law, clearly, legibly and conspicu
displayed on the outer side thereof.

Certified milk produced under the supervision
medical milk commission shall conform to "Gr
Raw" milk as required in this ordinance. Certifie
shall be subject to the same supervision and cont
ercised by the board of hospital and health as said
exercises over all other "Grade A Raw" milk.

Standards and Requirements of "Grade A P
ized" Milk, Skimmed Milk and Cream for Infant
Children.—"Grade A Pasteurized" milk, skimme
and cream, in addition to other requirements of thi
nance, shall be obtained from cows free from disea
tuberculin tested annually and examined phy
every six months in the manner prescribed in this
nance and shall be produced and handled under
sanitary conditions that the bacterial count shall
time exceed one hundred thousand (100,000) coloni
cubic centimeter when delivered to a pasteurizing s
in the country and shall not exceed two hundred
sand (200,000) colonies per cubic centimeter whe
livered to a pasteurizing and bottling station in th

All such milk and skimmed milk shall be paste
and the bacterial count of the finished product as
ered to the consumer shall not exceed thirty tho
(30,000) colonies per cubic centimeter.

Milk, skimmed milk and cream of this desig
shall be delivered to the consumer within thirty-six
hours after pasteurization.

Milk, skimmed milk and cream of this grad
designation shall be delivered to the consumer in b
unless otherwise ordered and permitted by the bo
hospital and health.

The caps of all bottles containing "Grade A Pa
ized" milk, skimmed milk, or cream shall be white
black lettering with the grade and designation "Gr
Pasteurized" milk, skimmed milk or cream, as th
may be, the name of the dealer, the day and hou
tween which pasteurization was completed, and the
where pasteurization was performed, clearly, legibl
conspicuously displayed on the outer side thereo

Standards and Requirements of "Grade B Pa
ized" Milk, Skimmed Milk and Cream for Adu
"Grade B Pasteurized" milk, skimmed milk or crea
addition to other requirements of this ordinance, sh
obtained from cows free from disease, tuberculin
annually and examined physically each year in the
ner prescribed in this ordinance; and shall be pro
and handled under such sanitary conditions that th
terial count shall at no time exceed three hundred
sand (300,000) colonies per cubic centimeter whe
livered to a pasteurizing station in the country, and
not exceed one million (1,000,000) colonies per
centimeter when delivered to a pasteurizing and bo
station in the city.

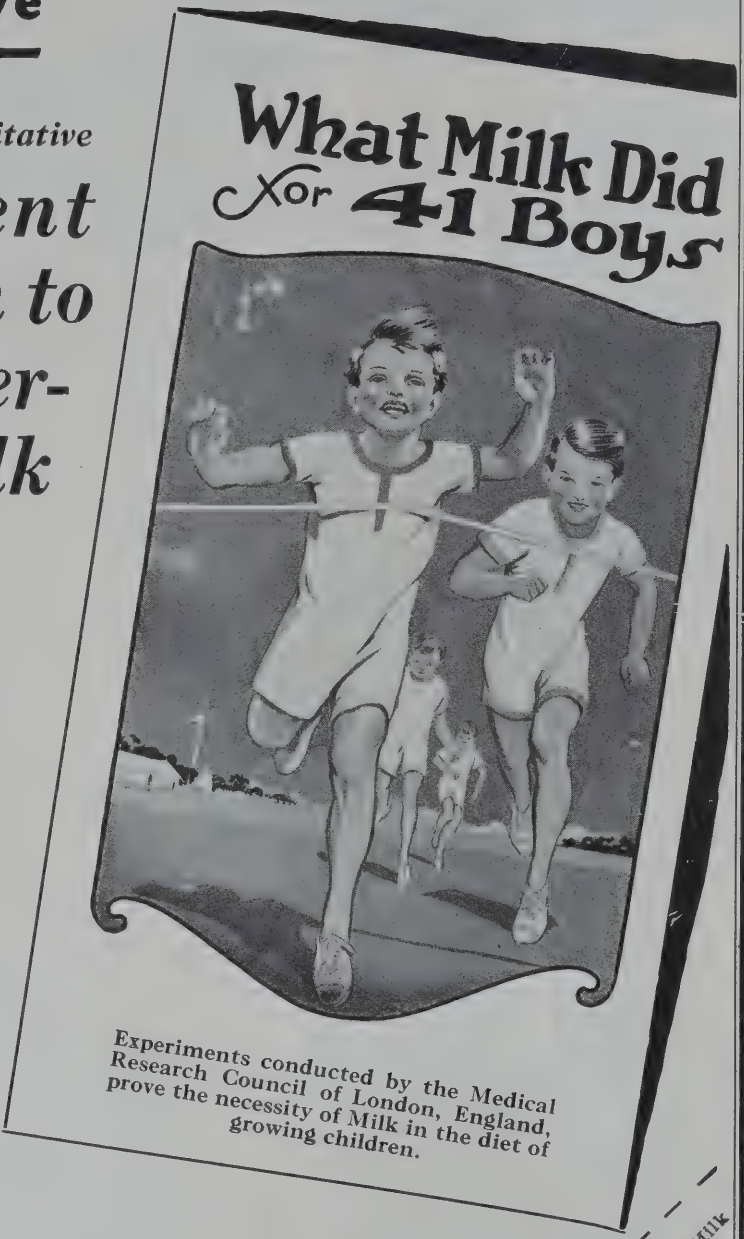
All such milk and skimmed milk shall be pasteu
and the bacterial count of the finished product as
ered to the consumer shall not exceed fifty thou
(50,000) colonies per cubic centimeter.

Milk, skimmed milk and cream of this design

HERE IT IS--*At Last*

Just What You Have Been Waiting For—

AN Extensive and Authoritative Experiment with Children to Prove the Wonder-ful Value of Milk



What Milk Did For 41 Boys

Experiments conducted by the Medical Research Council of London, England, prove the necessity of Milk in the diet of growing children.

Up to the present time, practically all ex-
riments to prove the value of milk have been
nducted on animals, and it has been necessary
try to persuade the housewife that if milk
ade animals grow then it would make children
row. Now, however, information is available
owing what milk actually does for **children**.

The Medical Research Council of London,
nducted an experiment on 220 boys. Their
dings are given in a popular way in this little
x page folder—actual size shown here.

You can now secure these folders for your
vn use in any quantities desired. Your name
n be imprinted on the back page if you wish
a slight additional cost ($1.50 per M; 10,000
more $1.25 per M).

These valuable circulars suitable for enclos-
g with your monthly statements, for distribu-
on through your driver-salesmen, and of great
orth in many other ways, will cost only—

$5.00 per M for 1,000 to 10,000
4.50 per M for 10,000 or more

Your order will be filled promptly.

Don't overlook this opportunity. Every customer and prospective customer should know of this wonderful experiment on children.

National Dairy Council

10 So. Michigan Ave. Chicago, Illinois

TEAR OFF HERE AND MAIL

Please send me..........copies of "What Milk Did for 41 Boys."

Imprint on the back..........

Signed..........

Address..........

When writing to NATIONAL DAIRY COUNCIL *please mention The Milk Dealer.*

"Talk quality
with clean cans"

SAYS the "Butter, Cheese & Egg Journal," in a recent article. As it further points out,

> "Every can—from the butter, cheese or milk factory carries a message. When the cover is removed from the container the reputation of the factory is revealed."

What message do your cans convey? Do they reflect the scrupulously clean conditions of your plant? Are they a credit to your company?

They are, if you clean with OAKITE. *Your cans will talk quality.* They will be absolutely clean, untainted, and sweet-smelling. OAKITE cleaned cans are sanitary containers for milk; ideal examples of your plant cleanliness; worthy guardians of your reputation!

Write us for complete information, or have one of our service men call. No obligation.

OAKITE IS MANUFACTURED ONLY BY
OAKITE PRODUCTS, INC., 18B Thames St., NEW YORK
(Formerly OAKLEY CHEMICAL CO.)

Oakite Service Men, cleaning specialists, are located at

Albany, Allentown, Pa., Altoona, Pa., *Atlanta, Ga., Baltimore, *Birmingham, Ala., *Boston, Bridgeport, *Brooklyn, Buffalo, Camden, Charlotte, N. C., *Chicago, *Cincinnati, *Cleveland, *Columbus, O., *Dallas, *Davenport, *Dayton, *Denver, *Des Moines, *Detroit, Erie, Pa., Flint, Mich., Fresno, Cal., *Grand Rapids, Harrisburg, Hartford, *Indianapolis, *Jacksonville, Fla., *Kansas City, Little Rock, Ark., *Los Angeles, Louisville, Ky., Memphis, Tenn., *Milwaukee, *Minneapolis, *Montreal, Newark, Newburgh, N. Y., New Haven, *New York, *Oakland, Cal., *Omaha, Neb., *Philadelphia, *Pittsburgh, Portland, Me., *Portland, Ore., Providence, Reading, *Rochester, Rockford, Rock Island, *San Francisco, *Seattle, *St. Louis, South Bend, Ind., Springfield, Ill., Syracuse, *Todelo, *Toronto, *Tulsa, Okla., Utica, *Vancouver, B. C., Williamsport, Pa., Worcester.

*Stocks of Oakite materials are carried in these cities.

OAKITE
TRADE MARK REG U S PAT OFF
Industrial Cleaning Materials and Methods

shall be delivered to the consumer within thirty-
hours after pasteurization.

The caps of all bottles containing "Grade B
ized" milk, and the caps and tags attached to
containing "Grade B Pasteurized" milk, skimm
or cream shall be white with green lettering,
grade and designation "Grade B Pasteurized
skimmed milk or cream as the case may be, t
and address of the dealer and the day, hours
which, and place where pasteurization was pe
clearly, legibly and conspicuously displayed on t
side thereof. The caps of all bottles containing
B. Pasteurized" cream or skimmed milk shall
with green letter with the grade and designation
B Pasteurized" cream or skimmed milk and t
and address of the dealer and the day and pla
bottled clearly, legibly, and conspicuously displ
the outer side thereof.

**Standards and Requirements of "Grade C
ized" Milk, Skimmed Milk and Cream for Cook
Manufacturing Purposes Only**—"Grade C Paste
milk, skimmed milk and cream, in addition to
quirements of this ordinance, shall be obtain
cows free from disease and tuberculin tested
and examined physically each year in the man
scribed in this ordinance; and shall include all m
ing a bacterial count which exceeds one million
000) colonies per cubic centimeter when delivere
pasteurizing station.

All such milk, and skimmed milk shall be pas
and the bacterial count on the finished product
exceed fifty thousand (50,000) colonies per cub
meter as delivered to the consumer.

Milk, skimmed milk, and cream of this gr
designation shall be delivered to the consumer
only, within forty-eight (48) hours after pasteu

The tags attached to all cans containing "
Pasteurized" milk, skimmed milk or cream (fo
facturing purposes) shall have the name and ad
the dealer and the day and place where pasteu
was performed, clearly, legibly and conspicuou
played thereon.

Cream—Cream shall be graded in the same
the milk from which it is derived and shall con
all of the requirements of this ordinance appli
the particular grade of said milk, except that
terial count, when delivered to the consumer,
for eighteen (18) per cent cream of a particula
shall in no case exceed five times the bacterial s
of milk of the same grade when delivered to
sumer. Cream containing other percentages of
be allowed a modification of this bacterial stan
proportion to the fat percentages.

Cream containing less than eighteen (18)
of milk fat shall be designated as "Under S
Cream." The cap, tag or label attached to a c
of such cream shall bear the words "Under S
Cream" and shall show the true percentage of
of such cream.

The grading of the city milk supply comma
thought and time of those persons who are desi
having at their disposal milk and cream of a
source and quality.

⁂

ANOTHER FORM OF ADVERTISING.

The Russell Creamery Company, Superior,
vited the Superior Boy Scouts to visit and inspe
plant on the last day of the annual Scout week
city. After the visit each scout was given a pin
of milk before leaving on a skiing party.

oney Spent for Bestov Equipment
a Sound and Profitable Investment

SOLD BY MOST DAIRY SUPPLY HOUSES. CATALOGS PROMPTLY FURNISHED.

CHERRY-BASSETT CO.

BALTIMORE - PITTSBURGH - PHILADELPHIA
SYRACUSE - NEW YORK CITY

BESTOV Filter For Milk, Cream and Ice Cream
BESTOV Fillers
BESTOV Can Sterilizer and Rinser
CHERRY-BASSETT COMPANY
TRADE MARK
BESTOV
MILK PRODUCTS EQUIPMENT
BESTOV Weigh Can
BESTOV Coolers for Farm and Dairy

When writing to CHERRY-BASSETT COMPANY *please mention The Milk Dealer.*

MILK MERCHANDISING.

(Continued from page 21)

Yes, we believe the good-will of the coming generation is worth the investment of a proportionate share of our annual advertising appropriation.

Along with this article we are showing an advertisement that is by no means average. It illustrates fully the point I have tried to make. It is an ad showing a young man standing near a rather elderly man, his hand clasped in the other's. A great, beautiful milk bottle is standing in the background, as a great white sentinel of security that emphasizes the importance of what the elderly gentleman is telling the other, which is in effect, this:

"Jim, old boy, you have done some good work for this outfit, and we appreciate it. So as reward for your industry, alertness, agility, wakefulness to your organization's interests, etc., we are going to make you head of the department of pig knuckles."

But now what the ad really meant, and the story that it carried was this: Jim lived a good, clean life. He chose his food well. He had sense enough to know milk would keep him fit, alert, alive, on the job, and it was because of this drinking of milk that Jim delivered the goods and got the plum when the old tree had a shakedown. Isn't that clear? It's just one of the finest, clearest, most life-like pictures any artist could draw!

Promotion! Let milk be associated with promotion, advancement, achievement — get these thoughts fully rooted into the minds of men—and you will have a sales appeal for milk that can never be shaken — never be shaken!

You don't create that clear, life-like, convincing picture with the old stereotyped ads that say, Milk makes you healthy, or the Blank Dairy sells the best milk in town, or the Whoosit Bros. Milk Company feeds milk to two-thirds of the infants in town.

But picture men and women doing the things that men and women like and love, and associate those scenes with milk, and you will identify milk with the lives of men and women so strongly that it never will be separated.

You will better realize how much the milk industry is overlooking its real avenues for life-like illustration of the milk story when you reflect upon how effectively manufacturers are advertising such products as prunes, dill pickles, sauerkraut, pickled pig's feet, animal
ers—any number of things that we seldom think
any but a humorous vein, as vehicles for our joke
sarcasm. Certainly nothing romantic and heroic
them!

Yet these people, with the true skill of the mer
dising artists that they are, are presenting their pro
to a credulous public in an appealing way—by sh
what they **do,** not merely what they **are!**

In your school days, no doubt, you often were
upon to draw pictures of horses and cows. And
less you once, or several times, did what this writer
did. After drawing a picture of a cow he wrote un
in big, scrawling letters, "A COW."

"Young man," said the school teacher in a wa
we never shall forget, "if you can't do a thing
enough for the achievement itself to show what has
done—then don't do it!"

That's our viewpoint on advertising milk; if we
make this picture so real and vivid that the publi
know what is behind milk, what it stands for in
and happiness, then let's don't bother with a silly,
teurish picture that doesn't tell anything except we
several bottles of milk to sell.

Milk's Competitors.

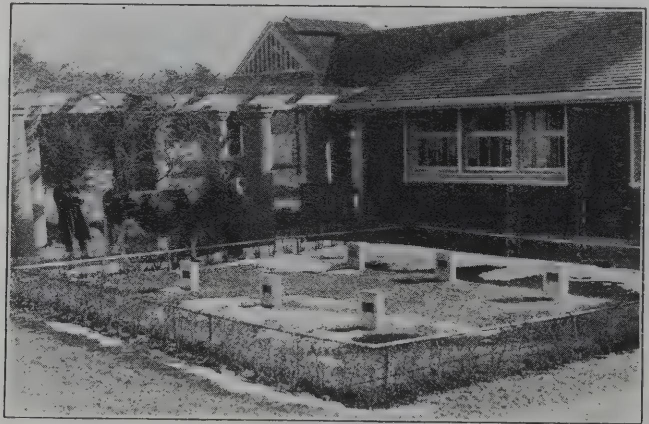
Competition in the milk industry has been disc
from many different angles, but here is one angle
strangely enough always to me, was overlooked: It
fact that the strongest competition we face today
competition of the advanced merchandisers in other
of industry, the competition of other men who have
thing to sell and want to get the attention of the p

If you don't believe this competition is real, vita
a factor in the progress of our industry, I ask you to
now through the popular mazazines and the newsp
and take note of just how many fine, splendidly cr
pieces of advertising that are fairly crying out, "
at me, don't turn further, my only purpose for
here is to let you see me, and I don't want you
anything else but me."

The reason for this is, the other industries have
much farther in studying their merchandising oppor
ties than we; they have better perfected their art
they are crying for the attention of the public i
merchandising appeals they have created — cryin
loud.

This merchandising competition is a thing
reckoned with sooner or later, but the sooner the b
Long ago the very best thought and genius known
printing art was devoted to the advertising colum
periodicals, with every energy bent to the sole ai
making sales appeals interesting, compelling, grip
holding the reader so he cannot let any other tho
enter his mind except the buying thought that th
seeks to create.

That, in short, is making the picture real — tr
life.



A CEMETERY FOR PRIZE CATTLE.

Nationally known prize-winning cattle are buried in this cemetery on the Langwater Farm at Easton, Mass. Each headstone is fitted with a bronze tablet bearing the name and record of the beast and the grounds are kept in perfect condition by the gardeners. One of the animals buried here is "Langwater Warrior," one of the most famous of blue-blooded cattle. His sons and daughters were sold for a total of $300,000, which is thought to be a world's record. This is probably the only cemetery of its kind in the country.

BOTTLE EXCHANGE OWNS THE BOTTLE

In Appleton, Wis., the milk dealers support a
exchange and the exchange owns all the bottles
by the members. Each bottle has blown in it the
lowing: "This bottle property of A. M. D. A.," th
ters being the abbreviation for the "Appleton
Dealers' Association." The cap carries the words "
bottle filled by ...... Dairy Company.

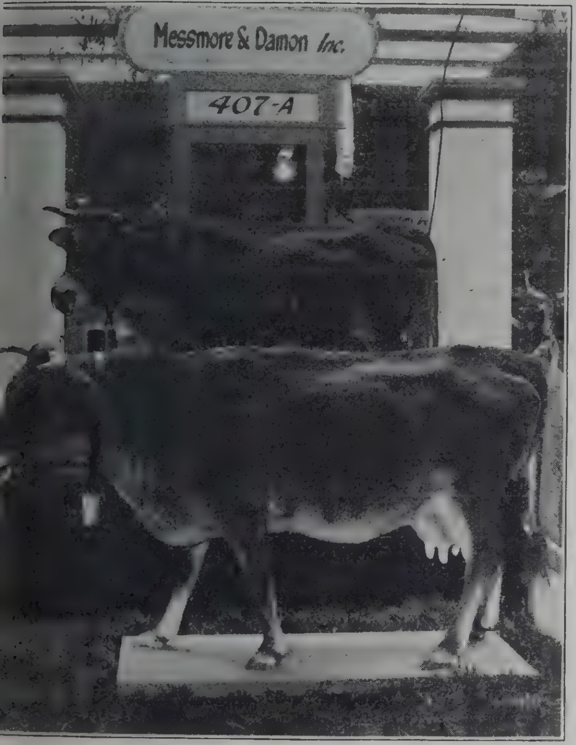
The state attorney general was asked whether
constituted misbranding and he replied that it did

The Sensation of he Exposition !

—In Detroit

ANIMATED Life-Like Cows

That Move Their Head, Eyes, Mouth and Tail



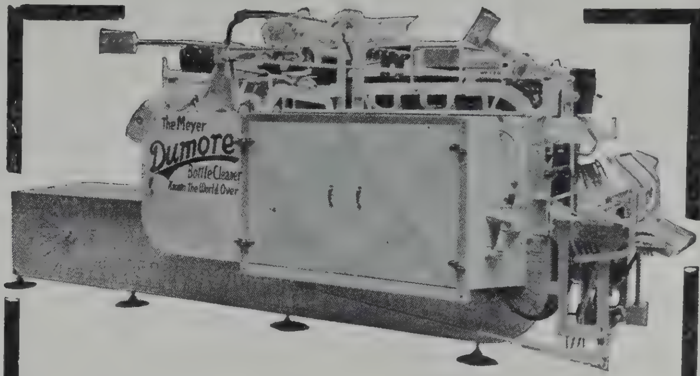
On display at J. L. Hudson's Department Store, Detroit, Mich. Between 6 and 7 P. M. ver 3,200 people stopped to view these nimals.

At the Exposition we have registered 500 repre- entatives from the largest dairies and ice cream lants in the United States, Canada and Europe, aking actual sales to these countries.

hese cows will secure good locations for your isplays. They will work for you night and day, ringing increased business and reputation.

If interested, write or wire for full particulars.

Messmore & Damon,
INC.
04 West 27th Street New York



Who Pays the Price of Dirty Bottles?

YOU DO, MR. DAIRYMAN!

Every dirty bottle that comes from inefficient bottle-cleaning machinery in your plant is an absolute profit-destroying liability!

Play safe. Use only *clean* bottles, assured by Meyer-built bottle-*cleaning* equipment. The vital problem of securing sterile bottles is being solved every day by Meyer installations in some of the largest and finest milk plants in the world. Meyer-Dumore and Dumore-Junior Bottle-*Cleaners* are being bought in greater numbers than any other similar type of equipment.

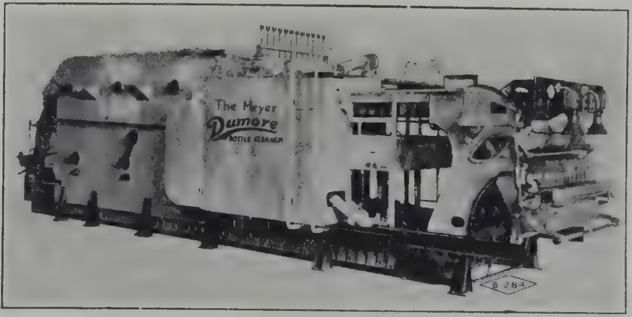
The Meyer method of sterilization is *recognized!* The process includes submerged soaking, outside brushing, inside brushing, rinsing, outside rebrushing, inside rebrushing, and rerinsing. Every operation is thorough, and you can be assured of getting *clean bottles with the lowest possible bacteria count!* No spoilage from dirty, unclean bottles—no decrease in profits from lowering of quality and consequent loss of customers' good will!

Get the complete Meyer story. You need this scientific bottle-*cleaning* system in your plant. Write for bulletins giving complete information.

Geo. J. Meyer Manufacturing Co.
Largest Builders of Bottle Cleaning Machinery in the World.
569 Barclay Street Milwaukee, Wis.
Offices: New York and Chicago

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION, INC.
ASSOCIATE MEMBER NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS

MEYER-DUMORE BOTTLE CLEANER	DUMORE-JUNIOR BOTTLE CLEANER
Capacity 60 to 200 bottles per minute Bulletin B3A	Capacity 24 to 60 bottles per minute Bulletin B6B



Fluid Milk Market Report for United States for Mar., 19

By Bureau of Agricultural Economics, Market News Service, United States Department of Agricultur

Table I—Producers' Prices for Standard Grade Milk Testing 3.5% Butterfat, Delivered F. O. B. Local Shi Point or Country Plant.

Prices which appear in this report are secured through the co-operation of milk distributors, producers' asso and municipal officers. Dealers' buying prices unless otherwise indicated, represent prices applying to all milk de by producers. For cities where a "surplus plan" is in effect, the prices reported in table III are for "basic" qua All per cwt. buying prices have been converted to a 3.5% butterfat basis for comparative purposes.

Sections	Range of March Prices		Prices Compared for Same Markets			
	Number Local Markets	Prices per Hundredweight	Number Local Markets	1927 Average for March	1926 Average for February	19 Ave for
New England	9	$2.76–$3.95	9	$3.33	$3.34	$3.
Middle Atlantic	14	2.35– 3.15	14	2.83	2.85	2.
E. North Central	24	1.75– 3.15	24	2.57	2.58	2.
W. North Central	20	1.66– 3.10	20	2.33	2.34	2.
South Atlantic	15	2.80– 5.35	14	3.60	3.68	3.
E. South Central	5	2.36– 3.39	4	2.68	2.64	2.
W. South Central	6	2.05– 2.80	6	2.38	2.44	2.
Mountain	7	1.87– 3.20	7	2.36	2.37	2.
Pacific	10	1.95– 3.16	10	2.55	2.58	2.
United States	110	1.66– 5.35	108	2.73	2.79	2.

Above prices include "basic" prices where a surplus plan or cooling plan is in effect. Cities where prices ar upon current butter quotations not included.

Table II—Prices for Special Grades of Milk and Certain Milk Products.

The following table shows the wholesale and retail prices reported for "special" and "certified" milk and certa products delivered at wholesale buyers' places of business and at the home of retail customers.

Cities	Special Milk	Certified Milk	Cultured Buttermilk		Cottage Cheese		Light Crea 18-25% B.	
	Retail Price per Quart	Retail Price per Quart	Wholesale Price per Gal.	Retail Price per Quart	Wholesale Price per Lb.	Retail Price per Lb.	Wholesale Price per Gal.	R Pri ½
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	
Akron	16–18	20	20	8	10	10–12	1.30–1.50	
Albany	18	..	..	10	..	..	1.60	1
Albuquerque	..	..	30	10	..	..	1.75	
Altoona	15	22	25	10	12	15	1.35–1.55	1
Asheville	19	25	..	..	15	15*	2.00	
Baltimore	..	30	44	14	10	15*	1.70	
Birmingham	..	25	25	10	..	25	1.50	
Boston	18½	26	..	10	..	..	1.17–1.79	
Buffalo	14	26	24	10	12	15	1.50–1.60	
Chicago	17	25	..	..	..	15*	..	
Cleveland	20	25	20	11–13	10–14	..	1.26–1.75	2
Colorado Springs	17	..	15	6	..	..	1.25	
Columbus	17	25	30–35	12	10	15	1.45	1
Dallas	24	..	20	9	..	..	1.50	1
Denver	14	..	..	8	..	..	..	
Des Moines	14–25	..	20	11	10	14	1.45	
Detroit	..	25	..	35	..	..	..	
Duluth	14	25	13	8	..	..	1.40	
El Paso	17	..	20–25	10	15	20	1.40–1.50	1
Evansville	15	..	25	9½	..	..	1.60	
Harrisburg	..	..	36	12	..	..	1.50	
Hartford	20–25	25–35	..	..	..	..	1.40	
Indianapolis	16	..	25–30	10	16	20	1.10–1.75	1
Jacksonville	25	..	30–35	10–12	20	30	1.60–2.25	2
Kansas City	15	25	25	10	14	10*–20*	1.60–1.90	1
Lincoln	14	..	20	10	12	15	1.15	
Long Beach	..	28	25	10	..	..	1.30	
Los Angeles	..	28	25	10	..	..	1.30	
Louisville	17	24	..	13	..	..	1.08–1.63	
Memphis	..	30	15–20	6–7	15	20	1.10–1.40	1
Miami	30–35	35	50–55	15–20	20–30	35	2.25	2
Milwaukee	14–18	25	16–18	6	7	9–10	1.30–1.60	
Minneapolis	..	22	..	13	10*	12*	1.32–1.40	1
New Orleans	18	31	40	14	..	..	1.30	
New York	30	28	28	11	..	..	..	
Omaha	15	20	20	10	12*	15*	1.30	
Philadelphia	15–16	30	..	9–13	..	..	1.56	
Pittburgh	..	25	20–30	10	10	..	1.20–1.60	
Portland	14	..	35	12	10	..	1.40–1.50	
Richmond	16–18	..	25	8	..	..	1.20–1.30	
Rockford	..	..	..	..	14	20	1.40	
Salt Lake City	..	..	..	..	..	..	1.30	
San Diego	16–20	28–32	20–25	9	10–15	20	1.80	1
San Francisco	..	25	..	14	..	20	1.70–2.50	
Scranton	..	25	..	8	7	10	1.40	
Seattle	15	20	..	7–20	..	20	1.50–1.80	1
Sioux City	..	25	15	6	10	10*	1.20	
Spokane	15	..	..	..	..	..	1.40	
St. Louis	18	25	..	10–18	13	15	1.26–2.00	
Trenton	17	30	36	13	..	..	1.76	1
Trinidad	20	25	..	10	..	..	..	1
Washington	18–23	30	..	15	15–20	15–20	2.00	
Wheeling	17–18	..	30	10	..	..	1.40	
Wilmington	20	..	..	10	..	12	..	

* 12 oz. package

Mundet Cork Insulation
and the
New SCHRAFFT Bldg. in N. Y.
(F. G. SHATTUCK & CO.)

MR. RUSSELL C. CORY, Architect and Engineer
TURNER CONSTRUCTION CO., Contractors

Schrafft Tea Rooms, Candies, Ice Cream and Pastries
e noted for their exceptional quality. As a result, F. G.
hattuck & Co., owners, have developed a tremendous
usiness. Members of this concern think,
lk, and produce in terms of highest
uality only.

was therefore no surprise that
ey specified the best cold in-
lation procurable—PURE
ORK. And they bought
from Mundet.

ll cold lines of
very kind in con-
ection with
he mechan-
cal refrigeration equipment of this modern building are covered with Jointite Pure Cork Covering. Also, approximately 250,000 ft. of Jointite Cork Board were furnished for this job.

Mundet Jointite Cork Board TRADE MARK
and
Mundet Jointite Cork Pipe Covering TRADE MARK

Whatever or wherever your cold insulation problem may be, Mundet has Practical Refrigerating Engineers over the entire United States. They will gladly help you. No obligation whatever.

We manufacture, sell, and install, complete.

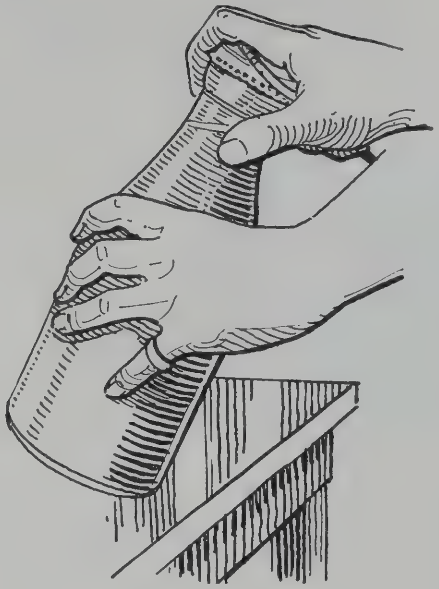
L. MUNDET & SON, Inc.

Hillside, - New Jersey
Established 1865
New York Office: 461 Eighth Ave.

Manufacturers of Jointite Pure Cork Products for all cold insulating purposes.

THE
DACRO
METAL CAP

Here at last is the perfect package of Milk or Cream, pure and sweet pasteurized IN the bottle! Made possible by a mechanically perfect closure.



Pure, sweet MILK—delivered under hermetic seal to the home. Handy openers supplied at small cost.

The Dacro Metal Crown—This remarkable cap is made on exactly the same principle as the famous Crown Cork which revolutionized the bottled beverage industry. The Dacro Crown is a hermetic seal. It automatically locks under the glass rim of the bottle. It is scientifically a perfect closure. Sealed with the Dacro Crown, Milk or Cream can be pasteurized in the bottle, an exclusive advantage of this seal. The Dacro Crown covers and protects the pouring lip. It KEEPS clean milk clean! No danger of contamination or tampering with pure contents. And the Dacro Crown can be replaced for temporary covering and seal after opening bottle.

PASTEURIZE YOUR MILK
IN - THE - BOTTLE

THE
Crown Cork & Seal Co.
BALTIMORE, U. S. A.

Inventors and originators of the famous "Crown Cork"

Table III—March Cost and Selling Prices

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5–20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	
ALABAMA—.							
Birmingham	3.42–3.90	Flat to4.2%	45	13	17	13–17	4
ARIZONA—							
Phoenix	....	..	30	8	10–12½	10–11	.
CALIFORNIA—							
Fresno	Butter Market Basis		35	11	13	12–13	3
Long Beach	3.15–3.33	9–9.5	43.33	13	15	12–13	3
Los Angeles	3.15–3.33	9–9.5	43.33	13	15	..	3.6-
Oakland	2.92	2.9+	35	9	13	11	.
San Diego	....	..	41.66	13	15	14–15	3.6-
San Francisco	3.11–3.21	2.9+	41.3–41.6	11.2–12	14	13–14	3.6-
COLORADO—							
Boulder	1.93	5.5	32	9	11	10	3
Colorado Springs	2.45*	6	30	9	11	10–11	3.4-
Denver	2.10	6	..	..	12	..	.
Pueblo	2.38	6.8	30	9	12	10–12	3
Trinidad	....	..	..	..	10–13	10–13	.
CONNECTICUT—							
Bridgeport	4.22*	4	48	14	16	..	3
Hartford	4.22*	4	46–48	14	16	14–16	3.8-
New Haven	4.22*	4	50	14	16	16	3
DELAWARE—							
Wilmington	....	..	44	13	13	14–15	3.6-
DIST. OF COLUMBIA—							
Washington	3.60*	7	44	12	15	13–14	3.8-
FLORIDA—							
Jacksonville	4.13*–4.53*	10 to 4.2%	55–60	18	20–21	19–21	4.0-
Miami	5.55–5.81	Varies	70–80	20–22	22–25	22–28	4.0-
Tampa	4.67*–4.77*	Varies	60	18	18–21	18–21	3.5-
GEORGIA—							
Atlanta	2.80	8	50	15	..	..	4.
ILLINOIS—							
Chicago	See Table II		..	..	14	..	.
Joliet	2.70	4	36	11	14	14	3.
Peoria	2.65	5	36	11	13	13	3.
Quincy	....	..	30	8	10	10	3.
Rockford	2.55	6	28	9	11	11	3.
Springfield	2.63	5	36	12	14.28	14–15	3.8-
INDIANA—							
Elkhart	....	..	30	7½	12	11–12	4.
Evansville	2.38	6.8	34	11	12½	12½	3.
Fort Wayne	....	..	40	11	13	12–13	3.
Indianapolis	2.10	6	28–30	9–10½	12	10–12	3.6-
South Bend	2.65	4	32	10	12	12	3.
IOWA—							
Cedar Rapids	2.63*	7.5	35	10	12	12	3.
Davenport	2.35	5	28	8	11	9–11	3.
Des Moines	2.65*	5	32	9	12	..	3.
Fort Dodge	2.75*	5	38	10½	12	12	4.
Iowa City	2.45	7	30	9	12	11	3.4-
Ottumwa	2.25	5	35	10	12	12	3.
Sioux City	2.30	5	30	8	10	10	3.
KANSAS—							
Kansas City	2.44	2.9+	35	10	12	12	.
Topeka	2.10–2.20	4	30–35	8	10	10	4.
Wichita	2.10–2.35	3	35	10	12	12	3.
KENTUCKY—							
Lexington	2.60	5	40	12	15	12–15	4.
Louisville	2.54–2.59	4–5	32	11	13	13	3.8-
LOUISIANA—							
New Orleans	3.04	4	35	12	14	14	4.
MARYLAND—							
Baltimore	3.55*	5.8	44	14	14	15–16	4.
Cumberland	3.55	7 to 4%	40	13	15	15	4.0-
MASSACHUSETTS—							
Boston	3.62*	B. M. Basis	39	11½	14	12	.
Easthampton	....	..	46	12	14	14	3.
Fall River	....	..	..	12	14	13–14	.
Lawrence	3.72	Flat	44	12	14	12–14	.
Lynn	3.95	Flat	..	11½	14	..	..
Springfield	3.25	Flat	40	12	15	12	3.

* Basic prices for fluid milk.

BORDEN'S
QUALITY SERVICE
MILK

The new Guedelhoefer Silent Wagon

Reducing Noise on Borden Routes
WITH
GUEDELHOEFER SILENT WAGONS

These new Guedelhoefer low down milk wagons have
Timken Bearings and Rubber Tires
That Outlast Steel!
They handle large loads conveniently, silently
and with extremely light draft for the horse.

Let us tell you more about these wagons and their cost.

47 YEARS of Wagon Making for the dairy industry has given us a thoro understanding of the essentials of practical wagons and trucks for milk delivery.

We also appreciate the advertising qualities of good looking wagons, besides the absolute need for ruggedness to do daily service.

John Guedelhoefer Wagon Co., Inc.
02-220 Kentucky Ave. Indianapolis, Indiana

THE POLK SANITARY MILK CO.

Regular Style

SANS, Meaning *Without!*

Without
Extra Advertising
Extra Salesmen
Extra Manufacturing Expense
Extra Packaging Expense
Or Better Milk

You can secure a 50 per cent increase in your cottage cheese sales. Learn our method of making *flaky, creamy, low-in-acid* cottage cheese.

The largest and best dairy companies report a 50 per cent increase after learning our method.

Without obligation to you, we will be glad to send full details.

Write us about it TODAY!

Flake Cream Cottage Cheese Co.
400 SO. CLINTON ST. CHICAGO, ILLS.

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	$	Cts.	Cts.	Cts.	Cts.	Cts.	
MICHIGAN—							
Battle Creek	....	..	36–40	10	12	12	3.8-
Detroit	3.00*	5	..	..	14	..	
Grand Rapids	2.48*	4	30	8–9	9–12	9–12	3
Kalamazoo	3.00*–3.20*	4 to 4%	38	11	13	13	3.5-
Lansing	2.25	Flat	30	8	10	10	3.3-
MINNESOTA—							
Duluth	....	..	30	10	12	12	3
Minneapolis	2.70	5	32–34	9½–10	11	10–11	3.5-
Northfield	2.37	5	32	9	10	10	3
St. Paul	2.70*	5	34	9½	11	..	3
Winona	3.10	Flat	35	9.58	11	11	3.6-
MISSOURI—							
Kansas City	2.73	3.5	35–40	10–11	13	9–13	3.6-
St. Louis	2.85	3	35–38	11	13	13	3.5-
MONTANA—							
Butte	2.60	10	30–35	11	13	13	3.4-
Lewistown	....	..	30	10	12½	12½	3
NEBRASKA—							
Lincoln	2.01	5.75	26	8½	10	10	3
Omaha	2.35	5	28	9	11	11	3.4-
NEW HAMPSHIRE—							
Concord	2.76*	5.1	37½	11–12	11–14	11–14	3.7-
Portsmouth	....	..	42	10½	13	13	4
NEW JERSEY—							
Atlantic City	....	..	48	..	15	..	.
Camden	....	..	38	..	13	..	.
Hoboken	....	..	34	10.2	15	15	3
Trenton	3.41*	4	34	11	13	14	3.6-
NEW MEXICO—							
Albuquerque	3.20	5.8	40	12–12½	15	15	4.
NEW YORK—							
Albany	3.07*–3.17*	4	38	15	15–17	16–19	3
Buffalo	2.90*	4	34–40	11–11½	13	12–13	3.5-
New York	See Table II		40	14	15	15	.
Rochester	2.83–2.85	4	40	11	12½	12½–13	3.6-
Utica	3.02*	4	36	10	12	12	3.5-
NO. CAROLINA—							
Asheville	3.80	4	48	14	17	17	4.
Greensboro	3.70	6	50	14	17	20	4.
Winston-Salem	3.30	4	50	12½	16.15–17	17–18	4.3-
NO. DAKOTA—							
Mandan	2.75	..	35	8	..	10	3.
OHIO—							
Akron	3.40*	5	40	11	13	13	3.
Cincinnati	Not Determined		38	12½	14	12	3.
Cleveland	3.24–3.34	5	40–42	11–12	14–15	12	3.
Columbus	....	..	38	11	12	12–13	3.5-
Toledo	2.50	3	36–40	10½	12	12	3.5-
OKLAHOMA—							
Oklahoma City	2.10	6	..	10	12½	11	3.5-
Tulsa	2.45–2.63	7–7.5	40	11	15–20	10–15	4.0-
OREGON—							
Portland	2.25–2.30	5	30–35	9	12	10–11	4.
PENNSYLVANIA—							
Allentown	3.16	4	36	11	13	13	.
Altoona	3.16*	4	36–42	11	13	13	3.8-
Harrisburg	2.60	4	36	11	12	12	3.
Philadelphia	3.49*–3.52*	4	38–40	12	13	..	.
Pittsburgh	3.90*	5	36–44	14½	15	..	3.5-
Scranton	2.96	4	38	12	12	..	3.5-
RHODE ISLAND—							
Newport	....	..	..	13	15	15	3.
Providence	3.62*	B. M. Basis	42	11½	14½	..	3.
SOUTH DAKOTA—							
Sioux Falls	2.75*	5	30	10	12	12	3.
TENNESSEE—							
Chattanooga	2.80	8	45	12	18	16	4.
Memphis	2.58–2.73	4.5	32–40	10–11	15	12–13	4.2-
Nashville	Butter Market Basis		38	12	14	14	4.

* Basic prices for fluid milk.

The Dairymen's Slide Rule

DEVELOPMENT AND USES IN DAIRYING

By B. I. MASUROVSKY, Consulting Dairy Chemist and Technologist

The dairy industry is developing rapidly and utilizes modern methods in every phase of its endeavor. One of the most important phases of dairy manufacturing is that of standardization. The latter involves the standardization of equipment, processes, and formulas. In mixing dairy ingredients for various dairy products there is need for a device to facilitate the computation of mixes according to set forth formulas.

The Dairymen's Slide Rule is designed to meet such a demand and aid in standardization of milk, cream, and ice cream mixes as well as to facilitate rapid figuring of arithmetical steps involved in solving dairy problems. It also helps to compute yield, overrun, amount of butterfat and kindered essentials pertaining to the manufacture of dairy products.

Originally the Dairymen's Slide Rule was intended for the interpretation of the American Standard Babcock Formula, namely, $L \div 4 + .2$ equals M.S.N.F. (milk solids not fat). For this purpose scales were constructed to be placed on a straight line and resulted in the B. F. (butterfat) scale representing the percentage of butterfat; Sp. Gr. (specific gravity) scale to express the degrees of Quevenne Lactodensimeter and scale S. N. F. (solids not fat) showing the percentage of M. S. N. F.

At a later date the inventor developed a factor which helps considerably in the standardization for butterfat in various mixes and named it the B. F. f. (Butter fat factor). Accordingly an additional scale was placed on the Dairymen's Slide Rule to interpret the B. F. f.

Finally there arose a need for a set of scales which would cut down on the time consumed in multiplication, division and proportions leading to a modification of well recognized logarithmic scales and known as scales A and B on the Dairymen's Slide Rule.

These various steps in the development of the Dairymen's Slide Rule were carefully considered and worked out during a period of two years concentrated research and submitted to the patent office during the year 1923, obtaining patent No. 1,488,823 in April, 1924.

The next problem was to secure a manufacturing concern which could make precision scales necessary for accurate figuring and at the same time the concern to be of well recognized and established reputation in the line of slide rules. It was not until 1926 that the inventor was successful in securing the Keuffel and Esser Co. to manufacture the Dairymen's Slide Rules.

All in all it took about five years of concentrated effort to put the Dairymen's Slide Rule on the market for meeting the demand of the dairy industry for a device of this sort.

In using the Dairymen's Slide Rule it must be borne in mind that the divisions on each scale represent not inches or centimeters but numbers which are used in plain arithmetic; furthermore, the figures marked on the scales A and B have only relative values, and the prime 1, may represent any value that is a multiple of ten, such as 10, 100, 0.1, 0.01, etc. After the initial value is assigned to the index, the same ratio of value must be maintained throughout the entire scale on the straight forward line. If for example, the value of 100 is assigned to the left index of the A and B scales the other prime figures will be 200, 300, 400 . . . . 900, 1000. The intermediate graduations between the prime 1 and 2 will then be 110, 120, 130, 140, ... 190, 200, and the subdivisions between the prime 1 and the following intermediate graduations will then be 102, 104, 106, etc.

How to use the Dairymen's Slide Rule in determining the percentage of milk solids-not-fat of milk when the butter fat percentage is known and the specific gravity is given in terms of Quevenne degrees.

EXAMPLE I.—Given a sample of milk testing 4% B. F. and a Lactometer reading of 31.2—Find the percentage of milk solids-not-fat in the given sample of milk.

SOLUTION:—Draw the movable part of the slide rule to the right so that arrow points to 4 on the B. F. scale. Then place runner so that its tread line coincides with 31.2 on the Sp. Gr. scale and at the same time read the percentage of milk solids-not-fat on the S. N. F. scale which coincides, in this case, with 8.6.

In all examples of this kind it is understood that the Lactometer readings are taken at 60 degrees F. and the operator of the Dairymen's Slide Rule will have no difficulty in making determinations of M. S. N. F. in milk samples which have been tested for their butterfat content and specific gravity.

The same is true in regards to the use of the scales A and B or the utilization of the B. F. f. (butter fat factor) scale of the Dairymen's Slide Rule. For instance, if the problem asks for standardizing cream from a high butter fat content to a lower one the following steps are fundamental as illustrated in the example below:—

EXAMPLE II.—Given cream testing 38% B. F. and sweet skim milk and it is necessary to thin it down to have the cream test 11% B. F.—Find the amounts of cream and skim milk per 100 lbs. standardized material.

SOLUTION:—Opposite 38% on the B. F. scale find 2.63 as the B. F. f. of the given cream. Then follow the settings of scales A and B of the Rule as given below:—

A : Set 1 : Under 11
B : On 2.63 : Find 29 pounds

of cream testing 38% B. F. for every 100 lbs. of standardized cream testing 11% B. F. and 100—29 or 71 lbs. of skim milk.

Notice:—Special standardization problems will be taken up in a series of subsequent articles in which the use of the Dairymen's Slide Rule will be illustrated.

THE DAIRYMEN'S SLIDE RULE IS DISTRIBUTED BY

THE OLSEN PUBLISHING CO. 501-515 CHERRY STREET
MILWAUKEE, WIS.

AND WILL BE SHIPPED ANYWHERE
POSTPAID ON RECEIPT OF $5.50

ONCE A USER BECOMES FAMILIAR WITH MAKING THE CALCULATIONS BY THIS SLIDE RULE MUCH TIME IS SAVED AND THE HIGHEST DEGREE OF ACCURACY RESULTS.

Notice—In a subsequent article a description of the Dairymen's Slide Rule will be given so far as its development and uses are concerned.

Table III—March Cost and Selling Prices

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices: Wholesale Trade: Per Gal. in Lots of 5–20 Gal. in Bulk	Dealers' Selling Prices: Wholesale Trade: Per Qt. Bottled (Cases of 12)	Dealers' Selling Prices: Retail Trade: Per Qt. Bottled to Family Trade	Dealers' Selling Prices: Retail Trade: Store Prices per Qt. Bottled	Prevailing Butterfat
	$	Cts.	Cts.	Cts.	Cts.	Cts.	
TEXAS—							
Dallas	2.60	4	35	11	13	12–13	4
El Paso	3.00*–3.10*	5	35	11	14	13–14	3.6-
Houston	2.80	8	..	...	15	..	.
UTAH—							
Salt Lake City	2.45	7	30	8	10	10	3
VERMONT—							
Burlington	....	..	36	10	12	10	4
VIRGINIA—							
Newport News	4.20	5	50	15	17	18	3
Richmond	3.93*–4.05*	5	44	..	14	..	3.8-
WASHINGTON—							
Bremerton	2.17	6.2	35	12	14	14	4
Everett	....	..	30	8	10	10	3
Seattle	2.79*	7.1	32	8½–9½	12	10–11	3.7-
Spokane	2.15	5	30	8	10	10	4
Tacoma	2.45*	5	32	8	10	9–10	3
WEST VIRGINIA—							
Clarksburg	3.25	5	40	13	15	16	3.8-
Wheeling	3.26*	5	40	12	14	14	3
WISCONSIN—							
Beloit	2.50*	5	30	8	10	..	3
Kenosha	3.00	4	40	11	12	12–13	3
Madison	Butter Market Basis		36	9	10	10	3
Milwaukee	2.90*	4	30	9½–10	11	10–11	3.5-
Oshkosh	Butter and Cheese Market Basis		..	9	10	10	3.8-
Racine	2.60	4	38	10	11	11	3.
Sheboygan	Cheese Market Basis		..	10	11	11	.
Wausau	2.40	3	..	9½	11	11	3.

* Basic prices for fluid milk.

Table IV—March Cost Prices of "Standard Grade Milk" 3.5% B. F. for Cities Where Part of the Supply Purchased Through Country Stations.

Cities	Prices Paid Producers per cwt. raw Milk (Flat prices of 3.5% B.F. basis): F. O. B. City	Prices Paid Producers per cwt. raw Milk (Flat prices of 3.5% B.F. basis): At Country Stations	Freight Zones to Which Country Station Prices Apply
New Haven, Conn.	$4.22*	$3.70*	28c rate.
Washington, D. C.	3.60*	3.02*	35c 10-gal. can.
Chicago, Ill.	Unavailable	2.50	All.
Baltimore, Md.	3.55*	2.97*	35c rate.
Boston, Mass.	3.62*	2.85*	181-200 mile zone.
St. Louis, Mo.	2.85	2.25	34c rate.
Trenton, N. J.	3.41*	2.85*	41-50 mile zone.
Buffalo, N. Y.	2.90*	2.62*	28c rate.
New York, N. Y.	Unavailable	3.00*–3.05*	201-210 mile zone (53c rate).
Cleveland, O.	3.24–3.34	2.86–2.93	All.
Philadelphia, Pa.	3.49*–3.52*	2.91*–2.95*	51-60 mile zone.
Pittsburgh, Pa.	3.90*	3.15*	All.
Scranton, Pa.	2.96	2.66	30c rate.
Dallas, Tex.	2.60	2.10–2.20	All.

* Basic prices for fluid milk.

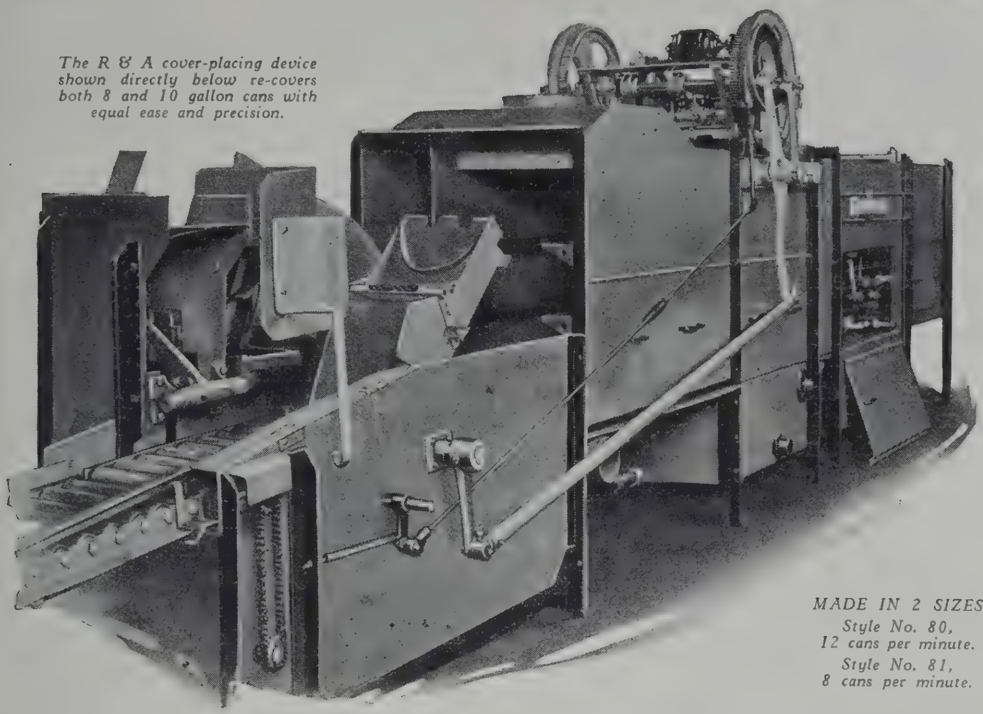
NOTE: At all places in the above tables where prices are not shown, the information was either not reported or i available.

NEW GLASS-LINED CAR TESTED—PROVES SATISFACTORY.

Recently, at Marshfield, Wis., a glass-lined tank car, which has just recently been developed for transporting milk over great distances, was loaded with tuberculin-tested milk. It contained 6,000 gallons of milk, 40 10-gallon cans of 40 per cent cream. The content was cooled to 35 degrees, the car was locked and sealed, and with the temperature outside at 26 degrees, it was on its way from Marshfield at 1 P. M.

The car reached Miami, Fla., four days and five h later. Its contents are said to have arrived in pe condition, the temperature of the milk being 36 deg with an outdoor temperature of 92 degrees. The was shipped 1,800 miles with an outside tempera change of 66 degrees. Under these conditions the perature of the contents remained within only on gree of its original.

The R & A cover-placing device shown directly below re-covers both 8 and 10 gallon cans with equal ease and precision.



MADE IN 2 SIZES
Style No. 80,
12 cans per minute.
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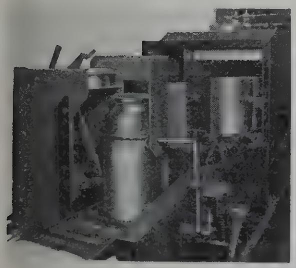
8 cans per minute.

Your Cans---*"clean as a whistle, dry as a chip" when the Champion goes to work fou you!*

One can at discharge position in washer. One can in uprighting cradle, the third can just re-covered



One can at discharge position—nearest can at re-covering position with cover just about to be fed onto the can.

TWELVE cans and covers per minute—washed clean, properly steamed and thoroughly dried. And when we say clean and dry, we mean it as you mean it!

Twelve cans per minute, both eights and tens, re-covered — each cover placed on its own can with a speed and precision that never fails.

That is why we call this can washer the "Champion."

Mechanically, it is extremely simple—and plainly sensible in design. No complicated, hard-to-reach parts to cause trouble. Every mechanical part which might require attention on outside of washer and instantly accessible. Entire valve mechanism on top of washer—easily reached for repacking and reconditioning.

In strength the Champion is the most rugged and rigid built today. Entire shell of washer 1/8 inch steel plate, electrically welded at all joints and bound on all outside edges with heavy angle iron. And, as practically no rivets or bolts are used, even after years of service this washer will be as solid and strong as the day it was installed.

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Champion COVER-PLACING CAN WASHER

When writing to RICE & ADAMS CORP. *please mention The Milk Dealer.*

GELATINATED BUTTERMILK.

(Continued from page 25)

Experiments Conducted on Gelatinated Commercial Buttermilk.

Gelatine used in each series of the experiment was of four grades each of the same brand obtained specifically for this work. According to the manufacturer it was all of fresh run and guaranteed to be standardized as per data recorded in the table of results. Three-tenths (0.3) per cent was used in each experiment, this being the quantity deemed most desirable, all factors considered. The amount was accurately weighed on an analytical balance reading in grams to the third decimal place.

Four different cultures were used and with the exception of the first or preliminary trial, each was tested with the four grades of gelatine, thus eliminating possible error due to the use of each culture with but a single sample of gelatine.

Half-gallon quantities of fresh skimmed milk were used for each lot of every series, this quantity being accurately measured. Each lot was cultured with three per cent culture, measured with a scalded, buttermilk rinsed ounce measure, thus eliminating as far as possible errors due to variable acidities.

The buttermilk was made after the usual factory manner employing a culturing temperature of 68-72 degrees F. (Oklahoma Agricultureal Experiment Station Bulletin 156.)

Since occasional criticism has occurred regarding the method of adding gelatine to dairy products and the probable effect on quality and texture, it was decided to attempt elimination of this factor by the following precedure:

1. To lot I of each series granulated gelatine was added and the milk heated to 190 degrees F. while continually agitated. It was then cooled immediately to 68 degrees F. and cultured.
2. To lot II gelatine was added after the milk had been heated and then cooled to 135 degrees F., the gelatine in this case being dissolved in a portion of the milk at a temperature not to exceed 140 degrees F. This procedure eliminated a possible high temperature injury to the gelatine. The batch was then cooled to 68 degrees F. and cultured.
3. To lot III gelatine was added after the buttermilk had been prepared and broken up. In this case the gelatine was dissolved in one-fourth pint of water at not to exceed 140 degrees F. and added with thorough but not too vigorous stirring.
4. Lot IV, or the control, contained no gelatine.

Discussion of Results.

Acidity. The acidity of each lot was determined in duplicate by weighing nine gram samples into a beaker and titrating this against tenth normal alkali which had been originally standardized with fourteenth normal acid using methyl red as indicator. At the conclusion of the experiment the alkali was again standardized and found to be unchanged. Titrations were then made using the indicator, phenolphthalein. A conversion factor was calculated and the acidities changed into terms representing the use of phenolphthalein as is customary in milk plants. The above standardization which yielded a more dilute alkali resulted in titration believed to be more accurate than if phenolphthalein had been originally employed.

Using data obtained, the following acidity tables prepared.

TABLE I.

Per Cent Acidity of the Four Different Grades of Gela Averaged Separately.

		Gelatine Grade		
Lot	Sample	1	2	3
1	Gelatine added before heating	.868	.856	.846
2	Gelatine added after cooling to 135	.858	.872	.834
3	Gelatine added after making	.846	.816	.804
4	Control	.880	.824	.806

An examination of table I shows:

1. No noticeable reduction of acidity due to th of gelatine. In six cases the samples conta no gelatine were higher and in six cases l than the lots containing gelatine.

Continuing a study of acid development, Table II arranged showing the average per cent of acid whe various lots of each series were averaged disrega the grade of gelatine used.

TABLE II.

Average Per Cent Acidity of Various Lots of Each Se Disregarding the Grade of Gelatine Used.

		Lots			
Culture	Series	Gelatine added before heating	Gelatine added after cooling to 135° F.	Gelatine added after making	Control
A	1	.822	.810	.784	.78
B	2	.872	.878	.824	.85
C	3	.864	.866	.822	.85
D	4	.902	.892	.886	.90
Gen. Ave.		.865	.8615	.829	.84

A study of the table reveals the following facts

1. In the various lots of each series the acidi fairly uniform although considerable vari occurs between the different series. This be expected since different cultures were Other unavoidable factors may enter.
2. There appears to be no direct relation bet the acidity of the samples containing gelatine the control. In many cases the acidity of the atinated buttermilk was higher than that o control. This fact brought out by tabulatio the 64 different tests does not agree with the ings of Yaxis, who reports on two samples tarding effect of gelatine on acid developme

However, there is possibility of the acidity of atine having effected the results obtained. This is d ful considering the small quantity used. In vie the 64 tests tabulated in tables I and II and the addi al 16 preliminary tests, the conclusion is warranted gelatine added in such small quantities as 0.3 per does not bear a direct relation to the developme titratable acidity in buttermilk when produced u conditions here reported. As a matter of fact, the g average acidity of all samples of gelatinated butter was 0.8518 per cent as compared with 0.8475 per for the control, a variation of 0.0043 per cent, too s to be detected by titration methods.

Viscosity. The viscosity was determined as foll

A clean piece of plate glass was set at an ang 23°-40′ and upon its surface were scratched two lin a distance of 12 inches apart. A definite amount (2

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YOU can give your customers a smoother, creamier buttermilk and stimulate a greater demand for your product by improving it with Essex Gelatine.

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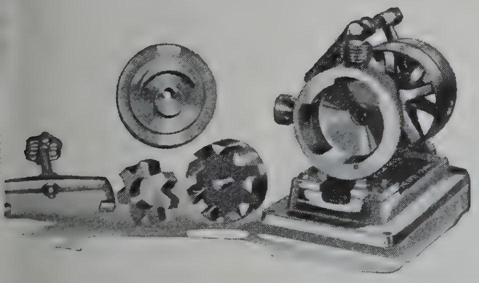
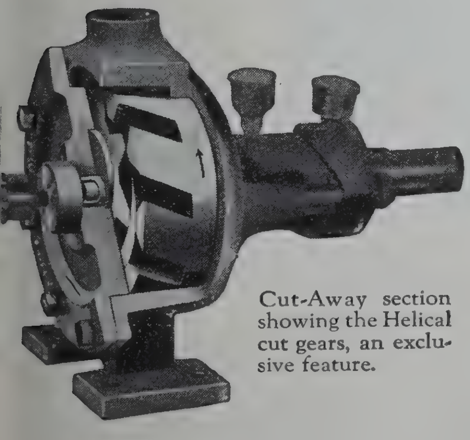


The Perfection Rotary Sanitary Pump
(Disassembled)



Cut-Away section showing the Helical cut gears, an exclusive feature.

NOTE the extremely smooth finish and the accessibility to the interior. Also note the open pockets which are easily cleaned. There are only two moving parts in the pump, the internal gear rotor and the pinion. The rotor is supported by a bearing on both sides.

The teeth of the rotor work like a pair ot scissors on an angle instead of head on. The smooth running helical gears prevent excessive churning, eliminate shock or strain and deliver a uniform flow.

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PERFECTION
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of the buttermilk was run onto the glass at the first mark and the time taken in seconds required for it to run to the second mark. If the product failed to flow from one mark to the other it was marked with the notation "too viscous" as per the tabulated results.

A study of the table shows:

1. A great variation in viscosity between different lots of the same series. This may be due to a number of factors such as bacteriological difference in the cultures and in the amounts of each used, the method of treatment, breaking up the curd, grades of gelatine, etc.
2. That the viscosity of the samples taken immediately upon breaking at the setting temperature is relatively low. After holding for 24 hours at 48 degrees F. the viscosity of both the control and the gelatinated samples is greatly increased.
3. That the viscosity of the gelatinated samples after 24 hours storage was greater than that of the controls. This is especially well demonstrated by the results obtained in series I. Although not figuratively represented in series II, III and IV, the observation was made that the samples containing no gelatine generally flowed a greater distance over the glass plate than the gelatinated samples although both may have failed to reach the 12-inch mark and accordingly received the same notation of "too viscous." The conclusion is therefore warranted that the addition of gelatine increases the viscosity of cultured buttermilk.

Breaking and Strength. In each series except the preliminary all lots were prepared in the same type and size container, thus eliminating any variation due to these factors. No especial effort was made to determine this data other than by ordinary observation. The strength was obtained by pressing on the surface and forcing a milk agitator through the curd while the ease of breaking up was estimated by occular examination. Results are given in terms of numbers, 1 being the firmest and hardest to break, while 3 indicates that which broke up the easiest.

An examination of the general tables indicates a variable difference, although as a rule the gelatinated samples broke up the easiest and the curd appeared softer. This is to be expected in view of the action of gelatine in preventing the formation of large curd particles in sour milk.

Wheying Off. With the exception of the preliminary series wheying off tests were made by placing quarter pint bottles of the control and gelatinated butterm the storage room at a temperature of 48 degrees F. observations were made. In the preliminary second set of quarter pint bottles were placed in th oratory at variable room temperatures and observ made.

An examination of the tables reveals the fac gelatine prevents or retards wheying off. Att should be called to the similarity in many cases be lot 2 and the control. Close examination of th atinated buttermilk from lot 2 showed that in some gelatine was not dissolved as thoroughly as expect though great care was used in attempting to effect plete solution. Had the gelatine been dissolved in as was the case with lot 3, complete observation solubility would have been possible and more eff results probably would have been obtained. How a study of the table shows that:

1. Good quality buttermilk, which will not whe can be prepared without the use of gelatine a matter of fact, three pint bottles of the c from series 2, 3 and 4 were set away at va room temperature for ten days and fail whey off or show any signs of whey separati
2. Gelatine prevents wheying off in butte which without it might show this defect.

The most noticeable effect of gelatine was o flavor of the cultured buttermilk.

After preparation, the buttermilk was sample judges who were unfamiliar with the method of ing the samples. The buttermilk was then placed i ice box at 48 degrees F. for 24 hours and again sam In all cases no less than two judges and frequently five to seven sampled the product. Where a po doubt might occur, a tie was given the placing. U otherwise marked, the figures represent an unquest ranking of first, second, third or fourth place.

A study of the tables shows the control samp have been placed first 19 times; second, 8 times; once. It tied for a first, second, third or fourth eight times. The sample to which gelatine was a after making placed first only three times; secon times; third, twelve times, and fourth, nine times, four ties for third and fourth places. The samp which gelatine was added after heating ranked four times; second, seven times; third, eight t and fourth, thirteen times, with no ties. The samp which gelatine was added before heating placed five times; second, nine times; third, eight times, fourth, eight times, with four ties for first, second

TABLE III.

Viscosity of the Samples Containing the Different Grades of Gelatine.

		Gelatine added before heating		Gelatine added after cooling to 135° F.		Gelatine added after making		Control	
Series	Grade of gelatine	Immediately after breaking	After 24 hours storage	Immediately after breaking	After 24 hours storage	Immediately after breaking	After 24 hours storage	Immediately after breaking	After hou stora
1	1	250 190 264 145	278 300 Too viscous 305	172 105 710 75	417 120 Too viscous 160	98 74 116 65	185 135 408 150	165 75 143 90	152 105 187 100
2	2	Too viscous Too viscous Too viscous Too viscous	Too viscous Too viscous Too viscous Too viscous	Too viscous Too viscous Too viscous Too viscous	Too viscous Too viscous Too viscous Too viscous	Too viscous 80 Too viscous 140	Too viscous Too viscous Too viscous Too viscous	Too viscous Too viscous Too viscous Too viscous	Too visc Too visc Too visc Too visc
3	3	Too viscous 140 Too viscous 145	Too viscous Too viscous Too viscous Too viscous	Too viscous 130 Too viscous 130	Too viscous Too viscous 75 Too viscous	Too viscous 70 Too viscous 120	Too viscous Too viscous Too viscous Too viscous	Too viscous 110 Too viscous 300	Too visc Too visc Too visc Too visc
4	4	105 Too viscous 188 Too viscous	285 Too viscous 630 Too viscous	270 Too viscous 14 Too viscous	Too viscous Too viscous 75 Too viscous	255 360 188 240	Too viscous Too viscous 440 Too viscous	255 Too viscous Too viscous Too viscous	Too visc Too visc Too visc Too visc
Preliminary		33 111 197 130		22 170 118 150		155 Too viscous 38 350	308 20 140	70 216 311 163	

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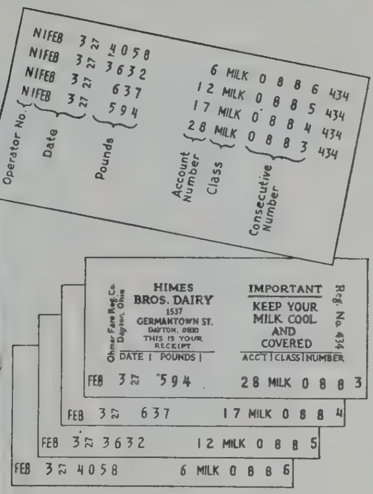
NIFEB 3 27 4058
NIFEB 3 27 3632
NIFEB 3 27 637
NIFEB 3 27 594
6 MILK 0 8 8 6 434
12 MILK 0 8 8 5 434
17 MILK 0 8 8 4 434
28 MILK 0 8 8 3 434
Operator No.
Date
Pounds
Account Number
Class
Consecutive Number
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1537 GERMANTOWN ST.
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THIS IS YOUR RECEIPT
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KEEP YOUR MILK COOL AND COVERED
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FEB 3 27 594 28 MILK 0 8 8 3
FEB 3 27 637 17 MILK 0 8 8 4
FEB 3 27 3632 12 MILK 0 8 8 5
FEB 3 27 4058 6 MILK 0 8 8 6

The printed record inside the register is shown at the top. Below are the tickets. Note how the figures on the tape and on the tickets agree.

, for the first time, dairies, creameries, and ice cream man-urers can eliminate errors, mistakes, carelessness, and losses cording milk received. For the first time, they can have as ive and as accurate a check on purchases as they have on sales. For the first time, this heretofore neglected branch of their business can be put on *a definite basis of facts* provided by untamperable, unchangeable, and automatically printed figures. All this is made possible by the

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arkable register, which has already tartling economies in other indus- now been adapted with equally results for use in dairies, creameries, cream manufactories. With this n your receiving department you t you get every pound of milk that for. You no longer need depend satisfactory, slipshod, and illegible ures. Regardless of inefficient and nced help, there could ssible doubt about the s and accuracy of the ally printed figures is register makes.

What It Does

prints a ticket for the the milk. This ticket in less time than it tell it—shows the number of pounds. nt number, the classifi- d the consecutive num- he transaction. This anded or mailed to the check on his delivery. 's a feature even more t to you—a duplicate of the information on the ticket is also printed by the register on the secret, locked-in record inside the register—a *printed record* that at once becomes your original office entry and from which all other office records pertaining to each account are made.

Think what that means! It means, first, that you get positive, accurate records of milk purchases. It practically eliminates all arguments and disputes with milk suppliers. It speeds up work in your accounting department. *It stops losses and increases profits* all along the line.

See how the register in the Receiving Room is out of the way, and yet always convenient for use.

Get All the Facts About It

The installation of this register system is simplicity itself. It is so small that it can be placed in any convenient position without taking up valuable space. It is so light that it can be easily and quickly shifted from place to place. Within thirty minutes after it is installed any employee can take off the weights much faster and much more accurately than with any other system ever devised. It is made in the world's oldest and largest factory devoted exclusively to developing and perfecting printing and recording devices. It has 27 years of experience back of it. It is revolutionizing receiving and accounting methods in dairies, creameries, and ice cream manufactories because of the enormous saving of money it provides. Get all the facts about it. See how it will *save money* and *increase profits for you*. This will not obligate you in the least. Write or wire today.

OHMER FARE REGISTER CO.
Dept. A. - DAYTON, OHIO

OHMER

REG. U.S. PAT. OFF.

Ticket-Printing Register

When writing to OHMER FARE REGISTER CO. *please mention The Milk Dealer.*

third places, the ties being equally distributed between these placings.

A general summary of these results is shown in table IV.

The general average of all placings on flavor shows the control sample to have placed first almost four times as much as any one of the gelatinated samples.

In all fairness to the gelatinated samples notation should be made that while the average consumer might overlook the recorded flavor variations when sampling only the gelatinated product, he did observe the distinction when the control was likewise sampled, as brought out in the table of results.

A number of samples were set away for periods longer than 24 hours and then tasted for flavor with the resulting observation that the longer the gelatinated samples were held the more pronounced became the distinction between them and the control.

These results are quite the contrary of what had been expected and may have been due to a number of factors which yet remain to be solved. The type of bacteria in the gelatine may have been at fault or the effect of gelatine in stimulating the growth of undesirable bacteria may have produced a noticeable difference.
ever, in the light of the experiments reported, a
sion must be drawn that gelatine, at least that
this series of experiments, is somewhat detrime
flavor.

SUMMARY.

From the results obtained the following conclus
warranted:

1. Gelatine added to cultured buttermilk before
making increases the viscosity of the product
2. Gelatine added to buttermilk before or after
prevents or retards wheying off.
3. Good cultured buttermilk which will not w
can be prepared without the use of gelatine.
4. No noticeable effect on acidity was observ
might be attributed to gelatine. Variation
be attributed to bacteriological or culture diff
5. In the majority of cases the addition of 0.3
gelatine produces a slightly detrimental e
flavor of cultured buttermilk.
6. The longer the gelatinated samples are stor
24 hours the greater the difference betwe
flavor and that of the control.

BIBLIOGRAPHY.

(1) The Use of Gelatine in Buttermilk; The Milk
July, 1925; T. G. Yaxis.
(2) The Use of Gelatine in Buttermilk; The Milk
February, 1927; M. Messcher.

TABLE IV.
General Summary of Placings on Flavor.

Sample	RANKING OF SAMPLES.												SUMMARY. Total Unquestion Placings		
	First Place			Second Place			Third Place			Fourth Place					
	Old	Fresh	Tie	Old	Fresh	Tie	Old	Fresh	Tie	Old	Fresh	Tie	1sts	2nds	3rds
Control	9	10	1	4	4	2	1	0	3	0	0	2	19	8	1
Gelatine added after making	2	1	0	4	2	0	3	9	2	6	3	2	3	6	12
Gelatine added after heating	2	2	0	5	2	0	4	4	0	5	8	0	4	7	8
Gelatine added before heating	2	3	1	2	7	2	6	2	1	5	3	0	5	9	8

COW WHO JUMPED OVER MOON GAVE MILK ITS KICK, AVERS HUMORIST.

"A lot of us are just as firm believers in the cow who jumped over the moon as Heywood Broun, the columnist for the New York World," says Miss Aubyn Chinn, nutritionist of the National Dairy Council. "Mr. Broun confesses that he had considered the tapering off of his milk-drinking at the age of three until he remembered that the very cow who furnished the two quarts for their house had been on a nightly journey over the moon and the stars."

"This was the milk that had been over the moon and back again. Taken in that spirit and with that knowledge, one could feel the lift and the kick of it," says our friend Haywood in his best Broun style.

There is a lift in milk—every milk drinker will agree, comments Miss Chinn. It does bring the stars and the moon nearer, for in that exultation that comes from being physically fit and glowing—that enthusiasm for life that comes from healthy living with the drinking and eating of the right foods—any individual is ready to reach up and pull down his own particular star. Capacity and power for achievement and accomplishment come to folks who are wise enough to observe health rules in their daily living.

The exhilaration of bouncing nimbly out of bed in the morning after a good night's sleep before an open window is second only to that experienced by the cow on her lark. A brisk walk in the sunshine, a refreshing bath, and a meal in which the vitamines of fruit, cereals and dairy products abound, will increase anyone's stellar attraction.

PAGE ON THE JOB AGAIN.

Henry Page of the Page Dairy, Toledo, O., re
about March 1st from a month's vacation spent
fornia. All business cares were put aside, the w
worry and strife forgotten and the entire time wa
in rest and enjoyment. Mr. Page returned to
with more pep than ever and March fourth fou
familiar step traversing the various sections of
Page Dairy with even more speed than usual.

Statement of Ownership, Management, Etc., of T
Dealer, published at Milwaukee, Wis.—required by
of August 24, 1912.

The Olsen Publishing Co., Publishers, Milwauk
Manager—H. P. Olsen, Milwaukee, Wis.
Editor—E. K. Slater, Milwaukee, Wis.

Known bondholders, mortgage and other security
holding 1 per cent or more of total amount of bond
gages, or other securities—None.

(Signed) H. P. Olsen, Man

Sworn to and subscribed before me this 2nd
April, 1927.

C. J. Linden, Notary Public, Milwaukee Co.
(My commission expires March 10, 192

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holders holding one per cent or more of total amount
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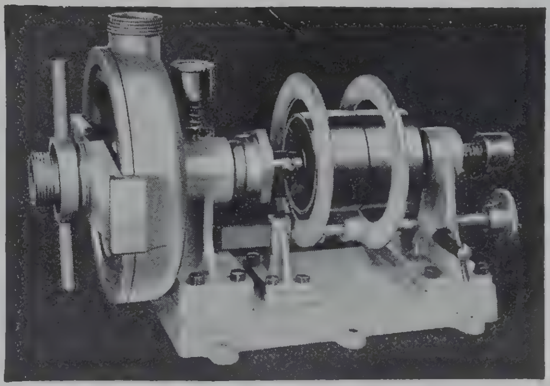

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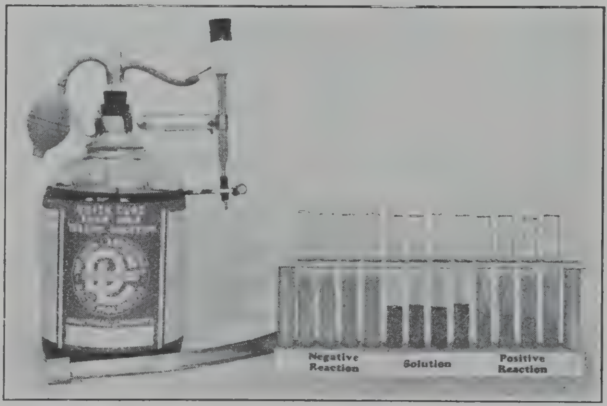

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Prof. Burke's Inquiry -:- Department -:-

An Interesting Discussion of the Cream Plug

Wisconsin.

Dear Sir:—Please tell me how to overcome the cream plug on the bottles. We heat up our milk in a coil vat to 110 degrees, then we separate it. The cream we pasteurize in a flash pasteurizer at a temperature of 145 to 150 degrees and hold the cream in cans for 30 minutes. When we heat the cream up to 175 we do not hold it but cool it immediately to 42 degrees. Our cooler is an open one. A one and one-half inch centrifugal pump pumps the milk from the vat into the separator. Also which would be the best way to make the cream keep better and have no plug? The whipping cream has a heavier plug than the coffee cream. Is it necessary to run the coil all the while the milk is being heated; also when it it being pumped out?

Reply: The formation of a cream plug on bottles causes much annoyance in many plants and may be due to a number of factors. I trust the following suggestions may help you to overcome the trouble.

First: I suggest you separate the milk at a temperature of 80 to 90 degrees F. instead of 110 degrees F. Separating at a temperature of 110 degrees F. breaks up the fat globules and may produce slight churning. This effect would be more pronounced if the milk is pumped to the separator as you mention. It would be much better if you could arrange your vat to permit the milk to flow into the separator by gravity.

Second: Do not pasteurize the cream at a temperature as high as 150 degrees F. but rather heat to 142 to 145 degrees F. and hold for 30 minutes. If you hold it in cans you should agitate gently but frequently during the holding period. Holding without agitation permits evaporation of moisture from the surface of the cream, drying it out and in some cases causing it to show signs of oiling off. Then when the cream is cooled small granular fat particles are formed which pack in the top of the bottle and form a very hard plug.

Third: Cool as quickly as possible to 45 degrees F. or lower. Slow cooling, especially with vigorous agitation, is conducive to the formation of a plug.

There are other causes of the difficulty which I will mention although I do not believe they are the source of the trouble in your case. They are as follows:

1. Mixing pasteurized cream with raw cream.
2. Thawing frozen cream at high temperatures, followed by pasteurization at high temperatures.
3. Pasteurizing too rich cream.
4. Excess agitation during pasteurizing.

It is natural that whipping cream being richer in fat should have a heavier plug than the coffee cream.

Your second question relative to making cream keep better may be answered by stating the following four essential points:

1. Clean production of milk.
2. Sanitation and sterilization where possible, of all utensils and equipment wherein cream is stored.
3. Pasteurization at 142 to 145 degrees F.
4. Holding at a temperature of 45 degrees F. or lower.

Now referring to your postscript. It is quite necessary to rotate coils in a pasteurization vat while h
the milk; this to insure uniform temperature thr
out. However, it is not necessary to rotate the
while the milk is being held at the pasteurizatio
perature although I believe you will find it desira
operate them if they are operating at the proper
It is essential to rotate the coils when the milk is
pumped over the cooler, this to insure even distri
of fat and prevent possible injury to it. I suggest yo
to 120 degrees F. in the vat and then pump over the
er. However, do not cool below 110 degrees F. in t
or agitate the milk while it is between 110 degrees
60 degrees F. after pasteurization as you will cer
injure the cream volume appearing in the milk.

I am glad to hear from my friends in the dairy
try in Wisconsin since I attended the university
some years ago and I trust this information will be
ful. I shall be pleased to hear of the results you o

* * *

Dear Sir:—We are indeed thankful to you for
information. We have separated the milk at 8
88 degrees F. but had a very heavy plug. Perh
is due to the speed of the pump. The one and on
inch centrifugal pump runs 1450 r.p.m. We are no
to elevate our vat so it will flow by gravity int
separator. (The pump perhaps churns the cream
to 88 degrees F.)

We have been thinking of pasteurizing the
milk in the coil vat first at 145 degrees F., hold
there for 30 minutes at 145, and then separate it a
What is your idea of this, please, and how woul
do it? We are still separating at 110 degrees F
while we do get a plug every so often it is not as
by separating at 85 to 88 degrees F.

What is the advantage of cooling the milk do
120 degrees F. after pasteurization before it goes
the pump to the cooler?

Should you suggest to pasteurize the milk first
skim it at that temperature, what effect would tha
perature have on the De Laval separator No. 30?
it skim clean?

Reply: The trouble with the cream plug is un
edly caused by the centrifugal pump. In order to
it I suggest that you run the following experiment.
some milk and run it through the separator at 85 d
F. and at 110 degrees F. without pumping. Sav
bottle some of the cream. Then run the balance as
and save a sample obtained after pumping at both
peratures. Compare the two. If you find the pu
causing the trouble, I suggest you change to a
pump which operates at a normal speed of abo
r.p.m. The speed on many such pumps can be lo
or raised considerably to deliver the desired volum
force. I do not remember of you having mention
speed of your pump in the first letter or perhaps
have overlooked it. However, I believe if you wi
low the above suggestion you will have no furthe
ficulty or at least much less.

The reason for the trouble is that the pump ro
at 1450 revolutions breaks up the fat globules and

AMERICO" THE PASTEURIZER WITH A PURPOSE

ıe new "AMERICO" with improved coil control

The "AMERICO" embodies the most advanced principles in design and construction.

It has no stuffing boxes to gather bacteria and contaminate the batch.

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The flush type outlet valve is standard on all vats.

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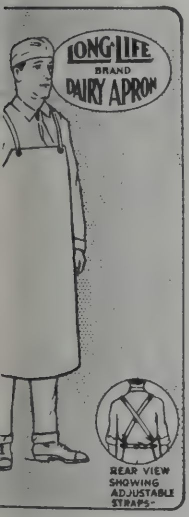
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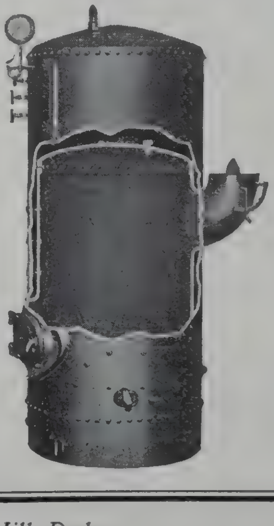

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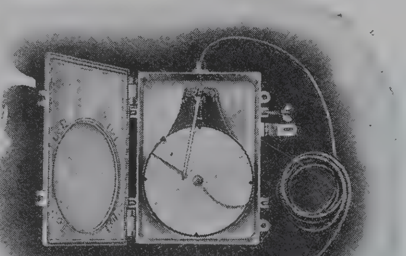

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A reputation for finest quality cannot long be maintained by guessing at pasteurizing temperatures, or depending upon unreliable instruments. In your milk coolers, too, money can be saved by an accurate control of temperatures. Too low a temperature is wasteful; and too high a temperature affects the serving condition of your cream.

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With a Bristol, temperatures are accurately recorded on a chart where they can be readily seen and checked up. Bristol's are built for long years of service; nothing to get out of order or to repair.

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pack in the top of the bottle, forming the plug. effect, as you mentioned, would be much greater to 88 degrees F. than at a temperature at which t was in a more liquid state as 110 degrees F. I cer would not suggest an attempt to separate the m 145 degrees F. Inefficiency and a loss of fat wo the result.

Some time ago I was engaged in a milk plant we had no arrangement for running the milk th the separator by gravity so we had a large circula made of tinned copper which had a faucet near th tom. This tank was double walled so we could he contents by hooking up a hose to a spout and circu hot water around it. Overhead we rigged up a and tackle and when the milk was warmed to the p temperature we hoisted the tank over the separato opened the faucet. Of course, this is a very crude od but it served the purpose in this small plant we could work out the system in no other manner.

Now as to the reason for cooling to 120 degr in the vat. When milk is agitated at temperatur tween 110 and 60 degrees F. in cooling from the pa ization temperature great injury results to the line on bottled milk because the fat particles are r broken up. Between 110 and 60 degrees F., the in a semi-hard condition. The injury is much mor nounced in cooling than in heating, the reason that the milk when heated passes through these c temperatures more quickly than it does while cooled. Neither has the vat been held for so long a at a temperature which tends to keep the fat in a state. If you cool in the vat to 120 degrees F. and run over the cooler, you will avoid this injury t fat and the bottle milk will have a good cream lin

* * *

Reply: Referring again to our correspondenc ative to the cream plug and your question of sepa milk at a temperature of 145 degrees F.

This is practiced in some plants and I have tr out on some cases myself but you will find the sep stops up very quickly and has to be taken apart frequently for cleaning on account of the exc amount of material thrown out in the bowl durin arating. There is also a disadvantage in that the se tion process may tend to increase the bacterial especially if the separator has not been thoro steamed. This because the milk is partially coole ing the separating process.

In your letter you mentioned heating the mi and holding for 30 minutes, then separating and is what I had in mind when I answered your lett March 12. I have been wondering what results occur if you tried separating as soon as the temper reached 145 and then held the skim milk and crean arately for a 30-minute period after separating. of course, would entail the use of more vats but it help overcome the difficulty. The De Laval cla should do satisfactory work although as mentioned former letter, you will possibly lose a large amou fat in the skim milk, especially if the separator b to clog up.

I shall be pleased to hear from you regarding steps in handling your milk succeeded in overco the cream plug. The cream plug is a problem of a many plants and I have answered many inquiries re ing this with the result that so far in every instan have overcome the difficulty. Your case, howeve pears somewhat different and more complicated others and I am sorry I am not in a position to your plant as I believe we could quickly corre

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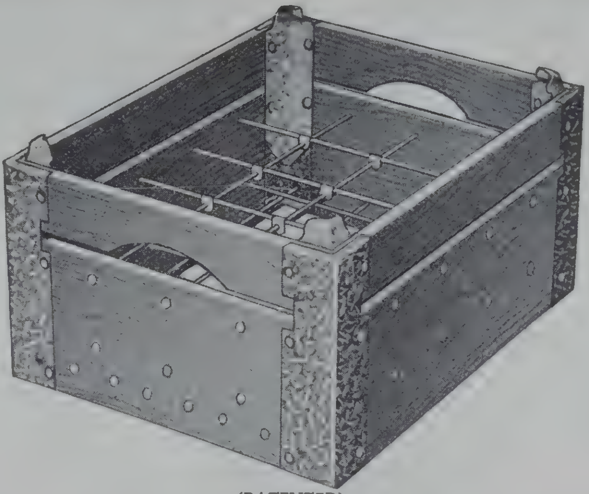

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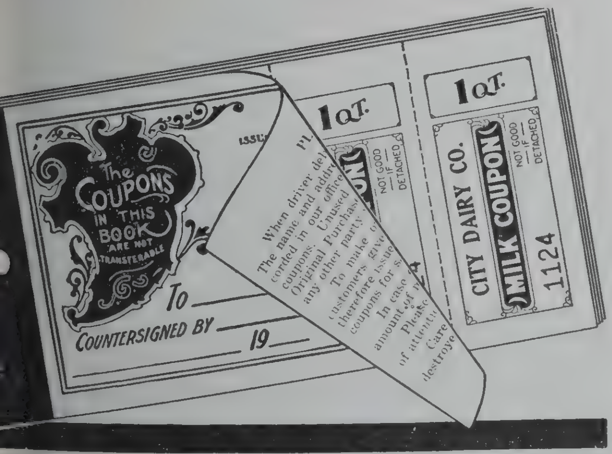

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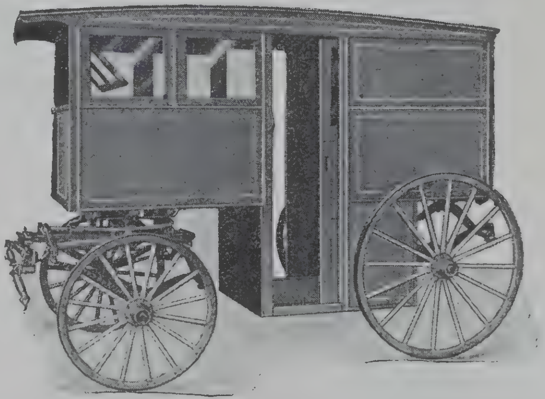

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Special Wagons Built to Order.

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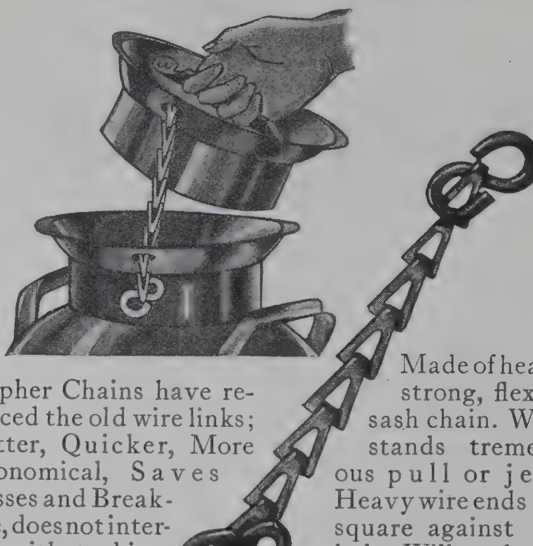
Put Them On
Your Patrons' Cans

"Guarantees Return of Right Cover"



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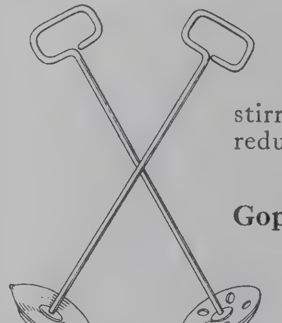

Many shippers overlook the fact that stirring cream with properly constructed stirring rods hastens cooling and reduces development of bacteria.

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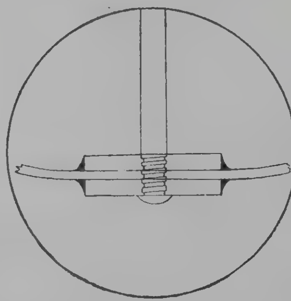

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trouble. Hence my reason for asking you to let m from you later.

* * *

Dear Sir:—The pump was the cause of the plug when skimmed at 85 to 90 degrees F., and times at 110 degrees F. The speed of that par pump could not be changed very easily as the sar is being used to draw the milk out of a drop tan pump it over to the glass-lined vat. There was no for another one with the present arrangement o one room plant. So we have tried the idea of skin pasteurized milk and so far it has worked out perfect satisfaction. The skim milk has no mo than before, the separator does not clog up and the cream was perfect and kept longer. Howev cool it immediately and bottle it the same day. W still cooling it in ice tubs, but have ordered a tubular cooler for water and brine and then the will be cooled as it comes from the separator and b immediately. We have had cream a few days old showed no plug. Should anything develop we sh you hear again. Why do you object to this idea?

Reply: I am glad to note the cream plug diff has been eliminated. Your problem was somewha ilar to several already received only more complex. its solution I am happy to state that the cream trouble has been overcome in each case which is gratifying to me.

You ask my objections to separating pasteurized and I am glad to give you the following information

Milk is frequently separated at pasteurization peratures or immediately thereafter when par cooled. In fact, the idea is not a new one and if I a mistaken I believe we once had a special machin this purpose at Wisconsin University.

The advantages of the process are that it elim the necessity of pasteurizing both skim milk and c throws out a little more material from the milk and considerable time.

On the other hand, the great drawback is the bility of recontamination from a separator, or can thoroughly sterilized. Of course this could be la overcome by thoroughly steaming the separator and cans and rinsing them with an efficient gern such as hypochlorite. Again, assuming you were m the skim milk into cultured buttermilk which ne tated reheating to a higher temperature—you wou increasing pasteurization costs.

Thirdly—since the separator throws out more terial from very hot milk than from a luke warm uct, the bowl would have to be taken apart more quently for cleaning and in the case of separating a volume of milk this might let some of the fat pas with the skim milk and cause unexpected losses. small volumes very little if any effect would be not

Again in your problem we were trying to elim a cream plug. Warming the milk to a point when separator might have broken the fat globules more ily plus the extra force of the centrifugal pump have given a more noticeable cream plug and pern some separation of cream from the skim milk which could have been overcome only by the use of a hon nizer or viscolizer.

* * *

Wiscons

Dear Sir:—Have been reading with interest articles in The Milk Dealer and as I have a few lems would like whatever information you can giv

What would be the normal loss on milk handl follows: From weigh can to storage vat, then pu to a coil pasteurizer, then over a surface cooler and

he Buyer of
reamery Boilers

gets a product of accurately known strength, predetermined margin of safety, high operating efficiency, and extra long life when he specifies a BROWNELL boiler.

With inspectors of material and inspectors of each and every operation right in the plant and everlastingly on the alert — with 72 years boiler building experience to draw from, and with an outstanding boiler reputation to safeguard, the product is bound to be right.

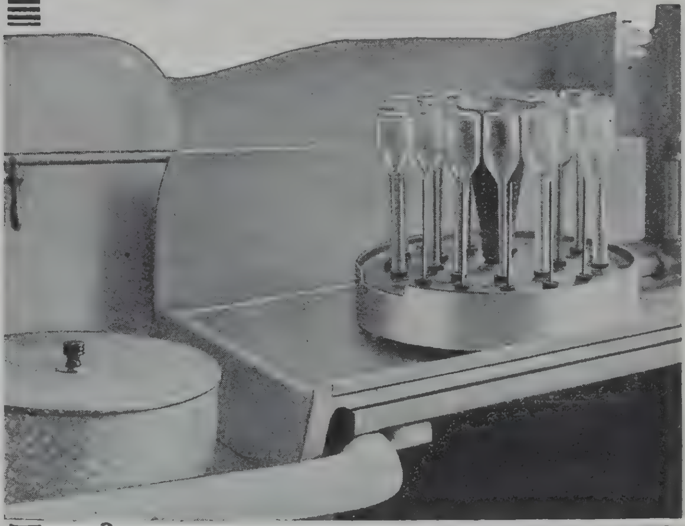
ownells comply
th ASME and
ll State Codes

Brownell line of Creamery boilers is fully covered in illustrated bulletin Send for a copy. You will also find a Brownell representative near ready to help you.

THE BROWNELL COMPANY, Dayton, Ohio

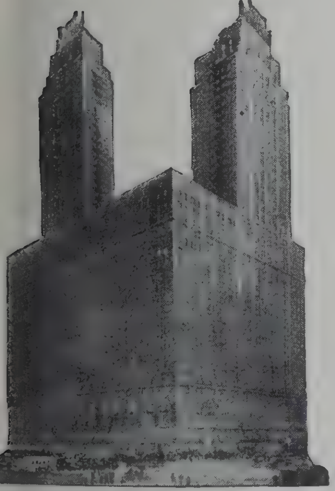
BROWNELL
BOILERS

Wilson
Test Bottle Washer
A Steam and Hot Water Pressure Washer



Simple to Install—Washes Quick and Clean.
Made in 2 sizes to wash 24 or 36 Milk or Cream Bottles—*and it does it in 2 to 3 minutes.*
No Brushing—Stops Breaking of Bottles.
Send for Leaflet explaining operation.
Stout Mfg. Co., 610 Sycamore St. Milwaukee, Wis.

When in CHICAGO
njoy your stay—at the superb new
MORRISON HOTEL
Cor. Madison and Clark Streets
The Tallest Hotel in the World
Forty-six Stories High



he New Morrison, when completed, ill be the largest and tallest hotel in he world, containing 3,400 rooms

Closest in the city to offices, theatres, stores and railroad stations

1,944
Rooms
$2.50 Up

—all outside, each with bath, running ice water, bed-head reading lamp and Servidor.

Home of the
TERRACE
GARDEN

Crepe-Kraft
Barrel Liner

We make a Specialty of BARERL LINERS for Packing Powdered Milk.

PROMPT SHIPMENT ALWAYS

The Crepe-Kraft Co., Inc.
114 Adams Street
NEWARK, N. J.

CHR. HANSEN'S LABORATORY, INC.,
Little Falls, N. Y.

Gentlemen:
Please send me your **Free Booklet**

"Soft Cheese Manufacture"

I understand this booklet gives directions for using HANSEN'S RENNET AND COLOR and LACTIC FERMENT CULTURE to manufacture SWEET COTTAGE CHEESE.

I am (am not) enclosing 75c for one package of LACTIC FERMENT CULTURE which will give my cheese the Finest Flavor.

Very truly yours,

Name ....

Address ....

....

DAIRYWEAVE
Means OBLONG Weave
MILK-FILTERING FABRICS

CLEAN MILK
SELLS ITSELF
USE....
DAIRYWEAVE

(FILTERGAUZE and FILTERFLANNEL)

These Dairy Fabrics are built to clarify milk, and, are the topic of discussion in Dairy circles. Their accurate, oblong meshes, strong and tough, make them efficient for clarifying hot, cold, raw, or pasteurized milk, better than any other straining medium.

Put an end to your terrifying, clarifying problems, with a 36 inch wide bolt (any yardage) or we will make you Bags, Cones, Discs, Tubes or any Special Shape.

Send Your Specifications *Get Our Factory Prices*

THE PRICKETT MANUFACTURING COMPANY
HAMPDEN, MASS., U. S. A.

FILTERING
STERLING
PADS

"Sterling" Cotton Filtering Discs are made from the highest quality of cotton, and will fit all standard milk strainers. All sizes in stock for immediate delivery.

Warranted Full Count and Perfect Circles.

Use "STERLING" Discs and have CLEAN MILK!

SANITARY COTTON CO.
1413 W. Jackson Boulevard Chicago, Illinois

TWO IN ONE
REVERSE SIDE
HANDICAP
The Old Way
The Handy Cap Way
HANDYCAP

HANDYCAP
Milk Bottle Opener and Cover

Good Housekeeping has approved the Handycap. It's a real convenience to the housewife and an excellent means of advertising for the milk dealer.

Ask Your Advertising Specialty Dealer to Show You Samples.

THE HANDYCAP CO. *Sales Office* **Irvington, N. J.**

tled. Have a loss of 1.5 to 2 per cent. Am ha
around 5,000 pounds of milk.

We had a loss of around 4 per cent of all bu
coming into the plant last month out of 180,000
of milk and 70,000 pounds of cream. Most of the
was churned and butter sold as prints, also enough
butter taken out for ice cream. Seems like the
rather high.

Any information you can give would be appre

Reply: The normal shrinkage on 1,000 gall
milk handled according to the system describe
usually run slightly over 2 per cent. A surve
ducted by the U. S. Department of Agriculture,
of dairying, covering shrinkage reported by 115
ranged from .3 to 7 per cent, with an average
per cent. This shrinkage was caused by batter
leaky or underfilled cans, carelessness in dumpi
draining cans, leaky bottle fillers, broken bottles
by rough handling of cases, milk being left in pas
ers, losses in clarifying and separating and losse
ing pasteurization and cooling.

Of course in plants handling a small amount
the percentage of loss would likely run higher t
a larger volume handled in a bigger plant. I
your losses might possibly be traced to separatin
teurizing and cooling. Perhaps in pasteurizing y
leaving open the covers of the vat. This allows
amount of evaporation to take place. If you are
this, I suggest the covers be kept closed. Aga
cooling process may be too slow, which would n
permit rapid evaporation but prove somewhat dis
to the cream volume. I suggest you cool as rap
possible to about 120 degrees F. in the vat and th
over the surface cooler.

It is, of course, impossible to determine the
of your shrinkage without being at your plant to
up on the trouble but I believe you should be able
this below 1 per cent from the weigh can. Possi
weigh can may be at fault. Have you checked
this?

Now as to the loss of 4 per cent of all butterfa
ing into the plant. This certainly is too great, a
or several factors may be the cause. These may be
as follows:

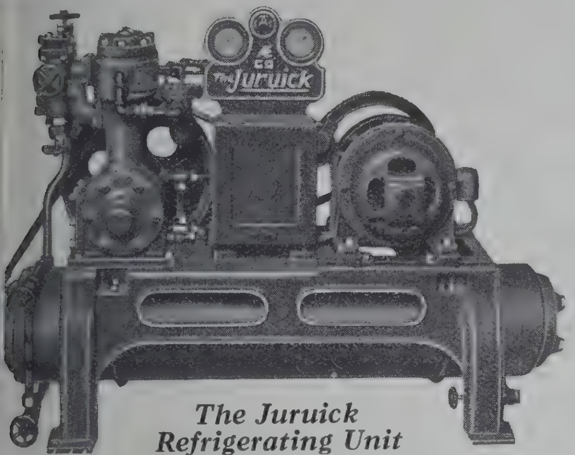
1. Inefficiency of separating the milk.
2. Loss of fat in buttermilk; I presume y
using the American Association Test for deter
the loss of fat in both skim milk and buttermilk.
modification of the Babcock test gives more relia
sults than the straight Babcock test and enables
check up on manufacturing results more closely.
3. Losses occurring by cream sticking to vats,
strainers, etc. I do not believe the loss here shou
ceed .2 to .3 per cent.
4. Losses occurring through weighing, samplin
testing cream. Perhaps your loss has occurred t
the method of reading cream tests. The complete
as you undoubtedly know should be set in a wate
at 130-140 degrees F. for five minutes and then
glymol added to destroy the meniscus just prior t
ing. A very slight error in weighing out the sam
reading the tests would cause either a deficiency
cess of fat, to appear on your books.
5. A loss in cutting out butter prints.

⚜

CHAMPION MILK TESTER.

George Pye, a milk tester in Tutsbury, Englan
works in a large dairy concern there, samples 1,0
lons of milk a day. After 35 years of service he
come so expert that he can tell from what distr
milk comes and what the cows are being fed.

Juruick
REFRIGERATION



The Juruick
Refrigerating Unit

his is the time of year to consider refrigeration. . . . e ready for hot weather before it is upon you. . . . Of ourse, you want **electric** refrigeration. . . . It's the est and most economical and soon pays for itself in reater profits, reduced spoilage and general efficiency. . . . Juruick Automatic Units provide electric refrig-ration at its best.

Send for Juruick folder.

American Engineering Company
2417 Aramingo Ave., Philadelphia, Pa.

Lactea-Lac
Buttermilk Culture

Will always assure you of getting a fine, uniform quality buttermilk with no wheying off.

The culture is ready for immediate use. It does not require transferring for three days.

Culture cabinets or special apparatus are unnecessary. A fine quality buttermilk can be made in ordinary milk cans, vats or tanks.

Lactea-Lac Culture

for making Special Lactic Buttermilk $2.50

This price includes our Mail Laboratory Service, which insures uniform quality at all times.

We will gladly mail you a Free sample of Buttermilk made from Lactea-Lac Culture. Judge for yourself the delicious flavor and quality.

LACTEAL ANALYTICAL LABORATORIES
INCORPORATED
176 FRANKLIN ST. BUFFALO, N. Y.

ARCUS COUPON BOOKS

Best Way of Handling Industrial Milk Service

By selling milk coupon books to employees of factories and offices your delivery men will save time now spent in making change.

Coupon book owners are also *more regular* in their use of milk. Write for suggestions for pushing industrial milk sales.

The Arcus Ticket Company
350 N. Ashland Avenue CHICAGO, ILL.

Leffel CREAMERY BOILERS

Save
Time
Labor
Fuel

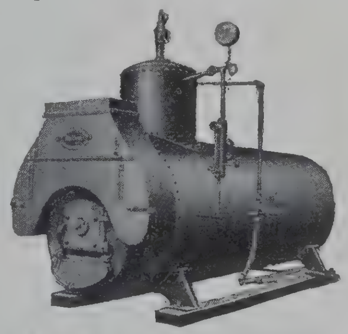
There is no extra or installation expense when you get a Leffel Creamery Boiler. No masonry foundation is required. Heavy wooden skids provide all the foundation needed.

Simply pick out a level spot—slide boiler into place and fire.

Leffel Creamery Boilers are ingeniously constructed to utilize every possible unit of heat from the fuel to give maximum steam production at the lowest possible cost.

In all sizes from 6 to 150 H.P.

They come to you completely equipped with all necessary fittings. A highly efficient, self contained boiler that conforms with all state boiler laws.



Write for more complete details and prices.

The James Leffel & Co. BOX 330
SPRINGFIELD, OHIO, U. S. A.

WASHINGTON — MAINE

Notes From Far and Near

CALIFORNIA — FLORIDA

King City, Cal.—A milk condensing plant is to be erected here by the Nestle Food Co. to cost approximately $200,000. The plans have been approved by the New York office of the company.

Newman, Cal.—The San Francisco Dairy Co. is adding necessary machinery for the manufacture of cottage cheese.

Brunswick, Ga.—R. V. Crine, proprietor of the North Star Dairy, has purchased the dairy business of I. K. and R. B Burney.

Davenport, Ia.—At a regular meeting of the board of health it was decided to enforce the rule about labeling all milk distributed in Davenport as being from tuberculin-tested herds, to include shipments of milk made to Davenport from surrounding dairy centers.

Davenport, Ia.—The Washington Dairy, Inc., which was recently incorporated here, has a capital stock of $50,000, and was incorporated to buy, and sell milk, butter, and other dairy and food products, at wholesale and retail. Dan MacNeill is the president.

Glenwood, Ia.—The Glenwood Creamery is just finishing the remodeling and enlarging of their refrigerating room, preparatory to installing a new three-ton Baker refrigerating plant.

Waterloo, Ia.—Construction of the Sanitary Dairy Company, this city, has been begun. The new building will have a 40 foot front and will be 70 feet deep, and will be a modern one-story creamery plant of brick and concrete.

Chemung, Ill.—The Dean Brokerage Company has opened a new condensed milk factory here.

Marion, Ind.—The Producers' Cream Association has been organized here with no capital stock. The association will deal in dairy products. The directors are O. O. Brubaker, W. H. Myers, R. G. Stollsmith and Charles O. Apple.

Wichita, Kan.—W. F. Suhm of the Wichita Dairy, at First and Pennsylvania, this city, announces that he will build a modern pasteurizing and milk bottling plant at a cost in excess of $40,000. The brick building will be 40x80 feet, and the latest pasteurizing and bottling equipment will be installed.

Jennings, La.—Announcement has been made that Don Barker has purchased the entire stock and equipment of the Jersey Dairy from J. L. Low.

August, Me.—The Pine Tree Dairy Co., Inc., is to maintain a general dairy and creamery business at the building on Bridge Street. The new concern is practically a re-organization of the original one and the business will be conducted along similar lines as before. The new officers are F. N. Boston, president; A. E. Wakefield, secretary, and S. E. Dillon, treasurer.

Manistique, Mich.—Reorganization of the dairy products plant, this city, at a capitalization of $45,000, is announced by members of the firm. The plant of the company was formerly known as the Manistique Dairy Products Co. but is now incorporated under the name of Leid's, Inc., to deal in milk and its derivatives. Officers of the corporation have not been chosen as yet.

Batavia, N. Y.—The United States Gypsum Company of Oakfield is going into the dairy business. The new da
dustry will distribute milk in Oakfield and Batavia.

Brooklyn, N. Y.—The Federman Sanitary Dairy C
been organized here at 106 Ave. O. by Morris Federma

Cleveland, O.—A new dairy company was incorp
here with a capital of $10,000 under the name of the M
Farm Dairy Co., Inc. The incorporators are Philip F.
Mildred Gold, E. Ginsberg and W. Mitchell.

Bellingham, Wash.—Elmer and Milton Cyr, dairym
Kelso, well known in this city, are seeking a location t
a modern dairy plant in this city. It is possible tha
may take the building now occupied by the Ford Dairy
ucts Co.

Tonasket, Wash.—The Auburn Dairy Products Co., a
dairy concern located at Auburn on the coast, has pur
the plant and business of the Tonasket Creamery.

Vancouver, Wash.—According to Manager C.
twenty-five hundred dollars worth of machinery has be
stalled in the Mayflower Dairy, making it one of the
up-to-date dairies on the Columbia River. The plan
handles about 450 gallons of milk daily.

Eau Claire, Wis.—Articles of incorporation for a
dairy products company, with headquarters in Eau
have been filed with the secretary of state and the regis
deeds. The name of the new association is the Eau
Milk Producers' Association which proposes to hand
kinds of dairy products, equipment, etc. The capital
of the association is $75,000. The incorporators are
Hoeslys, Robt. L. Ray, Roy W. Gilbertson, S. Guthri
W. J. Davies.

Dallas, Tex.—The Dallas Milk Co., this city, has inc
its capital stock from $75,000 to $125,000.

Ellensburg, Wash.—Representatives of Armour
were in the city for the past few days with a view of
lishing a milk reducing plant in which whole milk is t
before being sent to the company's condenser at Enum

Wichita, Kans.—A modern pasteurizing and milk bo
plant will be built by W. F. Suhm of the Wichita Da
First and Pennsylvania Ave., this city, to cost about $4

Knoxville, Tenn.—According to W. T. Zion of the
man Drug Co., one of Knoxville's leading refrigeration
cerns, installation of a complete pasteurization and refr
tion plant for the Lily of the Valley Creamery, this city
take place as soon as the equipment and materials have
received. The installation of a storage plant and a s
hardening room for the ice cream products of the Lily
Valley Creamery will insure the proper handling of the
ucts of the creamery and will increase the efficiency
sanitary measures.

Hibbing, Minn.—Arthur Ekstrom, who is the own
one of the largest dairy farms in this section of the
was elected president of the Hibbing Milk Producers'
ciation at a recent meeting of the association. The r
showed the association in sound financial condition.
officers are as follows: Arthur Marvin, Lynwood, was el
vice-president; Claire Beebe, Lynwood, secretary, and
Olson, Swandale, treasurer. Frank Sheringer, Spudville
William Pederson, Swandale, were named members o
executive board.

Meyersdale, Md.—The Scott-Powell Milk Co. of Phil
phia and J. F. Reich and Mr. Hartley of the chamber of
merce, this city, propose building a sixty thousand d
milk plant in this city, if enough farmers can become i
ested and a capital of thirty thousand dollars raised.

Murfreesboro, Tenn.—Carnation field man, Ray Mays
has entered upon his duties. He is an experienced br
and dairyman and is competent to give valuable and he
advice on dairy problems and methods. At present he i

WILLIAM H. TIMM
CONSULTING ENGINEER AND ARCHITECT
PERRY BUILDING
Chestnut & 16th Sts.
PHILADELPHIA
PENNSYLVANIA
DAIRY AND ICE CREAM PLANT SPECIALIST
Consulting Service for By-Product Processes

To Preserve

Chocolate Milk

Or Similar Products Packed
— IN —
Glass Bottles or Tins

USE THE

FORT WAYNE
AGITATING TYPE
STERILIZER

Backed by
TWENTY YEARS OF EXPERIENCE

Built to Meet Any Requirements as to Capacity or Type of Container

Fort Wayne Dairy Equipment Co.
500 WINTER ST. FORT WAYNE, IND.

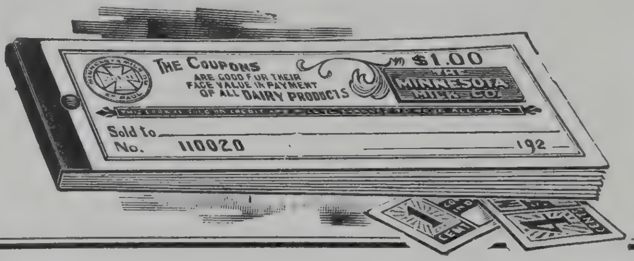
Enough Reasons Why You Should Use

National Dairy Coupons

1 They reduce customer turnover.
2 They increase sales.
3 They wipe out the bad debt item.
4 They simplify collections and reduce drivers' working hours.
5 They avoid disputes with customers and consequent lost accounts.
6 They concentrate purchases through your regular routes.
7 They solve the problem of handling transient accounts.
8 They simplify accounting records.
9 They cost very little to use.
10 They can be used for all products regardless of price changes.

SEND FOR SAMPLES

NATIONAL CHECKING COMPANY
ST. PAUL, MINN.


THE COUPONS ARE GOOD FOR THEIR FACE VALUE IN PAYMENT OF ALL DAIRY PRODUCTS
$1.00
THE MINNESOTA MILK CO.
Sold to
No. 110020
192

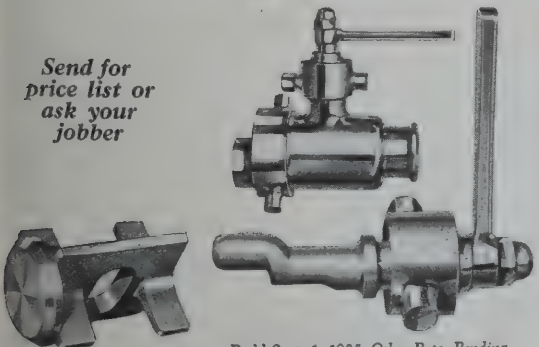
Tri-Clover
NEW-TYPE
STRAIGHTWAY VALVE

No plug to stick. Two parts to clean. No springs, washers or packing. A "TRI-CLOVER" valve will actually pay for itself by the milk saved alone.

Try one and you will find that this valve will serve better than any other obtainable.

Tri-Clover Machine Co.
Kenosha, Wisconsin
Makers of Tri-Clover Fittings

Send for price list or ask your jobber



Pat'd Sept. 1, 1925, Other Pats. Pending

MAINTAIN PROPER SOLUTIONS IN BOTTLE WASHING MACHINES

by regular use of the new

Nafis Automatic Caustic Test

Patent Applied for

ACCURATE
RAPID
ECONOMICAL

Shows percentage of total alkalinity, active caustic and carbonate.

Can be operated by any intelligent factory man.

Soon pays for the small cost, $15.00.

Write for illustrated circular.

Specify NAFIS GLASSWARE to your Jobbers. Do not accept substitutes.

Have you the instructive NAFIS CATALOG?

LOUIS F. NAFIS, Inc.
Manufacturers of Scientific Glassware for Testing Milk and Its Products
17-23 N. Desplaines St., CHICAGO, ILL.
Ask the Men Who Use It

iting various communities to establish truck routes and supply milk haulers.

Chicago, Ill.—Another attempt to merge the Milk Producers and Pure Milk Association has been unsuccessful. A meeting of officials of the two organizations failed to reach a workable agreement whereby the two bodies could be molded into one representative dairymen's organization. Conditions laid down by the Pure Milk Association made it impossible, according to Milk Producers' Association officials, to effect a consolidation. It was outlined by representatives of the Pure Milk Association that the conditions under which members of the new or merged organization would be accepted for membership must be that only men who own tested herds can or will be members.

Plato, Minn.—The local creamery has contracted to sell their entire output to the Gould Cream Company of Minneapolis. They will ship all sweet cream.

Pensacola, Fla.—Southern Dairies Corporation is planning the construction of a $100,000 milk station here.

Fond du Lac, Wis.—Frank J. Bauer, of Campbellsport, who operates for the A. and P. Milk Condensary at West Bend, has added to his equipment a milk tank truck which is glass lined, has a capacity of 1,800 gallons and is carried on a five-ton truck.

Greenville, Mich.—Soren Peterson has sold his milk business to the Blanding Milk Co., which company has now taken possession of the business. Mr. Peterson will continue the manufacturing of butter at his creamery.

Clintonville, Wis.—The Clintonville Milk Company has broken ground for a new addition to its plant to enable it to take care of the growth of its business. The new addition will be 24x42x41 feet and will enable the plant to increase its capacity by 75,000 pounds of milk daily. The new addition is to be completed by May 1.

Redwood City, Calif.—The Kennel Dairy Company's plant in Visitacion Valley was destroyed by fire to the extent of $15,000.

Winter Haven, Fla.—The Peace Valley Jersey Dairy Corp. has just been incorporated here with a capital of $300,000 by J. W. Janssen.

Clinton, Ill.—A new company has been chartered here under the name of the Clinton Dairy Products Co. The capital stock of the concern is $10,000.

Edwardsville, Ill.—A new concern to manufacture and deal in dairy products has been incorporated here with a capital of $60,000. The incorporators are: John A. Fruit, Louis C. Abenbrink, J. A. Buhrle, Martin Jensen, John G. Klueter.

Rockford, Ill.—The Cherry Valley Creamery Co., Inc., has been chartered here with a capital of $50,000, by Alfred Wessman, H. J. Credicott and Robert A. Moren.

Shirley, Ind.—Efforts are being made by the Shirley Chamber of Commerce to secure a condensed milk plant for this community.

Louisville, Ky.—Plans were filed with the building inspector for a modern fireproof addition to the Gray-Von Allmen Dairy plant, this city. The plans call for a new building, two stories and basement, the building to be of brick, concrete and steel with white porcelain brick for the interior finish.

Boston, Mass.—The New England Dairies, Inc., this city, has been incorporated to deal in dairy products and ice cream, with one thousand shares of stock at no par value. The officers of the concern are: James J. Leahy, president; C. T. Curran, vice-president, and James L. Leahy, treasurer.

Morton, Minn.—Earl A. F. Paulson of Stanchfield, Minn., has purchased the Morton Valley Creamery of this city. He will manufacture butter and ice cream.

Springfield, Mo.—The foundation work on the ne
of the Willow Springs Creamery Co., this city, is neari
pletion.

Winona, Miss.—At an enthusiastic meeting here t
ter of bringing a milk condensery to this city was di
A committee has been corresponding with the Pet M
of St. Louis.

Brigham, Utah.—If present plans under considera
the Boxelder Commercial Club and chamber of comme
velop, Boxelder county is to have a milk condensery
the near future. Secretary Lewis Jones of Boxelder
interested party.

Delavan, Wis.—James Haagenson has purchas
Krebs Dairy and equipment, this city, and will run th
under the name of the Standard Dairy.

Waunakee, Wis.—The Waunakee Milk Products C
installed a new 25 horse boiler recently and it is thei
tion to also install another skim milk vat in the ve
future to take care of their increasing business in
cheese.

Camden, N. J.—Work is progressing on the new i
ments of the Supplee-Wills-Jones Co. at 8th and Mar
Two units of a continuous-flow pasteurizing system
ing installed; a new can washer; enlarged ice box; a
ceiving room and many other improvements.

Highlands, N. J.—Peter and Harry Sigmund are
ready to pasteurize in their plant at Water Witch
Highlands.

Hoboken, N. J.—Keystone Dairy Co. has conve
three-tank continuous flow holders into a four-tank ba
tem, having made a good improvement in the system.

Paterson, N. J.—Paterson Milk and Cream Co.
Madison Ave. is making extensive alterations in i
plant. A new second floor pasteurizing room is one
features.

Pensauken, N. J.—Parks Dairies have established
pasteurizing plant at 116 North Forty-second St.

Three Bridges, N. J.—Fire destroyed the entire p
the New Jersey Milk and Cream Co. Fortunately, the
has another creamery at Flemington, four miles fro
fully equipped to pasteurize and bottle its product
decision to rebuild Three Bridges plant.

White House, N. J.—George Clark has installed th
vat pasteurizers to replace the former two-tank cont
flow system.

Woodruff's Gap, N. J.—Sisco Dairy Co. of Passa
taken over the operation of this creamery, it havin
idle several years. The milk will be received, cool
shipped in cans by rail to their plant in Passaic.

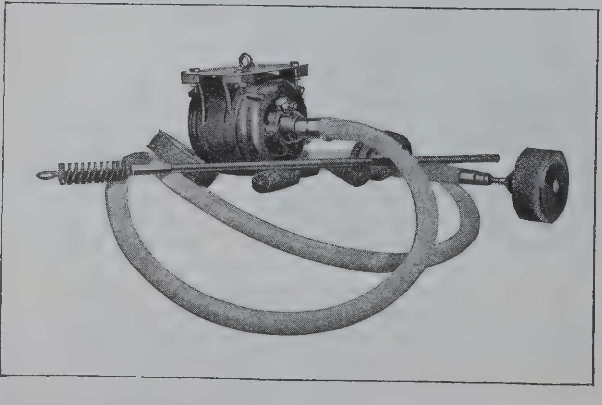
White Salmon, Wash.—P. Proper has purchas
Starrs building here with the intention of continu
dairy business on a larger scale. He will make nu
improvements and will occupy the new building about
first.

Huntington, W. Va.—Enos Taylor, general mana
the Huntington Creamery Co., this city, announced t
company is planning to expend $100,000 on a new pla
a daily capacity of 16,000 gallons. The site has no
decided upon.

Weston, W. Va.—Weston and Lewis counties are
cally assured of a milk shipping station, to be locate
according to J. A. Hodges of the Baltimore and Ohio R.

Beloit, Wis.—Fire which is believed to have been
by an explosion, did damage estimated at $50,000
Wright and Wagner creamery plant here.

Durand, Wis.—The Cottage Creamery Co., whic
chased the business of the Durand Creamery a few wee



The King Cleaner *vs*. Steel Wool and
Harsh Brushes

RESULTS—Both will keep Sanitary Piping and
tubular pasteurizing equipment perfectly
clean,—but—the King Cleaner will not ruin
the tubing, and requires far less time and
effort for the work.

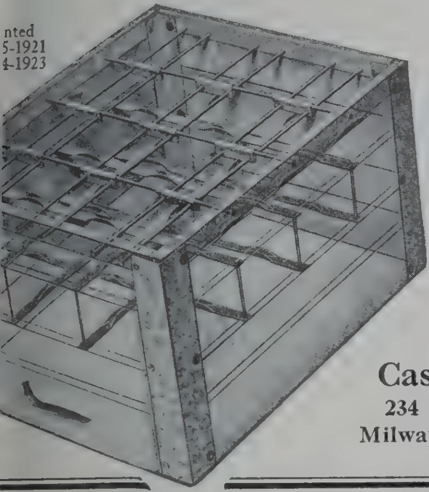
Send us diameters and lengths of tubing in your
equipment and we will advise you size
and price of Cleaner needed.

King Sanitary Pipe Cleaner Co., Inc.
SANDY HOOK, CONN.

A Stronger Case
ıt a Better Price

This new Quirk case will satisfy every demand that is made of a bottle case.

Notice particularly, the method of fastening dividers and the protection provided for corners and bottoms.



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QUIRK
Bottle
Case Works
234 Reed St.
Milwaukee, Wis.

DIFCO

Standardized Products
FOR THE
Bacteriological Examination of Milk

All products listed here have received the recognition of the Laboratory Section of the A.P.H.A.

BACTO-BEEF EXTRACT is prepared especially for use in Culture Media. In a three-tenths per cent concentration, as used according to "Standard Methods," it forms a sparkling clear solution having a reaction of pH 6.6±.

BACTO-PEPTONE is neutral in reaction and can be used with Bacto-Beef Extract without adjustment or filtration in the preparation of agar media for Milk Counts.

BACTO-NUTRIENT AGAR is the complete agar medium of "Standard Methods" Formula. It is prepared for use by dissolving 23 grams of powder in a liter of distilled water.

Specify "DIFCO"
THE TRADE NAME OF THE PIONEERS
In the research and development of Bacto-Peptone and Dehydrated Culture Media.

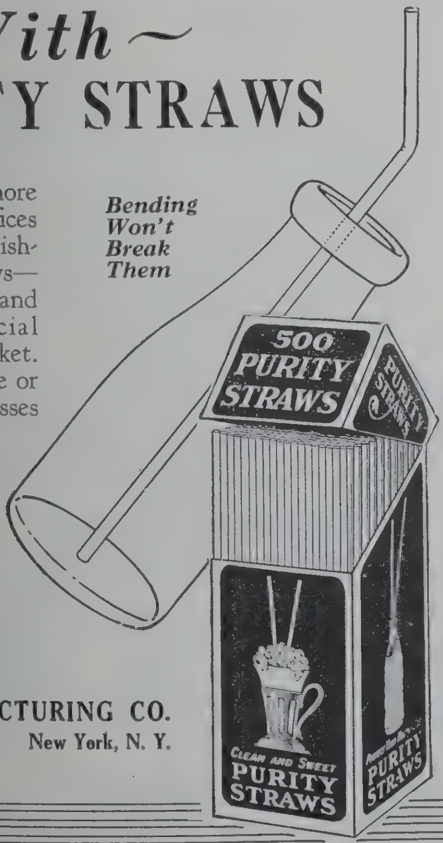
DIGESTIVE FERMENTS COMPANY
DETROIT, MICHIGAN, U. S. A.

Iore Business For
ou With ~
URITY STRAWS

can sell more
in schools, offices
shops by furnish-
Purity Straws—
strongest and
nest artificial
w on the market.
l not dissolve or
en. No glasses
vash.

*te for
samples*

Bending Won't Break Them



E MANUFACTURING CO.
Varren Street New York, N. Y.

Jacobs Barrels
— FOR —
Powdered Milk

STRONG
CLEAN
TIGHT

They stand shipping abuse.

They are a clean, attractive package for powdered milk.

They are tight and stay tight because only selected kiln dried staves are used—and held in place by sturdy beaded steel hoops.

Our quotations will interest you
WRITE OR WIRE

K. W. Jacobs
Cooperage Co.
19th and St. Paul Ave.
MILWAUKEE, WIS.

will move the frame building from the present site and erect a new two-story brick building 55x65 feet thereon. New and modern equipment will also be installed.

Johnson Creek, Wis.—Purchase of a site at a cost of about $80,000 has been made by the H. C. Christians Butter Co., this city, for a butter storage building in Chicago, Ill.

Medford, Wis.—The Medford Co-operative Creamery Co. made a contract with the Ward Dry Milk Co. to sell its entire output of dried buttermilk during 1927 at 7½ cents per pound on board cars in this city, whence it will then be shipped to St. Paul.

West Frankfort, Ill.—The plant of the West Frankfort Pure Milk Co., which deals in milk, butter and cottage cheese, has been purchased by Sherman Boner.

South Haven, Mich.—A new building is being erected here by The Grove Dairy Co.

Vassar, Mich.—The Vassar branch of the Detroit Creamery Co., this city, is installing a condensing pan having a capacity of handling 8,000 pounds of milk per hour, which will almost double the present capacity of the plant. N. F. Englehart is the local manager.

Evansville, Minn.—It was decided at the annual meeting of the Evansville Co-operative Creamery Association to set aside a certain sum each month as a permanent sinking fund with which to be prepared to meet the need for expansion in the future and for a new building at such a time as there will be need for one. The board consists of the following: L. W. Roswold, president; P. H. Pederson, vice-president; H. R. Mahla, secretary; W. I. Erickson, treasurer; A. G. Olson, Art Christenson and Christ Johnson, directors.

Royal Oak, Mich.—A new dairy and ice cream manufacturing plant costing approximately $50,000 is being erected here by the Freeman Dairy of Flint, Mich. The plant is expected to be ready for operation soon, and will be of brick, steel and concrete. Leonard Freeman is the president and general manager of the company.

Clarksville, Tenn.—The Dunlop Creamery will erect a 60x80 ft. plant here and will install $50,000 worth of equipment.

Spencer, Wis.—Extensive improvements are being made at the plant of the Spencer Milk Products Company, this city. The milk storage capacity has been enlarged with the installation of two 25,000 gallon and one 10,000 gallon glass lined tanks.

Silverville, Pa.—R. W. Cramer & Sons have thoroughly remodeled their dairy plant here. They have installed electric high pressure bottle washers, automatic capper and filler, and also a refrigeration plant.

❦

BUTTER ADDS FLAVOR AND ENERGY TO FOOD.

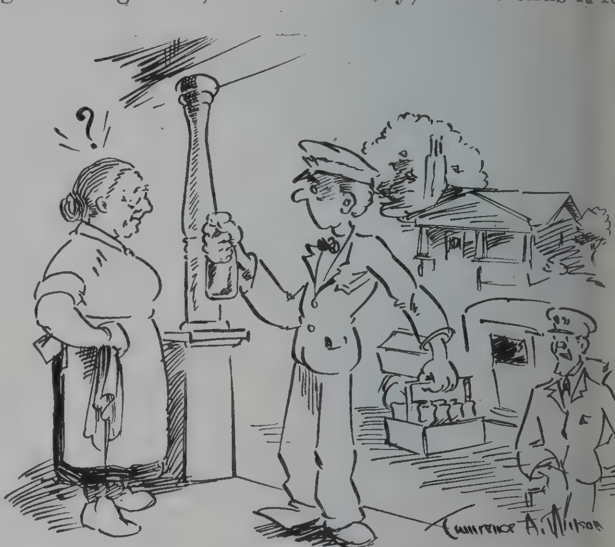
"Nature has given butterfat a particularly appetizing and distinctive flavor found in no other energy food," according to nutrition specialists of the National Dairy Council. "This is logical in a food which was intended by nature to sustain and build youthful bodies.

"What is still more important, nature has placed in butterfat considerable amounts of Vitamine A, indispensable to child growth and adult health. Our body requires daily a supply of heat and energy food. Butter supplies this heat and energy in abundance in the most easily digested food fat. It is for this reason that cooks find their best dishes are made best with butter."

MIKE THE MILKMAN

WATCHING THE CLOCK

The driver who's constantly watching the cloc
for a fall, and a slump, and a shock! No man ca
milk in a permanent way if he's longing at noon f
close of the day. The driver for Blink's, I am so
feel, has his mind on the clock, has his mind on his
The problem at hand with the Widow McGee who
complaint that he should oversee will not get att
until it's too late, for he has his mind set on his
and his plate. When "quitting time" comes
through in a trice and business forgotten is put
ice! Now, that's not the way I am building my
and it's never the way that a business is made! I
get through! No, I never can say, "That ends it f



and I'm through for the day!" If I, after suppe
think of a place where I might drop some milk
day on my race, I slip out and talk with these p
by gee, and that little stunt has built business fo
I figure my firm has the best in its line, and I figu
gains can be counted as mine, so I'm always alert
chance, more and more, to place milk and cream a
other good door! No, I'm out to sell all I can o
stock, so haven't the time to keep eyes on the c
I'm out to sell milk so I can not, I feel, be thinkin
much of my lunch and my meal. I'm out to do all
a driver can do, so blamed if I know when it's ti
be through. This "quitting time" stuff is all rig

RETINNING
Ice Cream and Milk Cans

GALVANIZING
Ice Cream Lids Galvanized Outlast Lids Retinned

Sanitary Tinning Co.
3753-63 E. 93rd St. Cleveland, Ohio

MURRAY IRON WORKS COMPAN
BURLINGTON, IOWA
INCORPORATED FEBY 1,1870
STEAM BOILERS OF ALL STYLES AND SIZES
The cuts show vertical and horizontal boilers requiring no brick work
We build also Water-Tube and Tubular Boilers to be set in Masonry

Built Especially For Retail Milk Delivery

DIVCO overcomes all the objections to power vehicles for delivering milk from house to house. It is not merely an ordinary truck with a special body; it is designed and built for only one purpose—that of delivering milk faster and cheaper than it has ever been done before.

Against Horses

Over 12 routes averaging 10½ miles and 180 stops, with an average load of 36 cases, the DIVCO Truck saved from ½ to 2 hours in delivery time, using only 1.2 gallons of gasoline per route and no oil.

Against Other Gasoline Trucks

In fifteen tests, conducted in different cities, against various makes of trucks, over routes averaging 26 miles, with an average of 140 stops and 31 cases, the DIVCO Truck saved from 1 to 2½ hours in delivery time, over 50% gasoline and 80% oil.

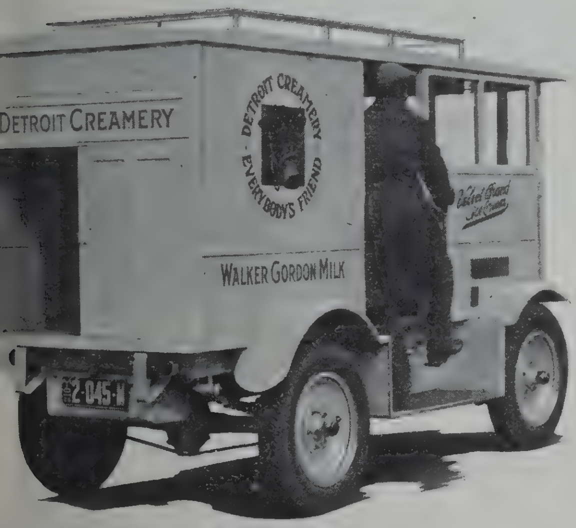
Against Electrics

Over twelve routes, averaging 22 miles and 210 stops, the DIVCO Truck saved from 1¼ to 2 hours in delivery time. Gasoline consumption averaged 2.3 gallons per route.

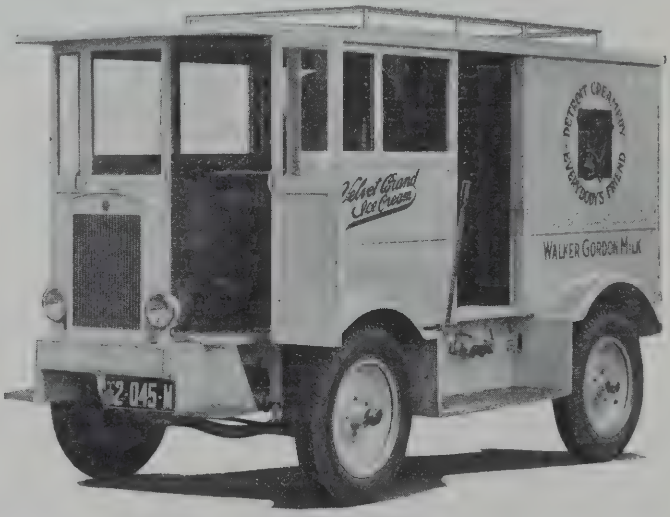
Divco handles easily, quickly, and quietly. The motor is governed not to exceed a maximum of 18 miles per hour which insures long life and low upkeep costs. The three point control permits the driver to operate Divco from the front or either side. Positive fool-proof brakes. Before you buy a wagon or ordinary truck, let us tell you more about Divco economy.

Send for Booklet—"From House to House with Divco"

DETROIT INDUSTRIAL VEHICLE CORPORATION
1400 WEST FORT STREET - - DETROIT, MICHIGAN


DETROIT CREAMERY
DETROIT CREAMERY · EVERYBODY'S FRIEND
Velvet Brand Ice Cream
WALKER GORDON MILK
2-045-H

Rear Side View.


Velvet Brand Ice Cream
DETROIT CREAMERY · EVERYBODY'S FRIEND
WALKER GORDON MILK
2-045-H

Front Side View.

DIVCO TRUCKS
GASOLINE DRIVEN 3 POINT CONTROL

When writing to DETROIT INDUSTRIAL VEHICLE CORPORATION *please mention The Milk Dealer.*

a way but it never is going to ruin my day, it never is going to split up my mind, for if I lose interest I'll then go behind; and while my name's Mike and ringlets are red my aim and my plan is for going ahead!—J. EDW. TUFFT, Grand Forks, N. D.

NEW JERSEY HAS NEW LAW REQUIRING TUBERCULIN TEST OR PASTEURIZATION.

On March 28, Governor Moore approved Assembly Bill No. 369 by Mr. Olden, which requires that all herds producing milk for public consumption in New Jersey must have successfully passed a tuberculin test within a year or the milk must be pasteurized or sold to a pasteurizing plant. The law takes effect January 1, 1928.

This is the third time this bill has been introduced in the New Jersey legislature and this year had the solid support of a number of official and semi-official agencies, including the state department of health and agriculture. It passed both houses of the legislature almost unanimously.

The object of the new law is to protect consumers of milk, especially young children, from contracting tuberculosis by the consumption of milk from tuberculous cattle. This disease exists in a large percentage of the dairy herds of the state. Children are susceptible to bovine tuberculosis, statistics showing that about one case in four of every child under five years of age having tuberculosis is of bovine origin. No protection was given under existing laws. The new law will give the public a choice between **unpasteurized** milk produced by cows known to be free from tuberculosis, or **pasteurized** milk in which all dangerous disease-producing organisms have been destroyed.

Following is a copy of the law:

A supplement to an act entitled "An act to secure the purity of foods, beverages, confectionery, condiments, drugs and medicines, and to prevent deception in the distribution and sales thereof" (Revision of 1907), approved May 20, 1907.

Be it enacted by the senate and general assembly of the state of New Jersey:

1. No person shall purchase, distribute or sell, or have in his possession with intent to distribute, sell or give away, for human consumption, any milk or cream which has not been pasteurized, except milk or cream which has been produced by cows which have successfully passed a tuberculin test within one year of the sale of such milk or cream; provided, however, that it shall not be unlawful to sell or deliver milk or cream produced by cows which have not passed a tuberculin test to a person or firm licenced by the Department of Health of the State of New Jersey to pasteurize milk or cream; and provided, that it shall not be unlawful to sell or deliver milk or cream produced by cows which have not passed a tuberculin test if an application for an initial test of such cows by the Department of Agriculture of the State of New Jersey under the laws of the state of New Jersey is on file with the department of agriculture.

2. In the case of milk or cream which is produced in states other than New Jersey, and which is shipped into this state for distribution and sale, all such milk or cream shall be pasteurized before being offered for sale, distributed or sold, or given away for human consumption, excepting that produced by cows which have successfully passed a tuberculin test within one year, made by a licensed veterinarian of the state where the cows are maintained.

3. All containers in which pasteurized milk or cream is shipped, distributed, sold or given away for human consumption shall be plainly marked with the words "pasteurized milk" or "pasteurized cream," as the case may be, upon the tags, caps or labels. All containers in which milk or cream from tuberculin tested cows, excepting certified milk, is shipped, distributed or sold shall be plainly marked with the words "unpasteurized milk produced by tuberculin tested cows," or "unpasteurized cream produced by tuberculin tested cows," as the case may be, upon the tags, caps or labels.

4. All tuberculin tested cattle producing milk or cream which is sold as "unpasteurized milk produced by tuberculin tested cows," or "unpasteurized cream produced by tuberculin tested cows," shall be made by veterinarians employed by the Department of Agriculture of the State of New or by licensed veterinarians. A complete record of th tuberculin test of each animal shall be kept on file premises where the cattle are maintained. Such r shall be open to inspection by state or local officials auth to make dairy inspections.

5. All cattle which have reacted to the tuberculin which are affected with any disease or condition whic render the milk injurious to health or abnormal in co tion shall be separated from the dairy herd, and no mil such cattle shall be sold, offered for sale or distribu given away for human consumption.

6. No cow shall be admitted to a herd producin intended for sale or distribution as "unpasteurized unless it has successfully passed a tuberculin test wi period of one year of the sale of the milk.

7. Every person who shall violate any of the provis this act shall be liable to a penalty of twenty-five doll the first offense and to a penalty of fifty dollars for the and each subsequent offense. Payment of a penalty f alleged violation of this act, either before or after the i tion of proceedings for the collection thereof, shall, f purpose of this act, be deemed equivalent to a convic the violation for which such penalty was claimed.

8. This act shall be enforced by the Departm Health of the State of New Jersey and by the local bo health of any municipality in this state, in the same m as the act to which this act is a supplement, and all pe incurred under this act shall be sued for and recove and in the name of the Department of Health of the of New Jersey, or by and in the name of any board of of any municipality in this state, in accordance with th visions of the act to which this act is a supplement.

9. This act shall take effect January 1, 1928.

DIRECTOR FOR SECOND TIME.

For the second time in as many years, Frank E derburg of R. R. No. L, National road west, was e as the Clark county director of the Miami Valle operative Milk Producers' Association, at the m held in Dayton, O., recently. Approximately 1,00 sons attended the meeting.

Mr. Funderburg, as director, represents approx ly 450 milk producers of Clark county at all legis sessions of the association. He is president of the County Farm Bureau.

An increase of 63½ per cent in the sales association for the year was reported. Sales in 192 $313,463, as against $191,708 in the previous yea pounds of butter, sales last year were 705,228, as a 419,687 in 1925, a gain of 68 per cent.

R. H. HUMPHREY CHOSEN PRESIDENT OF S FALLS MILK PRODUCERS' ASSOCIATIO

R. H. Humphrey was elected president of the Falls Milk Producers' Association, Sioux Falls, S. their annual meeting. He succeeds Dr. Fred Eva president.

Other officers elected were: Ralph Rogers, vice dent; R. F. Ross, secretary, H. H. Bement, treasure P. O. Moe, L. G. Lannis, C. F. Eggers and J. P. N directors.

S. G. BARTLETT CHOSEN PRESIDENT OF ST BURG MILK PRODUCTS CO.

Directors of the Steamburg Milk Products Steamburg, N. Y., held their annual meeting at the election of officers resulted as follows: S. G. lett, president; E. E. Bogart, vice-president; Jaquay, secretary and S. Fenton, treasurer. The tors of the company are composed of the following officers and M. L. Burdick, John Holt, F. C. Heier, Moore, L. E. Darling, E. L. Blood, George Patt Walter Barber, George Keith. Of these there were ent nine directors.

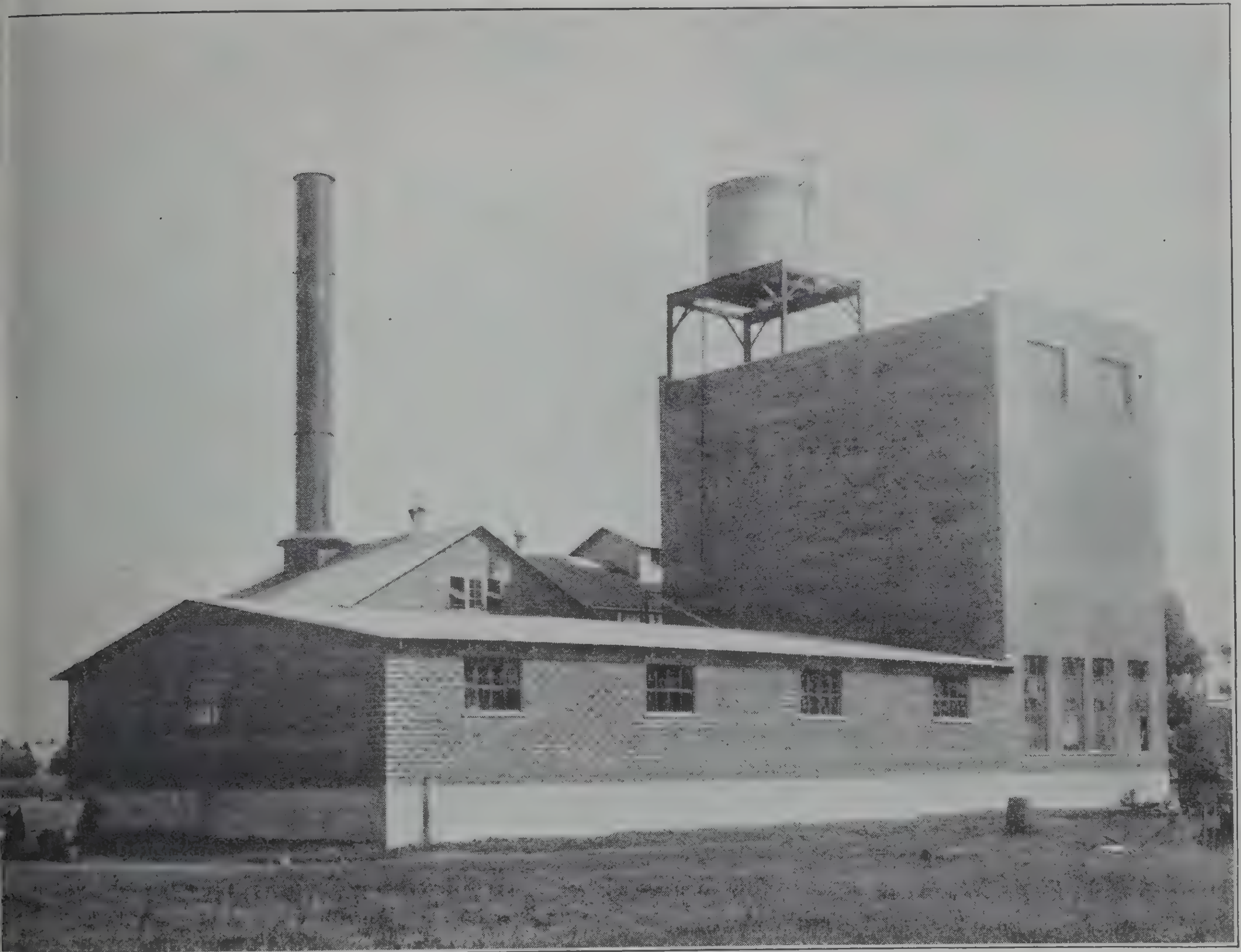
OUTHITT MILK POWDER PLANT

GRAY-JENSEN SPRAY PROCESS

Designed and Built by

DOUTHITT ENGINEERING COMPANY

139 NORTH CLARK STREET, CHICAGO



Sheffield Farms Company's plant at Lisbon, N. Y.

PLANTS IN OPERATION OR UNDER CONSTRUCTION

Add to your creamery profits by manufacturing your skim milk, buttermilk, or whey into powder on the Gray-Jensen Spray Process Milk Powder Plant.

The highly developed efficiency of the Gray-Jensen process results in recovery of milk powder actually equivalent to the solids in the milk, with lower labor, fuel and power costs than are possible with any other type of milk powder plant. These savings alone pay for one of our plants in from one to three years. Operating records prove this.

We can furnish an assured market for all skim milk and buttermilk powder made on our plants.

These plants are built in sizes to handle from 10,000 to 120,000 pounds of normal liquid milk or milk products daily.

Write today for booklet describing the Gray-Jensen Spray Process Milk Powder Plant

When writing to DOUTHITT ENGINEERING COMPANY *please mention The Milk Dealer.*

Building Demand for Milk Products

Relation of the National Dairy Council to the Dairy Industry and What it Means in Your Business. What Dairy Leaders Say About Its Work

FOLLOWING approval of a budget to increase the dairy industry's support of its educational organizations, at the annual meeting of the American Dairy Federation, which represents every branch of the industry, from farmer to market, a campaign is now being conducted among milk dealers, to inform them of the important work of the National Dairy Council.

In 1919, several leaders in the dairy industry met and formed the dairy council, with the idea that it should become the representative of the industry on a non-profit basis, to educate the public on the food value of dairy products, and to build good-will for the entire industry. The dairy council has grown since its start with surprising rapidity, and each year has found an increasing demand from the public and the industry for its services.

Up until a few months ago, the council had been supported by a relatively small proportion of the largest firms in the milk distribution branch of the industry, as compared with the amount of attention it has given to the direct increase in milk consumption. The dairy council has been supported from its formation by representatives of the butter industry, many ice cream manufacturers, by makers of dairy machinery and supplies, and by organizations whose membership include approximately 600,000 producers. Within the past few months the dairy council has been called upon to co-operate in the educational publicity program for the ice cream industry, through the research council of ice cream manufacturers. It has also been called upon to render added services to butter manufacturers of the Middle West, while producer organizations have added to their contributions for its rapidly expending program.

The present campaign to inform milk dealers more about the need for developing the dairy council's milk consumption work is the result of a series of meetings of leaders in the milk distribution branch of the industry. A committee of these men was formed to serve with leaders in the other branches of the industry, on a budget committee for the dairy council. Thus, all funds and efforts of the dairy council are presented in detail for approval. Not only has the American Dairy Federation approved the need of additional funds, but this budget committee voices an urgent awakening of milk dealers not now supporting the dairy council to its im work, and the need for increasing its effectivene

Local dairy council units, in larger cities, a supporting through definite funds created locally dealers and producers. Thus the entire funds of ational Dairy Council, in its Chicago office, are reach fully two-thirds of the population and fourths of the area of the United States, which th councils do not reach. At present the national attempting to cover this area on a smaller budg some of the local councils find necessary for a part state. In fact, the National Dairy Council now less in building increased appreciation of the pu dairy products than single milk distributing firms find adequate to advertise in its own market.

A sixteen-page booklet outlining the organizati activities of the National Dairy Council has be pared, and may be secured upon request. It is mailed to leaders in the industry, generally. The national Association of Milk Dealers has, thro executive committee, not only approved the dair cil's work but is urging its members to give activ cial support.

"It is estimated that the American public s 1925 of its food budget, FOUR BILLION DOLLA dairy products," states the council summary. T an increase over 1920 of about one and a half dollars. Each branch of the dairy industry was benefited by this increase in consumption, whi lowed educational endeavor and absorbed this in production.

"Leading dietary scientists declare that the States should be consuming at least fifty per cen dairy products than are now consumed, for best in health and efficiency. This should be our goal. must be provided for the effort. We owe it to the try. We owe it to the nation because our nationa perity and supremacy depend in no small degree products of this industry. There is a pressing d on the council for co-operation in health educatio ice that promises big returns for the industry. golden opportunity that this condition presents.

Leaders in each branch of the dairy industr

Folks Are Anxious to Know About Milk and Milk Products.

he need for milk dealers to see the value to their usiness in encouraging the educational work of y council, as a direct means of investing in future possibilities. Some of these leaders have ex- themselves as follows:

From the Milk Dealers' President.

National Dairy Council is doing splendid work in ng milk and dairy products generally. Their work is ing, building good-will for the dairy industry in a ther general agency touches. It needs and deserves e financial support of every milk dealer who is inter- the future development of his business."

F. H. KULLMAN,
President, International Milk Dealers' Association.

* * *

From a Dairy Machinery Leader.

t any manufacturer of machinery and supplies for the lustry should fail to recognize the direct value to his usiness of the work being done by the National Dairy seems impossible. We must build this organization financial and moral support if we expect the dairy to advance."

W. L. CHERRY, Past President,
y and Ice Cream Machinery and Supplies Association.

* * *

rom the Ice Cream Manufacturers' President.

ery manufacturer of ice cream is interested in the ex- of National Dairy Council activities. This work is to be a direct asset to our business."

S. M. ROSS, President,
National Association of Ice Cream Manufacturers.

* * *

From Milk Producers.

ny of our organizations are stimulating the use of amounts of dairy products through co-operation in uncil work. We would encourage the National Dairy and regional dairy councils in the work which they ng."—1926 Resolution of the National Co-operative oducers' Federation, at Cleveland, Ohio.

* * *

From a Butter Manufacturer.

s time the manufacturers of butter recognized the ab- necessity of supporting the good work being done by ional Dairy Council. The future growth and stability utter industry depends upon it."

A. E. WILKINSON,
e-President and Gen. Manager, Beatrice Creamery Co.

* * *

From a Recognized Educator.

e broad educational program which the National Dairy is now carrying on is contributing to the well-being hildren of this country and should be beneficial to the dustry as well."

CLAIR E. TURNER, C. P. H.,
Associate Professor of Biology and Public Health,
Mass. Inst. of Tech.

The Kiddies Know What's Good for Them.

From a World-Wide Authority on Nutrition.

"I have been familiar with the character of work being done by the National Dairy Council for several years, last past. It is fundamental in character and sound scientifically, and is undoubtedly accomplishing a great deal of good for the dairy industry, as well as being a distinct contribution to health educational work. It is incomprehensible to me why the dairy industry does not support the work of the council organization in the biggest financial way possible."

DR. E. V. McCOLLUM,
Professor of Chemical Hygiene and Public Health, Johns Hopkins University, Baltimore, Md.

* * *

From Creamery Buttermakers.

"WHEREAS, Through lack of information of the dietary value of butter on the part of the public, the per capita consumption is considerably lower than is warranted, and, Whereas, In the National Dairy Council we have an organization which has demonstrated its ability to bring about an increase in the consumption of dairy products, be it Resolved, That we urge our members and the creamery industry as a whole to provide the National Dairy Council with ample funds to conduct a butter publicity campaign which will acquaint the consuming public with the merits of butter to the end that the per capita consumption may be increased."—1926 Resolution of National Creamery Buttermakers' Association, Sioux Falls, S. D.

⁂

REEDSPORT, ORE., RESIDENT OBTAINS PATENT FOR NEW DEVICE.

G. O. Walker, a resident of Reedsport, Oregon, has recently secured a patent for a device, which he invented, to securely fasten the lids of milk cans.

This device is so constructed that it prevents loss of milk or cream while it is in shipment and also prevents the adulteration of the contents while the cream is in transit, and also prevents the interchanging of lids of the milk cans.

Through the use of a piece of steel wire, a small metal loop, a hollow bolt, threaded on the steel wire, and fastened to the milk can lid, the device is complete. It is not complicated and is easily manufactured.

⁂

ANOTHER EXAMPLE OF BENEFITS DERIVED FROM COW TESTING ASSOCIATIONS.

A. C. Baltzer, dairy inspector with Michigan State College, told members of the Oakland County Cow Testing Association, Pontiac, Mich., that through the work of cow testing associations, Allegan county dairymen have increased the annual product of their cows by 3,000 pounds of milk and 100 pounds of butterfat.

⁂

Cowards do not sound in battle; they are there, but not in it.

The Milk Dealer Is a Monthly Market Place for New Ideas.

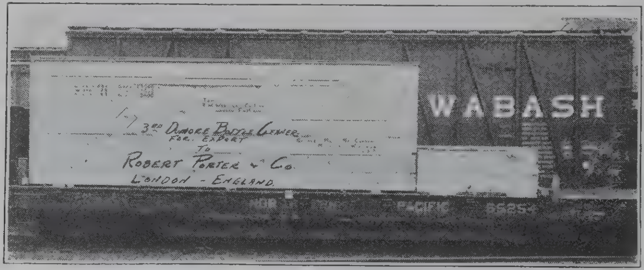
Notes of the Trade

EXPORT BUSINESS STEADILY INCREASING.

Announcement was made recently by the Geo. J. Meyer Co., Milwaukee, Wis., that three Dumore bottle washers have been purchased by Robert Porter Co., London, England, through the Milwaukee firm's English agent, R. W. Webster Company.

The Geo. J. Meyer firm announces that its export business is steadily increasing and that Schweppes, Limited, Vauxhall, England, which firm is operating two Dumore Junior bottle cleaners, recently placed an order for a third machine, which is to be shipped in the very near future.

The R. W. Webster Co. also has cabled Meyer to prepare a 308-quart Dumore for shipment April 15.



Dumore Bottle Washers Enroute to England.

The Meyer Co.'s French representative, R. I. Lecomte, Paris, France, is also making rapid strides in establishing the Dumore in France, it is reported. He now has three large Dumore units at Societe Generales des Faux Minerales de Vittel, Vosges, France; Felix Potin, Pantin, (Seine), France; Establissement Richelieu, Vichy, France, and at Rene Robert, Paris, France.

The tremendous savings and wonderful results obtained from these machines have attracted the attention of the largest wineries throughout France, it is announced.

Far-off Australia has also added its endorsement of Meyer-built equipment. Marchants Limited, of Melbourne and Sidney, are operating four large Dumores, the last one being recently shipped to them for their Melbourne plant. Schweppes, Limited, of Sydney, are operating two Dumores.

Recent shipments of Dumores were made to Castlemaine Brewery, Brisbane, (Queensland), Australia, and Coulson, Hay & Company of Melbourne. Coulson, Hay & Company have also just cabled their order to Meyer for a 20-bbl. Meyer floor type Regenero pasteurizer.

Present indications are that the Dumore bottle cleaners will soon be found in every country throughout the world where bottle cleaners are in demand.

* * *

NOW AVAILABLE IN TWO SIZES.

The Douthitt Engineering Company is now offering their spray drying plant in two sizes, the latest having a capacity of from ten to twenty-five thousand pounds of fluid daily of any or all of the following products: Whole or skim milk, buttermilk and whey. (No "wash-up" between products necessary.) This equipment was formerly offered in one size only, having a capacity of from thirty to seventy thousand pounds fluid daily and the new size, equally as efficient as its "big brother," is especially designed to meet the requirements of creameries, milk plants, cheese factories and milk distributors whose receipts do not attain the voume of the larger factory.

* * *

A FINE NEW CATALOG

Catalog "C" issued by Mojonnier Bros. Co., milk engineers, Chicago, is off the press. It contains 352 pages and covers and may be had for the asking by anyone interested in dairy equipment. It is profusely illustrated and carries much valuable information.

⚜

An expert is an ordinary man away from home.

* * *

Some fellows call rocks "stumbling blocks." Others call them "stepping stones."

INTERNATIONAL ASSOCIATION OF MILK DEA ANNOUNCE STANDARD FITTING FOR GLASS LINED TANKS.

Readers of The Milk Dealer recall the announceme about a year ago of the adoption by the manufactu temperature instruments, and the International Associ Milk Dealers, of the standard thermometer connect vats, and that the joint committee of these two gro pected to announce the standerd thermometer fitting f lined tanks soon thereafter.

Several meetings between the International Comm Standardization of Equipment, under the leadership Forster, Pure Milk Dairy, Ltd., Hamilton, Ont., and resentatives of the temperature instrument manuf followed with the result that on January 18, 1927, t vote of the manufacturers was recorded for adoptio standard fitting for glass lined tanks.

While the standardization of the thermometer co for glass lined tanks does not affect as large a grou that for vats, nevertheless the committee feels that important piece of work has been accomplished.

This is a big step forward in that it insures inter ability of competitve makes in thermometers. This i distinct achievement, and only another of the numbe complishments that has been effected by the Inter Association of Milk Dealers through its committee o ardization under the leadership of Mr. Forster.

The work that has now been accomplished to date i did co-operation afforded by the manufacturers consist the absolute simplification of the sanitary pipe and fitt that all sanitary fittings are now interchangeable an same thread and diameter for different sizes; (2) the fication affording interchangeability of sanitary therm connection for vats, and (3) the simplification affordin changeability of sanitary thermometer connection f lined tanks.

The Standardization Committee of the Internationa ciation of Milk Dealers consists of W. H. Forster, Pu Co., Ltd., Hamilton, Ont.; F. E. Goldsmith, Borden' Products Co., New York, N. Y.; M. Van Antwerpen, Dairy Co., Milwaukee, Wis.; O. S. Schier, Western M Dairy, Inc., Baltimore, Md., and T. N. Westlake, Farms Co., New York, N. Y.

⚜

DAIRY TOUR.

According to J. C. Barnett, district agent of west Arkansas for the extension service of the col agriculture of the University of Arkansas, a dai of northwest Arkansas, to stimulate the already ing interest in dairying, will begin April 19 an tinue through May 6. W. C. Woodley, extensio specialist, and Harry Marsh, field representative American Jersey Cattle Club, are also sponsori tour.

The schedule of the tour, including the da meetings in the towns to be visited, is: Fort Smith Sebastian county, April 19; Van Buren, Crawford 20; Greenwood, south Sebastian, April 21; Boo south Logan, April 22; Paris, north Logan, Ap Little Rock, Pulaski, April 25; Conway, Faulkner 26; Morrilton, Conway, April 27; Clarksville, J April 29; Fayetteville, Washington, April 30; ville, Benton, May 2; Berryville, Carroll, May 3; son, Boone, May 4; Marshall, Searcy, May 5, and Van Buren, May 6.

⚜

CANNED MILK MUST BE PROPERLY LABE

W. Irving Glover, second assistant postmast eral, Washington, D. C., has just announced that condensed milk are admitted to the parcel post Greece only when they are properly labeled.

Mr. Glover's announcement follows:

Effective at once, cans of condensed milk mitted in the parcel post mails to Greece only i instances where they bear a label in the Greek la indicating the directions for use.

The above should be added to the item "Gree page 287 of the annual Postal Guide for 1926.

WANT DEPARTMENT

HELP WANTED
(Rate: 2c per word)

P WANTED—Salesman calling on to sell our bottle crate on com- . Liberal proposition. American d Crate Co., Louisville, Ky. 3-27tf

TED — Old established Chicago ompany with sales of almost one yearly needs man who can man- d develop one of its suburban es. A business of unlimited future ssibilities. Prefer experienced man. to $50,000 investment privilege al- man who can qualify. Give full and experience. Address: D-188, lk Dealer. 4-27

P WANTED—An executive position for a man of experience and proven to act in the capacity of assistant president and who is capable of ng the duties of general manager. n we seek must have had first hand experience in milk plant operations roduction to distribution—sales and . We do not want a specialist or a but a sound, aggressive business ive who is well balanced, ambitious lly competent to accept responsi- and get results. Replies will be in strictest confidence. Give full of experience in first letter. Loca- Jew York state. Address: D-203, ilk Dealer. 4-27

P WANTED—We have a client with tive openings for several salesmen re familiar with the dairy industry experience preferred. Highly established concern, dominating its Our transactions always absolute- fidential. No fee charged the em- . Write for our application blank. n Salesmen's Agency, 133 E. Dur- t., Philadelphia, Pa. 4-27

10,000 Salesman Wanted

One who lives in New York City the East and who is acquainted th the Eastern trade preferred. Must be familiar with dairy and cream machinery and equip- ent line. Past experience in sell- g a high class line of this kind ll be very valuable to you in is new connection, which has competition.

Salesmanship and knowledge unt most — not high-pressure. less you are the right kind of a -getter we can't use you, but if u are that kind, we have a prop- ition that will interest you.

We are a large, responsible con- rn and offer a permanent and ofitable connection for the man ith ability to produce.

Write us fully. Your corre- ondence will be held strictly con- lential.

Address: D-199, The Milk Deal- . 5-27

POSITION WANTED
(Rate: 2c per word)

SITION WANTED—Young man 31 old desires position as manager or tant manager in city milk plant. had 15 years practical experience. ess: D-221, The Milk Dealer. 5-27

RATES

2c per word for ads placed under headings "Help Wanted" or "Position Wanted."

5c per word for ads placed under all other headings — "Wanted to Buy," "For Sale or Exchange," etc.

In computing amount of remittance, add six (6) extra words if wanted published under Blind Address.

Bold Type—Double regular rates.

Minimum Charge—50c.

Blind Address — EXTRA — 25c in U. S. only; 65c Foreign — To cover postage in sending out replies from this office.

REMITTANCE MUST ACCOMPANY ORDER.

IT PAYS TO ADVERTISE

NOTE: Names and addresses of advertisers using blind addresses cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of this paper.

NOTICE

The publisher disclaims any responsibility for the reliability of parties advertising in the Want Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting suspicious dealings.

We reserve the right to refuse to accept advertisements which we believe are detrimental to the dairy industries.

Want Ads are accepted up to 7th of month preceding date of issue. Forms close on that date.

WANTED—Position as sales manager or supervisor of milk routes. Am 29 years old. Eight years experience. Fully capable of handling any situation and of building up sales. Address: D-156, The Milk Dealer. 4-27

POSITION WANTED—As superintendent or foreman in a city milk plant. I have had five years of commercial experience and four years of college work in dairy manufacturing. Please mention salary and possibilities of a job in your first letter. References. Address: D-175, The Milk Dealer 4-27

POSITION WANTED — As superintendent or working foreman in up-to-date dairy or creamery. Practical man with 20 years experience. Technical training in sanitation and can guarantee a fine low count product. Expert in butter, cultured buttermilk and cottage cheese. Have the executive ability to handle men and get economical results. Best of references. Address: D-229, The Milk Dealer. 4-27

POSITION WANTED—As superintendent or manager of dairy or creamery. Have had 18 years experience in dairy work. Understands market milk, soft cheese and manufacture of cultured buttermilk, butter and ice cream. I am very particular about cleanliness in both plant and help. Address: D-228, The Milk Dealer. 4-27

POSITION WANTED—As plant superintendent or foreman. Am thoroughly experienced and college trained and have had eight years of practical experience along all lines of the dairy industry, including four years as plant foreman. Please mention salary and possibilities in your first letter. Address: D-218, The Milk Dealer. 4-27

POSITION WANTED—As superintendent of country bottling plant or shipping station. 18 years practical experience. Employed by three firms including present. Best references. Will accept steady position anywhere. Married, 35 years old. License for Babcock bacteria. Address: D-219, The Milk Dealer. 4-27

POSITION WANTED—As sales manager and supervisor of milk routes by American, 32 years old, married, with sales promotion experience. Yearly contract, $50 weekly. Desire to purchase interest at expiration of contract. Present contract expires July 1. East or Southeast. Prefer Pennsylvania, Maryland. Protestant. Masonic. Address: D-217, The Milk Dealer. 5-27

POSITION WANTED — As production superintendent of milk plant. Many times when something has gone wrong with the production end of your plant, you have wished that you had a man who really had an interest in the operation of the plant and the quality of the products put out. Have had adequate technical training and practical experience to take charge. If in need of such a man write. Address: D-215, The Milk Dealer. 5-27

POSITION WANTED — By young man, married, Protestant, educated. Experience in laboratory, plant management, farm inspection and farm management. Desire place where loyalty is desired and appreciated. New England states, New York or Pennsylvania. Outline position first letter. Address: D-213, The Milk Dealer. 4-27

POSITION WANTED — Salesman with splendid record in dairy machinery and supply sales. Best of references, wide acquaintance with ice cream and milk plant trade. Address: D-231, The Milk Dealer. 4-27

POSITION WANTED—Efficiency specialist with a record that will convince you of ability. Experienced in various phases of plant operation, including manufacture of products, engineering, sales, purchases, and coordination of facilities. Address: D-232, The Milk Dealer. 4-27

FOR SALE or EXCHANGE
(Rate: 5c per word)

BUSINESSES

FOR SALE—Growing milk business in California city of 15,000. Only pasteurizing plant in town. Fully equipped for bottled milk. Fine opening for ice cream. S. H. Weeks, Wildwood Dairy, 705 4th St., Santa Rosa, Calif. 4-27

FOR SALE—Ice cream and milk plant in central Illinois. Fully equipped. Sell reasonable. Address: D-214, The Milk Dealer. 5-27

FOR SALE—Completely equipped retail dairy. Daily output 650 quarts. Dairy is located in the southwestern part of Michigan. Address: D-244, The Milk Dealer. 6-27

MACHINERY AND SUPPLIES

FOR SALE — Refrigeration Machines — Used—We have several used and new machines of nationally known make, which we can sell at a big saving to you. Will erect and guarantee the plants fully. Address: Erecting Engineers Company, 4725 West Lake St., Chicago, Ill. 4-27tf

FOR SALE—One 300-gal. Cresco pasteurizer, belt drive, used but 18 months. $200. H. S. Holder, Hudson, Mass. 5-27

FOR SALE—One Cherry-Bassett pasteurizer, gray in color. This pasteurizer is only five months old and as good as new. A bargain for a quick answer. Address Eisenhart Purity Milk Co., Shamokin, Pa. 4-27

FOR SALE—400-gal. Progress homogenizer, Mojonnier carton filling machine, Progress brine cooler, and other machinery; write or wire for list and prices. Northwestern Ice Cream Company, Minneapolis, Minn. 4-27

(Want Department continued on next page)

FOR SALE—One 5-h.p. Lookout vertical boiler, good as new. Used about 60 days. $100.00. American Box and Crate Co., Louisville, Ky. 3-27tf

FOR SALE—100-gal. O. & B. pasteurizer, Tabor milk pump, Reed brine box and pump, belt driven, 5-ft. Burrell Simplex milk cooler. Creamery Package rotary hydraulic bottle washer. This machinery has been used less than six months. Priced to sell. Address: J. L. Oakes, Sharon, Pa. 4-27

FOR SALE — Meyer Dumore Junior, $1,250. Formerly used at Bowman Dairy's State Street plant, Chicago. Replaced by Miller Hydro. Offered as is, subject to inspection before shipment. Miller Manufacturing Company, Bainbridge, Ga. 6-27

You can get somebody to sell you anything you want, if you use "The Milk Dealer" Want Department.

FOR SALE—One brine box with 1-in. belt drive pump, $30; one line shaft, $1\frac{7}{16}$-in., 18 feet long, with hangers, $15; steel split pulleys to fit above shaft; one Ladd No. 1½ milk filter, $10; one steam turbine bottle washer, $8; one 2½-h.p. single phase motor, $60. Miscellaneous belting. Urbana Pure Milk Co., Urbana, Ill. 5-27

WANTED TO BUY

(Rate: 5c per word)

WANTED TO BUY — Condensery or creamery. Prefer to lease with privilege of buying. Address: D-129, The Milk Dealer. 4-27

WANTED—Used pasteurizing vats, coolers, ice breakers, ice cream cans and tubs, churns, etc. Send us list of what you have for sale. B. Riley Hauk & Son Company, 201 South First St., St. Louis, Mo. 4-27tf

Have you the right man for the position? If not, consult "The Milk D
Want Department.

WANTED TO BUY or make conne
with a milk plant within a radius
miles of Chicago, with or witho
cream or butter departments. Have
$10,000 to $15,000 to invest. Am e
enced in the retail and wholesale r
milk and butter business from prod
to sales. Married, 35 years old. Ad
D-185, The Milk Dealer.

WANTED TO BUY—About 100 us
gallon can jackets. Advise conditio
price. Ashland Sanitary Milk Co.,
land, Ky.

If that business of yours does no
you, somebody else will be glad to
Let them know about it through a
Dealer" Want Ad.

CREAM SHIPMENTS FROM CENTRAL WEST TO NEW YORK CITY LARGE.

According to a recent report issued from New York City, the shipment of sweet cream from the Central West to the eastern centers of population is becoming an important factor in the dairy industry. From January 1 to March 15, Wisconsin creameries shipped 5,178 cans while Iowa provided 1,600 cans for the metropolitan supply. The other Middle Western states to market cream in New York City during that period were Ohio, with 800 cans, and Indiana with 445 cans.

⁂

NEW PLANT COMPLETED.

The new plant of the Purity Milk Company, Philipsburg, Pa., is now completed, with the new machinery installed and running smoothly.

The cost of the building, of brick and concrete, and the machinery represents approximately $18,000. The members of the company are Orvis and Earl Fleck, who have been in the dairy business for years, taking over the business of their father, the late John Fleck, who was a well known dairyman.

Four hundred gallons of milk is purchased daily from farmers in the region.

⁂

BILL WOULD SHACKLE GROCERY CLERK'S WIT.

Not that the Wisconsin senate would put a ban on wise cracks thrown at unsuspecting customers by grocery clerks, but a bill introduced at a recent session at Madison, Wis., would act as an effective curb. No longer would the question, "May I have a cup of milk?" elicit the reply, "Shall I break the bottle, or wrap it up?" The new bill asks for the standardization of one-third quart bottles, because "pints are often too large and half-pints too small."—Milwaukee Journal.

⁂

PAGE MILK COMPANY EXPANDS INDUSTRY.

The Page Milk Company, Merrill, Wis., has expanded its industry considerably by the completion of a new fire-proof daylight addition, 65 by 85 feet, one-story and basement, and by the installation of considerable new machinery. The improvements have been made with the expectation that the daily milk deliveries to the plant will aggregate from 120,000 to 125,000 pounds this summer.

The plant will also be equipped with an additional 150-h.p. boiler for the purpose of raising more steam. A new 30-ton ice machine is also being installed.

NEW HOME FOR MILK FIRM.

The Vandello Bros are the proprietors of the
man-Wilson Milk Co., which recently moved into it
location at 1107 East Main St., Ottumwa, Ia.

The milk furnished by this company is pasteuriz
the most modern scientific methods, which kills the l
ful bacteria and renders the milk safe without des
ing the food value. "Bottled, pasteurized milk may
a little more than raw milk, but it is well worth th
ference in price," say officials of the firm.

⁂

FIRST PRESIDENT OF CHICAGO MILK SHIPP ASSOCIATION PASSED AWAY.

Judson P. Mason of Elgin, Ill., who was the first
ident of the Chicago Milk Shippers' Association,
which grew the present Milk Producers' Associa
and also president of the Illinois State Dairymen's
ciation for twelve years or more, died recently at th
of 77 years in his farm home that was his birthplace
the home of his father who got the land as a govern
grant in 1845.

⁂

DRINK MILK FOR ROSY CHEEKS, GIRLS

Mrs. Scott of the Pittsburgh Dairy Council addr
the girls of the seventh and eighth grades of the Ho
School, Philadelphia, on "Painted Faces, From th
side Out."

Mrs. Holmes said not by artificial means, such a
use of paint, powder and lipstick, can one be r
beautiful, but by natural means, such as adopti
proper diet, which includes milk, thinking right thou
and adopting regular habits.

⁂

NEW DRY MILK PLANT.

The new plant of the Dry Milk Company, New
City, which is being erected at Jasper, Mo., is sched
to be in operation this summer. The plant is being
signed to make dry whole milk which is used by m
facturers of the finest grades of milk chocolates, and
skimmed milk used for a variety of purposes.

The new plant will have a capacity of upwar
60,000 pounds of liquid milk daily and is so desi
that its capacity can be increased as may be requir
handle the growing milk production in the vicinit
Jasper.

The Dry Milk Company's products are mark
under well advertised trade-marked brands as foll
Cremora—dry whole milk; Milcora—dry skimmed m
Chicora—dry skimmed milk; Dryco—infant milk.

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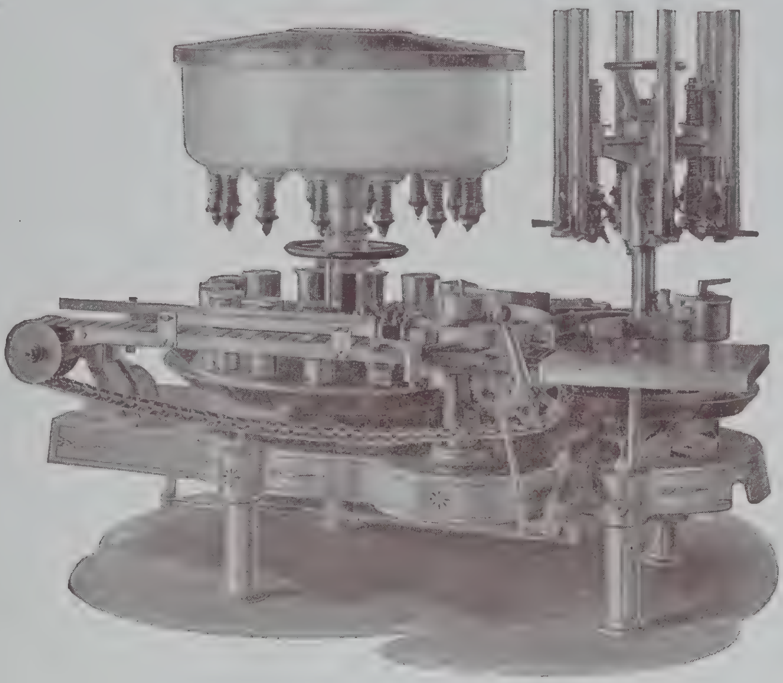


...The...Davis...Rotary...Filler...and...Capper...

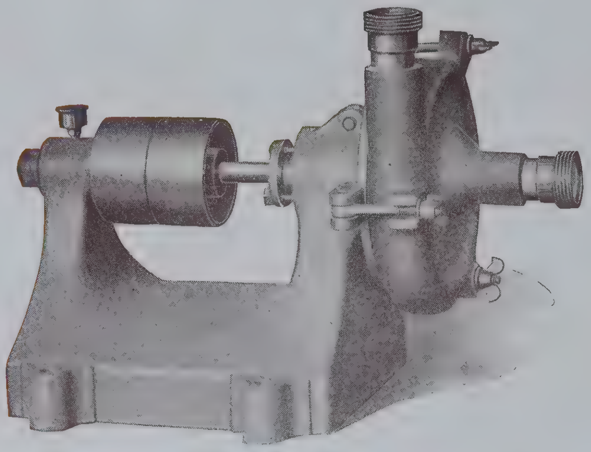
A
CP
Product

Simple . . . but one driving shaft . . . four driven members . . . bottle pedestals raise and lower automatically . . . no complicated reciprocating parts . . . rotary principle is carried out fully, even to the cappers . . . bottles never stop on machine . . . few are ever broken . . . no milk is spilled . . . automatic feed has safety device preventing damage to machine from broken or upset bottles . . . bottle size adjustments are simple . . . Alemite lubrication . . . capacity is 66 pints or 53 quarts per minute . . . six capping heads . . . *CP* construction . . . all rotary . . . all right . . . many of the best plants use them . . . see one operate and you might too.

THE CREAMERY PACKAGE MFG. COMPANY
1243 W. Washington Boulevard CHICAGO, ILLINOIS
Sales Branches Everywhere

"FOR BETTER MILK HANDLING"

The YORK Milk Pump is made in No. 1, No. 2 and No. 3 sizes and in either belt drive or direct motor drive.



Belt driven pump assembled.

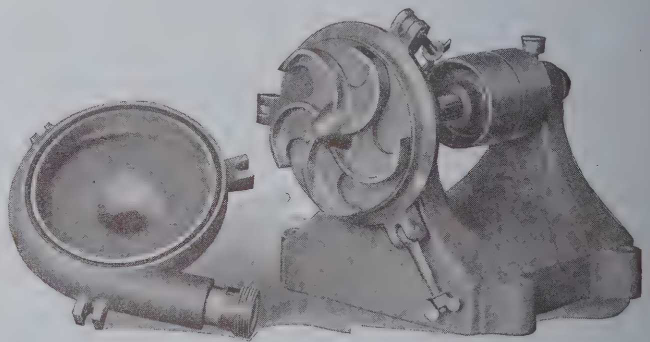
YORK No. 2 Milk Pump

A PUMP which can be cleaned easily and thoroughly is a boon to the dairy. That is what you will find in the YORK No. 2 Milk Pump.

By loosening three thumb nuts, you are able to clean every inch without any guess work. There are no cracks or crevices which are hard to get at.

It has an oilless bearing at the impeller end, and a shaft made of 70% nickel. All castings are brass heavily tinned with pure blocktin. Regularly furnished for 1½ inch sanitary tubing connection. May be had direct connected to motor or belt driven.

The illustration shows the belt driven pump.



Belt driven pump taken apart.
Note easy access for cleaning.

For further information or prices, write

YORK MILK MACHINERY CO.

Manufacturers of Milk Handling Equipment

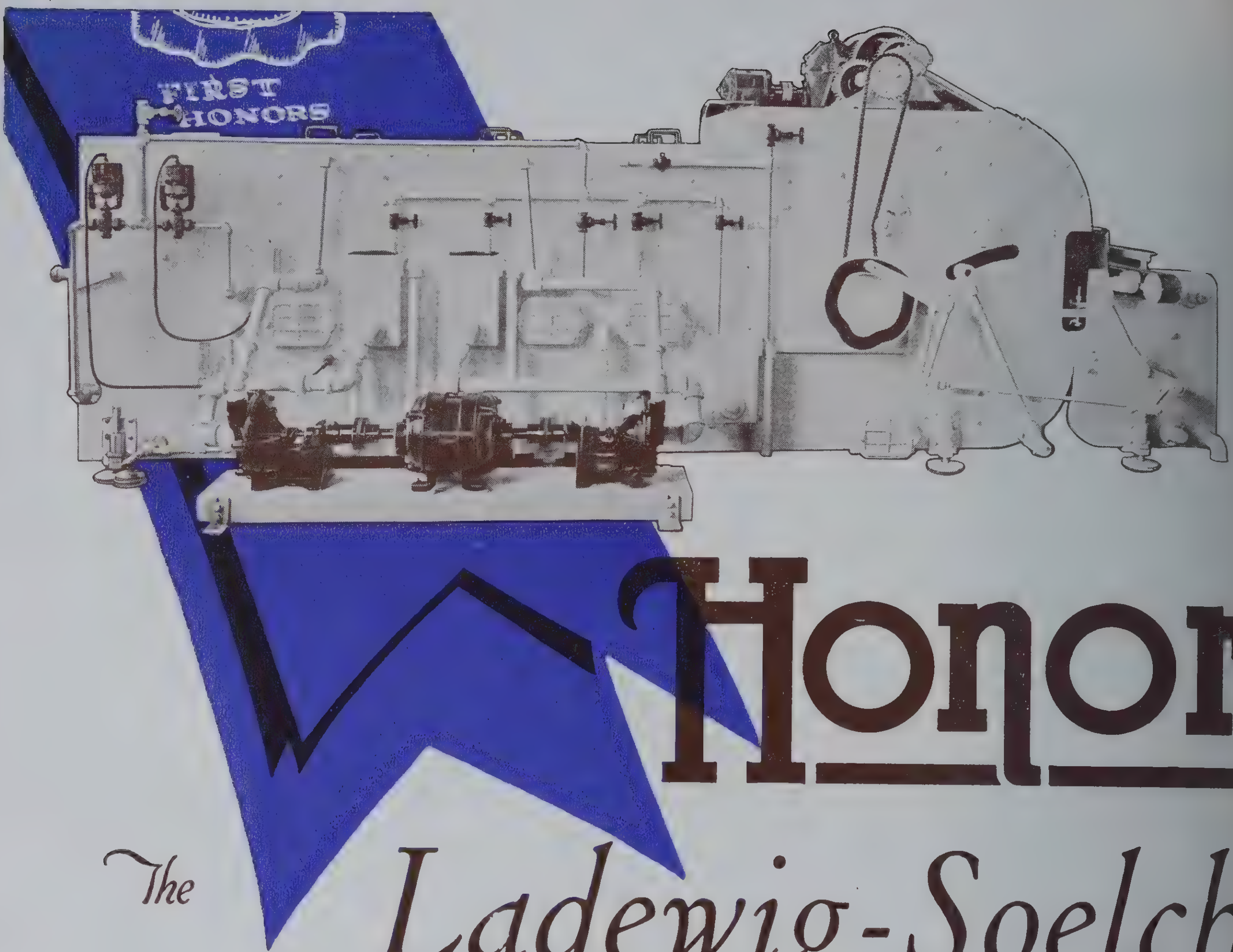
York, Penna.

Agrim
D

THE
MILK DEALER

OF THE
MAY 24 1927
UNIVERSITY OF ILLINO

Volume 16 May, 1927 Number 8



Honor

The Ladewig-Soelch

SUPER EIGHT

HONORS! Scarcely six months old, this new Ladewig-Soelch has become the most talked of bottle washer in the industry. Yet this phenomenal success is logical. For behind the Ladewig-Soelch are the successes of 22 years in building washers—each one better than the last. Never has any washer been received with such enthusiasm and tribute; and all who have seen it agree on this: The Ladewig-Soelch is truly a remarkable engineering achievement. It has won its honors by sheer superiority and its outstanding ability to wash bottles faster, cleaner and *cheaper* than they have ever been washed before. Write for full information.

Distributed by
A. H. ARNOLD & CO.
718 W. Randolph St., Chicago, Ill.

Manufactured by
LADEWIG-SOELCH CO.
38th & Lapham St., Milwaukee, Wis.

SUPPLEE
WILLS-JONES
SUPPLEE-WILLS-JONES

Supplee-Wills-Jones, of Philadelphia, make daily use of trustworthy Trailer transportation

upplee-Wills-Jones, up-to-date Milk Dealers of hiladelphia, use Fruehauf Semi-Trailers in haul- g milk from the Tank Cars—"spotted" at the earest railroad siding— to their main plant. The ame equipment also serves as economical haul- ge units in transporting milk from the country istricts to the city. Huge Fruehauf Refrigerator railers are used in carrying bottled milk to the utlying residential districts—doing away entirely ith the old-time necessity of erecting costly ranches throughout the city.

Trustworthy Trailer Transportation

FRUEHAUF
TRAILERS
DETROIT

There's a way to use Fruehauf Trailers in your business—speeding up deliveries and cutting costs. Will you permit us to cooperate with you—giving you the benefit of our varied experience —without obligating you in any way? Write today, please.

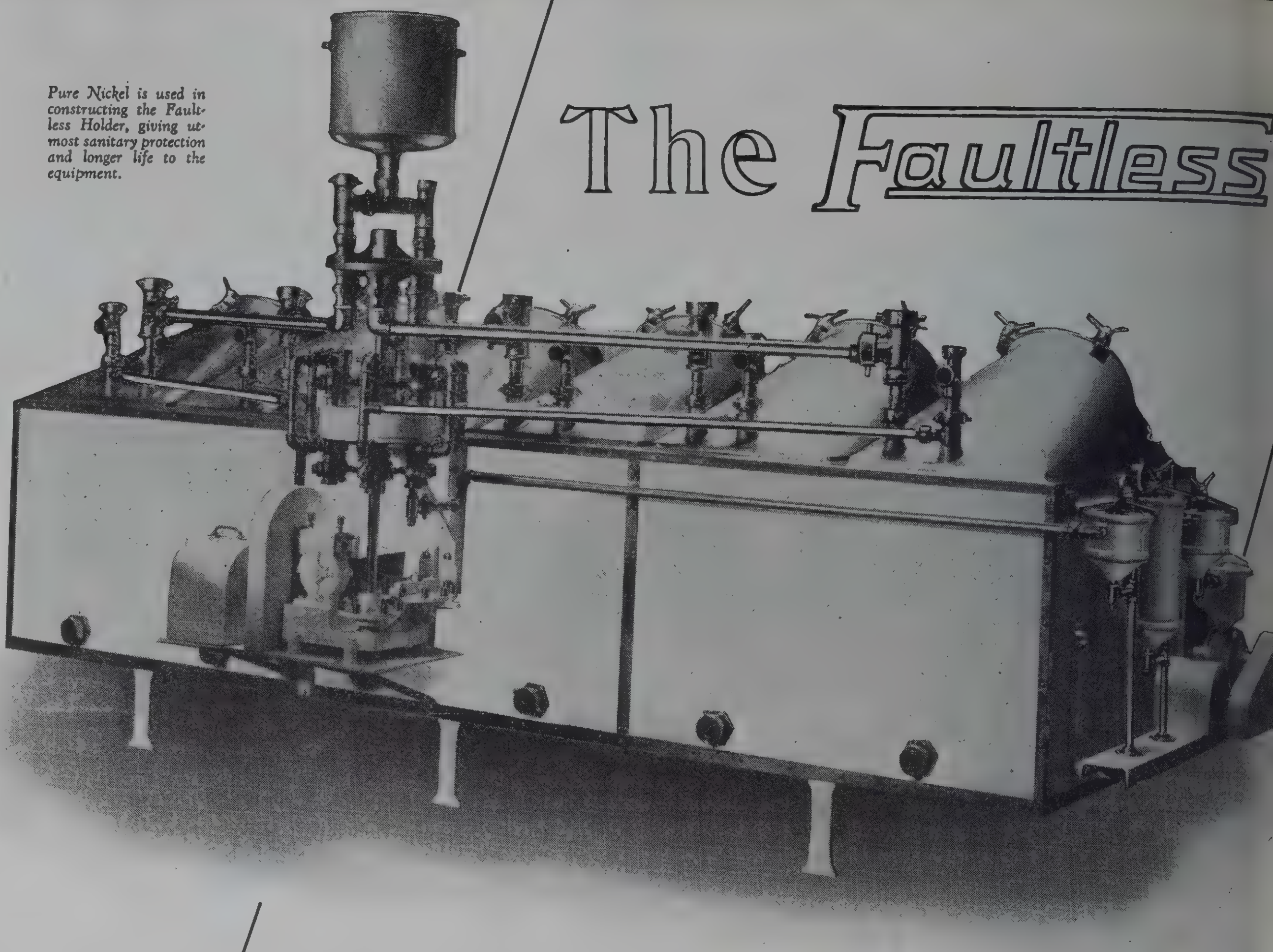
and Largest Manufacturers of Trailers - *Semi-Trailers, Four-Wheel Trailers and Adjustable Pole Trailers.*

RUEHAUF TRAILER COMPANY

BRANCHES AND DISTRIBUTORS IN ALL PRINCIPAL CITIES

Harper Avenue — Detroit, Michigan

When writing to FRUEHAUF TRAILER COMPANY *please mention The Milk Dealer.*



Pure Nickel is used in constructing the Faultless Holder, giving utmost sanitary protection and longer life to the equipment.

The Faultless

Positive Automatic Valveless HOLDER

Unquestionably Safe Pasteurization

Safe in the method of handling the product and thoro to make every ounce of the product safe.

Every ounce of milk is automatically filled and emptied. It is held the proper length of time at the proper temperature to make the pasteurization effective. The cream line remains intact and that cooked flavor is decidedly absent.

Send for details of operation and how the Faultless Pasteurizer adapts itself to growing plants

E. A. KAESTNER

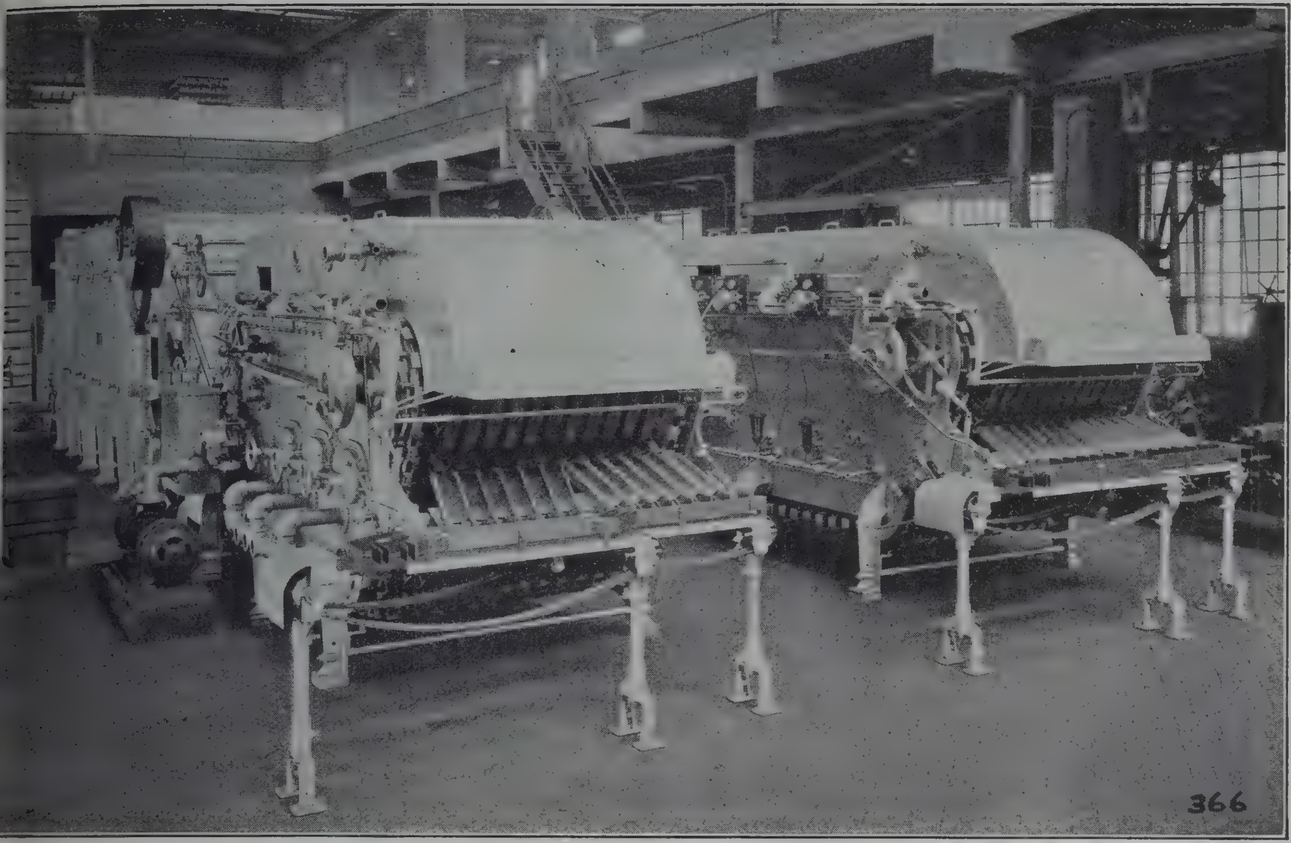
516-24 North Calvert St.

BALTIMORE - - MARYLAND

Self Contained Units

Capacities 1,000 pounds to 50,000 pounds per hour

When writing to E. A. KAESTNER *please mention The Milk Dealer.*



The "ARISTOCRAT"

OF BOTTLE CLEANERS

APTLY NAMED BECAUSE IT IS IN A CLASS BY ITSELF

Above cut shows TWO large ARISTOCRAT units consisting of independent 5-COMPARTMENT SOAKER connected to our latest hygienic BRUSHLESS WASHER with Sterilizing and 3-Compartment Cooling attachments. Photo was taken on the assembly floor of our large modern factory.

These units are now being installed in that new wonderful plant of SIDNEY WANZER & SONS, INC., CHICAGO, ILL., where the best was the main consideration. Write us for full particulars. Our engineering staff belongs to you. 26 years experience.

Sheffield Farms selects Barry-Wehmiller Bottle Washers, Soakers and Sterilizers for their *new Jamaica*, Long Island Plant. After using 2 Barry-Wehmiller machines for more than 2 years in their New York City Plant, 2 more at the Brooklyn Plant, 2 more at the Harlem Plant, and 2 more at the Bronx Plant, all of 6 to 8 compartments in size, they have for the *fifth time ordered 2 more for their new Jamaica Plant.*

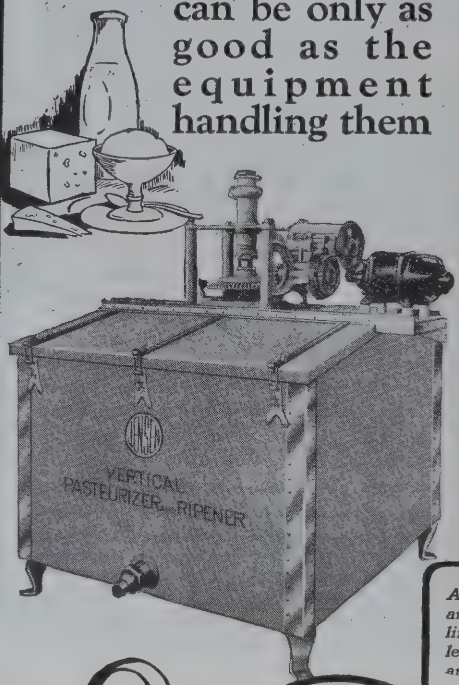
Barry-Wehmiller Machinery Company

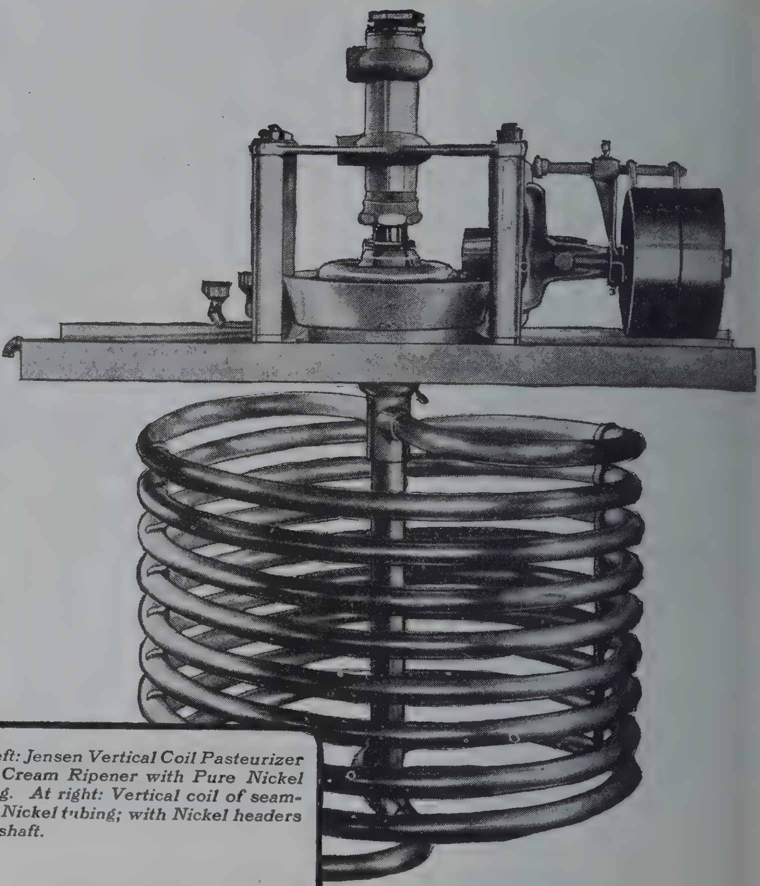
Pioneers of Bottle Cleaners and In-the-bottle Pasteurizers

4660 W. Florissant Ave., St. Louis, Mo., U. S. A. **New York Office: 18 West 25th St.**

Dairy Products

can be only as good as the equipment handling them





At left: Jensen Vertical Coil Pasteurizer and Cream Ripener with Pure Nickel lining. At right: Vertical coil of seamless Nickel tubing; with Nickel headers and shaft.

So JENSEN has adopted Pure Nickel

THE goal of the dairy industry is the increased consumption of dairy products. Authorities say that this expanded volume of business will come with a better product—a product handled in better equipment.

Realizing that conditions call for a metal that is easily cleaned, yet strong and durable, we have adopted Pure Nickel for the coils and linings of our quality line pasteurizers.

The same properties that make Pure Nickel the SAFE metal also make it the ECONOMICAL metal for dairy equipment; for it combines long life and easy cleanability.

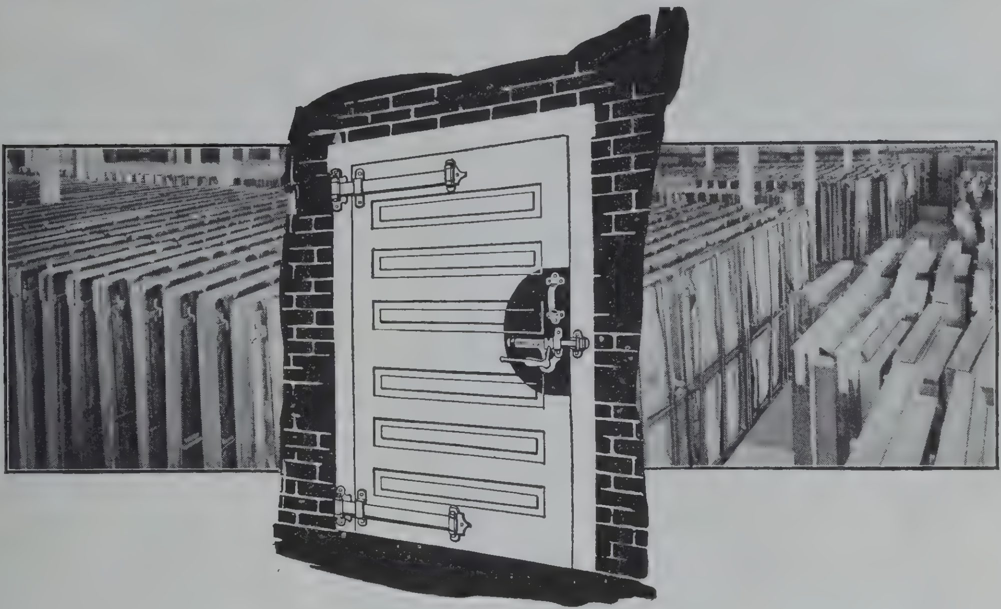
Write us for Bulletin No. 29-B.

Jensen Creamery Machinery Company

Bloomfield, N. J. :: :: **Oakland, Calif.**

When writing to JENSEN CREAMERY MACHINERY COMPANY *please mention The Milk Dealer.*

Why Jamison prices are as low as they are



THERE are Cold Storage and Freezer Doors that
are "cheaper" (selling price alone considered)
than Jamisons. But there could not be a door
qual" to a Jamison at *less* than the Jamison price.

viously, economizing in design—in materials—in
rkmanship—can bring down the selling price of
ler doors. But in *Jamison* Doors, the economiz-
; is present *only* in the fact that we turn
t mass production. There is no skimp-
; of insulation or of hardware; no sub-
tution or hurrying at any point. If we
re making only one door at a time in-
ad of one hundred, we could not make
at one door any finer than we actually
ke each one in our volume lots.

nsequently, each Jamison Door is the
est that a group of seasoned craftsmen
produce. Consequently, too, each
mison price is lower than could be of-
ed elsewhere—even if doors of equal
quality were produced anywhere else. The simple reason is that Jamison—outselling the output of all other cooler door manufacturers combined—enjoys unequalled, cost-lowering, *volume* advantages.

There are more Jamison Doors in use—there are more Jamison Doors bought year after year—than all other makes of Cooler and Freezer Doors put together.

Jamison Doors
Jamison Cold Storage Door Co

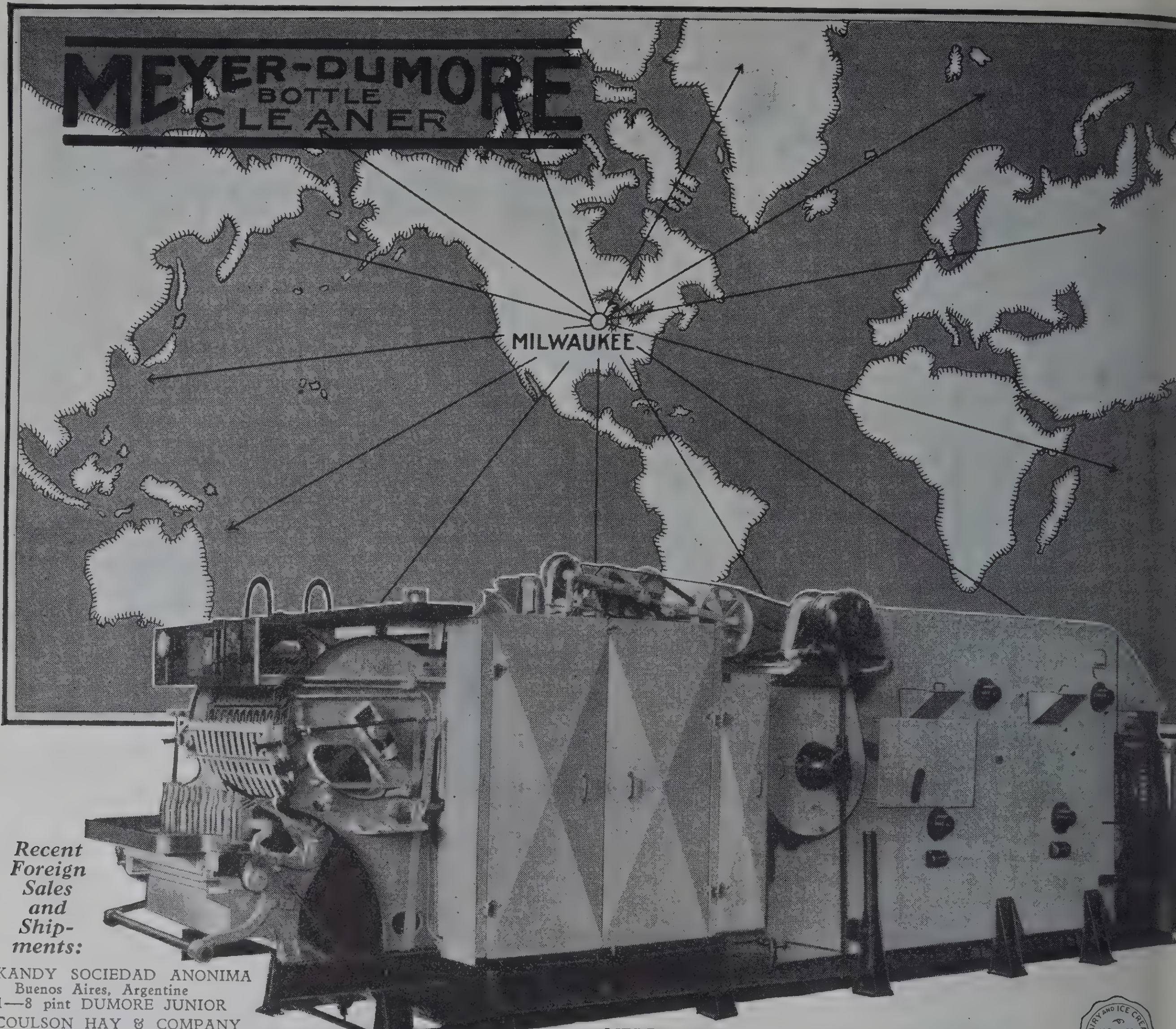
Write—*right now*—for our new catalog No. 13. It brings you complete information on Jamison Cooler and Freezer Doors, Automatic Ice Chutes, and other Jamison protective products.

When you buy a Jamison, you are certain of getting the utmost *proven* protection per dollar invested. When you install a Jamison, you are increasing the value of your plant with a door which, under normal conditions—and even worse than normal conditions—will serve perfectly, perpetually. When you order a standard Jamison Cooler or Freezer Door, your shipment is made promptly from our large *ready-to-ship* stock. When you order a *special size* Jamison Door, you command the facilities of a highly organized plant in position to give special orders *special attention*.

Jamison Doors

Jamison Cold Storage Door Company
Hagerstown, Maryland, U. S. A.

When writing to JAMISON COLD STORAGE DOOR COMPANY *please mention The Milk Dealer.*



MEYER - DUMORE
(Illustrated)
Capacity 60 to 200 bottles per minute.
Bulletin B-30

DUMORE - JUNIOR
Capacity 24 to 60 bottles per minute.
Bulletin B-36

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION, INC.
ASSOCIATE MEMBER NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS

Recent Foreign Sales and Shipments:

KANDY SOCIEDAD ANONIMA
Buenos Aires, Argentine
1—8 pint DUMORE JUNIOR

COULSON HAY & COMPANY
Melbourne, Australia
1—408 Qt. DUMORE
1—20 Bbl. Regenero Pasteurizer

MARCHANTS LIMITED
Sydney, Australia
1—408 Qt. Dumore
(*Repeat Order—6th DUMORE*)

COMPANHIA HANSEATICA
Rio de Janeiro, Brazil
1—412 Qt. DUMORE

COMPANIA CERVECERIA INTERNACIONAL, S. A.
Havana, Cuba
1—518 16W Pt. Volz Soaker
1—316 Pt. Double Brush Conveyor
1—216 Pt. Progressive Washer
1—30 Bbl. Meyer Regenero Pasteurizer
(*Repeat Order—Second Unit*)

ZABALLA, PALACIO & CO.
Havana, Cuba
1—412 Pt. DUMORE

ROBERT PORTER COMPANY
London, England
1—8W Pt. DUMORE JUNIOR
1—8W Qt. DUMORE JUNIOR
(*Repeat Order*)

SCHWEPPES LIMITED
London, England.
1—8 Wide Pint 3 Comp. DUMORE JUNIOR
(*Repeat Order—3rd DUMORE JUNIOR*)

SOURCE CHATEAU ROBERT
Saint Yore, France
1—408 Qt. DUMORE

NIPON BEER & MINERAL WATER CO.
Kobe, Japan
1—412 Qt. DUMORE

KIRIN BEER COMPANY
Yokohama, Japan
1—412 Qt. DUMORE
(*Repeat Order — 2nd DUMORE*)

WM. TEACHER & CO., LTD.
Glasgow, Scotland
1—308 Qt. DUMORE

CERVECERIA DE MEXICALI, S. A.
Mexicali, B. C. F. A., Mexico
1—308 Pt. DUMORE
1—8 Bbl. Regenero Pasteurizer

MCEWEN & CO.
Edinburgh, Scotland
2—8 Qt. DUMORE JUNIORS
(*Repeat Order*)

Keeping Pace With Our Sales Record-

54 Shipments in 51 Business Days!

WORLD-WIDE favor for Meyer machinery is steadily outdistancing all competition. We believe our sales and shipments during the past 51 business days (March 1-April 23) exceed the combined sales and shipments of all our competitors! "More than a Dumore a Day!" is still our proud slogan, and each succeeding day's sales returns serves to strengthen our claim to it.

Japan, England, France, Mexico, South America, Cuba, Australia—all have recently increased Meyer installations to a gratifying degree.

Note the sales to world-famous plants at
left. The prestige of the company Me
keeps is your guarantee that the Dumore s
tem of bottle-*cleaning* is recognized the wo
over as being surpassingly efficient!

The system includes soaking in hot caus
solution, outside brushing, inside brushin
rinsing, inside rebrushing, and rerinsing. *Eve*
bottle emerges sparklingly clear and bacteri
logically pure—*there is no chance for co*
tamination!

Write today for bulletins describing Dumo
and Dumore Junior Bottle *Cleaners* in deta

Geo. J. Meyer Manufacturing Company
World's Largest Builders of Bottle Cleaning Machinery
569 Barclay Street *Offices:* (*New York and Chicago*) **Milwaukee, Wis.**

When writing to GEO. J. MEYER MANUFACTURING CO. *please mention The Milk Dealer.*

The First-to-Buy are Still Using

CLIPPER CASES

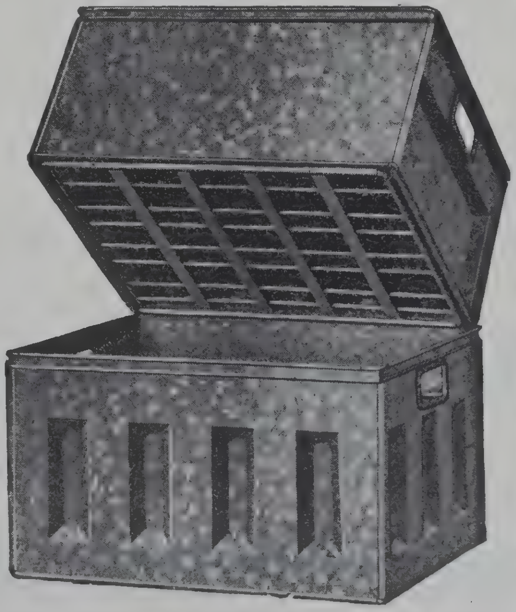
Clipper all steel Bottle Cases were first put out twenty years ago. The first buyers are still buyers of Clipper Cases and they are enthusiastic over their purchases because they have realized great value and service for their money. Clipper Cases have saved them lost cases and a lot of repairs—all of which shows up at the end of each year in greater profits.

You, too, will become a permanent and enthusiastic user of Clipper Cases, once you give them a thorough trial.

Getting started with Clipper Cases is easy. Let us tell you how others have done it to their ultimate profit.

These Jobbers Sell CLIPPER CASES

J. G. Cherry Co.	Cedar Rapids, Ia. St. Paul, Minn.
Meyer-Blanke Co.	Birmingham, Ala. Dallas, Tex. St. Louis, Mo.
Haines-Carpenter Dairymen's Co.,	St. Louis, Mo.
Miller-Lenfesty Supply Co.	Jacksonville, Fla. Miami, Fla. Tampa, Fla.
N. A. Kennedy Supply Co.	Kansas City, Mo.
Apothecaries Hall Co.	Waterbury, Conn.
Teague Hardware Co.	Montgomery, Ala.
Gowing-Dietrich Co., Inc.	Syracuse, N. Y.
John W. Ladd Co.	Detroit, Mich. Cleveland, Ohio Columbus, Ohio Cincinnati, Ohio
A. L. Davis' Son	Binghamton, N. Y.
Cherry-Bassett Co.	New York, N. Y. Syracuse, N. Y. Baltimore, Md. Philadelphia, Pa. Pittsburgh, Pa.
E. K. Owens Hardware Co.	Susquehanna, Pa.
National Dairy Equipment Co.	Utica, N. Y.
Hagan's Dairy Supply House	Greensboro, N. C.
Chester Dairy Supply Co.	Chester, Pa.
M. G. Newell Co.	Greensboro, N. C.
Oakes & Burger Co.	Cattaraugus, N. Y.
Ft. Wayne Dairy Equipment Co.	Ft. Wayne, Ind.
Thompson-Bremer & Co.	1750 Carroll Ave., Chicago, Ill.
John Pico	New Orleans, La.

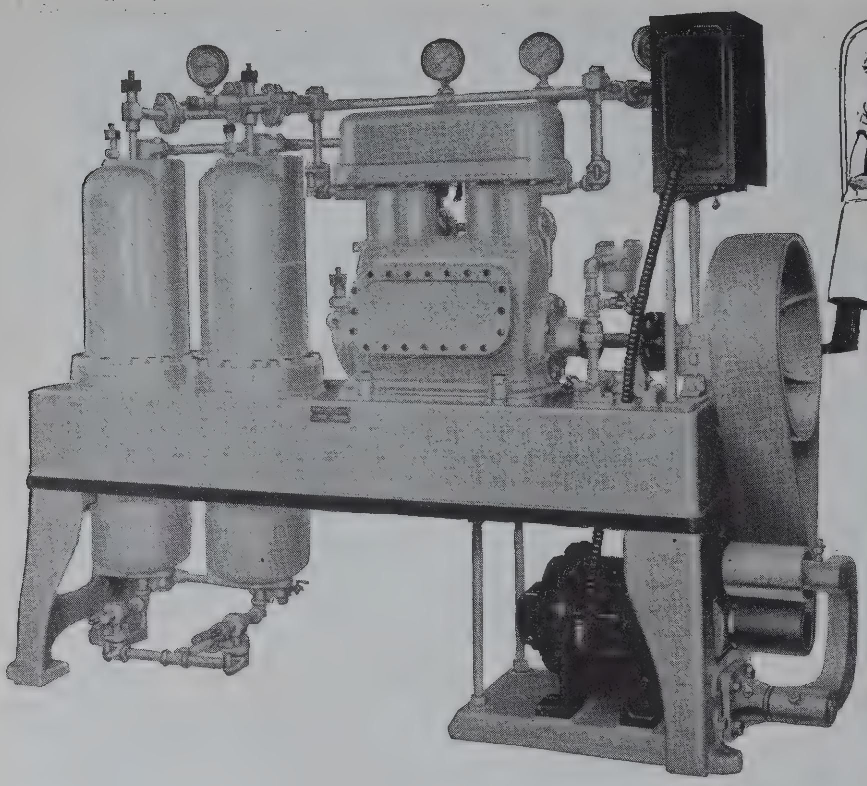


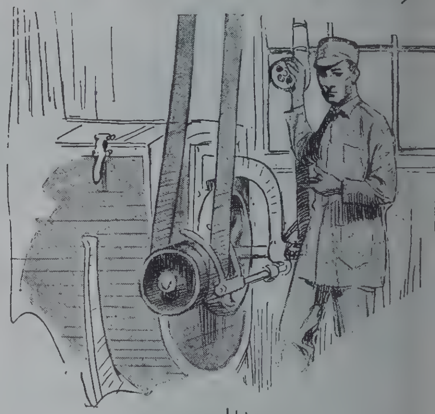
The Defiance Pressed Steel Co.

DEFIANCE, OHIO

Dairy and Ice Cream Machinery and Supplies Association Inc.

When writing to THE DEFIANCE PRESSED STEEL CO. *please mention The Milk Dealer.*





Dependable for Every Cooling Requirement!

Dependable refrigeration is indispensable to the successful handling of dairy products. No other industry demands a more certain and continuous temperature control for profitable operation.

Lipman is the tried, tested and perfected refrigeration for every dairy requirement. A setting of the thermostat and the Lipman functions automatically, keeping the temperature exactly where needed. An occasional oiling is all the attention needed.

Dairy operators are installing Lipman Refrigeration in greater numbers than ever before because of its dependable, full automatic performance.

Far superior, yet its cost of operation is but one-third to one-half as much as ice refrigeration.

Write or use coupon below for full information.

A size for every service.

Compact, "Space saving" design.

Soundly engineered and soundly built.

Full automatic, silent operation,—thermostat controlled.

Dependable, economical performance.

Service Stations everywhere.

GENERAL REFRIGERATION COMPANY

116-194 Shirland Ave., Beloit, Wis., U. S. A.

Please send me full particulars including Free Descriptive literature on Lipman Refrigerating Machines.

Name.. St...........................

City............................ .... State..........

THE DRY, CONSTANT COLD OF THE MOUNTAIN TOP

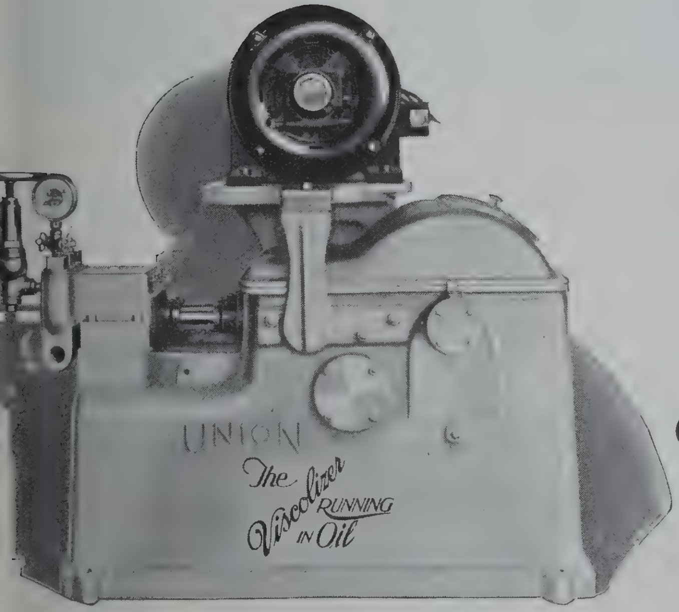
GR CO

When writing to GENERAL REFRIGERATION COMPANY *please mention The Milk Dealer.*

In Most Plants
There Is A Viscolizer

In Some Plants
There Are Two Viscolizers

In All Plants The Viscolizer
Generally Does All The Work



The Viscolizer is oiled like the gears of an automobile.

The Viscolizer
Running
in
Oil

DISTRIBUTION DIRECTED BY

JOHN W. LADD CO.
CHERRY-BASSETT CO.

DAIRY AND ICE CREAM
MACHINERY
AND
SUPPLIES
ASSOCIATION INC.
ASSOCIATE MEMBER
NATIONAL ASSOCIATION OF
ICE CREAM MANUFACTURERS

SOLD BY LEADING DAIRY
SUPPLY HOUSES EVERYWHERE

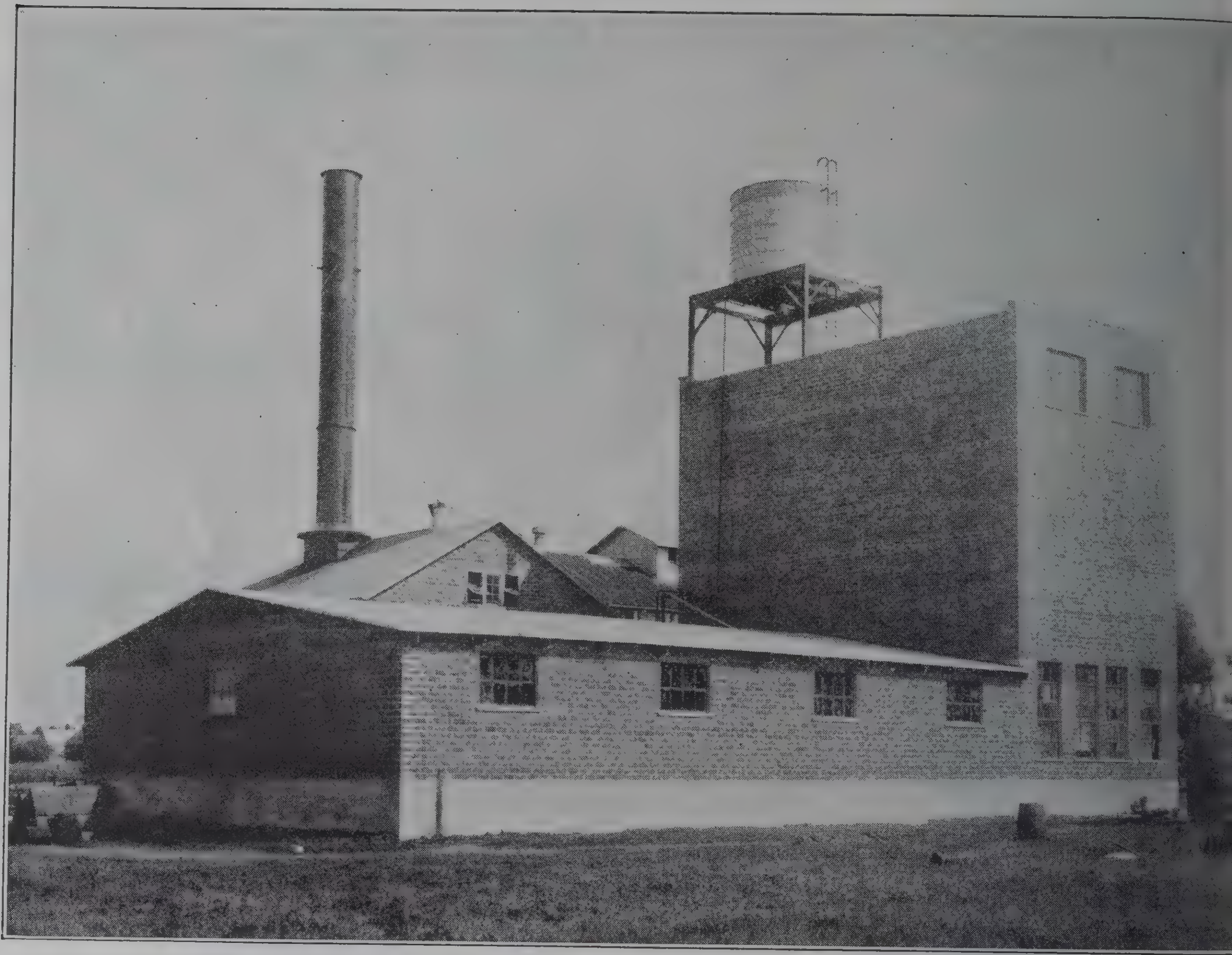
DOUTHITT MILK POWDER PLA

GRAY-JENSEN SPRAY PROCESS

Designed and Built by

DOUTHITT ENGINEERING COMPANY

100 WEST MONROE STREET, CHICAGO



Sheffield Farms Company's plant at Lisbon, N. Y.

43 PLANTS IN OPERATION OR UNDER CONSTRUCTI

Add to your creamery profits by manufacturing your skim milk, buttermilk, or whey into powder on the Gray-Jensen Spray Process Milk Powder Plant.

The highly developed efficiency of the Gray-Jensen process results in recovery of milk powder actually equivalent to the solids in the milk, with lower labor, fuel and power costs than are possible with any other type of milk powder plant. These savings alone pay for one of our plants in from one to three years. Operating records prove this.

We can furnish an assured market for all skim milk and buttermilk powder made on our plants.

These plants are built in sizes to handle from 10,000 to 120,000 pounds of normal liquid milk or milk products daily.

Write today for booklet describing the Gray-Jensen Spray Process Milk Powder Plant

When writing to DOUTHITT ENGINEERING COMPANY *please mention The Milk Dealer.*

Tycos Recorders on Storage Tanks

Here are twelve *Tycos* mercury actuated temperature recorders installed on the storage tanks of a large Eastern manufacturing company.

They keep faithful record of every fluctuation in the temperature of the stored milk. After long periods of use they check accurately with test thermometers when they are inspected. They are rendering the *Tycos* service which we built into them and which by experience milk dealers and superintendents have grown to depend on.

If you plan additions to your temperature equipment, be sure to send for *Tycos* Catalog Part 500-A for milk plants. In it you will find a *Tycos* or Taylor temperature instrument for every milk plant need.

Taylor Instrument Companies
ROCHESTER, N. Y., U. S. A.

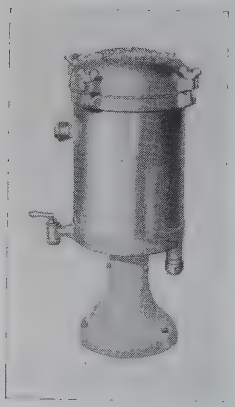
CANADIAN PLANT
TYCOS BUILDING
TORONTO

MANUFACTURING DISTRIBUTORS
IN GREAT BRITAIN
SHORT & MASON, LTD., LONDON

Tycos Temperature Instruments
INDICATING - RECORDING - CONTROLLING

Honest Values—Are These Three Popular Cherry-Bassett Products

Bestov Filter



No. 1 Bestov Filter

THE Bestov Filter is the choice of most milk dealers because—

It removes dirt efficiently and dependably without great expense, and without injury to cream line.

It supplies more filtering area per dollar of cost than other filters.

Cloths may be exchanged at any time without disconnecting pipes or waiting for liquid to strain through.

The Bestov Filter is constructed in a very superior, substantial manner, insuring years of service.

Made in four sizes

No. 0	— 2400 lbs. per hour	**$75.00**
Junior	— 4800 " " "	**125.00**
No. 1	— 8800 " " "	**200.00**
No. 2	— 17000 " " "	**300.00**

Write for Bulletin 2408-R.

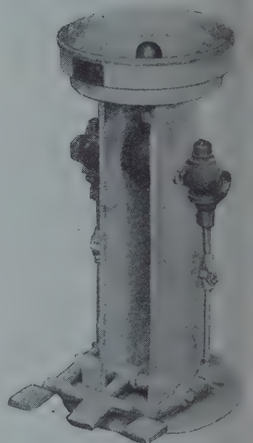
Can Sterilizer

THE Bestov Can Rinser and Sterilizer is a wonderfully efficient device for can cleaning where comparatively few cans are handled. It is very easy to operate, and economical as well.

The cans, either milk or ice cream, are inverted over the basin top while an application of hot water, and then steam through the jet nozzle, is made by operating the foot pedals. The cans receive a thorough scalding, rinsing and sterilizing steam bath.

Built to last a lifetime—frame is of hot galvanized cast iron, and all valves are made of solid bronze.

Write for descriptive folder



Price $45.00

BESTOV BOTTLE FILLERS

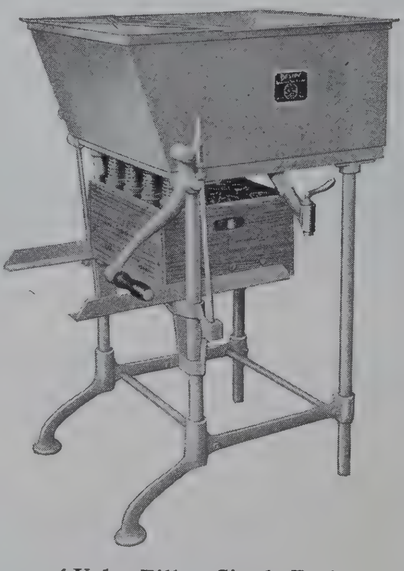
Bestov Bottle Fillers are made in a range of sizes that will completely take care of the needs of the average milk dealer.

Crate fillers are regularly made in 4, 9 and 17 valve sizes. Then there is the single valve hand filler which is a great convenience for bottling cream, nursery milk, buttermilk and for emergencies.

Only materials of the best are used to build Bestov Bottle Fillers. Tanks are made of heavy copper, thickly tinned. Frames are substantially constructed of galvanized castings, enameled on all surfaces. Bestov Filler valves will never leak. Each valve is factory tested with fifty pounds pressure. The valves and valve seats are ground in. They fill the bottles perfectly, with no drip.

Such features make Bestov Bottle Fillers a source of great satisfaction to owners everywhere. They are an ideal investment for the milk dealer who does not want to go to the expense of power fillers.

Ask for Bulletin 2306-R giving prices and full information.



4 Valve Filler, Single End

Cherry-Bassett Company

CHERRY-BASSETT COMPANY TRADE MARK BESTOV MILK PRODUCTS EQUIPMENT

BALTIMORE : PITTSBURGH : PHILADELPHIA : NEW YORK : SYRACUSE

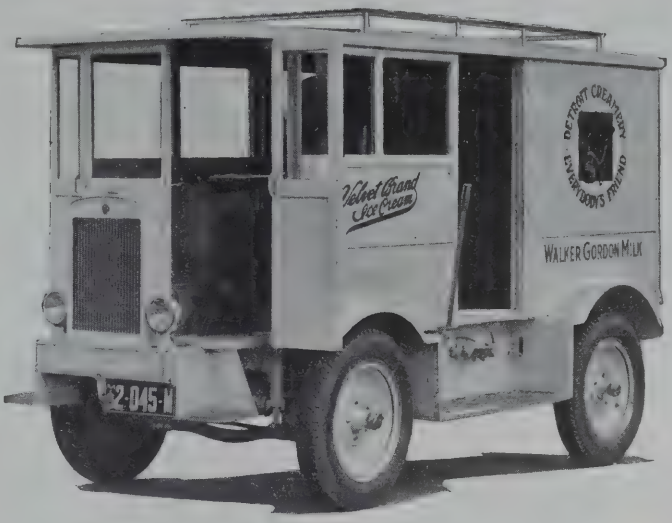
When writing to CHERRY-BASSETT COMPANY *please mention The Milk Dealer.*

Continuous Service *for* 3,650 Days

delivering milk with this long-life

DIVCO

MOTOR TRUCK



Front Side View

because

its powerful, silent industrial type motor is governed to 18 miles per hour, eliminating any possibility of speeding, which is responsible for accidents, excessive wear and tear, rapid depreciation and heavy repair expenses. All parts subjected to strain are made over size. Quick action brakes are positive and fool-proof. DIVCO Trucks can be driven from the front seat or either running-board, easily and safely, a new departure in operation that saves hours in house-to-house delivery. The specially designed body has a capacity of 50 cases, all of which are accessible, thereby facilitating the delivery of your milk.

Its advantages over other delivery vehicles have been demonstrated very forcibly.

Against Horses

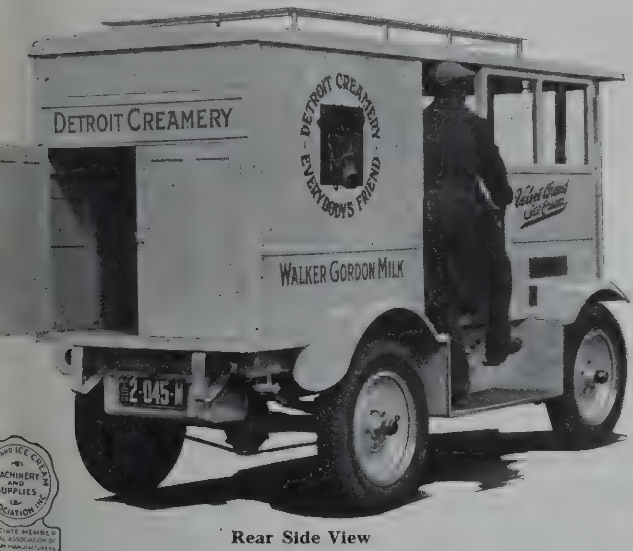
Over 12 routes averaging 10½ miles and 180 stops, with an average load of 36 cases, the DIVCO Truck *saved* from ½ to 2 hours in delivery time, using only 1.2 gal. of gasoline per route.

Against Other Gasoline Trucks

In fifteen tests, conducted in different cities, against various makes of trucks, over routes averaging 26 miles, with an average of 140 stops and 31 cases, the DIVCO Truck *saved* from 1 to 2½ hours in delivery time and over 50% gasoline and 80% oil.

Against Electrics

Over twelve routes, averaging 22 miles and 210 stops, the DIVCO Truck *saved* from 1¼ to 2 hours in delivery time. Gasoline consumption averaged 2.3 gallons per route.



Rear Side View

DIVCO Trucks will cut down your delivery costs by reducing the number of units necessary to cover your routes, (one DIVCO superseded *two* one-horse wagons, eliminating a driver and one wagon, and covered both routes in less time), saving time in delivery and allowing more time for collecting and soliciting new business and by reducing upkeep costs to a minimum.

Your enquiry for further particulars will not obligate you in any way.

Divco-Detroit Corpn.
formerly DETROIT INDUSTRIAL VEHICLE CORPN.
Merrick Ave. at Sixteenth St.
DETROIT, MICH.

When writing to DIVCO-DETROIT CORPORATION *please mention The Milk Dealer.*

Barber Goodhu

ON DAIRY PRODUCTS ALL THRIVE

Everything for the Dairy Industry

You'll Be Interested In These Expressions of Satisfaction from Users of Simplex Spray Pasteurizers

Foam—
Mr. John Morfis of SANITARY DAIRY, Indiana Harbor, Indiana, "Practically none."

Heat—
Mr. Pederson of PEDERSON DAIRY COMPANY, Barrington, Ill. "Water is only few degrees higher than temperature of milk during application of heat."

Cream Line—
Mr. Meyers and Mr. Suhs of BLUE ISLAND SANITARY DAIRY CO., Blue Island, Illinois—
"The growth of our business is due to the excellent cream line maintained by our spray pasteurizer."

Cleanliness—
Mrs. Smolen and Mrs. Kroskul of NATIONAL DAIRY CO., Whiting, Indiana—
"It is a pleasure to wash, owing to its ease of cleaning."

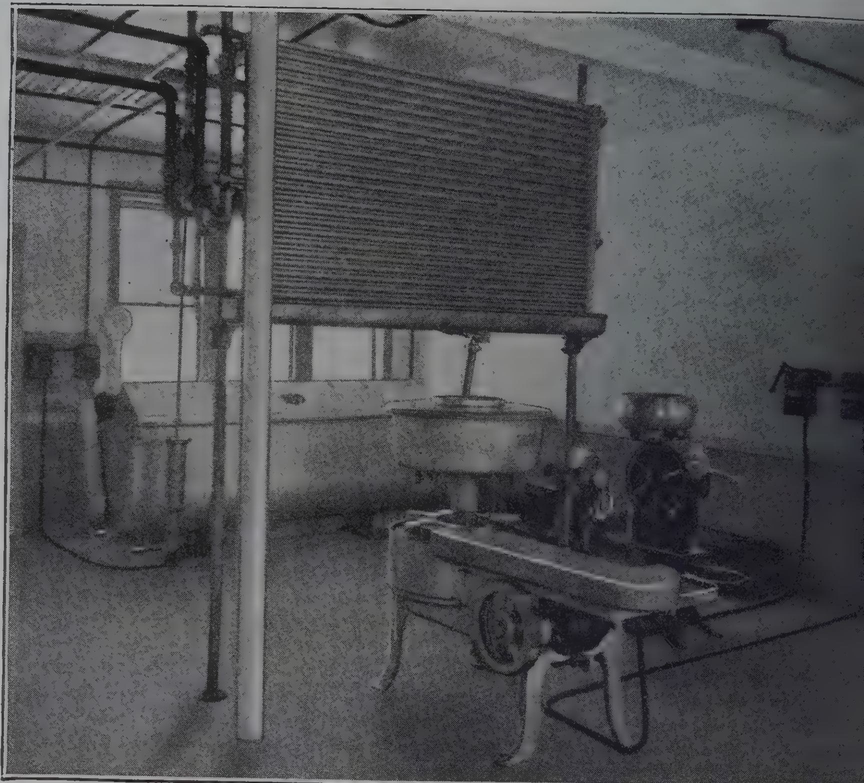
No Hot Water Waste—
Mr. Erlandson and Mr. Cooke of LAKE VIEW DAIRY CO., Miller, Indiana—
"The big feature—No waste of hot water between batches, and being able to shut off when milk is at 145 with no rise in temperature."

Agitation—
Mr. Peter Morphis, MORPHIS DAIRY, Gary, Indiana—
"The milk agitation of the broad paddle, just one of many superior features."

Flavor—
MANDEL BROS., La Grange, Illinois—"The low degree of heating water permits the milk to retain the natural flavor."

Durability—
BERNARD OTTERPOHL, Naperville, Illinois—
"Bought my first one ten years ago, ordered second one January 15th, 1927—Most economical machine I have ever seen."

No Stuffing Boxes—
An outstanding feature of Burrell-Simplex Spray Pasteurizers all users are quick to appreciate.



Installation of 200 gallon Simplex Spray Pasteurizer with other equipment in plant of Blue Island Sanitary Dairy Co., Blue Island, Illinois

Burrell-Simplex Spray Pasteurizers Are Leading the Field Decisively

NOW more than ever, Burrell-Simplex Spray Pasteurizers are enjoying a place of leadership in the Dairy Industry. Milk plants everywhere are manifesting decided preference for them—are voluntarily expressing their satisfaction with the wonderful efficiency of this coilless pasteurizer.

The gentle agitation produced by broad, slow moving paddles is unapproached by other types of agitation. Spray pasteurizers have from 25% to 50% greater area of heating surface. The big volume of heating water sprayed against this larger surface permits the use of temperatures of 160 to 165 degrees or lower.

Perfect agitation, absence of foam, low heating water temperatures, cleanliness, economy of operation, and many other advantages makes the Burrell-Simplex the finest and most efficient of all spray pasteurizers. You'll do well to get all the facts about this ideal pasteurizing equipment.

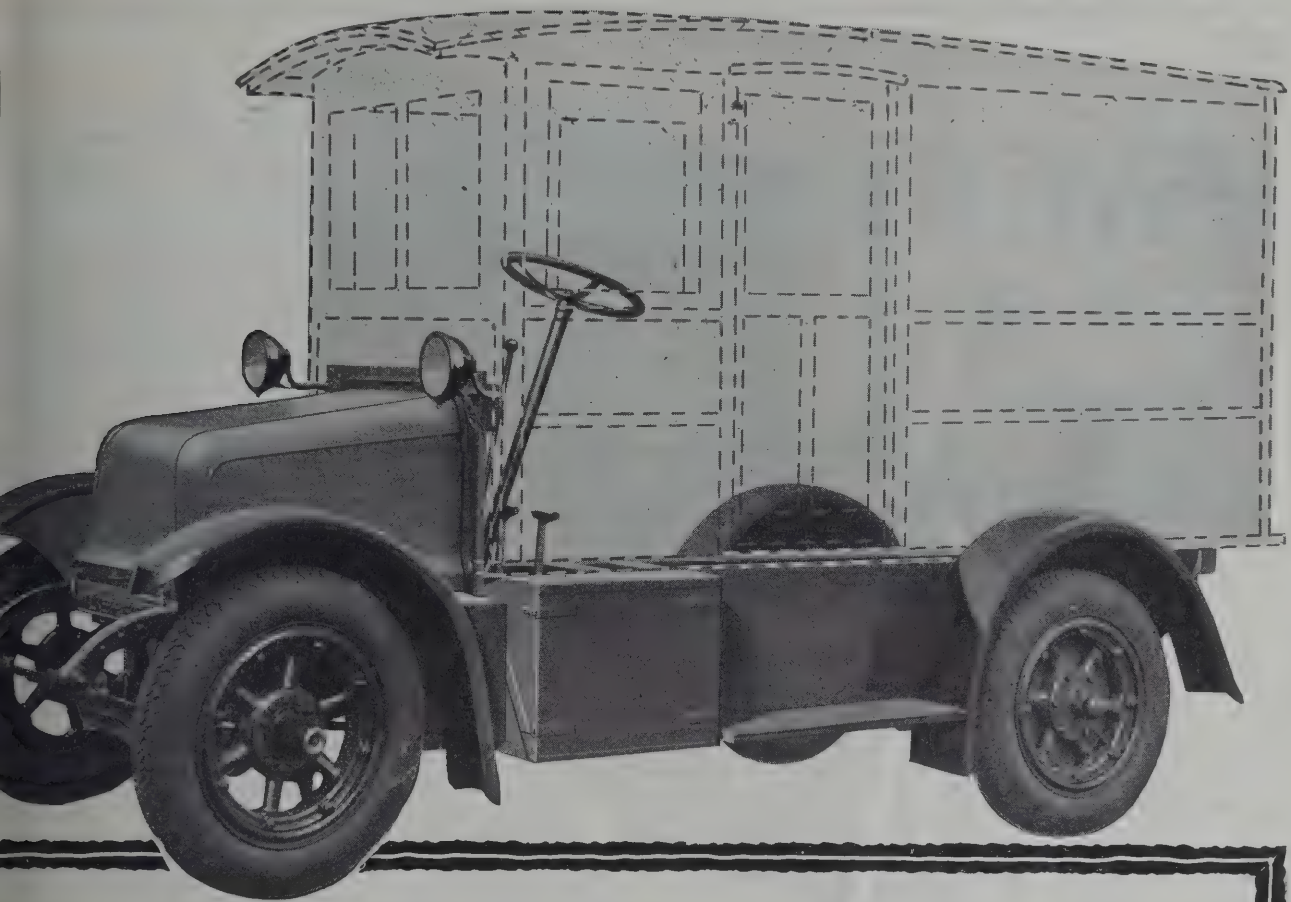
Write today for descriptive literature and prices

A.H. Barber-Goodhue Company

TWIN CITY OFFICE
2490 University Ave.
ST. PAUL

Home Office
300 W. Austin Ave.
CHICAGO

216 South
Pennsylvania St.
INDIANAPOLIS



WIDER RADIUS

Your business requires delivery units that cover a longer radius with greater economy and absolute certainty. Walker Electric Truck Model 10 meets these requirements in a manner that puts it beyond competition.

Its economy — in initial investment and in operation — is extraordinary. Its perfect construction, based upon parts recognized for high quality, gives it a radius that will cover many a route where a gas truck is now required. It handles loads of 1000 to 1500 lbs. more economically than any other available unit. Its trouble-proof simplicity and all-weather reliability enable the driver to dress and act the part of salesman and active business builder on every route.

New folder, showing Model 10 Walker trucks which leading companies have already added to their delivery fleets—on request from any Walker branch or dealer.

WALKER VEHICLE COMPANY
CHICAGO

WALKER ELECTRIC TRUCKS
LOWEST TRUCKING COST ON CITY ROUTES

When writing to WALKER VEHICLE COMPANY *please mention The Milk Dealer.*

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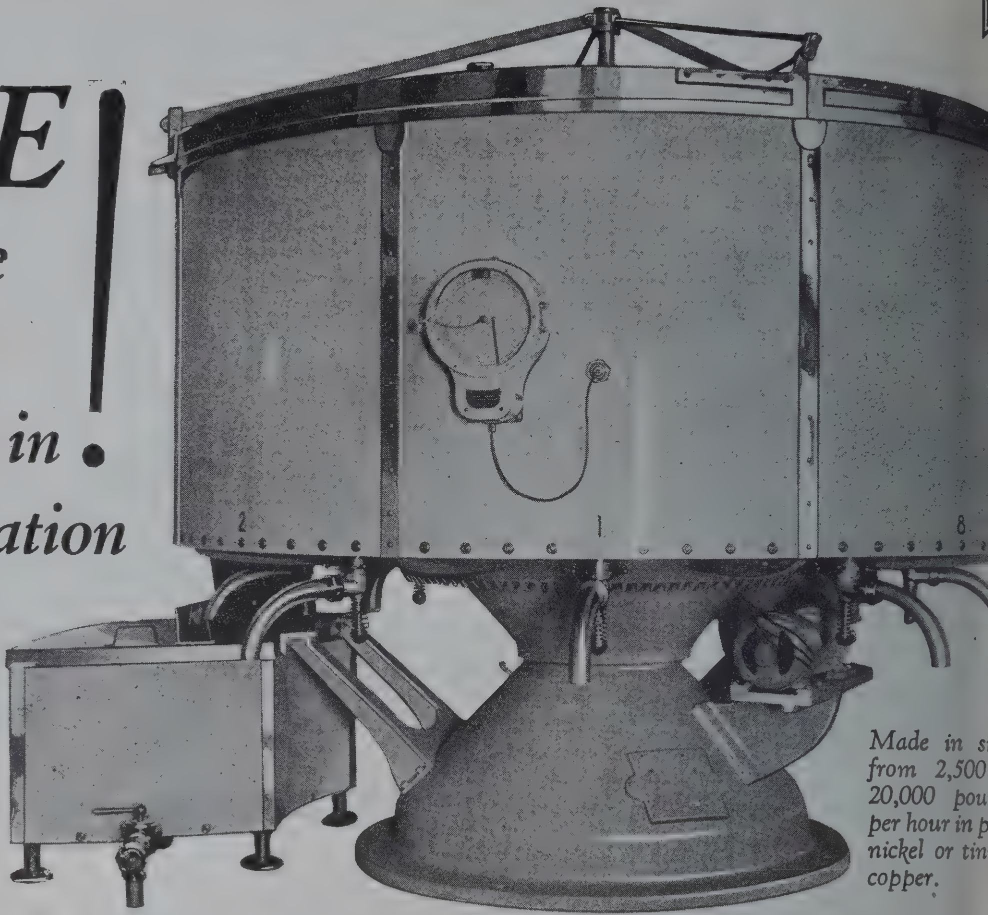

Made in s
from 2,500
20,000 pou
per hour in p
nickel or tin
copper.

The MORTENSEN Positive Automatic All Nickel Holder

THE absolutely automatic filling, holding and discharge of the Mortensen Holder relieves you of the slightest doubt as to whether your operators are handling your equipment correctly. There is no "sleeping at the switch" with the Mortensen Holder. Everything is automatic and the holding period is accurately timed and unfalteringly stays so.

¶ Besides this positive operation the Mortensen Holder will handle more milk in a given floor space than any other equipment. This feature alone is worth a most thoro investigation on your part if you value floor space in your plant.

LET US SEND YOU THE FULL DETAILS.

Standard Milk Machinery Company

(INCORPORATED)

LOUISVILLE *Our Milk Plant Engineering Services are always under my personal supervision.* KENTUCKY

C. Mortensen

When writing to STANDARD MILK MACHINERY CO. *please mention The Milk Dealer.*

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Seal of Safety

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the Seal of Safety

Your *copy of the* *Association Catalogue*

has reached you by mail, or else it is waiting for your correct name and address. If you have not received it, detach and return this coupon with the information asked for!

96 Pages — Attractively, Permanently Bound—Convenient Reference Size for Desk—A Comprehensive Buying Source Book for all Requirements of the Dairy Products Industries.

DAIRY and ICE CREAM MACHINERY and SUPPLIES ASSOCIATION, Inc.
225 West 34th Street - - New York, N. Y.

Please send me my Association Catalogue.

Company ....

Address ....

Our products are (please check x):

____Milk ____Ice Cream ____Cond. Milk
____Butter ____Cheese ____Dry Milk

(M.D.)

Look for

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Look for

the Seal of Safety

THE
MILK DEALER

PUBLISHED THE TWENTIETH OF EACH MONTH BY
THE OLSEN PUBLISHING COMPANY
H. P. OLSEN, President and Manager
LESTER S. OLSEN, Vice-President
E. K. SLATER, Secretary and Editor
Also Publishers of
"BUTTER, CHEESE & EGG JOURNAL" and "THE ICE CREAM REVIEW"

FIFTH AND CHERRY STS. MILWAUKEE, WISCONSIN

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Entered as second-class matter December 1st, 1911, at the Post Office at Milwaukee, Wis., under the act of March 3rd, 1879

Requests for CHANGE OF ADDRESS must be received not later than the 10th of the month to insure delivery of that particular month's issue at New Address. **Old Address** as well as **New Address** must be given us as all records carried by us are "Geographically arranged" and not "Alphabetically arranged."

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Payable in Advance.

OFFICIAL ORGAN OF
The International Association of Milk Dealers
Dairy Products Association of Kentucky, Inc.

MAY, 1927

BULLETIN *of* EVENTS

American Dairy Science Association—Annual meeting to be held at the Michigan State College, East Lansing, on June 22, 23 and 24, 1927. Secretary-treasurer, G. C. White, Storrs, Conn.

Dairy Industries Exposition—The second annual exposition of the Dairy and Ice Cream Machinery and Supplies Association will be held at Cleveland, Ohio, on October 24-29, inclusive. Roberts Everett, 225 West 34th St., New York City, secretary and manager.

International Association of Milk Dealers—Twentieth annual convention to be held in Columbus, O., on October 19, 20, 21 and 22, 1927. The Neil House will be convention headquarters. Secretary, R. E. Little, 139 N. Clark St., Chicago.

Pacific Slope Dairy Show—Seventh annual exposition to be held from November 14 to 19, 1927, at Oakland, Calif. Secretary-manager, Robert E. Jones, 1404 Franklin St., Oakland, Calif.

MAY DAY used to be a day to start a riot. It was this way this year, a riot of frolic for little children celebrating child health. The milk bottle is America's national Maypole.

The gentlemen with the long hair and the long faces and the red flags do not like this new turn of events, but they have just been crowded out of the picture by celebrants of dairy health. Another victory for the dairy cow.

It is easy to understand how radicalism, violence and the spirit of bloodshed cannot survive in the presence of an atmosphere so wholesome, so clean and vigorous as that of child health. This nation will never have cause to worry about bolshevism, nihilism, or any of the other "isms" that plague other nations. A nation giving so much thought to health, to clean, vigorous, wholesome activities, need never have any fear of this kind of social disease. Healthy people are happy and contented, believing in themselves and their nation.

Milk, therefore, is an important factor in political economy.

A DAIRY-MINDED people, we feel sure, will
disturbed by the oft-repeated fears of a satu
point for this industry in America. It just happen
the finite mind cannot easily grasp the bigness of a
nation's appetite—appetite not only for food, inc
milk and other dairy products, but appetite for
imaginable kind of commodity.

This is a young nation, a healthy, growing
with the healthy appetite of a normal growing
Our per capita dairy consumption is not what it
be, and as dairy production increases, so will th
capita consumption.

Automobiles, now. Twenty-five years ago a
would have smiled if some rash youth had predicte
five million cars would be driven in this country
other quarter of a century. We don't grasp m
well. They overwhelm us, overpower us with the
nitude of the thought. We think of hundreds of
sands and millions in terms of grains of sand, hai
herd of cattle, or some other indefinite, un
quantity.

A friend of ours was showing an automobi
other day. We asked if he knew the number, a
smiled and said he couldn't forget it; the numbe
exactly No. 11,000,000. It was a 1925 model ca
other words, his car was the eleven millionth car o
particular make. Now, many thousands of cars o
make have been put on the market since that o
peared. In addition, we have dozens of other ma
cars.

It's hard—mighty hard—for us to realize the
appetite of this country for anything upon which
comes fully sold.

As we grow in our merchandising work in the
industry, with our organizations concentrating up
creased consumption of the cow's products and our
plants doing their jobs—there is no limit to the a
of dairy products we are to sell yet—absolute
limit!

⁂

AN EASTERN reader of The Milk Dealer wh
close student of the milk distributing busine
fact a recognized authority on milk sales and mi
vertising, writes us as follows:

> "I have the April issue of The Milk Dealer in front
> now, and I want to congratulate you on it—not only
> comprehensive make-up of the entire contents of the
> but also and perhaps more particularly on the two ed
> pages.
>
> "I am delighted to see that you are continuing to
> the importance of intelligent sales promotion in the
> business.
>
> "I want to congratulate also the writer of the
> entitled 'Important Facts That Were Formerly Overloo
> Milk Merchandising.' Whoever wrote that article ce
> knows his groceries, to say nothing of his milk.
>
> "You are going to keep your staff pressing on this
> idea, aren't you? In my judgment it is the thing th
> milk industry needs most. It is appalling to me
> think of it that this milk distributing business, which
> forming such an outstanding service to metropolitan
> munities, is so very lax in selling that service. I see
> of sales activities in countless other industries which h
> have been almost as indifferent to their responsibilit
> this regard as the milk business, but as yet I have no
> any pronounced tendency in the milk business to d

ore along this line than merely skim the superficial

milk men seem to think that the essence of sound ıship is comprised into very general propositions — proposition that milk is a valuable food, and second r milk is the best milk.'

long ago I was in a large city in the Middle West as amazed at the selling job that was not being done the milk distributors. There are several large and sperous dealers in that city. One of them has what lered to be one of the finest milk plants in the United Nevertheless, not only the advertising but the sales ot only of that dealer but of all his colleagues in the siness seems to be based entirely on adjectives. The pages of the telephone book proclaim in the most fashion that one man's milk is 'better,' another man's 'fresh,' still another one is 'better than the best,' or than the freshest' or some such term as that.

one single milk dealer has the vision of standing his on up on its own feet and selling it to his public on merits. They all seem to think that good salesmanısists not so much in telling what your own mer- or service does for the people who pay the bill, but n drawing or at least suggesting a comparison with e other fellow may or may not be doing.

onder why we couldn't have a constitutional amendmiting the use of adjectives in milk advertising to of one per cent?"

correspondent emphasizes a sore need of the milk ıting business when he points out the advantage ıg milk instead of "Jones'" milk. As our readers it is almost a hobby with us and we don't intend riding it. Getting customers away from the other is not selling milk. Getting customers to use more real milk salesmanship.

friend asks whether we intend to keep our al staff pressing this sales idea. When we get o stop publishing The Milk Dealer we will then be to quit talking about milk sales and milk adver- We feel that it is the most important problem ıting the milk distributing industry.

re was a time when problems concerned with peration demanded first attention. How to pro- bottle of good milk was the question uppermost minds of milk bottlers. That time, we believe, . The quality question, to be true, is still im- t, but most milk dealers know what they must do re high quality in their product. How to increase mand for their product is something else.

ciency in operating a milk bottling plant is also ing else. How to produce and distribute a bottle d milk at the lowest possible cost is an ever pres- blem. That is the reason we give so much space

se two problems—plant efficiency, including dis- on, and milk sales—are the two big ones in the listributing business. They will continue upper- n the minds of "our staff."

* * *

I just had the capital—." How many times have ou ever heard that remark? It has been uttered requently in the milk business and we, too, must s having once held some foolish thoughts of our s to what could be done with a little capital.

is true that some men could accomplish more if had a little more financial support, but just the if you question some of the great leaders in the business today you doubtless will find many of them firmly agreed that the best thing that ever happened to them was the utter necessity of working hard on a narrow margin.

There's something about money not good for human beings, not good for the most of us, anyhow. Every now and then you may find a rare individual that can safely handle money—but not often.

To be able safely to handle money means you must have the character to keep putting your whole heart and soul into your institution, with long hours of work and thought, even though you may have a little money at hand to tide you safely over the rough spots now and then. Money slows us up. It softens us up. It reduces that Divine fire of push with which ambitious men bowl over their obstacles. It kills off that superb spirit of fighting it out at all odds—the sort of spirit, you might say, that Grant had when he said he intended fighting it out along certain lines "if it takes all summer."

Very often the man who sighs, "If I just had the capital," really has more in his favor than have men with many thousands of dollars to their credit. For the chances are that the man without the capital, if he has the right sort of stuff, is going to keep plugging until he gets his business on a firm footing through NATURAL GROWTH—not artificial development.

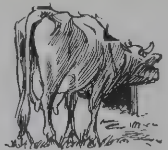
The man going through the fight can't always see things that way, but some day he will, just as some of our friends who have come through the same harrowing rat-hole that scraped off nearly all the hide.

* * *

MANY so-called "secrets of success" have been exploited, but most any successful business man understands there is no secret to it; it simply means gettings things done for you. The men who are getting ahead in the milk distributing business are those who are helping their salesmen get things done and there is where real business comes in—getting things done. The milk dealer must plan. There are too many men in the business that are just letting milk be delivered while they spend much of their time keeping up with things that bookkeepers and good stenographers should be doing. Men who drive milk wagons used to be called drivers. Some distributors still refer to their distribution agents in this way; others call them salesmen. They, too, however, are helping to make their men real salesmen.

We need more of the sales trend in the milk business. By this we mean that there is not enough of the spirit of the game, the urge to do something, besides the ordinary routine of the route. Comparatively few dealers are doing what they might to instill sales interest in their route men. No other industry is so favored by what the newspapers call "free advertising" as the dairy industry. Of all the branches of that industry the milk business gets more of it than the others. All the advertising that is done, however, free or otherwise, is not with full effect until it is hitched up with aggressive sales methods.

Milk for Every On



By
THURMAN B. RICE, M. D.

Assistant Prof. Sanitary Science and
Indiana University School
of Medicine

SOME folks claim that milk doesn't agree with them, and that they cannot drink it without suffering from this or that discomfort or disagreeable symptom. If milk dealers could overcome this rather common belief they would considerably increase the number of milk users, and the amount of milk used, all of which would be to the interest of the milk industry and the public as well.

Milk men should be able to answer this very common argument, and show wherein it is false if it really is false, or how some other milk product may be substituted in such a way that the trouble might be avoided. Many folks who think that they cannot drink milk are really badly in need of it, and could take it if they were only straightened out mentally on the subject.

It would seem strange if Nature's ideal food were poisonous to any large portion of the population. Milk is very rich in vitamines and mineral salts. Weakly folks are particularly in need of these substances. Milk is very easily digested as a rule (if not as sweet milk then in some other form), and it is the easiest excreted of all protein foods. It contains a large amount of liquid or water, and it is well known that doctors are constantly telling us to drink more water. The very folks that say they cannot take milk are the ones that need it most in more cases than not.

The commonest complaint is that milk is constipating. The propriety of this criticism depends upon the definition of constipation, and that is an intricate subject needing a long and rather technical discussion which cannot be gone into in this place. The reason milk has the reputation of being constipating is that milk and milk products are completely digested and absorbed. They leave no residue in the bowel. There is not enough roughage in it. There is nothing in the milk itself that serves actively to produce this condition in case the other food that one eats contains the necessary bulk.

As commonly understood constipation is a condition in which the bowels do not move every day, but as a matter of fact this definition is most inadequate. Many folks who are far from being so regular as this in their bowel activity are still not constipated, and others who have regular daily movements suffer the effects of constipation. It is only when the sluggish bowel gives symptoms of being in trouble that we need consider that a condition of consti
exists.

The most serious a
vanced form of this ver
mon ailment is that w
known as the spastic ty
this condition the bowel is sore, inflamed and irr
It is very significant that a milk diet is the best
remedy for this type of trouble. Milk is smooth, so
and non-irritating. It is hardly reasonable that th
that is proved best for an advanced form of a m
could be the cause of the milder forms of the
malady.

Babies are rarely constipated yet they live on
diet exclusively. The bowel movements have lit
no offensive odor. After folks quit taking an exc
milk diet they abuse the digestive system in ever
imaginable, and it is then that the trouble begin
long as Mother Nature superintends the feedin
gives her own favorite preparation—milk—there i
constipation. The addition of the lactic acid b
bacillus Bulgaricus and bacillus acidophilus, to m
the use of cultured buttermilk is one of the ver
ways of correcting constipation—far better indee
the taking of bushels of pills and tablets.

Even if the material remains in the bowels a l
time than it properly should no harm will come
the milk portion for the reason that the milk pr
are usually completely absorbed and are not pois
or irritating. Other foods being incompletely abs
remain to putrefy and ferment in the bowel. Bad
and poisonous substances are produced which m
may not be absorbed into the body according t
cumstances—or according to different authorities.

Perhaps the most common complaint is that c
folks cannot digest milk. This seems rather st
but there is some basis for the statement in the c
those who have a gastric juice that is not strongly
Cow's milk is able to combine with a large amou
acid and soak up a weak gastric juice like a dry s
in water. One of the main functions of the g
juice is to kill the germs in food. If the juice i
weak to do this the germs still live, and in the
stomach ferment the milk sugar (lactose) and pr
large volumes of gas in the stomach and bowels.
a result the person is uncomfortable and says
bloated, his breathing is laborious, his heart action i

ad he feels quite badly. The fault is not with the ut with his digestion.

v can a condition of this kind be corrected? Such an nearly always drink cultured buttermilk, or the fermented milk drinks. These products have acid content in themselves and do not make a upon the gastric juice. The milk sugar in them n used and there is nothing left that can ferment as production so as to produce bloating. Sour roducts are more easily digested than sweet milk ed they are already partly digested when they en.

was formerly thought that acids should not be with milk. We have often heard it said that the hould have milk and he should also have orange out he should not have them together. We have earned that this is false. Delicate babies are now soured milk, or milk to which lactic acid or some acid as orange juice, or lemon juice, has been and they do amazingly well when so fed. Even ure babies may take boiled cow's milk, diluted hat, to which some of the above acids have been and do better than we supposed possible for o do only a few years ago.

milk is boiled it is considerably easier to digest, in this case very much like meat or most other In case there is the least doubt about the quality x, or suspicion concerning the strength of diges- uch trouble may be avoided by using only boiled Even pasteurization slightly increases the diges- . The cooking of milk does not injure its food es except that it decreases or destroys vitamine fresh fruits and vegetables easily make up this .

ilk is so fattening'' wails the devotee of fashion e days of the slender, slinking yard-stick figure. oubful if anything could be said to change the r the eating habits of such flapper folk unless it ed a beauty hint. It is quite useless to point out reasonable amount of healthy fat—an amount n stick on during vigorous, active, useful life is useful health asset. We are hopeful that the ture may bring more curves into the figure of the able woman—and man.

if one is so deadly afraid of becoming fat he or y drink skim milk and thereby get a large part benefit of whole milk without the fattening effect. ed buttermilk is less fattening while at the same contains the major part of the food value. The ssential factor in beauty is full, bounding, vig- health with its well known "pep" and "snap," r eye, and clear, fresh skin. Milk is most essen- such health and should not be disdained by the e of Dame Fashion.

ny women are injuring themselves by foolish fast- nts to reduce weight or retain the proportions ood nymph. The diets used for this purpose are studiously unbalanced as a rule, and greatly need tective value of milk if health is to be maintained.

netimes old folks have been afraid to drink milk e they knew it to be very rich in lime, and they een afraid that the lime would be deposited in the vessels thereby causing hardening of the arteries gh blood pressure. The fallacy in this reasoning the fact that the deposition of lime in the vessels he cause of the injury to the vessels but is rather the efforts of the body at repair to the vessel. teries are injured by various forms of intoxicating nces taken as food and drink or by the accumula- the waste products of disease, overwork, worry, sleep, and all that sort of thing. The excretory ts of a heavy meat diet have the effect of injuring the vessels, but, on the other hand, milk produces practically none of these irritating substances, and is indeed the very best of all protein foods for old people. The bowels, kidneys, and blood vessels of old people are pretty well worn out and must be handled with care.

Pregnant women have been known to avoid milk in the diet because they have thought that the lime would make the bones of the baby grow large and hard, making birth difficult. It is very doubtful if there is anything in this belief at all. The child will requisition all the lime that it needs from the body of the mother. If anyone suffers from want of lime it will be the mother. The lime and the vitamines of milk are very badly needed at this time of all times. The needs of the growing child make a great and urgent demand upon the maternal body and these needs—vitamines, lime, easily digested and excreted protein, and energy are abundantly supplied by milk. Nursing mothers need milk for the same reason.

When pregnant and nursing women do not have sufficient lime in their teeth, the bones and the healed tuberculosis nodules (sealed by deposits of lime) in the lungs may be decalcified and serious trouble result. Lime in the blood is necessary for coagulation, and the woman in labor is in danger of bleeding, so it is very important that her diet supply her abundantly with this most vital element.

The statement is sometimes made that adults have lost the digestive juices which act upon milk and that therefore it does not agree with them. That is, of course, sheer nonsense since milk is digested by the same juices that act upon other common foods.

In our enthusiasm for milk as a perfect food we must not, however, be guilty of making the claim that there are absolutely none who cannot drink milk without having trouble. Milk is too bulky for many cases of heart disease, and there is in such cases also the possibility that a temporary insufficiency of the digestive system might permit the development of a large amount of gas causing bloating that would seriously hamper the heart action.

There are also a few persons who have an idiosyncrasy against milk. It causes them to break out with hives or an eczema like eruption, or to have asthma or some of the various other mysterious manifestations characteristic of this condition. Other folks cannot eat strawberries, or sea foods, or eggs or what not. There is no explaining a condition of this kind. Such folks will simply have to learn what causes the trouble and then carefully avoid that food. Sometimes they can be "desensitized" by their physician, but the procedure is usually long and tedious, and not a great success. As a rule cooked milk does not cause trouble though some cannot even take that. Very rarely even babies show this condition in which case it is very hard indeed to bring them up to the age at which they can eat other things.

There is a belief that milk is incompatible with certain other foods. The writer once tried in a Boston restaurant to have milk served as a drink when shrimp was the meat course, but the waiter flatly refused to serve it under those conditions. "No, indeed," said he, "milk with shrimp is deadly." My urging was of no avail, so I went down the street to another place and got a glass of milk to follow the shrimp. Of course, nothing at all happened.

Milk with acid fruits as cherries or orange juice is taboo—without reason. The acid curdles the milk to be sure, but so does the acid of the normal gastric juice in the stomach. Indeed, the gastric juice is far more acid than any fruit juice. Milk and tea are not to be taken together, because the tannic acid of the tea "tans" the albumen of the milk in the same way that it tans the albumen in skins. Well, what if it does? And does it really do so? There is so little tannic acid in a cup of properly made tea that its effect would be entirely lost when diluted so much.

As a matter of fact a large part of these prejudices against milk are relics of the days when one could not get the pure, wholesome milk that is available today. It made folks sick in those times because it was impure and unfit to drink. A Syrian friend of the author says that his mother taught him that fresh, sweet milk was a deadly poison, and under no condition to be touched as food. If the milk was boiled or soured it might be drunk, but never when it was fresh and sweet. The explanation is easy. In the unsanitary surrou
of that country fresh sweet milk might have ma
gerous germs in it which boiling or souring wou
Since bacteriology was not understood the milk
than the germs got the blame, and the superstiti
the milk itself was the cause of trouble still hang

Nearly everyone can use milk in some for
should do so. It is up to the milk dealer to furn
best milk possible at the price that folks are wi
pay, and to teach them to use it with whatever
tions or extra care their particular case may
to get a satisfactory result. Let's have milk for
one if possible.

Shipper of Milk Held Entitled to Recov From Railroad Company

By LEO T. PARKER, Attorney at Law, Cincinnati, Ohio

IN THE recent case of Orange National Bank versus Southern Pacific Co., 110 So. 329, it was disclosed that the Rogers Milk Products Co., Inc., shipped from Pulaski, N. Y., to New Orleans, La., 650 cases of Rogers' brand sweetened condensed milk to its own order, notify Goodman & Beer, Inc., and transferred the bill of lading with draft attached. The initial carrier of the goods was the New York Central Railroad Company, and the delivering carrier was the Southern Pacific Company. The shipment arrived at New Orleans on February 21, and Goodman & Beer, Inc., notified of the arrival. The shipment remained on the docks for about two weeks, no one presenting the bill of lading, when it became necessary to remove the goods to a licensed warehouse. Goodman & Beer, Inc., had the shipment removed to its warehouse, where it was held apparently for the account of Southern Pacific Company, until March 22, 1923, when the Rogers Milk Company, not being able to present the bill of lading, gave the Southern Pacific Company, an indemnity bond for the goods, and took possession of them, and held them, as owners. Shortly thereafter, Goodman & Beer, Inc., reached the conclusion that something was wrong with the shipment, since some of the cases containing the cans of milk were bulging. Examinations were made and the conclusion was reached that the bulging was due to the formation of gas in the milk, caused by deterioration, brought about long before deterioration should have been expected. Goodman & Beer then attempted to sell the milk; and after some effort in this direction, sold it in the latter part of May to a person named Groetch for two dollars a case, or $1,300 for the entire shipment. The milk in good condition was worth $3,257.02 above the freight charges.

Suit was brought by the holder of the bill of lading against the Southern Pacific Company to recover the value of the milk above the freight charges, on the grounds that the milk was delivered to a third person without the presentation of the bill of lading.

In holding the Southern Pacific Company liable, the court in part of a lengthy decision said:

"The shipment was an interstate shipment, and having been made under an order bill of lading, defendant (Southern Pacific Company) should not have delivered it except upon presentation and surrender of the bill of lading by the lawful holder thereof, and in the event of the loss or destruction of the bill of lading, then only upon an order of court and the execution of a proper bond. Defendant (Southern Pacific Company)
liver the goods to him who was not the holder of
of lading, and hence is liable ...... The rule
the measure of damages for a conversion by the
of goods intrusted to it for transportation is th
of the goods at the time and place of the con
...... From this amount the freight charges
payment of such charges is necessary to enable t
per or holder of the bill to obtain possession
shipment, and the shipper or holder should not
mitted to enrich himself at the expense of the
..... The evidence offered makes out a prim
case that the milk was in good condition when it
factory, and should have been in such conditio
it was delivered .... to Goodman & Beer and
taken on it. ...... No disinterested person ex
the milk, and gave evidence concerning its co
...... Our conclusion is that defendant has no
factorily established that the milk had deteriorat
hence was not worth what it otherwise would hav
and convincingly, which, under the circumstances
case, it should have done, to say the least. .....
trial court rendered judgment for plaintiff as
for; that is, for $3,254.02, which was the marke
of the goods at the time of the conversion less the
charges. It is affirmed."

⁂

LOS ANGELES MILK OF HIGH QUALIT

A surprise milk scoring contest conducted dur
last week by the state department of agricultur
the city of Los Angeles one of the highest sco
tained thus far this year in the state, it was ann
yesterday. The city's milk supply received an a
score of 95.3, which is .3 per cent higher than the
obtained here four months ago. Producers in ma
stances are supplying milk above the standard,
stated.

The city health department, under the supervi
Health Officer George Parrish and Dr. William
city veterinarian and chief milk inspector, is prai
the city's showing. The contest was conducted b
Pierce, Salt Lake City, market milk specialist,
States Department of Agriculture; Dr. M. E. McD
Sacramento, assistant chief, bureau of dairy contr
Dr. H. P. Bonnickson, Los Angeles, market milk s
ist, state department of agriculture.—Los A
County Times.

Putting Over A Sales Promotion Idea

A Big California Dairy Products Company Adopts a Good Plan for Getting Publicity for Milk. Everybody Joins in Making it a Success

HIEVING what is probably the most phenomenal success ever secured through a campaign of this character, the Crescent Creamery Co. of Los es has just completed a children's contest in San rdino and Colton, Calif., which enlisted the inter- nearly every child of elementary and junior high age. With a total enrollment of a little more 10,000 in these schools in both communities, ap- nately 10,000 children entered the contest for Prince III, a thoroughbred Shetland pony, was d as grand prize.

ider the name of the "Men of Courage" campaign, ontest was planned by Walter Ruf, advertising ger of the Crescent Creamery Co., primarily to in- children in the food value of milk, but it also l as an effective means of acquainting the public the new branch of the Crescent organization re- y opened in San Bernardino under the management J. Barry.

ira La Plante, noted screen star and one of the honorary s in unique contest staged by Crescent Creamery Co., to- with "Prince III," famous Shetland show pony, awarded nd prize in a campaign to stimulate interest among chil- n the food values of milk.

he contest centered around booklets containing out- drawings of "Men of Courage," including such rn heroes as the aviator, the football player, the r, the railroad engineer and others, to be colored eatly and artistically as possible. Each drawing accompanied by a little story which pointed out the of milk in building up strong bodies and steady es necessary for men in such positions, and a glass ttle of milk formed a part of each picture.

election of the most artistic colored books entered in the contest was made by a committee of three prominent California artists, including Frederic L. Pickering, free lance artist and illustrator of Los Angeles and San Francisco; Roi Donatus Sheeran, former director of the American Academy of Fine Arts, and at present art director for the Miller theaters, which include the famous Carthay Circle theater and the Figueroa theater of Los Angeles; and E. G. Michelson, for many years head of the art department of a firm of outdoor advertisers, who is considered one of the greatest poster artists in the country.

Further interest was added by the fact that a group of 12 motion picture stars acted as honorary judges for the event, expressing their desire to impress upon California children the importance of drinking plenty of milk. Among these were such well known artists as Laura LaPlante, Virginia Grey, "Hoot" Gibson, Reginald Denny, Norman Kerry and others.

The campaign was inaugurated with a street parade featuring Prince III, the Shetland pony, which made its way through the principal streets of both San Bernardino and Colton. Motion pictures of the parade were later displayed at a local motion picture theatre as well as in other parts of the state. During the three weeks of the contest, the pony made surprise visits to each junior high and elementary school in addition to appearing at special "Pony Day" sales arranged by prominent retail stores. A special radio program was presented as a tie-up with the contest, supplementing the extensive advertising campaign in local newspapers.

Colored posters showing the "Men of Courage" were displayed in all the schools as well as in the windows of all Crescent dealers in the district. In fact, nothing was left undone to arouse and maintain the interest of the children throughout the three weeks of the contest, and the success attending these efforts is evidenced by the practical unanimity with which they responded.

The prize winners of the contest were announced and the prizes awarded at a special children's party held in the Municipal Auditorium at San Bernardino, the largest hall available in the entire community. In addition to the pony, five second and five third prizes were awarded, while a group of 25 children in the fourth class received honorary awards in the form of souvenirs from the honorary judges. Ice cream and a ticket to a junior matinee at a local theater were given to each contestant at the close of the program.

So far as the contest was concerned, it was strictly educational in its nature and while it was understood that it was conducted by the Crescent Creamery Co., it carried no specific advertising for that firm. However, the tie-up for the creamery company was accomplished through the routemen who delivered to the home of each contestant an invitation to the party at which the prizes were awarded. The routeman again made a personal contact with the public by returning each completed color book with a certificate complimenting the contestant upon the interest shown and the artistic quality of his or her work.

The vast amount of indirect advertising done by the children entered in the contest brought about amazing results in the wholesale field as well, for the children were directed to Crescent dealers for their color books

(Continued on page 25)

What Comes Out of a Milk Bottle?

Here's What One Man Saw Before His Eyes and Yet Didn't "See." He's a Milk Dealer— Not a Merchandiser

TAKE a bottle of milk, now. Put it on the table. Call the family to dinner. Mother pries off the lid and starts to pour from it into the glasses of those around the table.

What is she pouring? Milk? Yes—what else? For there **is** something else—in fact, The Something Else that goes to make life happier and more worth while.

What is it?

The sales problem in the milk business has resolved itself into this: A matter of **telling the public what is in a bottle of milk!**

The milk dealer who wants to sell milk must be able to make the public understand that a milk bottle contains something vastly more than the physical properties that make up milk. It is not only milk that we are selling, it is the thousands of things that milk represents.

There are two men in the milk business—milk dealers and milk merchandisers. There are more of the former. The difference is this, one of them doesn't know what comes out of a milk bottle. You can explain to your heart's content, but the fact remains that, nine times out of ten, one man sells more milk than another because one man can show the public how very many things come out of a milk bottle besides milk. Ask the average dealer what is in a milk bottle, and he probably will begin enumerating the various component parts of milk. The chances are he will overlook the very important things, the thousands of important things, the great jewels of nature that are craved by the men, women and children of this world. We are selling those jewels, those priceless, precious stones that mean more to mankind than all the wealth of the world.

If we human beings could vision the great, unseen forces of life, here are some of the many things we should see coming out of a bottle of milk:

Pour milk for a child. Out of the bottle come, with the milk, myriad faries that we can't see, fairies waving the magic wand that makes for healthy, happy children. Of course, we can't see them, but these fairies bring fine, clear eyes, rosy cheeks, fat, pudgy hands, firm muscles, soft skin, clear complexion. Let's sell these things; they are our merchandise.

Into the glass of big brother is poured, from the same bottle, many things we don't see—strength and skill for sports, for football, for hockey, for tennis, for baseball. Out of the bottle cames a fairy that clears his mind for study, for perception, and builds up the cells of his brain for knowledge, for understanding. Another, from the same bottle, brings nerve force for the many battles of life; brings red corpuscles to add zest and enthusiasm to life and its battles; brings the fine red blood for energy; brings that mental "ginger" for quick, alert thinking in tight places; brings that mental poise for good judgment, for accurate decisions that must be made quickly; brings hard, firm flesh for a rugged body that must face many strong winds four square in the course of life's ups and downs.

Into father's glass is poured, from the same bottle, a glass of milk that disguises many priceless gifts—the finest that nature gives to man. They bring a tonic to a mind worn and torn by the ordeals of the day, raked by the many responsibilities on his shoulders. They bring a new strength, a new faith, a new stability to his health and morale, a new understanding, for when he has finished he generally leaves the table with a sigh of satisfaction and a smile as his eyes sweep in his little family flock, and then the world is bright again, the business that he has worried about so long is worth more c dollar, and he has a whale of a lot of fight left i yet, by gum, before he will let a few squally wi trade frighten him. For he has the dad-blamede est family in the world to fight for. He takes his and his pipe to the evening papers, but doesn't anything; just sits down there and plans to carry next day the fight he had just thought wasn't continuing—plans and smiles.

The smile came out of the milk bottle!

That smile is one of the things we in the milk bu are selling—or ought to be selling. It is our mercha part of the trade that goes with a bottle of milk.

Into Big Sister's glass the milk bottle yields a itable treasure trove that many never underst possibly not even Big Sister herself. Of course, the white teeth, the soft skin "schoolgirl complexion," bright eyes, the full, red the trim, full, well-rounde ure—all of these things, are appreciated, but not ju themselves, **but for what mean to Big Sister!**

They mean what beaut attractiveness mean to young woman of the m period, which is to say mean more to her than thing else in the world to anybody else in the w They mean friends among sexes. They mean praise admiration from girl fri They mean adulation and ation from male friends. mean bringing to her a ho eligible young males f whom she can select The and Only for this great, ous, interesting voyage of

Then last, as is always all mothers, the weary hand finally pours milk mother's own glass. She does it perfunctorily, for, all, mother's service to herself is more or less a mec ical proposition. Nothing else matters after she has her flock. But seeing that everybody else has been t care of, is eating and is cheerful, mother picks up in spirit and begins to pick at her food a bit. Now then she takes a sip of milk and gradually her app works up keenly, and soon she is eating and laug and taking full part in the banter and teasing g on about the table. She laughs with the rest as l Jack tells how his hoop got away from him and ro into the chicken yard of Mrs. Jones next door, and gets a thrill and emits lots of "oh-oh-oh's" with others as Big Brother Jerry tells how he cut loose f all interference, side-stepped several would-be tack stiff-armed another, and then ran a neck and neck with the safety-man, beating him to the goal, by a h lash, with the touchdown that beat the varsity caused the coach to put him on the first-string squa

"I surely had my luck with me today," he mode d at the close. But mother just smiled, and for eason she gave the bottle of milk a gentle pat or she went back to her eating, pausing momenta- see if someone else about the table wanted an- lassful.

n at length, everybody having pushed back their mother drained her glass of the last drop of milk ned back in comfort. She had intended leaving hes entirely for the hired girl to do; she had been ed when she sat down. Of course, she knew, the girl was forever breaking up her best set, but— ow mother felt that an entirely new being had possession of her. She was ready to tackle those with a vim—and tackle them she did. And she d several snatches of an old girlhood song as she l, snatches that made dad look up over his paper chuckle now and then and caused Big Sister to that she didn't know of another woman that age world who still had her voice.

mother, in the wisdom of all mothers that ever een and ever will be, no doubt—knew what was it all. She knew that, when she drained her glass, od fairies of nature had passed on to her some of ry choicest of all her gifts, those reserved for the nest of the human family. She had passed on the of patience and perseverence that constitute real hood. She had imparted the truth of wisdom and de; had passed on the fine graces and virtues that others the strength and vitality to labor and strug- her little band with a song and a prayer in her though her feet were aching dreadfully. The milk s had brought to her a new will to keep carrying rough all her trials and disappointments, with a hat surpasses all understanding.

was the milk goddess who made it possible for to be the last to turn in that night, and so it ned that she stood for a moment at the crib of little after she had tucked him in and planted several od-night kisses in the usual place, and lifted up ken prayers for the safety and usefulness of that nan through all the years of his life.

was then she was startled by a voice that came lad's room.

hen you hang out the card tonight,” he said, off a couple bottles of milk; we've been drinking rn much milk.”

es, dear,” said mother patiently, but in the wis- f all the mothers of all the ages, she went right l ordered the usual amount of milk, knowing that he milk man left the next morning he would leave all the precious gifts that all the Santy Clauses solar system could pack on many sleighs.

or dad, you know, doesn't know much about milk. ust a business man. What business?

, he just runs a milk plant.

at was he worried about tonight? Oh nothing in ilar; he was just upset because his recent adver- campaign had fallen flat.

eople just don't understand how important milk had complained to mother.

laybe, dear,” mother had suggested, “it's because ossibly don't see—er—the full picture of milk.”

he full picture? What the heck—oh, there's noth- that. They had just rather throw away their at the delicatessen counter. It—well, I dunno.” d then dad was right—he didn't.

⁂

you have an idea, put it to work. Don't save it u may lose it.

ADD FIFTEEN YEARS TO LIFE.

In an address before members of Tarentum Kiwanis Club, Tarentum, Pa., C. A. Reed, head of the Valley Dairy Product Company, said that people who drink a quart of the new lactic buttermilk each day can increase the span of their lives by fifteen years. This is not a matter of guesswork, Mr. Reed said, but is a scientific discovery. Lactic buttermilk is made by germinating the milk with the lactic organisms and is a product which, if constantly used, will destroy the disease germs which tend to tear down the body. One must learn to like lactic buttermilk, but after that it becomes a delicacy.

Forty billion gallons of milk are used by the people of the United States every year. The people use a per capita amount of one pint a day for drinking purposes, but by far the greater portion of the tremendous output goes into the making of ice cream, dairy products and confections, Mr. Reed declared.

⁂

DEFENDS CHOCOLATE MILK LUNCHES.

College girls have been severely censured for partaking only of a sandwich and a chocolate malted milk at noon. However, Miss Margaret Beattie, assistant dean of women at the University of California, says: “These are more substantial meals than they seem. Would that more girls drank a concoction which contains not only malted milk but fresh milk, ice cream and whipped cream, all of which are highly nourishing foods.” She also urges college students to drink more milk, realizing that it is beneficial, not only to children, but to adults as well.

⁂

PUT WATER IN COW, NOT IN CAN.

At the annual banquet of the Coventry Cow Testing Association at Bucktown, Pa., Clarence Funk, a farmer of Kimberton, and William Lewin, in charge of the dairy herd of the eastern Pennsylvania state institution at Penn Hurst, received silver loving cups. Mr. Funk received the cup for the honors attained by his cow, “Nigger,” which produced 10,584 pounds of milk and 542.6 pounds of butterfat in one year. She is the champion of 547 cows tested.

In answer to the question, “What is the cheapest and best form of food for a dairy cow?” he replied as follows, “Pure water. Eighty-seven per cent of milk is water, and farmers should be sure the water is put into the cow and not into the can.”

⁂

PUTTING OVER A SALES PROMOTION IDEA.

(Continued from page 23)

and later were told to see the posters in the stores for suggestions in selecting their color schemes.

Incidental to the progress of the campaign, there were several local features of interest. Within a day or two after the contest opened, every stock of color crayons in San Bernardino and Colton was exhausted and special orders for additional supplies were hurried to Los Angeles. Large increased sales of articles especially adapted for children resulted from the “Pony Day” sales arranged by stores who tied up with the contest.

Taking the campaign all in all, it was a huge success from start to finish, and reflects great credit upon the acumen of Walter Ruf for its conception and upon all who participated in its local management for the very enthusiastic execution of the plans laid down by the home office of the company in Los Angeles.

Shall It Be Cotton or Milk?

A Few Observations Which Suggest That King Cotton is Gradually Making a Place for a New Southern Industry—Dairying

By J. L. HOLDEN*

A COTTON field at picking time, its blanket of white sprinkled here and there with deep green, is in reality beautiful and inspiring to the casual observer as well as to the producer who has contributed his labor that this spectacle might be presented. And in 1926, the enormous crop of 18,618,000 bales of cotton was produced in the cotton belt.

But back of this scene there lay for the cotton farmer of 1926 what might be termed, in many cases, a tragedy; for it is estimated that it cost him 16 cents a pound to grow, gather, and gin this commodity, and when, after this investment of time, labor, anxiety, and money, he received from 9 to 12 cents a pound for the product of his cares, it amounts to little less than tragedy.

I stood in the market place in a small Oklahoma town and watched a man, a small farmer, drive up his wagon loaded with two bales of what appeared to be an exceedingly good grade of clean, snow-white cotton. There was no happy look on his face when the buyer offered him 11.5 cents a pound for a product that had probably cost him 16 to 17 cents in cold, hard cash to produce. And that doesn't count his anxiety. During the summer, here was a man who had planted the seed, probably plowed the growing stalks four or five times, thinned to the proper distance in the row, and wondered if weather conditions would be favorable or if insect pests would play havoc with his work. The season had advanced, the bolls had opened to show him a crop that hope to rise high. Here was money for the thi had planned; perhaps a new car, new equipme larger production next year, new conveniences home, and less drudgery for his wife.

The Law of Supply and Demand.

But the trouble was that all his neighbors ha duced equally abundant crops, and then that ine law of supply and demand took effect. There wa than the market could move readily, and the dropped steadily downward.

Across the street, on the other side of the place, a small dairy was in operation, paying price for whole milk. In nearby large cities branches of large creameries which offered att prices for cream. What if our small farmer had producing dairy products and bringing them to regularly? He would have received in return a monthly check, giving at least a small margin of instead of a payment once during the year and tha ment representing a loss.

Cotton farming is essentially a one-crop syste agricultural economists tell us that such a system primary type—the type resorted to when new settled and when the settler desires the quickest p return on his investment. This single crop syst a fertility destroyer, inasmuch as it takes every

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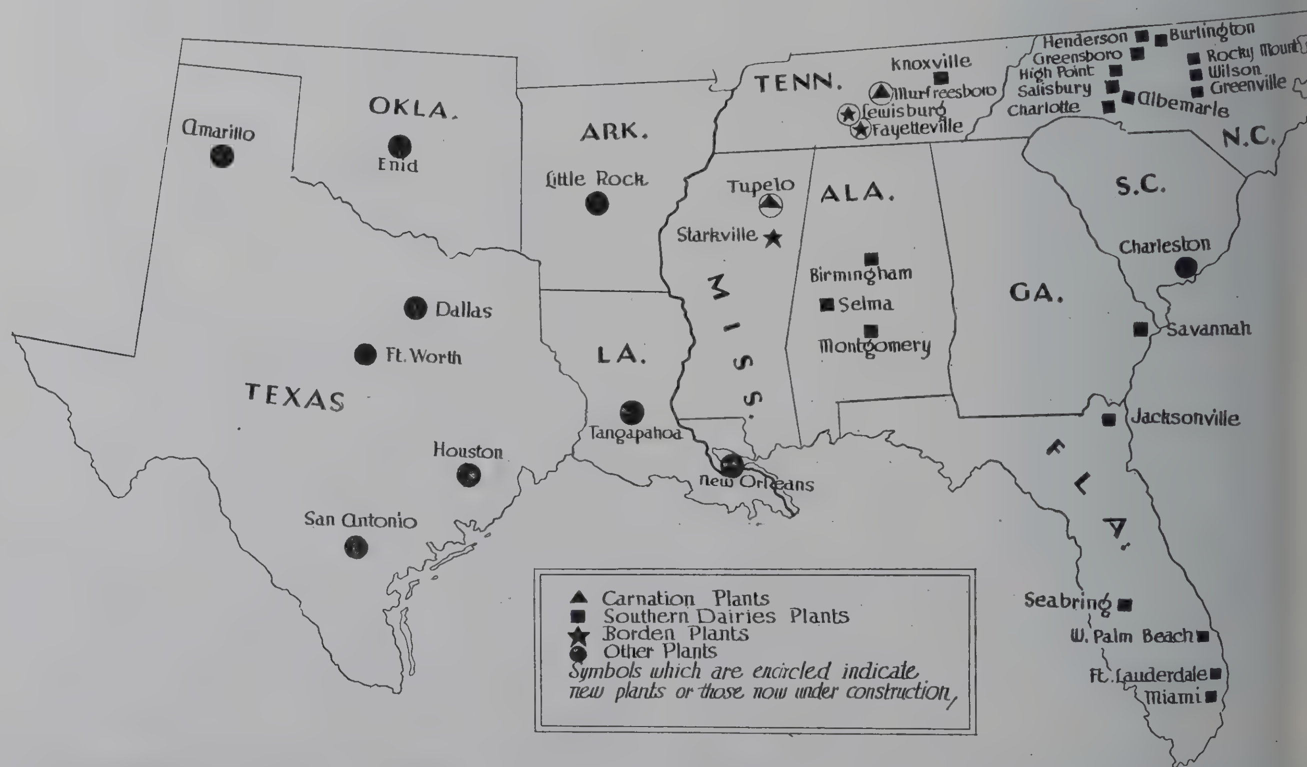
* Dairy Division, The Pfaudler Co., in "The Glass Lining."


OKLA.
Amarillo
Enid
ARK.
Little Rock
TENN.
Knoxville
Murfreesboro
Lewisburg
Fayetteville
Henderson
Burlington
Greensboro
High Point
Salisbury
Charlotte
Albemarle
Rocky Moun
Wilson
Greenville
N.C.
S.C.
Charleston
Tupelo
Starkville
ALA.
Birmingham
Selma
Montgomery
GA.
Savannah
MISS.
Dallas
Ft. Worth
TEXAS
LA.
Tangapahoa
Houston
New Orleans
San Antonio
Jacksonville
FLA.
Seabring
W. Palm Beach
Ft. Lauderdale
Miami
▲ Carnation Plants
■ Southern Dairies Plants
★ Borden Plants
● Other Plants
Symbols which are encircled indicate new plants or those now under construction,

AN UNDEVELOPED DAIRY COUNTRY—With the gradual elimination of the cattle-tick where it has been prevale in the South, and with a vast and excellent pasturage still unutilized, this great country bids fair to develop its dai industry rapidly. The above map shows a few of the newer plants. Many national organizations have recently show their appreciation of what the South has to offer by erecting new plants in this territory.

he soil, returning nothing to insure future success.
ge part of the South, instead of adopting some
of diversification with its incorporation of dairy-
d its rotation of crops, which could well include
cotton, has clung to the old-time, one-crop prop-
n of the production of cotton alone, firm in the old
that the fertility of its land was inexhaustible.

Exhaustion of the Soil.

is true that cotton production does not destroy
ty as do some other crops, but it is nevertheless
ning to show its effects in some sections, and those
rs who believed that they could go on for centuries
cing cotton on the same land are realizing their
ke.

at diversification should include the dairy cow is
able, and that the addition of the dairy cow to the
ng operations of the Southern farmer, along with
on of farm crops, would mean a progressive step
direction of his happiness and prosperity is agreed
t only by agricultural authorities, but by far-seeing
n other lines of business as well.

airying is peculiarly fitted to the South. Surveys
have shown a low percentage of bovine tubercu-
Favorable climatic conditions insure a long pas-
g period and consequently cheap feed, together
a smaller initial outlay for less pretentious housing
ties than are required in the North.

hat the Southern farmer is operating in a section
ole of producing feed crops, which fit into a system
tation and which will supply him with abundant
feeds, is amply illustrated by the estimated pro-
ion of a few Southern farm crops for 1926. These
es show corn to the extent of 710,812,000 bushels;
139,763,000 bushels; wheat, 92,966,000 bushels;
sorghums, 45,946 bushels; hay (tame), 11,958,000
These, in addition to imposing figures on other
crops.

Local Outlet is Large.

f course, this argument favoring dairying as a form
versification would be without justification if, after
armer added dairying to his operations, there were
ocal outlet for dairy products. But according to
stics furnished by the National Association of Ice
m Manufacturers, there are in the 48 states and the
rict of Columbia 4748 ice cream plants, 1091 of
h are in the South. As evidence of the growth of
Southern plants, it is further estimated that they
d a total of $6,000,000 each year for additional
ts, enlargements, and new equipment.

Vhen such well known national organizations as
hern Dairies, Inc., Carnation Milk Products Co., and
Borden Company back up their faith in the South
dairy center by building branch plants there, it is
for the farmer to manifest an interest in his pos-
ities for increased prosperity as offered by dairying.

he Southern Dairies, Inc., have divided the terri-
they serve into 11 districts, with a total of 33 plants
ddition to numerous receiving stations. The Car-
on Milk Products Company is now building a plant
upelo, Miss., and one at Murfreesboro, Tenn., thus
trating their interest in the South. The Borden-
hern Company has plants at Starkville, Miss., and
isburg, Tenn., among others, with receiving stations
these plants located at Pulaski, Shelbyville and
mbia, Tenn.

he continual development of natural resources and
introduction of manufacturing, coupled with the
lopment of Southern harbors and expansion of rail-
s, insures for the South a continual market for its
y products.

PROSPECTS BRIGHT FOR GREATER DAIRY

The prospects are bright for the development of a greater dairy industry at Meyersdale, Pa., according to the Meyersdale chamber of commerce and Dr. Kelley, a representative of the Scott-Powell Milk Company of Philadelphia. The agricultural department of the Baltimore and Ohio Railroad has made a survey of the Meyersdale rural region and the findings are exceptionally favorable.

A campaign is under way to raise $30,000 for the erection and equipment of an adequate milk receiving and shipping station. Dr. Kelley declared that a million dollars worth of milk can be shipped from Meyersdale annually if farmers and business men take concrete action soon along the lines he has suggested to them. A market awaits all the milk that can be produced and shipped.

GEORGIA MILK CO. NOW HAS MARKETS FOR ITS PRODUCT.

When the Georgia Milk Co., Waycross, Ga., was organized, for the first few weeks it was compelled by a lack of market to throw away over a hundred gallons of milk a day.

At the present time the company ships more than two hundred gallons of milk daily out of Waycross and has a market for two hundred more gallons. The Chamber of Commerce assisted the company in establishing markets for their product.

It is possible that another dairy will be erected in that city, according to the president of the Chamber of Commerce.

MILK AND CREAM DISTRIBUTED IN ASHLAND, WIS., COMES WITHIN LEGAL REQUIREMENTS.

According to R. B. Southard, state dairy food inspector for the district surrounding Ashland, Wis., the general average of milk being supplied to the citizens of Ashland contains a larger amount of butterfat than the law requires, although some of the milk is quite low. The cream tests also show that Ashland consumers are getting a greater amount of butterfat than the law requires. The law requires a minimum of eighteen per cent butterfat in cream.

MILK PRODUCT OF MODERN DAIRY, INC., ADVERTISED AS FREE OF ALL DISEASE GERMS.

The Modern Dairy, Inc., located off South Cortland St., East Stroudsburg, Pa., will be opened soon. The company will be operated by Benjamin A. Williams and F. A. Lawrence.

The proprietors have installed the most modern pasteurizing machinery that could be obtained in the modern plant which has been constructed. The firm will purchase raw milk from various local dairies, and will pasteurize it. They will then retail it to the consumer. House to house delivery will be made by automobile truck, although as the trade develops it is planned to replace the trucks with horses and wagons.

GROWTH OF DAIRY COUNCIL.

During the summer of 1919 the National Dairy Council opened a small office with one stenographer. At the present time it has fifteen established units and a force of 160 active workers. During 1925 it distributed 7,500,000 pieces of literature, reaching every point in the United States, and spent $760,000 in carrying on its extensive educational work in the interests of the dairy industry.

What To Do When Collections Lag

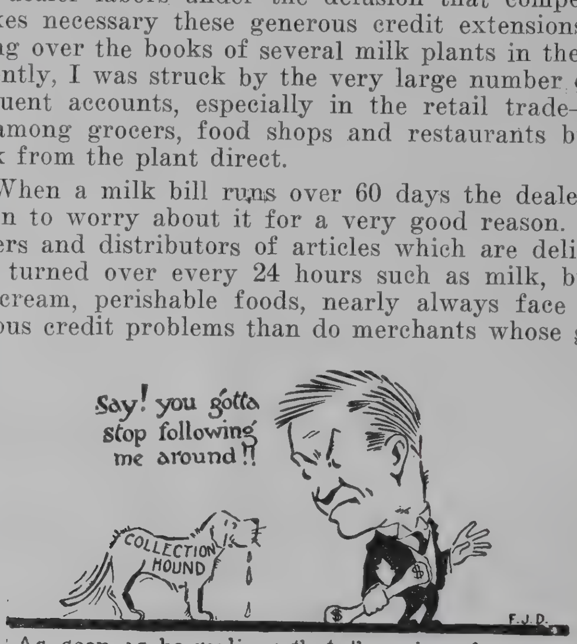
Milk Dealers in Many Cases Extend too Liberal Credits. Delinquency on the Milk Dealer's Books Harms Him More than Most other Business Men

By HENRY J. FEARON*

IT IS my belief, from experience, that the average milk dealer extends more liberal credit terms than almost any other merchant doing business under similar conditions.

The collection facilities of the average small milk plant are not what they ought to be and very frequently the dealer labors under the delusion that competition makes necessary these generous credit extensions. In going over the books of several milk plants in the East recently, I was struck by the very large number of delinquent accounts, especially in the retail trade—that is, among grocers, food shops and restaurants buying milk from the plant direct.

When a milk bill runs over 60 days the dealer can begin to worry about it for a very good reason. Producers and distributors of articles which are delivered and turned over every 24 hours such as milk, butter, ice cream, perishable foods, nearly always face more serious credit problems than do merchants whose goods have a less frequent turnover. It is harder for the food shop to pay for milk it has sold in the past 40 days than to pay for the canned foods which still remain on the shelf awaiting buyers.


Say! you gotta stop following me around!!
COLLECTION HOUND
F.J.D.

As soon as he realizes that there is only one way to get rid of the dog, he will drop the bone

Very recently there was an article in the New York newspapers to the effect that a supposedly wealthy woman, declared a bankrupt, reported owing a milk bill of about $265. This represented milk for her own home consumption and the question arises: How could any milk dealer permit an account to pile up in this fashion?

One Answer.

Perhaps one answer might be that the woman was prominent, apparently wealthy and therefore good—eventually. And here is where many milk dealers lose out on their credits.

Some of the greatest losses sustained by milk dealers are among supposedly rich families whose milk consumption is heavy and who certainly are good customers when they pay promptly. The average milk dealer is not nearly apt to lose through too liberal credit policy on the smaller fry—the customers who are in moderate or poor circumstances.

When the milk dealer's collections lag he is usually satisfied to send out a set of statements with various rubber stamped admonitions over them and then await the inpour of the money. But too often the response isn't what it should be.

Many milk dealers whose books I audit appear to fear greatly the loss of customers if they press for money long overdue. There is the tendency c delinquent to change milk dealers, leaving the cre in the lurch.

This fear is groundless as a rule because it is u ly that the other dealer would welcome a habitua linquent, and when an account reaches such a sta delinquency, it isn't likely that every plant will r any profit on the business.

But a great deal can be done by the milk deal getting in his money. Form letters if they are pro written are productive but the milk dealer gets b results through personal call for collection. Amon scores of milk plants whose financial methods hav come known to me, I have found very few who di depend upon the personal call to bring in the mone

A Good Case for the Dealer.

The milk dealer, if he only knew it better, is very strong strategic position to get his mone promptly when due.

a. He is supplying a necessity of life.
b. He is performing a definite service daily.
c. He has paid for the milk which the buyer or sumer has already used.
d. Delinquency on his books will do the delinq more harm than delinquency on the book other business men.

The personal collection system on accounts w are 30 days past due is what is bringing in the mo Form letters and telephone calls may get cash du certain stages of delinquency, but not when an acc has run past the 30 days from due date period.

It seldom pays the milk dealer to threaten the d quent with a shutting off of service as this arouses tagonism and gives the consumer an excuse to d payment even for a longer period. It is better to p the dealer's reasonable request before the delinq on the basis of common fairness.

Collecting money for a service performed (as aga any merchandise sold) is usually an easier matter t collecting for goods. The promptitude of milk serv the dependability of the dealer's organization, the q ity of his product in the very beginning of each col tion matter stand in his favor in the mind of the c sumer in arrears.

The situation can be capitalized on.

For instance: An Eastern milk dealer regularly proaches delinquents along this line: "You have, I h been getting your orders filled with despatch and c tesy? Our driver hasn't overcharged you, has he? Y have been getting full measure in all cases, haven't y You are content with the quality of our products, you not?"

Getting the Money.

The consumer admitting all these points, which raised politely and with courtesy, the dealer then p sents his bill for payment, also with all the court possible.

Now, he has gotten the delinquent on the defensi has forecasted possible complaints, forestalled excu

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* Auditor, Retail Accounts.

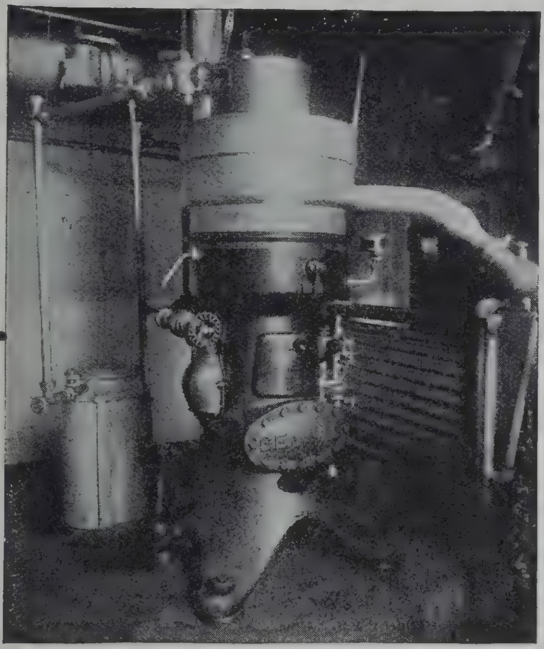
New Series
De Laval Separators

New Series De Laval Separators – A Revelation in Clean Skimming

MR. J. M. WILKENSON of the Nashville Pure Milk Company, Nashville, Tenn., writes: "We have kept a very close check on our No. 91 New Series De Laval Separator and find the Babcock test shows that the skimmed milk seldom exceeds 1/100 of one per cent."

Numerous letters such as this from users of these New Series De Laval machines reveal the fact that this skimming efficiency cannot be duplicated by any other machine on the market today.

Many users have stated that the New Series De Laval Separator skims so close that the Babcock test rarely shows more than a trace of butter-fat in the skimmed milk.



The New Series De Laval is dependable in every way. It is as much improved from a mechanical standpoint as from that of skimming efficiency. One of these improved points is the new form of bowl construction, which is such as to eliminate under ordinary conditions the necessity of having the bowl rebalanced from time to time.

Upon request we shall gladly furnish you with more details concerning the New Series De Laval Separator.

New Series installation in the plant of the Nashville Pure Milk Company, Nashville, Tenn.

The DeLaval Separator Company
NEW YORK ~ CHICAGO ~ SAN FRANCISCO

A New World's Standard of Skimming Efficiency

When writing to THE DE LAVAL SEPARATOR COMPANY *please mention The Milk Dealer.*

that might have been utilized and it is seldom that the customer can refuse to pay for complete satisfaction and for value received.

If, after this approach, there is hesitation to pay, the dealer in questions tries this attack:

"Now, Mrs. Jones, I am certain that you are well able to pay promptly for the necessities of life. These small accounts are irksome to you; but that is all the more reason why the thing should be cleaned up now. Just write me a check now, will you?"

If she hesitates here the dealer at least knows where he stands. He knows that Mrs. Jones is not paying for her milk service because she is plain hard up. Consequently, that is the problem he must meet.

How much more effective this method is than by writing the delinquent an occasional fretful letter or a threatening letter which merely rouses anger and puts the consumer at an advantage.

Once the milk dealer has gotten the delinquent to admit the plant has delivered the goods, satisfied in every way, the request for the money loses much of its ordinary harshness.

Try it and see, you milk dealers.

YOUNG DAIRY AUTHORITY OF AUSTRIA VISITS THE UNITED STATES.

Otto Wolfgram of Vienna, Austria, has been in the United States for several weeks and will make a tour of this country to study American dairy methods. His father owns and controls a large factory in Vienna for the manufacture of dairy necessities, such as milk vats, transportation cans, etc. This firm, Jurany & Wolfgram, is the largest of its kind in Austria, and on his return Mr. Wolfgram will become an associate member therein. We have induced Mr. Wolfgram to write for us the following short article:

OTTO WOLFGRAM.

Austria, formerly a country of 54 million inhabitants, through changes in boundary lines, has only six million at the present time, of which two million live in its capital city, Vienna. Due to ruptures caused by the recent war, the industrial situation there is far from being a favorable one. One of the most effective and surest props for this crippled condition would be a more flourishing and progressive growth of the Austrian dairy industries, which would in a short time succeed in doing for Austria what similar conditions wrought in Holland and Switzerland. Switzerland, which is just as large as Austria, depends almost entirely upon its dairy industries.

Several months ago a company was organized in Vienna, whose object will be to promote and create propaganda for Austrian dairy products throughout the countries, and establish for Austria a reputation equal to that of Switzerland and Holland.

Prohibition in America is claimed to be responsible for the large consumption of milk and ice cream in that country. But in Austria, where ice cream is so little known that only one concern, "The Vienna Dairy, Inc.," manufacture it at all, and where prohibition is a word to be scoffed at, milk can be sold on its own merits and excellence of quality only. It is, therefore, necessary that
the best methods must be employed to put on the
dairy products which will sell on their reputation

Mr. Wolfgram has brought with him from A
two patents, which should be of more than passi
terest to the modern dairyman.

The first patent is a new cover disc for milk b
The disc used so far in Austria was made so t
could be used two or three times and put on by
This often tempted the salesman to either sell th
tents of the dairy filled bottle and refill it with
bought in bulk or cans, or to take away the crea
substitute water, in both cases making an illegi
profit. In that way the consumer never knows w
the milk he buys is the pure product of the dairy
which it has been received, or whether the bottle ha
tampered with and the contents falsified. The new
patent "Ehrhardt," is a safeguard against such da
The disc, according to the patent which gives
name, is cut through and then held together by
paper which breaks by the least pressure or tamp
Thus the buyer is always sure to receive a bottle
has been capped at the dairy, when he sees the
"Ehrhardt" disc covering the same. The thre
dairies in Vienna, The Milk Industry, Inc., the
Austria Dairy and the Vienna Dairy, who sell
200,000 bottles of milk a day, all use and appro
this new patent.

The second patent concerns the handling of
In Austria the large consumers protect the shipm
milk by many advanced or improvised cooling sy
during the transport from dairy farm to pasteuri
plants. Generally this is done by water cooling sy
but when the way is long and the day is hot the
is very often soured before reaching its destination
largest dairies have, of course, installed more eff
systems, which, for the small dealer, prove too e
sive. It is for dairies, therefore, that consume
average of about 300 gallons a day, that the foll
system or patent would be of greatest value.

Low tension direct current is induced into the
can of milk and this kills about 60 per cent of th
teria, without affecting the milk, either in taste or
ity. This makes it possible to preserve the milk at
ten hours longer than could otherwise be done.

DAIRY PLANTS USED A LOT OF IT.

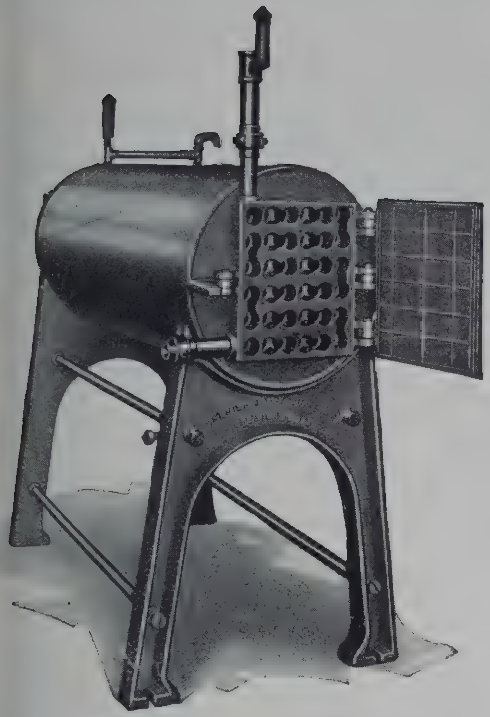
Over 10,000,000 more feet of cork board was s
the United States last year than during the prec
year, according to statistics prepared by the U.
partment of Commerce, making a total for the ye
87,799,212 board feet. Sales of ground cork ju
from 18,246,257 pounds in 1925 to 34,195,310 p
in 1926.

STUPENDOUS AMOUNT OF MILK WASTE

According to reports submitted by the depar
of agriculture, it requires more thas 800,000 dairy
producing at the annual rate of 4,000 pounds per
to supply the milk that is spilled, soured, rejecte
otherwise wasted in the United States. Its total a
gates 3,339,986,000 pounds, which, if sold at $2.2
hundred pounds, would approximate annually th
pendous amount of $77,399,685.

⁂

Spend little effort and you will have little e
spend.



CHESTER BARREL HEATERS

Are Adaptable to almost any Plant Condition

The heater shown above is a specially constructed 16,000 lb. per hour barrel heater made for positive circulation of hot water. In pasteurizing with this type of heater, utilizing inside baffle plates, hot water may be furnished almost entirely by the use of exhaust steam so that practically no live steam is used. Due to the large volume of water circulated the temperature of the heating medium is extremely low.

This is another example of the adaptability of Chester Barrel Heaters—a special construction for a special purpose resulting in greater economy and efficiency.

If you have exhaust steam in any quantity that can be used for heating purposes, investigate this type of Chester Barrel Heater.

WRITE FOR CATALOG

HESTER DAIRY SUPPLY CO.
Ninth and Hyatt Streets
CHESTER PA. U. S. A.

The Sign of Service

When writing to CHESTER DAIRY SUPPLY CO. *please mention The Milk Dealer.*

Should Milk be Given Credit for Developi Higher Forms of Animal Life?

Chemical Analysis Shows Common Bond of all Mamn —the Passing of the Dinos

WHY the mammals as a class of animal life have obtained the ascendancy in the course of existence, whereas reptile life has gradually receded, is a question which has been answered from many different angles. The dinosaur, as an example of extinct reptile life, is said by some scientists to have vanished largely because of its extreme size and its inability to adjust itself to changing environment.

This explanation is the logical one, yet we wonder if it covers the entire subject, for there are enormous mammals still extant in the form of the slow-moving elephant.

Some recent experiments conducted by Professor H. R. Marston at the University of Adelaide, as discussed in a recent issue of "Science," suggest a new theory to explain the "survival of the fittest." He has discovered that the ancestral strain which unites all the higher animals shows itself through their milk as well as through their blood chemistry. Even the lowest mammals have a common bond with the higher animals in the composition of their milk.

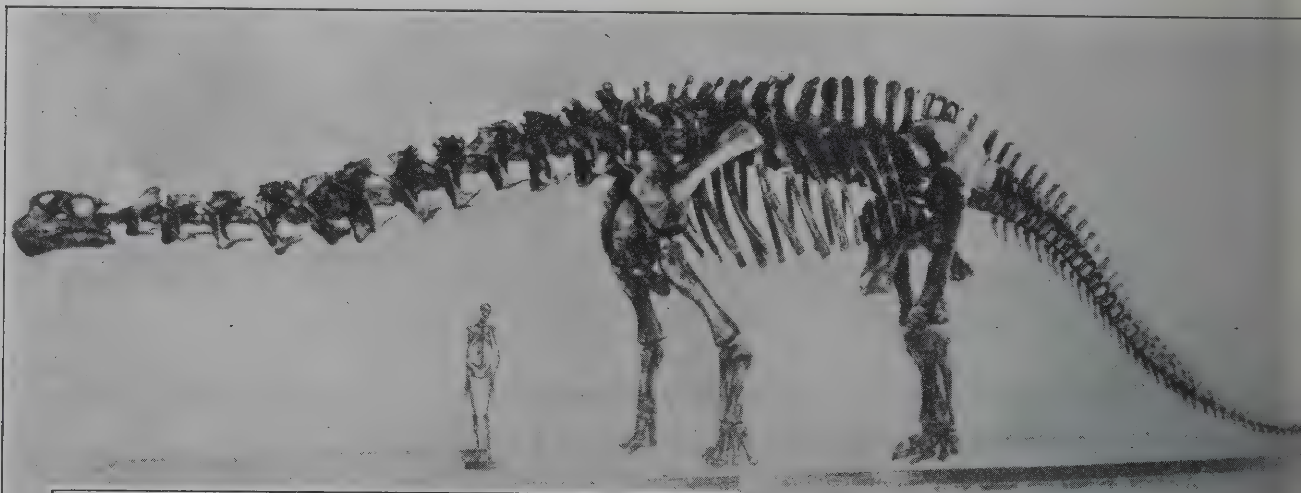
If milk were one type of chemical fluid on one occasion and something else on another, then you could not generalize as to its food properties, nor trace any relationship to the higher forms of animal life. But, in the above mentioned experiments, it was demonstrated that there were certain common characteristics in all th analyzed.

Lactose and Casein are Found Nowhere Else in N

It was discovered that the two chemical comp most commonly found in all kinds of milk are sugar, or lactose, and casein, the latter being the p substance that forms the basis of cheese. Both of compounds are unique and are found nowhere e the animal or vegetable kingdom. The other prote milk, while distinct, are not so profoundly differen the proteins of other sources, as in casein.

Here, according to Prof. Marston, is striking evi of a father and son—or perhaps better a mothe daughter—relationship among all the hosts of mals. As we pass down from man through the dog, tiger, cow, whale, bat, rat, armadillo, to the bill, we arrive at an animal that is obviously c related to the reptiles, for it hatches its young egg has reptile-like jaws, yet nurses its young on mill

Strangely enough, the milk of the duck-bi echidna is exceptionally high in fat, 19.6 per cent present. Among milk known at the present time is equalled only by that of the reindeer and the The milk of the duck-bill has actually three time protein content of cow's milk. It is noteworthy,



In spite of their great strength and resistance, the dinosaurs have disappeared from the earth. While there are many theories regarding this, the mammals as a class have obtained the ascendancy in the course of evolution. The common bond tying all mammals is shown conclusively by the analysis of their milk. All milk, human or animal, contains lactose and casein which, incidentally, are found nowhere else in nature.—Above: Comparative skeletons of man and dinosaur.

Left: A restoration of the Brontos Aurus (dinosaur) by Charles R. Knight.

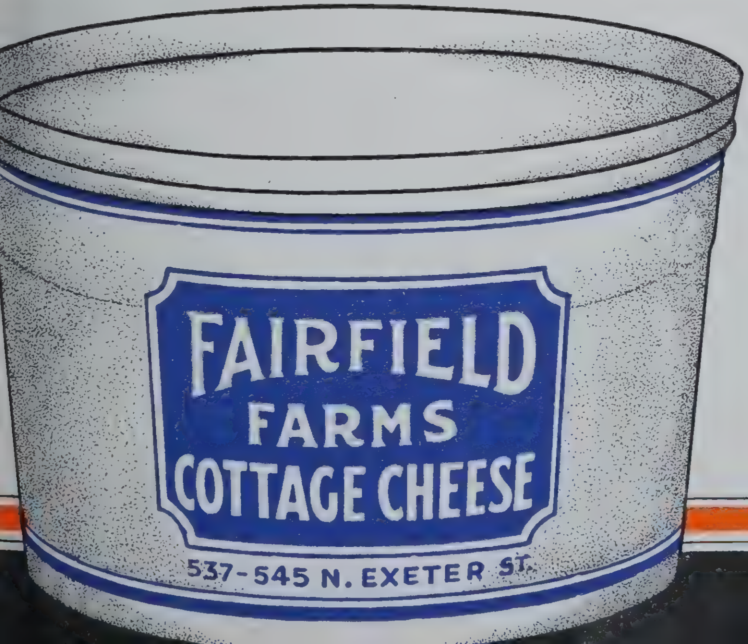
KLEEN KUP

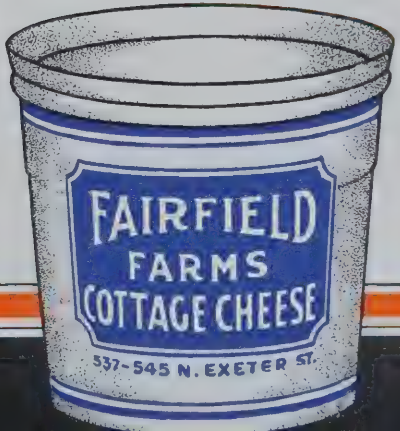
The Package That Sells Its Contents

You can dominate the cottage cheese market by the use of these two packages.

Mono Service Co.
NEWARK NEW JERSEY

SAMPLER
Use this sample and gain new customers. Tell us to submit "sale winning plans" and "business building packages."


FAIRFIELD
FARMS
COTTAGE CHEESE
537-545 N. EXETER ST.


FAIRFIELD
FARMS
COTTAGE CHEESE
537-545 N. EXETER ST.

KLEEN KUP

The Package That Sells Its Contents

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION INC.

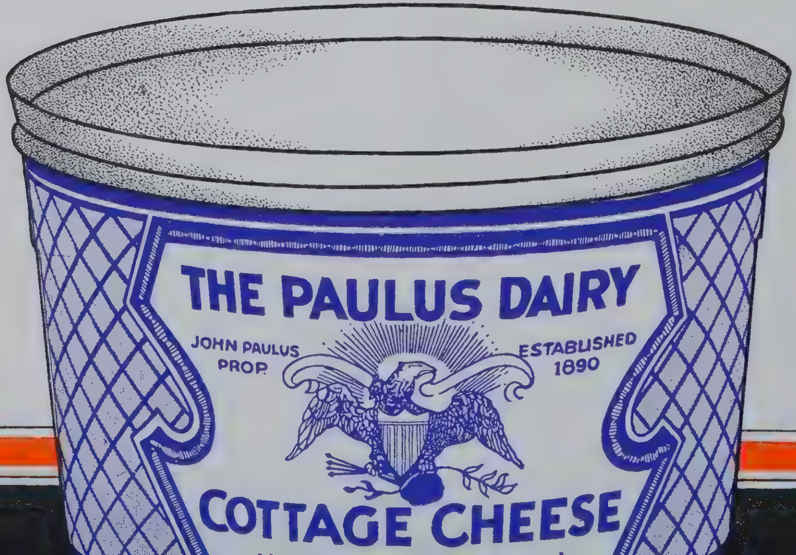
Let the beauty of this package speak for the quality of your product.

It protects quality by keeping the cheese fresh and clean —

Imparts neither taste, odor, nor color. Sixteen years of faithful service to the dairy industry.

Mono Service Co.
NEWARK NEW JERSEY

Made of snow white pa
heavily waxed. One or m
colors printed directly on
package. Sizes: one ounce
ten pounds.


THE PAULUS DAIRY
JOHN PAULUS PROP.
ESTABLISHED 1890
COTTAGE CHEESE

THE PAULUS DAIRY
JOHN PAULUS PROP.
ESTABLISHED 1890
COTTAGE CHEESE

hat from the simplest mammal to the most exalted
d milk; and always in the same form, containing
e and casein. As pointed out above, lactose and
are found nowhere else. They constitute a con-
is thread running up and down through the mam-
ı world.

ey are a strong part of the evidence that mammals
d one from the other. In the evolutionary process
persisted because it proved to be the most desirable
of rearing young.

cording to Prof. Marston, it needed no improve-
and therefore persisted even through all the
hes of the great mammalian tree.—From "The
Lining," published by The Pfaudler Company.

⚜

LD THE PUBLIC BE EDUCATED TO SOME MMON PREJUDICES: BACTERIAL COUNT, CREAM LINE AND SO FORTH.

By A. D. Moldavan.*

steurization was first carried on more or less
ly on account of old fashioned prejudices. It has
a quarter of a century to overcome these obstacles
make pasteurization a rule in the dairy industry.

it like many successful processes it has produced
rejudices. The two most common are the bacterial
count and the cream layer in the milk bottle. Per-
when science will know a little more about
ines, we will witness a new one.

e bacterial plate count does not interest very much
neral public. It is an educated people's prejudice.
e public's mind, bacteria and bugs are similar
s but some health officials and medicos who know,
rse, how to differentiate lactic ferment from grass-
rs are sometimes using bacterial counts as argu-
more harmful than the bacteria themselves.

e dairy industry has reached a point of high
ific development. It has its own specialists and
ists whose views must be taken as the ultimate
ledge of modern dairy science. All these scientists
that although in the past, bacterial counts have
of great help in the realization of the pasteurizing
ss, they cannot be regarded as a mathematical
rement of milk quality.

cterial counts are of some interest from a quanti-
viewpoint, only when made in serial because a
numerical difference between two consecutive
es is generally a sign of defectious work, but an
ed count of unknown history has no value at all.
s not been demonstrated yet, for instance, that a
containing 100,000 good lactic bacteria per c.c. is
dangerous than a milk containing 10,000 peptoni-
acteria per c.c. The opposite is nearer the truth.

e public needs not to be educated on this subject
se it will bring more confusion in its mind than do
ood. When a customer is asking questions about
ria we should invariably tell him that pasteurized
is "sterile," meaning by this, free from germs
than free from bacteria because the man in the
is unable to differentiate germs from bacteria and
orant of the fact that only milk heated at 212 de-
F. under 15 pounds steam pressure for at least one
can safely be regarded as free from bacteria.

e cream line is a housekeeper's prejudice. Since
al times until the Babcock came widely in use, rich-
f milk has been measured by its creaming proper-
This is not an absolute method especially since the
rization era, besides it has not been proved yet that the richest milk is the best, but it is simple and deep rooted in the people's mind.

In Europe, where epidemics used to be common and where it is a rule to boil the milk, people do not pay any attention to the cream line, but in America, contingent of the big bargains, the consumer wants both "milk" and cream in his daily bottle.

Perhaps you have already heard this kind of dialogue on a door step between a lady customer and a milk driver. "If your company cannot afford to serve us richer milk, I am going to quit. Look at the 'Daily Dairy'—what a beautiful cream line they have! Your milk is plain skim milk." And the poor driver who is just as much unaware as the lady about the several factors affecting the cream line properties does not know what to answer and this means the loss of a customer.

The cream line has provided many interesting problems for those dairymen who are fond of mechanics and chemistry. The factors affecting the cream line have been well studied. Fortunately all the changes brought by the first pasteurization experts have been overcome and it is even claimed that a perfect pasteurization will increase the cream line of the raw milk.

It is only a matter of time when all plants having standard material and standard methods will produce an equal cream layer at equality of percentage of butterfat, then the cream line in standard shaped bottles will be the true indications of milk richness.

As these conditions are not yet fully realized to try to educate consumers on our actual and temporary imperfection will do only harm to pasteurized milk.

Instead of boasting of the cream line we should advise customers to shake thoroughly their bottle. It is a common fact that in every home someone gets the cream and the rest of the people the skim milk. This prevents them from receiving their normal supply of vitamine A contained in the butterfat.

The best solution, of course, both for consumers and milk dealers, would be a daily quart per capita.

Our general conclusions are:

1. The average consumer being very suspicious when he does not understand, we should always answer him in a measure to satisfy his ignorance.
2. A closer co-operation between health officials, medicos and dairy scientists when it is needed.
3. A further step toward standardization of dairy material.

Our last conclusion is a quotation of Prof. W. W. Fisk of Cornell: "Life is too short to educate the public, you might better give them what they want."

Summary.

The bacterial plate is an educated people's prejudice (health officialism, medicos, etc.) Only these people need to be educated on this subject, not the public.

When is a bacterial count useful?

The cream line is a housekeeper's prejudice.

Why it does harm to some firm?

Will this prejudice be overcome in the future?

Why this prejudice should be taken as a basis for a new increase in milk consumption?

Four conclusions.

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uaranteed Pure Milk Co., Montreal, Quebec, at Detroit con-
n of International Association of Milk Dealers.

⚜

WEBER MILK COMPANY BENEFIT ASSOCIATION FORMED.

Employees of the Weber Milk Company, Philadelphia, Pa., have formed the Weber Milk Company Benefit Association to aid themselves and their families in sickness, accident and death. According to an official of the Weber Milk Company, the dues are $1.00 a month, which will entitle them to a dollar a day benefit in case of sickness, and their families a substantial sum in case of death.

Great Dairy Industries Exposition Launch

Machinery and Supplies Association Houses Lease Area in Tremendous Cleveland Trade Show—Full Data of Which is Now Made Public

THE great 1927 Dairy Industries Exposition—to occur in Cleveland, October 24-29, inclusive—has been launched.

Floor plans and descriptive text issued by the sponsoring Dairy and Ice Cream Machinery and Supplies Association show that once more—as in Detroit in 1926—four acres of area must be devoted to the display of the essential items which dairy products manufacturers of the American continent and of the world will examine.

Issuance of detailed data of the exposition arrangements has followed several months of activity by the association staff under the guidance of the exposition committee of the association and of the latter's board of directors.

Shortly after the issuance of floor plans and other detailed information, member houses of the association, on April 25, began to make reservations of display area. From the executive offices of nearly two hundred member companies throughout the country, requests sped over the wires to the New York headquarters of the association, specifying booths desired. Before the close of the week of April 25 practically the entire area of the huge show had been definitely reserved by member companies.

The association has had for some weeks an extensive list of requests from non-members for area also, and these will be accommodated to such degree as a careful disposition of the still remaining area will make possible.

This year's exposition, just as that at Detroit last year, will be entirely beneath one roof. Also, as at Detroit, there will be divisions of the whole area into more or less intact, but at the same time intercommunicating sections. There will be no segregations of displays according to type, however, but visitors will find in every semi-detached room a representative range of both machinery and supplies, both equipment and materials.

The floor area which will be utilized comprises all of the available display area of the great $6,000,000.00 civic monument, the world-famous Cleveland Public Hall, in which such notable events as the Republican National Convention of 1924 have been held. Two floors in the Public Hall will be devoted to booths—the lower, Exhibit Hall—and the upper, the Arena. To the west of the original Public Hall, a large annex, its available exhibit area exceeding that of the Public Hall proper, will also be used, in full. This section will be known as the West Annex. Connecting the two major parts of the unified structure will be an entirely enclosed arcade, cement floored, heated, equipped with power, water and other necessary exhibitors' services.

The whole great building unit thus to be occupied is only five minutes walk from two of the country's famous hotels—the Hollenden and Cleveland—and is within five minutes walk of a dozen other well equipped hotels.

According to the official information issued by the association, the exposition will include "the complete range of equipment, machinery, supplies, accessories, processes, materials, ingredients, services, etc., for the dairy products manufacturing industries of America and the world."

Admission, as has been the custom, will be restricted to representatives of the dairy products industries only,
and will be determined by registration-identificat
the entrance. There will be no admission fee.

The 27th annual convention of the Internation
sociation of Ice Cream Manufacturers will be held
Hotel Hollenden, October 24 to 27, inclusive.

The 20th annual convention of the Internation
sociation of Milk Dealers will be held at the Neil
Columbus, O., October 19-22, inclusive, its session
cluding on the Saturday preceding the Monday m
opening of the exposition. Columbus is four hour
tance from Cleveland.

There will also occur in Cleveland convention
ferences, etc., of other organizations in or related
field of dairy products manufacture, concurrent wi
exposition.

The Hotel Cleveland will be official headquart
the Dairy and Ice Cream Machinery and Supplies
ciation, Inc. The Hotel Hollenden will be the hea
ters of the National Association of Ice Cream Ma
turers. The Hotel Statler will be at least informal
quarters for membership groups of the Interna
Association of Milk Dealers. These three hotel
also the Winton, are within walking distance of t
position. Other Cleveland hotels are: The Audit
(to be completed in August), Colonial, Fern
Murphy's, New Amsterdam, Olmsted, Alcazar,
ton, Bolton Square, Fenway Hall, Mount Royal,
Lane Villa and Westlake (at Rocky River Station)

⁂

SALESMEN'S CLUB ANNOUNCES COMMIT APPOINTMENTS.

J. B. Morse, Cherry-Bassett Co., president
Salesmen's Club of the Dairy and Ice Cream Mac
& Supplies Association, Inc., has announced the
ing committee appointments:

Membership Committee.

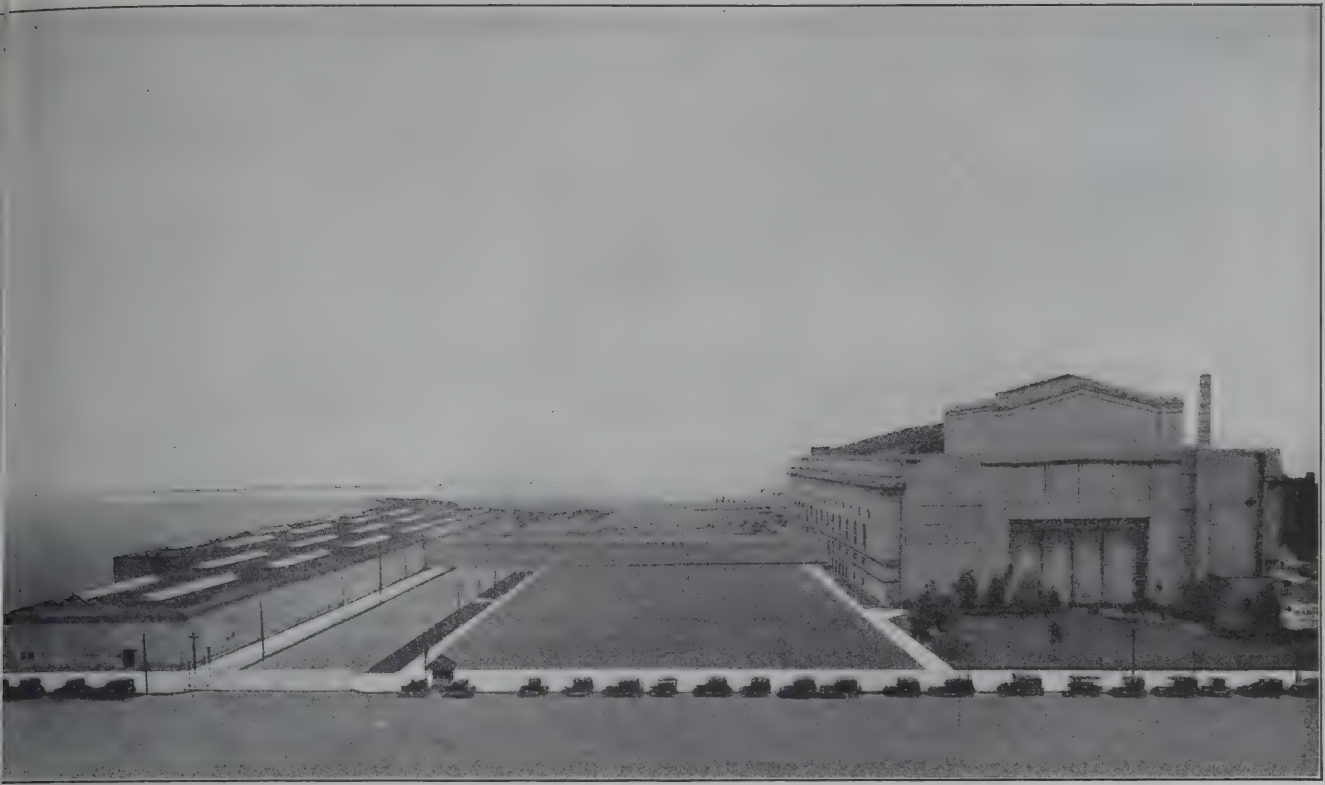
Chairman, Byron Morris, Creamery Package Mf
1243-49 W. Washington Blvd., Chicago, Ill.
W. E. Harold, Solar-Sturges Mfg. Co., Melrose Pa
Stanley Casler, Essex Gelatine Co., 40 N. Mark
Boston Mass.

Entertainment Committee.

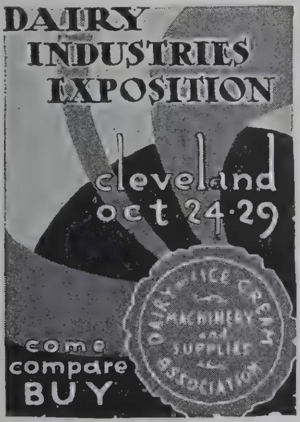
Chairman, Fred Hollweg, Thomas W. Dunn C
Greenwich St., New York City.
C. J. Linden, The Ice Cream Review, 5th and Cherr
Milwaukee, Wis.
Fred Hooton, Meyer-Blanke Co., 1420 Ordway
W. E. Nashville, Tenn.

Micro-Organism Committee.

Chairman, Robert Rosesbaum, David Michael
Front and Master Sts., Philadelphia, Pa.
L. Von Losberg, Joe Lowe Co., Bush Terminal, Bro
N. Y.
H. N. Barnes, D. H. Burrell & Co., Inc., John St.,
Falls, N. Y.
G. S. Rose, The Creamery Package Mfg. Co., B
N. Y.

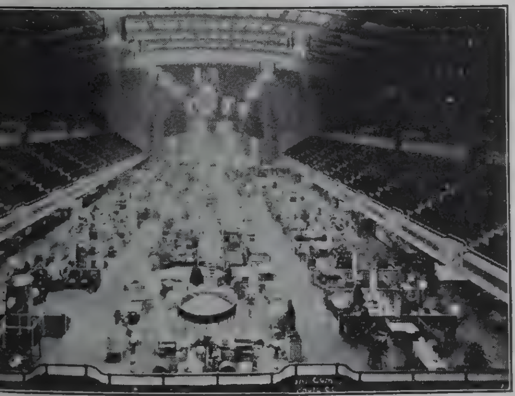


view of original Public Auditorium, at right, (containing Exhibit Hall and Arena) and of new West Annex, at left, with indi- connecting Arcade. The Dairy Industries Exposition will occupy all the available area of all the sections of this great building which faces the lake. Only five minutes' walk from the center of Cleveland's business section.

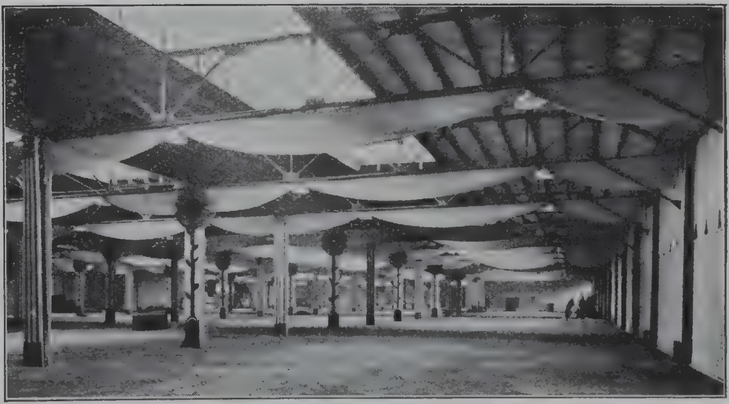

DAIRY INDUSTRIES EXPOSITION
cleveland
oct 24-29
DAIRY & ICE CREAM MACHINERY and SUPPLIES ASSOCIATION
come
compare
BUY

This is the poster design with which dairy products manufacturers throughout the civilized world will become familiar between now and next October—the time of the inclusive Cleveland Dairy Industries Exposition.

The original poster design is in striking colors. It was developed from various ideas suggested by members of the Salesmen's Club of the Dairy and Ice Cream Machinery and Supplies Association.



w of one section of the great building unit—the . This view shows a section of the 1923 National eam Exposition under way.



Interior view of another section of the great Dairy Industries Exposition building unit—the West Annex—a cement floored, skylighted steel and stucco structure, probably not equalled and almost certainly not excelled in exposition suitability by any of the country's principal Show buildings.

R. S. Damuth, J. G. Cherry Co., Cedar Rapids, Iowa.
Harry P. Calvert, Harold A. Sinclair, 1535 Summit St., Columbus, Ohio.
Charles Dudley, Runkel Bros., Inc., 451 W. 30th St., New York City.
C. R. Fickes, Brown & Shaw, 163 Montrose Ave., Rutherford, N. Y.
N. M. Thomas, Joe Lowe Co., Inc., Bush Terminal, Brooklyn, N. Y.

Activities Committee.

Chairman, T. J. Stewart, Milligan & Higgins Gelatine Co., 222 Front St., New York City.
H. G. Bacon, Buffalo Foundry & Machine Co., Buffalo, N. Y.
L. C. Smith, Foote & Jenks, 818 N. Euclid Ave., Dayton, Ohio.

Exposition Committee.

Chairman, A. J. Miller, Sanitary Tinning Co., 3753 E. 93rd St., Cleveland, Ohio.
Elmer Mack, Menasha Printing & Carton Co., Fenway Hall, Cleveland, Ohio.
F. R. Merrick, The J. B. Ford Co., 1037 Guardian Bldg., Cleveland, Ohio.

⚜

HOW TO MEET COMPETITION OF CHAIN STORES THAT OPERATE THEIR CREAMERIES AND SELL MILK AS A LEADER BELOW REGULAR PRICES.

By A. J. Conklin.*

This problem seems to me to come under the same heading as what one would do in case one's home took fire. The conditions, the time and place, with quick action, would regulate the energy expended to protect your own business. And, the best defense is a good strong attack, using your sales organization to fight such an action to a finish.

We have received several letters from different firms on this subject, parts of which I take the privilege of reading to you. Mr. Gilbert H. Hood, Jr., of Boston, says:

> "If a company has both retail and wholesale business it is a question whether or not selling through chain stores has been disastrous. Naturally chain stores sell milk to people who never purchased that company's milk before. This means an outlet for the company's product. There is a certain differential between the delivered price and the store price at which a customer will prefer to have the route man make the delivery. Many customers will be secured by the route salesman when this point is reached. A solid sales organization fighting for business all the time can meet chain store competition. If you have a better product or better service than anyone else you can always sell to those customers who appreciate quality and service."

Mr. R. A. Burns of the Whiting Milk Company of Boston, gives us the following interesting data on this subject:

> "This is a condition which has developed in the Metropolitan Boston territory, and one which caused us serious concern some time ago, particularly as we were selling some of these chain stores ourselves, causing considerable unrest among our retail drivers, with a spread of three cents between the chain store price and the delivery price. We make very little effort to meet the competition, for the reason that it appeared impossible to prevent the housewife looking for a lower price on milk, from going to the chain sto
> the result that we dropped considerable of o
> ness to them. Our real efforts were to deve
> grade-A milk business, and our selling campa
> been built around grade-A, with the result that
> customers are satisfied to stay with our retai
> because of the fact that grade-A is not car
> stores and is consequently non-competitive.
> instances, we routed our teams in order to kee
> strictly competitive chain store territories, w
> result that our business insofar as chain sto
> petition is concerned, has been stabilized, and t
> petition is no longer a serious condition."

Again, Mr. W. E. Haley, President of the Da
livery Company of San Francisco, gives us son
points. He states:

> "Your subject of how to meet competition
> stores that operate creameries, and sell mil
> regular prices, is a difficult question to solv
> you take into consideration that the grocer i
> nating the cost of individual distribution. The
> opinion is that in view of the fact that Oakla
> our home city, has a daylight delivery, an ea
> livery in which the milk would be on the doo
> the customer for breakfast in the morning, as
> quality milk and cream, would help to solve th
> lem."

To these opinions, let me add a summary of
clusions on this subject:

It is question whether, if the chain stores do s
below our regular price, such action on their par
one of the means of increasing consumption.
people who never used fluid milk before to any
will purchase much more at the lower price, and
learn the wonderful food value contained in mi
time goes on, they will come to know that by pay
or three cents more per quart, they can obtain de
at their doorstep by a reliable company a much
quality of milk, milk that hasn't a chain store ta
Customers usually have a certain amount of pr
confidence in a company of reputation widely an
ly established.

I will say, since we may have this form of c
tion, it is advisable at all times to dwell on our ov
quality of milk, also the early morning deli
service which the chain store does not render.
present, I see no cause for alarm, as quality, serv
courtesy appeal to the public as nothing else does

⚜

STERILIZING EFFICIENCY.

An average bacterial count of 71,000 on ra
obtained in one of our milk scoring contests
dairy equipped in an excellent manner was resp
for an investigation on the part of our market sp
who found the trouble to be due to faulty sterili

As a check on the efficiency of sterilization, a
ing thermometer was attached to the sterilizer
thermometer was locked and a piece of paper past
the glass of the door to prevent the operator from
ing the record. The man who had been doing th
ilizing was instructed to conduct the operation
been his custom in the past. The highest tempe
recorded was 152 degrees F., and the temperat
140 degrees F. was maintained for thirty minutes
lowing this demonstration the temperature has be
at a minimum of 170 degrees F. for thirty minut
the bacterial count has ranged between 2,000 an
per milliliter.—California Milk Inspecting Depar
Bureau of Dairy Control, News Letter.

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* Sheffield Farms Co., New York City, at Detroit convention of International Association of Milk Dealers.

The Milk Route Salesman

He Is the Key Man of Every Milk Distributing Organization in Existence, Says an Iowa Dealer

By MILTON HULT*

MAN to succeed in any line of endeavor now days must be an optimist. And despite the oft disappointing experiences in dealing with route sales- ie must remain an optimist. By being an optimist n that one must hope and plan for the best. In g with route salesmen one must hope and plan for vement and better relations. If you think the on hopeless, you might just as well get out of the usiness because the route salesman plays too im- t a part in it.

eryone knows that business is keener today than efore. In the milk business keen competition is g it more difficult each day for the consumer to guish any difference between the products of 's dairy and those of Smith's dairy. To be sure, f us feel confident that there is a decided superi- of our products over those of our competitors— ope that that feeling never leaves us. But to the e consumer—the public at large—the general y of dairy products is much the same.

be sure, your advertising will give your products sed prestige. Your reputation over a long span of is bound to have a wholesome influence upon the tions that grow up in the intervening years. But e of this advertising and this reputation of years ng, unless you have bright, intelligent, **trained** salesmen in charge of your routes, your products t going to be judged superior to those of your com- rs.

elieve training route salesmen is just as important nning an advertising campaign. In my opinion it ly wasteful and quite foolhardy for a dairy com- o spend a large sum of money in an extensive ad- ng program and then to neglect to build up the -up machinery—the route salesman. It would be rofitable to put your advertising appropriation in vings bank at 3 or 4 per cent than to spend your priation without a definite program of route sales- n order to get the best possible return on your ad- ng expenditures.

ully believe that in the eyes of 95 per cent of your ers your route salesmen represent all there is to dairy. Not over 5 per cent give thought to the hat your route salesmen are merely your agents there is a question of overcharge, skipping, wrong or other misunderstanding. To 95 per cent of customers your route salesman is your dairy and his services are satisfactory your dairy is not ctory. Your dairy is represented to your cus- s every day of the year through your route sales- They are your emissaries, your ambassadors— e Lord help you if they fail on the job through f training.

th the route salesman playing such an important n your dairy business it is important that great ht be given to his selection. It amazes me to find, occasionally, dairymen who employ a route salesman just as simply as they would employ a porter, or a flunky around the plant.

I believe that the entire relations between the dairy and the route salesmen should be guided by a carefully made plan. Start your plan with the raw material—a healthy man of average intelligence—and follow this raw material straight through to the finished product—a perfect route salesman—which you always desire, but seldom secure.

First of all I would suggest having an established form of application blank. Such information as name; address; phone number; married or single; number of people supporting; age; experience in delivering; experience in selling or soliciting; member of what lodges or clubs; how spent previous five years, should be secured. It is also important to try the applicant at the use of paper and pencil. This little point is quite important because frequently he must write notes of explanation to customers he does not come in contact with and always he must keep accounts in his book. I have seen application blanks going into a man's history, listing names and ages of all members of applicant's family, color of eyes, etc., but I do not believe that such information helps you select a good route salesman. Making a careful selection of route salesmen enables you to pick the best and you will be surprised how it tones up your organization when they appreciate that they were not just hired—but were selected.

All our route salesmen are bonded. We do this not alone to protect us from dishonesty, but also because from experience we know that it makes our men appreciate that they hold a position that every Tom, Dick, and Harry can't fill. Incidentally, when you make out an application for a bond for a new route salesman you are able to secure any additional information that you might desire for curiosity's sake, regarding a man's complexion, family relations, financial status, and what not—that had better be left off your employee application blank.

When a route salesman has been selected your training starts—and I don't know when it stops. First of all should come a tour of inspection through your plant. You can't expect your route salesmen to be able to clearly describe your plant or your processes, if he has not been taken through the plant and had everything explained in great detail. By showing him the plant and explaining the various machines and processes, you are able to convey some idea of what you are trying to do.

Then should follow a course of instruction on the rules and regulations in force. This is important because your rules and regulations have been set up from your own experience as being necessary. They set forth your policy with regard to contracts which your route salesman make. Unless you get your new route salesman to fully appreciate the rules and regulations right at the start, some older route salesman, who may be beginning to slip from the straight and narrow path of excellent

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perior Dairy Co., Davenport, Ia., at Detroit convention of ernational Association of Milk Dealers.

employee, is going to do the interpreting of the rules and regulations to the new man to your detriment.

After a man has been broken in on the route, your educational training just begins. Our company believes strongly in the training school. I must confess that at times we get very discouraged. Many times we come across an incident where the route salesman took some action directly opposite to what he was instructed to do in our training school. But our consoling thought is, that should we not have had our training school, such errors would be general, rather than the exception.

Just a few words about the training school. Approach this phase of your relations with your route salesman in a conservative manner. Don't think that you are going to make super-salesmen out of a crowd of average men, through a course of sales instruction given at your plant.

I realize that a number of sales promotional agencies who solicit work from dairy firms give one an impression that they hold the secret. That they can make miracle salesmen out of your ordinary type of route salesmen. In my opinion this is pure bunk. I don't believe that it can be done. And if it could be done, I wouldn't want it done—from the standpoint of safeguarding the interests of my firm and reducing labor turnover to a minimum. If it were done your men would leave you just as soon as they had completed the course of instruction and seek employment where they could work four and half days a week, wear a white collar, and sleep on Sundays and holidays. There is no use to expect perfection in route salesman sales training, but you will be surprised at the marked improvement in your men if you have never before had a sales school.

I don't believe that a sales school should be held too often. Twice a month, in the afternoon, an hour in length, has been shown us by our experience to be the best. When we are running a sales contest and desire to keep interest and enthusiasm at a high pitch we have meetings weekly.

The best material available—without signing up for the services of "experts"—is the sales manual compiled by Mr. M. O. Maughan of the National Dairy Council. The book entitled "Getting Ahead on the Milk Wagon," published by the Mathews Company can also be used to advantage. These two books should be supplemented by occasional talks by experienced sales managers who are in your city. The National Cash Register representative, the Burroughs representative, and others from various department stores, factories, and business houses will be more than glad to visit your plant and give a talk on salesmanship or some phase of salesmanship to your employees. Such talks are very helpful and are inspirational in effect because it makes your route salesmen realize that after all salesmanship is similar whether the article being sold is milk, cash registers, washing machines, automobiles, or what.

It is important in your sales school to bring your men out. This can be done by asking questions and by having sales demonstrations. We frequently run sales demonstrations between individuals and post small prizes allowing the rest of the men to be the judges of the best sales demonstration. We always close a sales demonstration with a frank criticism of the technique of the individuals concerned by the rest of the men. You will be surprised at the good and bad points picked out by the men. Don't make the mistake of starting a lecture course, where you do the lecturing and your men are expected to sit at your feet to drink at the fountain of knowledge. Make the sales school a real school for your men, with the men themselves playing the important roles.

Just a few words about general working conditions,
and I shall be through. The answer to the wage
is a difficult one. Wages paid route salesmen in
port, Ia., have little influence upon the wages
Detroit and vice versa. The wages paid your rout
men are influenced by the general wage scale
city. I believe that route salesmen are entitled to
in excess to that paid for other delivering. Th
salesman must begin work very early in the m
he must work every day in the year—unless you
a day a week off or grant him a vacation—he
more than a mere deliveryman or peddler—he
a salesman, and more than that he must be cap
keeping books accurately. A route salesman is
to a wage higher than the average paid unskille
ers, and should have it.

I do not believe that any route salesman can
proved through a straight wage of so many doll
week. I realize that many companies pay a
wage. It is my opinion that if ever there is a
use some form of incentive wage it is in the case
route salesman. When an incentive wage is wor
it is a question whether to put the incentive towa
or collections. When it is put toward sales it
paid as a per cent on sales or an allowance at
a point over an established base. We put our in
on collections, and try to send home to the
thought that the more sales, with prompt collecti
bigger the check on Saturday. Here again ent
question of the size of the commission. This ha
worked out with consideration of the size of th
antee, if any, and the wage possible to a man if h
exerts himself to the maximum.

A very important factor to consider in relatio
route salesmen is the matter of sales contests.
great believers in such contests. They enable
boost sales, but from the standpoint of relatio
route salesmen, they enable you to develop you
organization. We run sales contests between indi
and between teams. Team contests are essentia
sionally, in order to permit the "average route
man" and the route salesman with "a tough ro
enjoy some of the fruits of victory when his tea
but he loses as an individual. Then it is impor
have your contests planned for timeliness. For ex
in May an automobile contest linked up with
dianapolis Speed Contest is good. When the aer
were flying around the world we staged a contes
on an air meet. When Station W. O. C. located
city was trying to broadcast around the world we
a radio broadcasting contest. As to prizes—it
opinion that both money and prizes should be us
money is always given, the men come to look up
money as extra commission rather than reward f
test effort. And when only prizes are made in f
garments, etc.—they become monotonous.

As a final suggestion in attempting to find a
relation with route salesmen, work out some kin
definite plan of diversion for your men. Your t
should be the idea of developing a spirit that th
representing your company CONSTANTLY.
help get the idea across on the wagons when you
idea across through diversions.

By all means get some kind of an organization
—a house organ. If your company is not large
to have a house organ of its own, secure copies
paper put out by the Farrar Company of Pittsbu
the Sadler Company of Chicago. True, the stuff
papers is canned, but it is interesting and inspira
It gives the men new ideas of their job, and wit
signature cut imprinted on the cover and maile
your office links up your company. Another imp
thought in this matter of a house organ is that it

It's painted with Barreled Sunlight

. . yet the finished job cost no more!"

LUSTROUS — smooth — white. Guaranteed to remain white longest. Proof against flaking—resistant to dirt—easy to wash—Yet costs no more!

How is it possible? Why does Barreled Sunlight with all these advantages actually cost no more on the finished job than many paints priced less per gallon?

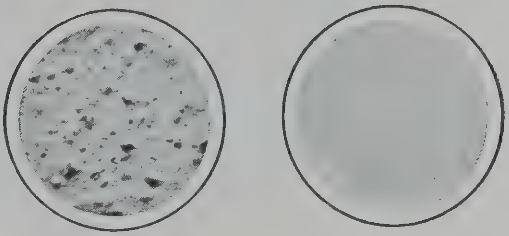
Only by breaking away from all established formulas and methods of making paint, which resulted in the exclusive Rice Process, could such quality and economy be combined in one product.

It is this exclusive Rice Process of manufacture that gives to Barreled Sunlight, not only the qualities of the finish itself, but the extreme "hiding power" and ease of flow that makes *less paint* and *less labor* necessary to do a given job. This is economy where economy counts the most.

* * *

We would like to send you our free booklet which shows, more in detail, why thousands of industrial plants find Barreled Sunlight by all odds the most practical interior paint from every point of view, including cost.

U. S. Gutta Percha Paint Co., Factory and Main Offices, 9 Dudley Street, Providence, R. I.—Branches: New York, Chicago, San Francisco. Distributors in all principal cities.



Ordinary Flat Finish White Paint

Barreled Sunlight

The microscope shows why Barreled Sunlight remains clean longest

These photographs of paint surfaces were made through a powerful microscope. The astonishing contrast shows why Barreled Sunlight is so easy to keep clean. Smooth and unbroken, it resists dirt and washes like tile.

What Users say:

The Nashawena Mills, at New Bedford, Mass. — "Your paint not only spreads better but seems to go further than any paint we have ever used."

The General Fire Extinguisher Co., Auburn, R. I.—"Our specifications called for three coats of lead and oil, but the work was done with one less coat, your claim that two coats of Barreled Sunlight would give a white and more solidly covered and durable surface proving true."

The Great Western Laundry, Chicago— . . . "We checked up and found Barreled Sunlight was much cheaper than our previous painting job done with a paint much under your price."

The Grennan Bakeries, Inc., of Detroit— "We find that Barreled Sunlight retains its whiteness . . . can be washed like tile, and can be easily applied, so that it actually costs less than any other paint we have ever used."

Barreled
Reg. U. S. Pat. Off.
Sunlight

Barreled Sunlight
Reg. U.S. Pat. Off.

THE RICE PROCESS WHITE

U. S. GUTTA PERCHA PAINT CO.
9 Dudley Street, Providence, R. I.

Please send me your booklet "More Light," and a panel painted with Barreled Sunlight.

Name . . . .
Street . . . .
City . . . . *State* . . . .

When writing to U. S. GUTTA PERCHA PAINT CO. *please mention The Milk Dealer.*

into the home and is seen by the wife and children. Knowledge and interest in the work of the husband and father is worthwhile among the wives and children.

Inspirational posters about your plant, particularly in your route salesman room, are good.

If you can afford some form of group insurance and present it to the men with a definite aim in view rather than as a generous donation, or a piece of charity, or philanthropy—that's fine!

Occasional social meetings should be held. We find that social meetings with the employees alone—rather than the family socials are best. When the ladies are present it keeps the men from being themselves. True, it is nice to get the women interested, but at a dinner gathering when the women are present there is a possible chance of dislikes developing. An exception to this is the annual picnic. It seems that the picnic is a place where the men and women can gather without restraint. This is largely due to the fact that a program can easily be arranged which keeps everyone interested during the picnic and therefore little time is left for the women to gossip about dress, make-up, actions, and the like.

And I want to say a word for athletics. If you haven't any athletic teams get them started. You will be interested in the spirit developed. We find that baseball, bowling, and basketball are best for general interest and enthusiasm. Our employees are always interested in our teams and turn out to root for their fellow employees.

If you have a real large organization you can of course afford to engage in other diversions, possibly musical in nature. But, by all means, provide diversions for your men. They will develop the men and will bring about a wonderful spirit of loyalty to your company and its name.

In conclusion I want to again emphasize the great importance of the problem of the route salesman. If you want to pass your competitor, if you want your customers to know that the product left at your door is not "merely milk" **but** the best milk in the city and from your dairy; if you want to increase your sales, and decrease your complaints and quits; if you want to develop a happy, contented sales organization that will work for your interest and reduce your labor turnover to a minimum—give much thought and time to the route salesman. He is the key man of every milk distributing organization in existence.

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BUILDING NEW DAIRY.

D. Zurec of 2094 Dowd Ave., Cleveland, O., began work in a dairy at Lakewood, O., about five years ago. It was his first experience in dairying. He liked it so well that after a year as an employee he installed a small dairy of his own at the Dowd Ave. address. Success came to him and in four years he has saved enough to erect his own splendid little dairy at Fisher Blvd. and Joslyn Rd. It is a two-story structure, with the garage in front and the dairy in the rear, and two pasteurizers, an ice machine, and a cooler are to be installed. Two hundred gallons of milk per day is the present handling but Zurec expects a growth of business in the new location which will be occupied some time this coming season.

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NEW MILK ORDINANCE IN SOUTH BEND, IND.

Restaurants and soda fountains in South Bend, Ind., changed over to the use of bottles instead of pump containers for dispensing milk to cafe and fountain patrons, in conformity with the milk ordinance which recently went into effect.

GROWTH OF COLUMBUS ICE CREAM AND CR ERY CO. HAS BEEN REMARKABLE.

From a neighborhood ice cream dispensary, th lumbus Ice Cream and Creamery Company, Colu Miss., has become the supply depot for dairy pro in northeastern Mississippi. The story of the pro of this concern is not new to the industrial world is of great importance to a country which is just ening to dairying as a business accomplishment.

It was some time in 1916 that D. S. Cox bega manufacture of ice cream in his home on a very plane and sold it to his neighbors. It was delicio cream—like Mother used to make—and became popular. Shortly after, a friend informed him o technical details of ice cream manufacturing and the little plant came a modern scientific ice cream m Gradually ice cream was made on a bigger scale. Mr. Cox installed a churn and employed a butterm and gradually this department of his plant began t velop, and from a moderately small ice cream and creamery the Columbus Ice Cream Co. branche and grew. With the aid of Byron Morris, now sale of the Creamery Package Manufacturing Co. of Chi the very latest devices for the timely, sanitary and production of its products were installed.

Roy M. Hardy, expert creamery and ice cream o tor, became associated with Mr. Cox and is at pr employed as assistant manager.

The success of the company is not due entirely t own efforts, Mr. Cox said. He gives a great deal of it to his loyal and capable corps of managers and w ers. The personnel of the company is as follows: Cox, owner and manager; Roy M. Hardy, assistant ager; W. T. Smith, general superintendent, produ department; Henry O. Bealmear, manager creamery partment; J. R. Vaughn, production manager, ice c department; James A. Stephenson, manager ship and receiving department; H. R. Keenum, manager, tling department; Miss Winnie Hays, manager retai partment; A. G. McConnell, milk solicitor and sales and D. B. Thompson, delivery department.

During 1926 the Columbus Ice Cream and Crea Co. made and disposed of approximately 75,000 ga of ice cream. It made and sold approximately 100 pounds of butter and handled 25,550 gallons of Under present conditions the plant has a capacit 3,000 gallons of cream daily and this can be exte to 4,000 gallons when necessary.

An indication of the delicious quality of the prod produced by this company is shown by the fact that Mississippi State College for Women, located in city, has purchased its products for years.

L. J. Folse, general manager of the Mississippi S Board of Development, said in commenting upon the velopment of the Columbus Ice Cream and Crea Company: "Northeast Mississippi is to be congratul upon having so fine an industry as the Columbus Cream and Creamery Company. D. S. Cox is a forw looking progressive citizen as he plainly shows whe created an industry that occupies so important a p in the upbuilding of the rural districts."

⚜

CLEVELAND DAIRIES ADDING NEW EQUIPME THIS SPRING.

John Szeredy, who has rented the A. Buzcek Da of 694 Jefferson St., Cleveland, O., is installing a g sized new milk cooler in his small dairy this spring.

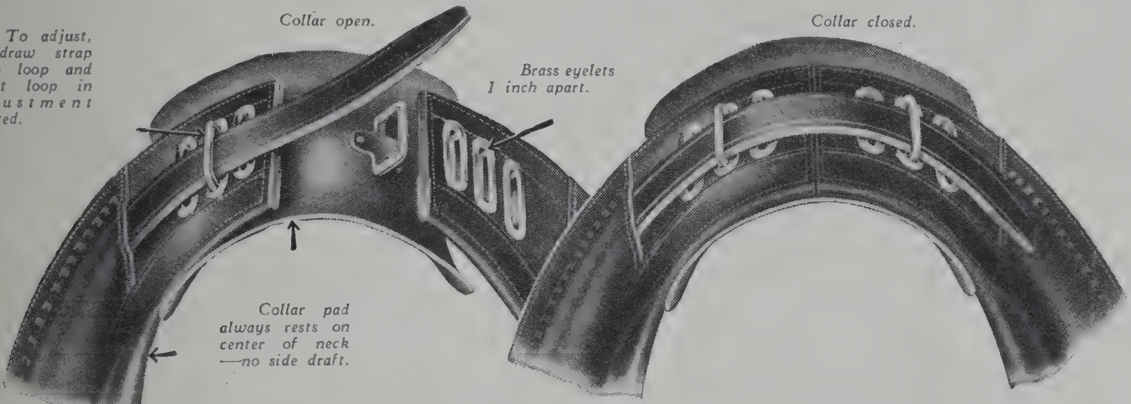
N. Bush, the new proprietor of the Shady Side Da purchased from John Keppler of 3520 Stanford Cleveland, O., is installing a boiler in his plant.

re shows the
us team of
Coles, Ames,
making the
d - breaking
on Dynamom-
wagon at the
State Fair
ing Walsh
uckle Har-
and Walsh
stable Collars.

IOWA STATE
DYNAM

The *Walsh* ADJUSTABLE Horse Collar

An amazing new horse collar improvement that prevents sore shoulders and enables the horse to pull a bigger load. It can be adjusted easily to conform to the exact measurement of the horse's shoulder, putting the load pressure in exactly the right spot on the shoulder to make it comfortable for the horse. The simplest, handiest, most humane collar made. It has made a hit wherever it has been tried, and 25,000 are already in use.

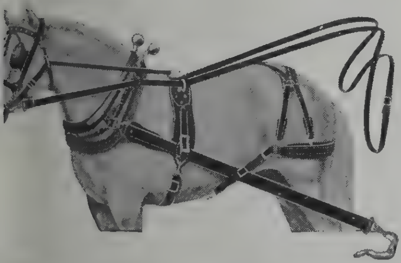

Collar open.

Collar closed.

To adjust, withdraw strap from loop and insert loop in adjustment wanted.

Brass eyelets 1 inch apart.

Collar pad always rests on center of neck —no side draft.



Walsh Milk Wagon Harness

Walsh Milk Wagon No-Buckle harness is the world's strongest and longest-lasting harness because it has no buckles to cut straps, no rings to wear straps and no holes in straps to weaken them. The handsomest, most perfect-fitting harness ever made. Sold on 30 days free trial. Catalogue upon request.

CORRECTLY SHAPED, FAULTLESSLY MADE

Walsh Adjustable Collars are made of the highest grade bark tanned leather, which has had all the stretch taken out of it before cut to shape. Ordinarily collars get out of shape. Walsh collars never will lose their scientifically correct shape. The collar pad cannot curl under for it is fastened on both sides. Long rye straw has been used for filling because it has a tough, long-lasting fibre that stands up better than wheat or any other straw.

EASY TO PUT ON OR TAKE OFF

If the Walsh adjustable collar had no other improvements except the ease with which it is taken off or put on, it would still be the world's best and most popular collar.

WE WILL SHIP ANY HORSE OWNER A WALSH COLLAR TO TRY FOR 30 DAYS FREE. Order one by parcel post. We leave you to be the judge. Ship it back if not satisfactory. Catalogue upon request.

JAMES M. WALSH
JAMES M. WALSH CO.,
Dept. 930 **125 Wisconsin Ave., Milwaukee**

When writing to JAMES M. WALSH CO. *please mention The Milk Dealer.*

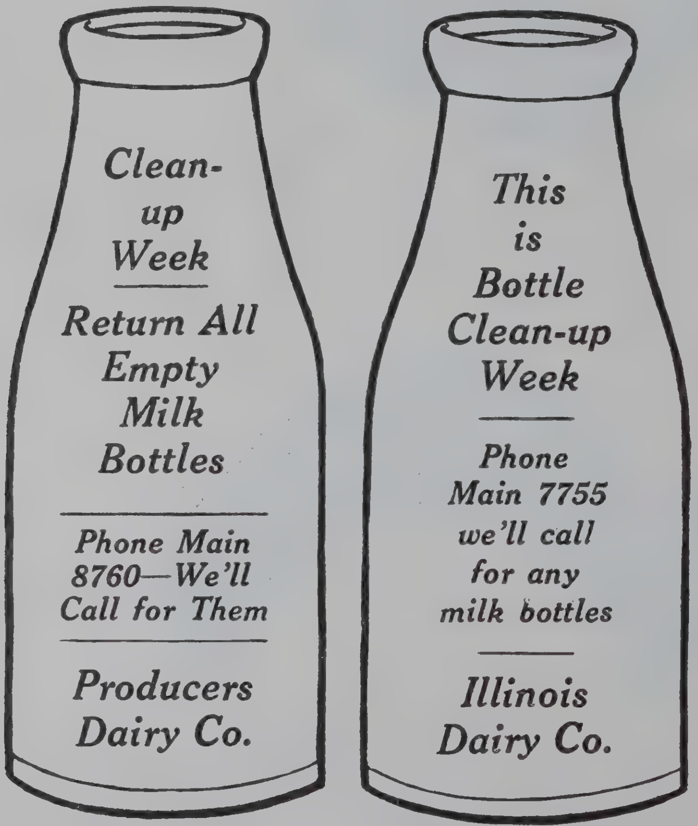
Getting Back the Empty Bottles

An Investment of $150 in Advertising Brought $2,000 in Nine Days. A Net Profit of $1,850 or More Than $200 a Day.

SOUNDS like a Florida real estate ad but it happened in the center of the famous corn state—Illinois—and at Springfield, the capital city. It was the result of a campaign for the return of milk bottles.

The three largest dairies in the city—Illinois Dairy Co., Producers' Co., and the Sangamon Dairy Co.—faced the problem that is the same the country over—startling losses of money annually through unreturned bottles.

Briefly, the survey of possible sources of losses showed the exchange, operated by the companies, was functioning effectively and efficiently. As in every other town of considerable size, this exchange was saving or making money for the companies.



Clean-up Week

Return All Empty Milk Bottles

Phone Main 8760—We'll Call for Them

Producers Dairy Co.

This is Bottle Clean-up Week

Phone Main 7755 we'll call for any milk bottles

Illinois Dairy Co.

Two Advertisements Used in Springfield Campaign.

Again the state law, rigidly enforced by the state department of health, had practically eliminated the use of one company's bottles by another company. The constant vigilance of the department inspectors, and a fine or two as a sample, had successfully stopped the leak of labeled bottles to the smaller companies—these individuals now use their own or unlabeled bottles. The losses then must be in the homes. Giving full credit for breakage in the plants and on the routes, the housewives of Springfield had a lot of milk bottles in their kitchens, basements and on the back porches.

Going a bit farther in the survey of possible losses, it was found that the regular delivery customers were not the worst offenders. The drivers are charged with bottles and so exercise every effort to get their customers to put out the empty ones. Those who bought milk at the stations—the grocery, the soda fountain over the retail counters of the dairy plants we most flagrant offenders, it seemed.

The three dairies—the largest distributors city, were already conducting a co-operative "use pasteurized milk" campaign with several ads a in the local papers. It was decided to "invest" $ the "Milk Bottle Campaign" and the newspapers chosen as the cheapest and most effective mediu reaching the homes of the capital city. This cam was conducted separately from the "pasteurized" and each ad was signed by one of the dairy comp

The first ads appeared on Monday morning, ary 28, and continued until March 9 (Sunday excl The milk bottle outline cut (as illustrated), req 5 inches space, was used for the entire nine days, ing 150 inches in all. There are two papers in th morning and evening, and the schedule for each was as follows:

Feb.	28	Ills.	Pro.
Mar.	1	San.	Pro.
Mar.	2	Ills.	San.
Mar.	3	Ills.	Pro.
Mar.	4	San.	Pro.
Mar.	5	Ills.	San.
Mar.	7	Ills.	(Thank you ads)
Mar.	8	Pro.	(Thank you ads)
Mar.	9	San.	(Thank you ads)

The ads appealed to the fairness of the mill sumers. No prizes were offered, nothing was pa the bottles. The dairies offered to send trucks to up the bottles, a telephone call being the only ex necessary on the part of the housewife—the comp would do the rest.

The general copy ran as per schedule for six and the last three days space was devoted to "T You" copy signed by each dairy—using the same bottle outline so that the ad would be readily iden

It is interesting that the "Thank You" copy p quite as effective as did the original appeal. The day both papers carried a short news story expla the campaign clearly, suggesting that the retu empty bottles would be necessary if the local comp were to continue to offer milk at the present pr otherwise the bottle loss in dollars and cents would to be added to the cost of milk. This was the reader space used—it was given without charg course.

Other than the preparation of the copy, the outside expense involved was $4.50 for 300 paper st ers, 10 by 24 inches, with the words "Co-operative tle Clean-up Week" in heavy black type. These put on all the wagons, the down-town service tr in the windows, over the retail counters, etc., of company.

By ten o'clock on the first day the invitation 'phone the dairy and leave your order for the tru call for empty bottles" resulted in from 20 to 50 at each plant. Straight through the entire nine campaign there was an almost constant ringin 'phones that brought in a stream of orders. More more trucks had to be added to the fleet devoted to work, and every regular milk wagon brought in

It was several days after the close of the cam- before all the orders could be answered.

one home in the better section of the city, 400 bot- ere taken from the basement—40 to 100 were com- "finds." Maids allowed these to accumulate and ngly did not understand that the companies d the bottles returned. In fact, there was an idea housewives doing their own work, as well as with servants, that milk bottles were the same aper carton for butter or ice cream—to be thrown after the contents had been used. Interesting, too, of the bottles were simply stacked away, and were ing used for paint, preserves or home brew, as is mmon presumption. In most instances the house- were grateful for the opportunity of having their ents or pantries cleared of the bottles.

nservatively estimated, the cost of a single bottle ents—the campaign costing each dairy $50, netted results. The Producers' Company, 10,000 bottles 0; the Sangamon Dairy Products Company, 18,000 s or $900, and the Illinois Dairy Company, 12,000 s or $600, a total of 40,000 bottles or a net profit 850.

his was the immediate net profit, but from an edu- al standpoint the results will be far more valu- Each dairy is finding the daily loss of bottles er, because the housewives of the city have learned empty milk bottles are valuable and that it is im- nt they be returned promptly. They do not hesi- to call the companies now to pick up the bottles, if they are not delivery patrons.

he three companies will invest in a similar campaign out six months—as a reminder to those who may ne lax or to reach those who did not heed or read ime.

MMER PLANS HELP MANY ORGANIZATIONS.

s the school year draws to a close, plans are being in each of the organized dairy council units to con- health programs in organized summer groups of en and young people.

acation Bible schools, summer recreation centers, ground associations and other gatherings request a amount of dairy council material and considerable of council workers.

s an example of the definite result from such a pro- , the Philadelphia Inter-State Dairy Council reports lean-up" for malnutrition among youngsters at the Street Friends' Playground in Philadelphia last ner. A careful record of the children's weights re- d the prevalence of malnutrition in almost one-third e entire group.

ilk service was provided daily, a half-pint for each , and a pint for the most severe cases. The average cted gain by school authorities is one-half pound month, but these children in four weeks averaged and a quarter pounds, the record gain being four ds in four weeks. Dairy council songs and stories used as a part of this program.

he addition of definite health habit training in the schedule of the playgrounds indicates the future zation of children's summer vacations for this type ork.

* * *

our friend is the man who knows all about you and likes you.

MILK-PLANT STUDY TO SHOW WHERE BACTERIA INCREASE.

In an effort to help the average milk-plant operator locate the causes of sudden "hops" in the bacterial content of bottled milk, Ernest Kelly, in charge of market-milk investigations, bureau of dairy industry, United States Department of Agriculture, is conducting a study of at least 100 representative plants. It is important that the count be kept as low as possible, and although increases during handling may be relatively small it is of considerable help to the plant operator to know where and why any sudden increases are likely to take place.

Data secured from 20 plants studied to date show that certain operations in the plant, such as sterilization of equipment and storage, are more apt to be slighted than others, and that noticeable increases in bacteria take place as a result.

The discovery that decided jumps in bacterial count often take place after the milk has been bottled and while in storage awaiting delivery has led to the further study of temperature conditions in the average storage room. Two men are now engaged in this work and are making observations in a number of storage rooms, noting the differences in temperature in all parts of the room. Daily variations as great as 34 degrees F. have been noted.

It is expected that the complete study will reveal the specific operations that need to be watched with particular care to keep the bacterial count of the bottled milk at a minimum. Such a guide as to possible sources of trouble should be of considerable value to the milk-plant operator who is not in a position to employ a specialist.

BUSINESS AND THE TAX SYSTEM.

The time is at hand in the opinion of the chamber of commerce of the United States when business and the government can both profitably set themselves to the task of reshaping and simplifying the federal system of internal taxation. A first step in this direction will be taken at the forthcoming annual meeting of the chamber next month when, at the finance session, the possibilities of business and government getting together will be discussed from the viewpoint of both.

Congress has set up the machinery for a study of the whole problem of taxation by the creation of the congressional tax commission. To what extent business can co-operate with this agency and the methods to be followed are questions of immediate concern. The discussion is all the more timely in view of the fact that the growing surplus makes tax reduction possible, presenting at the same time the problem of determining what policy should be followed in cutting down taxes.

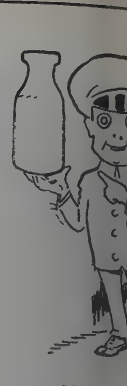
The meeting is designed to bring business opinion to a focus upon the general subject and to pave the way, so far as possible, for the recasting of a national policy of taxation to obviate the difficulties of the present system, which has grown up haphazardly and still bears the earmarks of war-time necessity, in order that economic development can go forward with the greatest possible freedom.

ARCADIA IS NO MORE.

The Arcadia Farms, Rondout, Illinois, owned and operated by the Brookhill Farms, Genesee Depot, Wisconsin, are no more. The Illinois property has been sold for sub-division purposes and the stock and equipment for producing certified milk has been moved to Brookhill.

Looking for New Equipment? Read the Advertisements.

Special Solicitation in Milk Selling



How One Company Puts on New Customer Drives and Sales Contests. No Short Cuts to Success in Business

By
C. G. BEARDSLEY*

I PRESUME when I tell you that we put on as many as one hundred to one hundred and twenty-five customers on one route in one day, you will naturally think I am the biggest liar that ever came out of the West. But, maybe I am. But, unfortunately, I happen to be in the milk business, where I can use that.

Mr. Little has accorded me the privilege of addressing the Sales and Advertising Section, on the subject of "Special Solicitation."

What I offer at this time is the result of our experience with different methods of retail solicitation. We have followed with some degree of success, five different plans. I shall endeavor to explain briefly each of these.

First Plan—New Customer Drive.

During the summer of 1925, we inaugurated what we term, "New Customer Drives." Recruiting from our wagon salesmen our ablest men, dressing each man in white coveralls, seeing that his shoes are shined, that he wears a white collar and is neatly dressed. We build up crews of from 10 to 20 men, with each crew we put one man in charge.

Where the territory to be covered is in close proximity to the plant, our most attractive horses and wagons are used, when we are working on distant territory we use trucks. Our method is this, five men are allotted to each vehicle, the driver and the four men who are to solicit.

We carry a liberal amount of samples; milk, cream, chocolate milk, buttermilk, and cottage cheese, all samples are thoroughly iced. When the crews have arrived at the territory to be covered, one crew is assigned to each street. Two men go down each side of the street, calling at the door of every prospect while the driver follows with the vehicle. Each salesman carries his basket filled with an assortment of the samples, and is also equipped with a portfolio, containing a number of choice views of the dairy, telling in pictures the story of a bottle of pasteurized milk, from milking time to drinking time. Generally, the arrival of the men and vehicles at an unexpected hour, creates considerable curiosity in the neighborhood, and invariably a crowd of children are out to meet us. We make good use of the samples by giving each child a treat. The children hurry home and show their parent the prize, and herald our arrival. By the time the salesman has started down the sidewalk he finds a number of his prospects out to meet him, consequently his interview is made much easier. The psychological effect is this, you have given the child something and the parent is already more or less in a receptive mood. The salesman steps up to the door and greets the prospect, announces that he is there to interest her in our dairy products, and describes the entire line suggesting the use of one or more of them. In the course of the conversation, the salesman offers the prospect a sample carton of cottage cheese, this cheese is something the whole family can partake of, and very few refuse it. The salesman carries on the conversation to the point where he feels the prospect is ready to buy, and endeavors to close the interview. Regardless o the prospect may be, there is this advantage with tation of this kind, the pictures tell the story, the man has the samples with him, the prospects see they are going to get, they are privileged to try a them. They cannot consistently question the qu nor offer the time worn excuse, I heard your milk v good, or Mrs. So and So, told me to try another da

In conducting these drives, we insist that the man whose territory is being covered is a member o crew, thus the men are informed as to where they call. Some of our men have made remarkable reco these campaigns. One man in particular has put many as 35 bona-fide customers in a single day. average had been from 6 to 8 customers for each per day. Over a period of 3 months in 1925, a ca check was made of the results obtained from these d During this time we added over a thousand new tomers, 750 of which were still buying some 60 later. Our largest results on any one particular was an increase of 117 new customers in one day. was a territory where we were putting in a new covering a section of the city which we had only tially covered previously. In another instance we a 78 new customers, 65 of these were buying 6 m later. The best results are obtained where the terr is covered with as little delay as possible.

We use our regular retail drivers for this work these drives are put on in addition to running routes. Our men have worked willingly, and hav tered into these campaigns with a great deal o thusiasm. We estimate our losses on business of kind, at from 25 to 35 per cent which we feel is not heavier than the normal loss on any sort of hou house solicitation, where a large per cent of the inc must come from competitors. There are a certain ber who will order out of curiosity, or the salesman for granted, that they will become regular custo these, of course, drop out in a short time. We have our greatest success with these campaigns in out territories, localities where the city is growing rap and among the modest home owners. We have n tried them in a high class apartment house territory a wealthy neighborhood, and do not feel that they w be successful under these circumstances. Campaign this kind must be handled tactfully, you cannot re them in the same territory, except at long intervals. fact that they are a novelty with the public is some responsible for their success.

On the face of these figures it may appear th proposition of this kind is costly. By actual check, bona-fide customer secured costs very close to $ This figure includes the cost of the samples, and lunches which we furnish the men. These drives a splendid advertisement. The public is afforded an op tunity to learn more about your products, meet mor your salesmen, and see more of your equipment, they possibly could under any other circumstances, a from a visit through your plant. The experience confidence which the men acquire is also a valuable a Due to the fact that we have worked to a great ex

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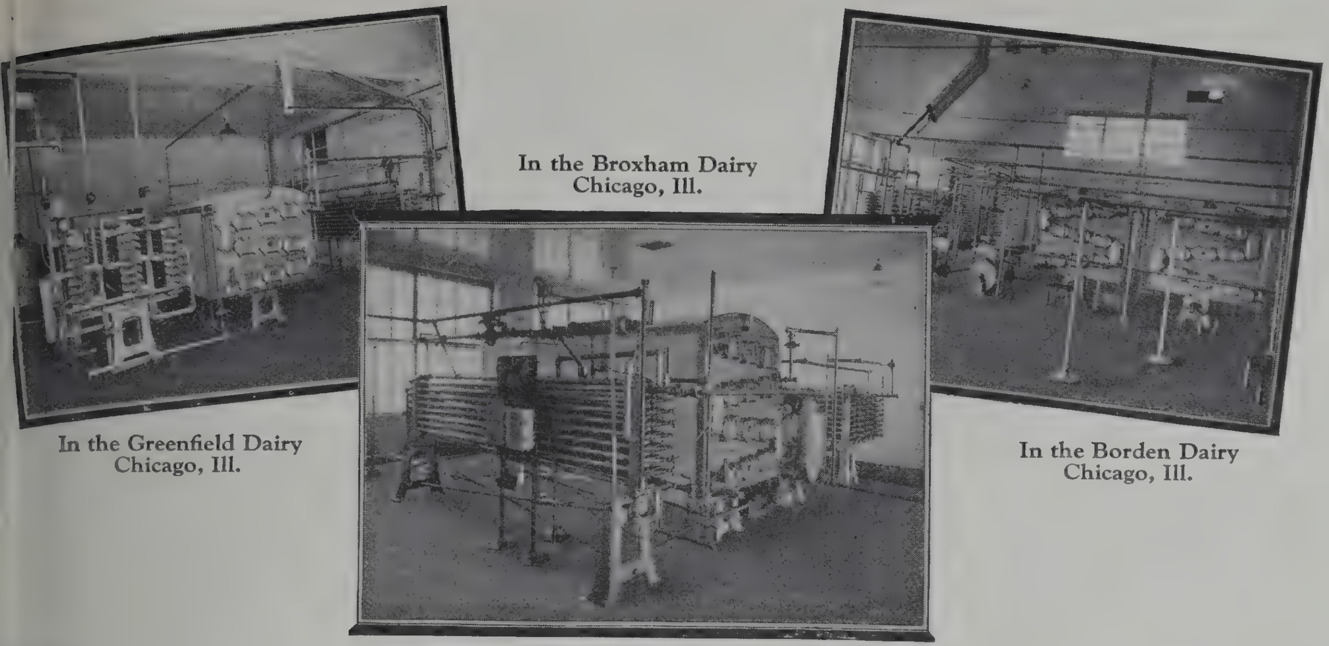
* Windsor Farm Dairy, Denver, Colo., at Detroit convention of International Association of Milk Dealers.



In the Greenfield Dairy
Chicago, Ill.

In the Broxham Dairy
Chicago, Ill.

In the Borden Dairy
Chicago, Ill.

Tomorrow's Standards may be HIGHER than *Today's*

These Burrell-equipped plants are ready—*are* you?

YOUR equipment may meet the standards of today. But what of tomorrow? Standards will be higher. Regulations more severe. Are you willing to buy pasteurizing equipment today—and scrap it tomorrow?

The Burrell-Simplex Long Flow system holds the milk *positively* for not less than 30 minutes, nor over 35—with no loss of temperature in the milk during the holding period. There is *no chance* of intermixture of raw and pasteurized milk, because the machine has no cross-overs, no valves, no dead ends, no elaborate timing devices. There is no mechanism, no agitation. *Nothing moves but the milk.* And because of the simple and inexpensive control devices, the entire outfit can be operated *automatically* with *part of one man's time.*

The remarkable Surface Regenerator effects a tremendous saving in steam, cooling water and refrigeration—and frequently reduces coal consumption as much as 75%.

Write for illustrated catalog section 322

D. H. BURRELL & CO. INC. **LITTLE FALLS, NEW YORK**

TRADE MARK REG. U. S. PAT. OFF.

BURRELL

SIMPLEX

Dairy Creamery Cheesery and Milk Plant Apparatus

When writing to D. H. BURRELL & CO., INC., *please mention The Milk Dealer.*

through the children in the neighborhood, we have found it advisable to make the best use of these campaigns during the summer months when the schools are closed.

Second Plan—Special Soliciting Wagon.

We have taken the route salesman off of his territory, replacing him temporarily with an extra driver, and have given the regular route salesman an attractive horse and wagon and a liberal allowance of samples, sending him out to cover his territory accompanied by one of our retail solicitors. This method, while it requires the services of an extra driver and solicitor, has two distinct advantages. First, it affords the route salesman an opportunity to study at close range the tactics of a professional solicitor. Assuming that your solicitor is a competent one, the value of this training cannot be overestimated.

Secondly, the regular route salesman is more or less familiar with all of the prospects on his territory, he knows the families he has served and lost, those he is desirous of securing as customers, and those he is afraid to serve because of questionable credit. Where your retail business is largely credit this is important. Briefly, the route salesman working with the solictor make a good combnation. We require the solicitor to turn in a report each day, showing the total calls made, the number of new customers secured, the number of "quits" who resumed service, and the amount of money collected from slow accounts. In going over the territory a record is made of the favorable prospects, and the date of which a follow-up call should be made. In this manner it is possible to make a very thorough canvass. Under ordinary circumstances, we found it possible to cover the average route, in from 4 to 6 days.

Third Plan—Systematic Soliciting by the Wagon Salesmen.

The wagon salesmen are required to call upon a certain number of prospects each week, turning in a report to the route foreman, showing the number of prospects interviewed, their names and addresses, and the results of these interviews. The salesman is asked to estimate the number of prospects he can call upon, and is then urged to make that quota in order that his percentage of new business be as large as possible. This plan may be consistently followed from time to time, until each man has thoroughly covered and recovered his territory.

Fourth Plan—Sales Contest.

We recently conducted a sales contest, extending over a period of 60 days. Our retail salesmen were divided into three teams, with a route foreman in charge of each team. Each member of the winning team was paid $10.00, and all other salesmen who had worked in the contest at least 30 days, $5.00.

As a basis for comparison, the average of each man's route in dollars and cents, was taken for the 15 days preceding the contest, and compared against the average for the last 15 days of the contest. The team showing the greatest increase per route, per day, was declared the winner. A great deal of enthusiasm was shown, and it was hotly contested all the way. A substantial increase was shown at the close.

In conducting a sales contest, there are several things which must be considered carefully. The plan must be practical, each participant must have a thorough understanding of it. The contest should not run over too long a period, one that is short and snappy is more to be desired than a lengthy affair. There is always the danger of waning enthusiasm.

Fifth Plan—Special Solicitors.

During this last summer (1926) we employed 5 special solicitors, men who made a specialty of milk solicitation. These men worked as the ordinary to-house solicitor works, going from door to doc pad and pencil. They were competent men, worke and turned in a reasonable amount of satisfactor ness, but by actual comparison, 5 of our wagon sa following our drive plan, and working with the s as I have previously explained proved more ef Each day our men turned in a larger number of I do not wish to belittle the efforts of these specia tors, they were high class men, but in my opinio test proved conclusively, that the competent wago man who is thoroughly acquainted with your bu and follows some practical sales method will render a good account of himself.

High Pressure Salesmanship.

The question often arises in the milk busines high pressure salesmanship pay? Under ordina cumstances, no. There are, however, a number of fied methods which are beneficial when applied practical standpoint.

There are periods in the sales calendar, wh average dairy business falls into a slump, at such some form of sales pressure is necessary. This may be due to any number of causes, weather conc seasons, the general prosperity of the community, lack of proper supervision and policy. From the age concern engaged in the milk business on a scale, there can be recruited sufficient material which to build a sales organization capable of m these emergencies. A number of wagon salesmer proper training and leadership, may be molde "polished milk salesmen." Next to a quality p there is no more potent factor in the success of any enterprise, than a capable crew of wagon salesmen. is no other business where service and quality are closely linked, and there is yet no effective substit personal contact and good-will in selling.

Curbing the Special Solicitor.

The blustering-braggadocio type of special so will very often prove more of a liability than an a the milk business. A solicitor to be successful, m practical in his methods, he must have a thorough ing knowledge of the line he represents; be tact presenting his proposition, and above all else, ho practice. All in all, the efficient wagon salesma sesses these major qualifications, at least to a degre with a certain amount of timely instruction, sho equal to the ordinary emergencies. If you are i of special solicitors, recruit them from your wagon men.

Base Pay for Solicitors.

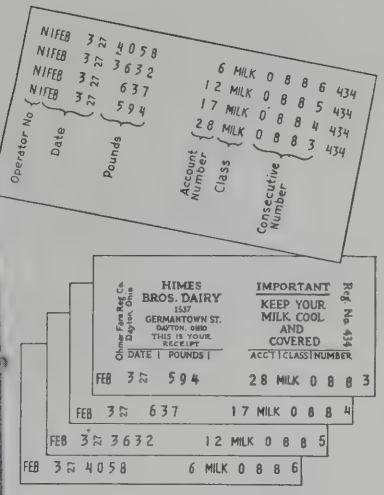
It is not altogether fair to measure the worth solicitor, solely by the amount of new business cures. He may spend much of his time saving a able customer who has a complaint. The basis muneration for professional solicitors is a perp problem. Where the pay is based on production there is a tendency on the part of the solicitor to orders at cut rates, or to extend questionable c where the salary is paid at a flat monthly rate, th offered no incentive for increased production. A medium may be found in same sort of guarantee, basis.

The Good Will of the Medical Profession.

The good will of the medical profession is a valuable asset to any dairy concern. With them, ing is believing." To make a booster of this profe see that they are invited to inspect your plant, an your plant is worthy of inspection. Put out a pr they are willing to recommend, and pay strict att to their complaints. Cultivate their good will.

ANNOUNCING

a revolutionary ethod for making accurate records of milk received


NIFEB 3 27 4058
NIFEB 3 27 3632
NIFEB 3 27 637
NIFEB 3 27 594
6 MILK 0 8 8 6 434
12 MILK 0 8 8 5 434
17 MILK 0 8 8 4 434
28 MILK 0 8 8 3 434
Operator No
Date
Pounds
Account Number
Class
Consecutive Number
Ohmer Fare Reg. Co. Dayton, Ohio
HIMES BROS. DAIRY
1537 GERMANTOWN ST. DAYTON, OHIO
THIS IS YOUR RECEIPT
IMPORTANT
KEEP YOUR MILK COOL AND COVERED
Reg. No. 434
DATE | POUNDS |
ACCT | CLASS | NUMBER
FEB 3 27 594 28 MILK 0 8 8 3
FEB 3 27 637 17 MILK 0 8 8 4
FEB 3 27 3632 12 MILK 0 8 8 5
FEB 3 27 4058 6 MILK 0 8 8 6

The printed record inside the register is shown at the top. Below are the tickets. Note how the figures on the tape and on the tickets agree.

w, for the first time, dairies, creameries, and ice am manufacturers can eliminate errors, mistakes, elessness, and losses in recording milk received. For first time, they can have as positive and as accurate heck on purchases as they have on sales. For the first time, this heretofore neglected branch of their business can be put on a *definite basis of facts* provided by untamperable, unchangeable, and automatically printed figures. All this is made possible by the

HMER Ticket-Printing Register

narkable register, which has already startling economies in other indus- s now been adapted with equally results for use in dairies, creameries, cream manufactories. With this in your receiving department you iat you get every pound of milk that for. You no longer need depend nsatisfactory, slipshod, and illegible gures. Regardless of inefficient and enced help, there could ossible doubt about the ess and accuracy of the ically printed figures his register makes.

e What It Does

prints a ticket for the the milk. This ticket ed in less time than it o tell it—shows the ne number of pounds. unt number, the classifi- and the consecutive num- the transaction. This handed or mailed to the a check on his delivery. ere's a feature even more nt to you—a duplicate of the information on the ticket is also printed by the register on the secret, locked-in record inside the register—a *printed record* that at once becomes your original office entry and from which all other office records pertaining to each account are made.

Think what that means! It means, first, that you get positive, accurate records of milk purchases. It practically eliminates all arguments and disputes with milk suppliers. It speeds up work in your accounting department. *It stops losses and increases profits* all along the line.

See how the register in the Receiving Room is out of the way, and yet always convenient for use.

Get All the Facts About It

The installation of this register system is simplicity itself. It is so small that it can be placed in any convenient position without taking up valuable space. It is so light that it can be easily and quickly shifted from place to place. Within thirty minutes after it is installed any employee can take off the weights much faster and much more accurately than with any other system ever devised. It is made in the world's oldest and largest factory devoted exclusively to developing and perfecting printing and recording devices. It has 27 years of experience back of it. It is revolutionizing receiving and accounting methods in dairies, creameries, and ice cream manufactories because of the enormous saving of money it provides. Get all the facts about it. See how it will *save money* and *increase profits for you.* This will not obligate you in the least. Write or wire today.

OHMER FARE REGISTER CO.
DEPT. A. DAYTON, OHIO

OHMER

REG. U.S. PAT. OFF.

Ticket-Printing Register

When writing to OHMER FARE REGISTER CO. *please mention The Milk Dealer.*

adoption of a policy of business reciprocity, is one effective method of winning and holding the good will of this profession. Distribute your sick and accident cases among the various groups of representative doctors in the city. Selecting different groups at regular intervals.

Souvenirs.

The possibilities of securing new business through the distribution of souvenirs is somewhat limited. The public have I believe, come to regard with at least a small amount of suspicion, anything that may be offered with the idea that they are getting "something for nothing." Useful souvenirs may be distributed by the wagon salesmen, but even this practice may place the salesman in an awkward position. He may have given Mrs. Jones, the newcomer, a souvenir, only to find that his old customer who lives next door, has been overlooked and, of course, feels slighted; there you have a complaint.

It is a distinct advantage to carry a complete
dairy products on retail wagons. It affords mor
one opportunity of making a sale. The wagon sa
who carries butter, cottage cheese, milk, cream
olate milk, buttermilk, and a complete line of
products, has some one product that each and
prospect uses. If you sell a customer milk, why sh
you sell all of her requirements in your line? Th
some customers who do not use fresh milk, but w
butter. Our butter sales on retail wagons trebled
we began delivering direct to the home.

In closing permit me to say, that we have fo
short cut to success in the dairy business, no mys
methods or formulas, but rather an industry, re
above all else, a generous amount of hard work
mon-sense and tact. It's 99 per cent perspiratio
1 per cent inspiration.

Breakage of Bottles in Milk Plants

Comparison of Bottles of Various Sizes

THE table below shows the number of bottles of various sizes broken out of each 1,000 filled at nine plants located in the Southern and South Central States. The broken bottles of each size were kept separate, and the results are daily averages for five-day runs. The table also shows what per cent of the total number of bottles were filled by quarts, pints, and jars.*

It will be noted that at six of the nine plants more pint bottles than quart bottles were broken out of each 1,000 filled; at five plants more jars than quart bottles; at seven plants more pint bottles and jars than quart bottles; while at six plants more jars were broken than pint bottles. Thus, as a general rule, breakage of quart bottles was relatively less than that of the smaller bottles.

Of course, the smaller bottles will not break so readily as the quarts when subjected to the same blows and the same amount of pressure, but the data obtained in these studies indicate that the smaller bottles are subjected to more strains and falls while in the machine. The small bottles give more trouble in the bottle washers and fillers than do the quart bottles. The former often stick in the filling machines, especially when being filled with cream, and the pressure in the bottle washer sometimes forces them out, whereas quart bottles usually give no trouble in this respect. In ha
on conveyors and trucks there is also a tenden
more of the small bottles to fall out of the cases.

The quart bottles have a tendency to chip more
than do the smaller bottles. At one plant (repor
Milk Plant Letter No. 149) the number of chippe
tles thrown out for a period of eight days was as fo

Quarts ....5.6 per 1,000 filled
Pints ....4.6 per 1,000 filled
Jars ....2.5 per 1,000 filled

The amount of breakage at various points
plant was kept separate for these nine plants, a
results of those studies will be given in future
Each dealer at whose plant these data were co
will receive a communication from this office stat
plant number.

⚜

ANOTHER NEW PLANT FOR MANTON-GAUL

The Manton-Gaulin Mfg. Co., with headquarter
Elkins St., Boston, Mass., manufacturers of dai
chinery and parts, is planning the construction of
story branch plant at St. Johnsbury, Vt. It is esti
that the cost of the plant will approximate $50,0
cluding the equipment.

John W. Davis is the president of the compan

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* Bottles smaller than pints.

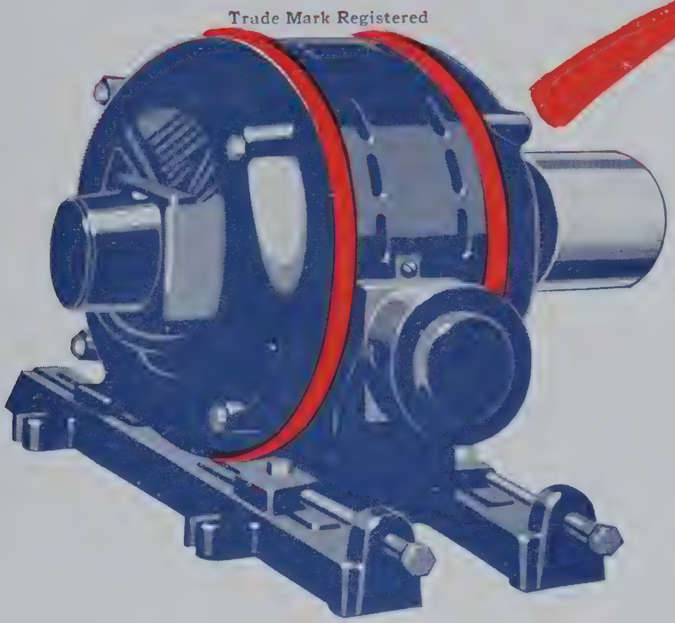
Comparison of number of small bottles broken at nine plan's with number of quart bottles; also the per cent o total number of bottles filled by quarts, pints and jars.

Group Size of Plant (Average number of bottles filled daily)	Plant No.	Per cent of total bottles filled			Bottles broken out of 1,000 filled				
		Quarts	Pints	Jars	Jars	Pints	Quarts	Pints and Jars	To Bot
5,001 to 10,000 ..	1	46.9	24.0	29.1	8.1	19.3	9.1	13.2	
	2	23.2	26.9	49.9	4.0	2.9	5.7	3.6	
10,001 to 15,000 ..	3	41.7	32.9	25.4	7.7	3.0	4.3	5.0	
	4	36.9	18.5	44.6	8.6	8.8	7.4	8.6	
15,001 to 20,000 ..	5	46.6	21.8	31.6	8.5	4.5	4.0	6.7	
20,001 to 30,000 ..	6	68.9	16.8	14.3	12.9	12.2	13.1	12.6	
30,001 to 40,000 ..	7	67.4	11.7	20.9	15.7	15.1	13.2	15.5	
50,001 to 60,000 ..	8	40.0	39.4	20.6	11.3	10.1	8.6	10.5	
Over 150,000	9	57.8	30.0	12.2	10.1	12.0	11.0	11.6	

—Milk Plant Letter No. 151 issued by the U. S. Bureau of Dairy Indu

The Milk Dealer Advertisements Are Your Safest Buying Guides.

ive Red Bands



your hard jobs

WHEN you use Howell Red Band Motors in your plant you don't have to worry about water and moisture conditions—for Red Band Motors have even been known to run and will run when completely submerged in water. Howell's Double Cotton Covered enameled insulation takes care of that. What's more Howell Motors are built with an extra measure of wear and protection in every part from bearing to bearing—that's why we say "Give Red Bands your hard jobs"—and that's why *Red Band Motors make good on the hard jobs.*

Howell Motors are sold and serviced in all the principal cities. Write for all the data.

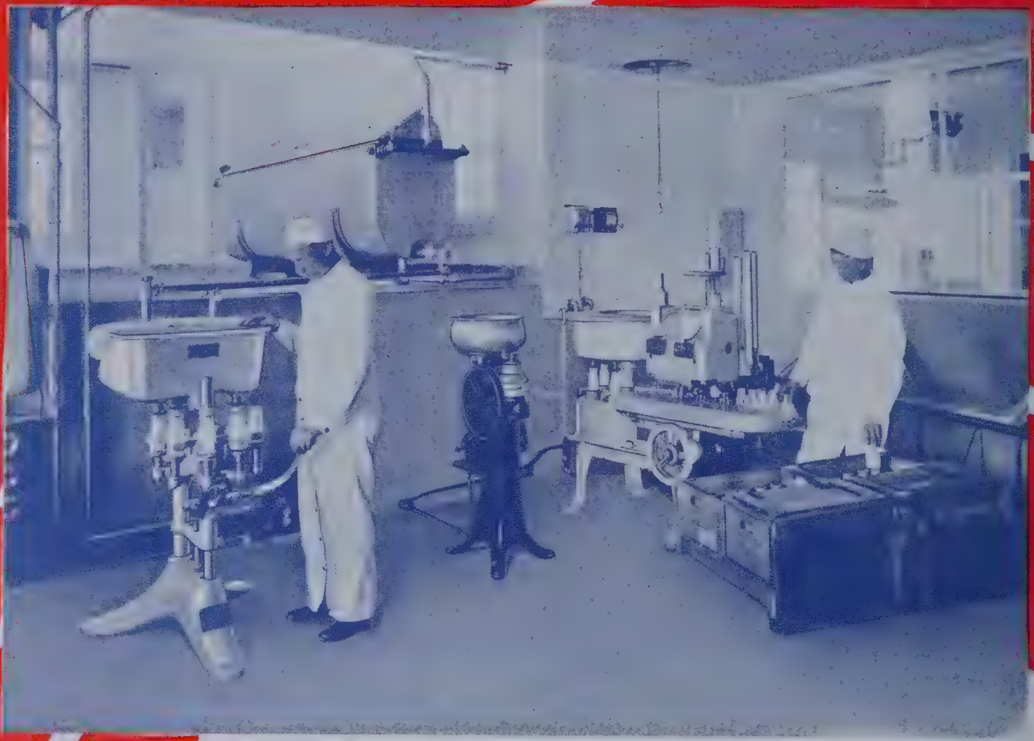
Howell Electric Motors Company
Howell, Michigan

(91)

owell RED BAND ELECTRIC Motors

When writing to HOWELL ELECTRIC MOTORS COMPANY *please mention The Milk Dealer.*

MILWAUKEE FILLERS and CAPPERS



Tarbell Farms, Smithville Flats, N. Y.

AN Interesting Certified Plant
using two styles small "Milwaukees".

The Type "B"
Hand Operated
4 Valves—1 Capper

Capacity: 12 to 16 bottles, any size, per minute. Quick and simple adjustment. Tank capacity: 16 gallons.

The Type "J"
Powered
6 Valves—2 Cappers

Capacity: 20 qts. to 32 pts. per minute. The small power filler that dominates the industry. Tank capacity: 18 gallons.

There's a Size "Milwaukee" to Suit Every Combination of Dairy Requirements—Small Plant or Large.

SOLD BY BEST DAIRY SUPPLY HOUSES EVERYWHERE
ASK THEM

Milwaukee Dairy Supply Mfg. Co., Milwaukee,

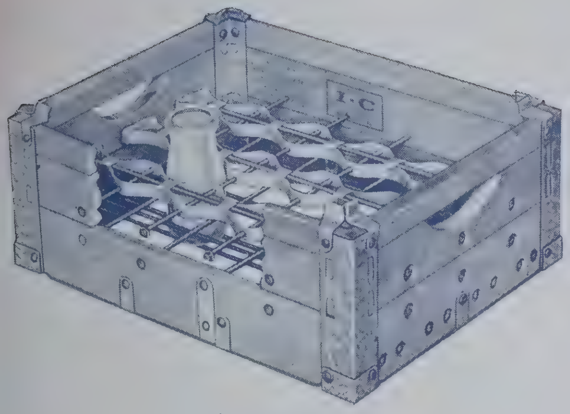
When writing to MILWAUKEE DAIRY SUPPLY MFG. CO. *please mention The Milk Dealer.*

Summer is Coming

Are You Ready for the Rush of Half Pint Business?

How About Your Half Pint Crates?

The
MODEL
I-C
(Interlocking Corner)
CRATE



NO NAILS
NO SCREWS
NO LACING WIRES

Our twenty half pint crate (Patented) is the strongest, sturdiest and most rigid interior construction on the market.

Each bottle is held in a pocket conforming to the shape of the bottle, giving it greater protection than can be found in any other crate.

This unique grid construction also serves as a perfect ice rack and, as it is lower in the box than any other, permits of much greater ease of handling of bottles in and out of the crate, and allows more room for ice.

Half Pint Crates may also be had to accommodate 16, 24 or 30 Bottles.

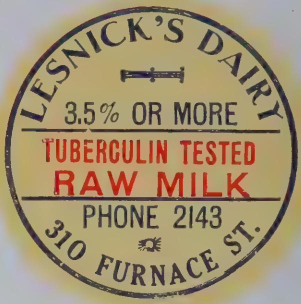
MANUFACTURED BY

The Wildberg Box Company
Cincinnati, Ohio

"World's Largest Manufacturers of Milk Bottle Crates"

FRANK BUESCHER
RAW MILK
ALWAYS A-HEAD
PHONE 1003-R-2

SAN JACINTO
CREAMERY
GRADE B
WHIPPING
CREAM
PHONE 1861


LESNICK'S DAIRY
3.5% OR MORE
TUBERCULIN TESTED
RAW MILK
PHONE 2143
310 FURNACE ST.

TONY KROG
FARM DAIR
PHONE 9-F-
WASH & RETUR
ALL BOTTLES

J. R. MUNTZ
T. B.
TESTED
GRADE
A
RAW
MILK
PHONE 9035-F-5
MARSHALL, TEX.

Chapman Dairy
GRADE A MILK
Wichita Falls

P. H. FUNK
CLEANILNESS
GUARANTEED
WATSON, ILL.

CITY DA
TEL.
ACCREDITED HER
G. D. BAKE

MONDAMIN FARM
T. B. TESTED
PURE
Milk and
Cream
TEL.
9615
H. & C. MEINHARD

Jensen's
WHIPPING
CREAM
35% B. F.
DAIRY PRODUCTS CO.

The Toledo-Baltim

TOLEDO, OHIO

"Qua

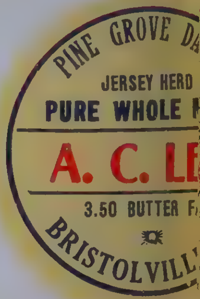
Pac

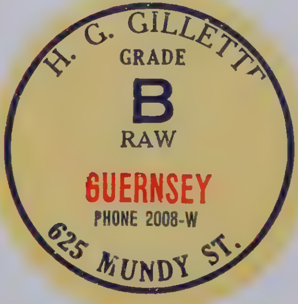
We advertise your business for you

G. G. LEMMON
Whole Milk
SMITHFIELD, O.

BUTTERMILK
BECK
SPRING
6-2814
DAIRY
RYCHEN BROS.

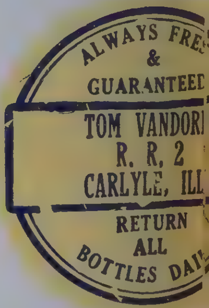
F. L. COTTON FARM DAIRY
TUBERCULIN TESTED HERD
GRADE A RAW
UNDER FEDERAL SUPERVISION
NEW CASTLE, PA.


PINE GROVE DA
JERSEY HERD
PURE WHOLE
A. C. LE
3.50 BUTTER F
BRISTOLVILL

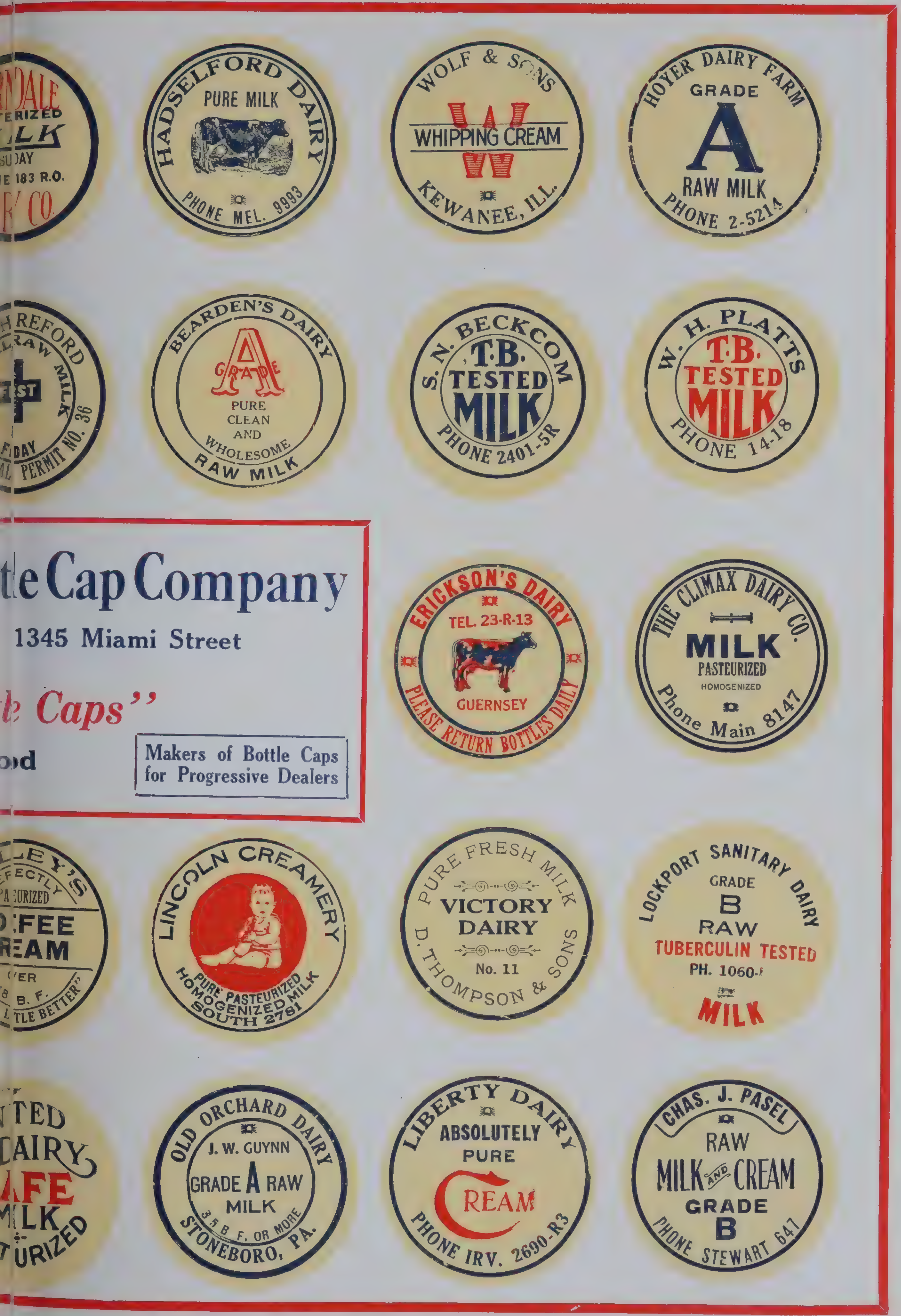

H. G. GILLETTE
GRADE
B
RAW
GUERNSEY
PHONE 2008-W
625 MUNDY ST.

SCHOEN & SEITZ
SS
PHONE 1555-1W

PASTEURIZED MILK
GRADE
PHONE A 3755
STAR CREAMERY CO., INC.


ALWAYS FRE
&
GUARANTEED
TOM VANDORI
R. R. 2
CARLYLE, ILL
RETURN
ALL
BOTTLES DAI

When writing to THE TOLEDO-BALTIMORE BOTTLE CAP COMPANY *please mention The Milk Dealer.*



NDALE
TERIZED
LK
SUDAY
E 183 R.O.
F CO.
HADSELFORD DAIRY
PURE MILK
PHONE MEL. 9993
WOLF & SONS
WHIPPING CREAM
KEWANEE, ILL.
HOYER DAIRY FARM
GRADE
A
RAW MILK
PHONE 2-5214
HREFORD
RAW
MILK
FIRST
FRIDAY
AL PERMIT NO. 36
BEARDEN'S DAIRY
A
GRADE
PURE
CLEAN
AND
WHOLESOME
RAW MILK
S. N. BECKCOM
T.B.
TESTED
MILK
PHONE 2401-5R
W. H. PLATTS
T.B.
TESTED
MILK
PHONE 14-18
ERICKSON'S DAIRY
TEL. 23-R-13
GUERNSEY
PLEASE RETURN BOTTLES DAILY
THE CLIMAX DAIRY CO.
MILK
PASTEURIZED
HOMOGENIZED
Phone Main 8147
LEY'S
FECTLY
PASTEURIZED
OFFEE
REAM
VER
B. F.
TLE BETTER
LINCOLN CREAMERY
PURE PASTEURIZED
HOMOGENIZED MILK
SOUTH 2781
PURE FRESH MILK
VICTORY
DAIRY
No. 11
D. THOMPSON & SONS
LOCKPORT SANITARY DAIRY
GRADE
B
RAW
TUBERCULIN TESTED
PH. 1060-J
MILK
TED
DAIRY
AFE
MILK
TURIZED
OLD ORCHARD DAIRY
J. W. GUYNN
GRADE A RAW
MILK
3.5 B. F. OR MORE
STONEBORO, PA.
LIBERTY DAIRY
ABSOLUTELY
PURE
CREAM
PHONE IRV. 2690-R3
CHAS. J. PASEL
RAW
MILK AND CREAM
GRADE
B
PHONE STEWART 647

tle Cap Company

1345 Miami Street

e Caps"

od

Makers of Bottle Caps for Progressive Dealers

When writing to THE TOLEDO-BALTIMORE BOTTLE CAP COMPANY *please mention The Milk Dealer.*

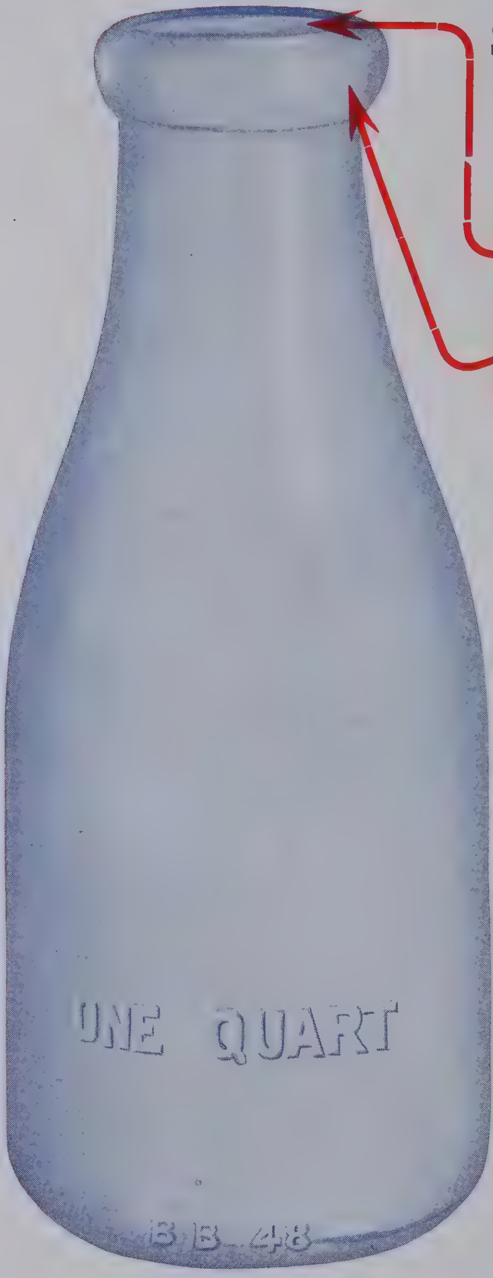
Automatically Processed
Milk Bottles of Quality

Our Motto:

Quality

Economy

Dependability



Six Little Details All Big

1. Round cap seats that hold the cap
2. Well formed heads designed to obviate chipping
3. Accuracy in capacity uniformly maintained
4. Glass clear in color
5. Scientifically annealed (tempered) giving maximum strength
6. Grace in design, making a pleasing package

You Want Quality
Let Us Serve You

BERNEY-BOND GLASS COMPANY

Main Office-Factory: CLARION, PENNA.

CHICAGO Representative: A. F. MARTIN, 1654 Cleveland Avenue, Chicago, Ill.
MICHIGAN and OHIO Representative: Lock Box 56, Redford, Mich.
NEW YORK, N. Y., Hudson Terminal Bldg., 50 Church St.
BOSTON, MASS., 170 Summer St.
PHILADELPHIA, PA., Abbott Bldg., Broad and Race Sts.

When writing to BERNEY-BOND GLASS COMPANY *please mention The Milk Dealer.*

See What Fresh Air Does!

1. Machinery will not rust out.
2. Mold wlll be eliminated.
3. Building will last much longer.
4. Not necessary to repaint as often.
5. Workers will feel better—do more work.

One of the
1250 Milk Plants
and Creameries
Ventilated
by the

King Siphon Ventilating System

THE King System is designed especially for Milk Plants and Creameries and is working successfully in more than 1250 modern plants. brings in a constant and uniform supply of pure, esh air and automatically removes the stale air nd excessive moisture. Operates under any kind f weather conditions. Let us send you the proof.

Complete information in our book on ventilaon. Send for it—it's free.

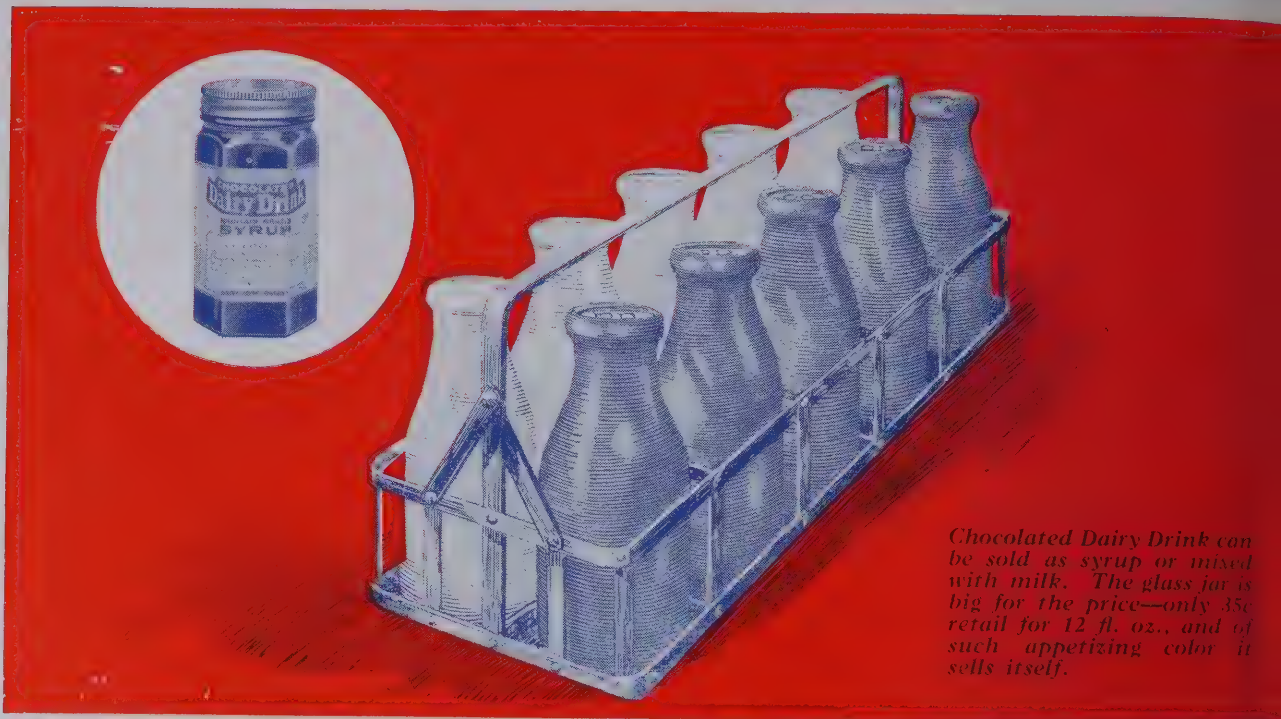
King Ventilating Co.

OWATONNA, MINN.

ENGINEERS and MANUFACTURERS

Milk Plant and Creamery Heating and Ventilating Systems.

When writing to KING VENTILATING CO. *please mention The Milk Dealer.*



Chocolated Dairy Drink can be sold as syrup or mixed with milk. The glass jar is big for the price—only 35c retail for 12 fl. oz., and of such appetizing color it sells itself.

Let This Full Chocolate Flavor Win New Customers For You!

So good a blend of milk and chocolate that all who drink it come back for more! You can build up a big, new market with Chocolated Dairy Drink. Customers you now lose because they don't like milk; babies who need milk's body-building nourishment, but have to be coaxed to drink it. They'll drink Chocolated Dairy Drink in large quantities. It's good for them because it's pure and contains no artificial preservatives.

Sample of D.D. syrup FREE on request with copy of novel "Milk-Cap Folder", a real sales booster. Write for yours.

DAIRY DRINK COMPANY
4830 S. TURNER AVENUE - CHICAGO

CHOCOLATED
Dairy Drink

FORMERLY "400"

JOBBERS

A. H. Barber-Goodhue Co.
Chicago, Ill.
J. G. Cherry Co.
Cedar Rapids, Ia.
National Dairy Equipment Co.
Utica, New York

Stevens-Adams-Cyr Co.
Charlestown, Mass.
Beatrice Creamery Supply Co.
Denver, Colo.

Intermountain Dairy Supply Co.
Salt Lake City, Utah
Corll Dairy Supply Co.
Youngstown, Ohio
Oakes & Burger Co., Inc.
Cattaraugus, N. Y.

When writing to DAIRY DRINK COMPANY *please mention The Milk Dealer*

CLLEGE STUDENTS DRINK MUCH MILK.

Bekeley and Palo Alto, where are situated the Uniit of California and Stanford University, have the es per capita consumption of milk in the state, acir to figures received by Sam H. Greene, secretaryr of California Dairy Council, from the state a of dairy control.

ng 1926 college students and others living in to consumed on an average of 1.35 pints of milk y. In Berkeley the average daily per capita conpton was 1.25 pints. Long Beach and Glendale tied th d place with an average of 1.16 pints. Other n the list having an average daily per capita sution of more than one pint are: Sacramento, pits; Los Angeles, 1.04 pints; Pasadena, 1.2 pints; h Pasadena, 1.5 pints; Ontario, 1.07 pints; Redlands, is.

e greater consumption of milk in the college nities shows that the younger generation is awake c alue of milk in the diet,'' says Mr. Greene. ''The student has a penchant for malted milks, ice m and milk shakes, and the consumption of these s creases materially the use of milk.

ientists advocate the use of at least one quart ni a day by every man, woman and child in the e States. When we reach that goal we shall be a ngr and happier nation.''

Acording to the report of the bureau, there are 45 roed milk inspecting departments in California ping 240 cities and towns.

* * *

A Y FIRM SHOWS SUBSTANTIAL GROWTH ON FEATURING SERVICE.

Ni years ago a modest little dairy was born in the c Cleveland, and the entire handling for a whole ws ten cans of milk. Today this plant is handling cs daily.

Th remarkable part of this fact is that no salesmen e nployed to build up this business. It was done o on service. One customer told another of the ic the Producers' Milk Company was giving them, o quality, and that brought more and more business e uiet-working, efficient firm.

Toay they are buying and selling 1,000,000 pounds u er annually, operating three freezers in their ice m department and handling 400 cans of milk, disutig to 18 routes in the city of Cleveland.

Thir own trucks go after the milk daily to the ne patrons. Sometimes in three hours after the s e milked the product is in the plant and on its ging through the process which makes it safe and ty for the consumer. The Cleveland law is to label mk within 24 hours of its pasteurization for its sale fowing day. The Producers' Milk Company is a ead of the pasteurization law, for its milk is on w to the customer the same day and its label reads h following day's date. Mr. Thomas, manager of cnpany, stated that ''that was delivering tomorsmilk today.''

* * *

WHO PAYS FOR ADVERTISING?

Avertising pays for itself. The more a good product dertised, the greater are its sales, which reduces ucturing cost and creates a lower price to the cone—Barron Collier.

More Customers

Handbags have handles
—so have CERTIFIED CAPS for Milk Bottles

Customers follow better service. They want bottle caps that are easy to lift off. You can give them just that, at trifling cost, if you use Certified Caps.

Certified Caps for milk bottles have tough red fiber flaps, stapled on. They are easy to see, easy to grasp. They do not tear. They lift the cap off whole, every time. Perfect for capping machines or for hand capping.

We can prove that Certified Caps with Red Flaps bring bigger profits. Make us do it.

Write us, or ask your jobber for free samples.

Certified Caps
FOR MILK BOTTLES
THE CAP WITH THE RED FLAP

American Dairy Supply Co.
Dept. B-33 **WASHINGTON, D. C.**

London Factory, Waxed Papers, Ltd., Nunhead Lane, S. E. 15.
Canadian Factory, Purity Milk Cap Co., Ltd.,
76 Stafford Street, Toronto.

Mediums for Advertising Milk

Newspapers, Street Cars, Billboards, Pamphlets, Store Displays, etc., all Come in for Attention at Milk Dealers' Convention.

AT THE Detroit convention of the International Association of Milk Dealers the generally accepted means for advertising milk came in for a free and full discussion. We have grouped the papers read there as follows and we commend them to the careful attention of our readers.

THE ADVERTISING MESSAGE.

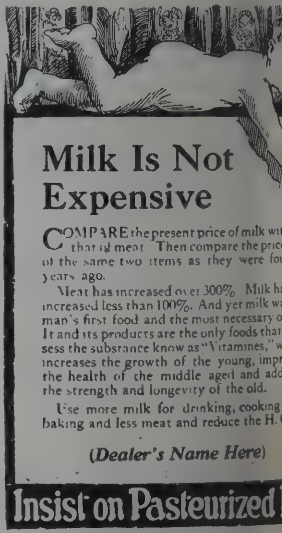
C. O. Ewing.*

The first question for consideration in discussing the advertising message is what kind of an audience you expect to reach. The audience naturally divides itself into two classes; first, those who are already your customers and second, those people who are not. The major portion of the advertising appropriation is usually spent in an effort to reach the group of people who are not customers. Obviously the object of this advertising is to secure new customers and to make it easier for a salesman to secure them by personal solicitation. The media employed in this work are usually newspapers, posters, painted bulletins, street car cards and we might include, movies and the radio. The message for this advertising should contain reasons why the goods and service of the advertiser are preferable to any other. The service which most milk distributors give deserves quite as much emphasis as do the facts concerning the superiority of their methods in handling milk. The complete story, "From Cow to Consumer," should be told and retold, bit by bit, from as many viewpoints as possible. The care used in the selection of the farmers who are supplying the milk and the supervision given it on the farm, then the rigid inspection and testing of the product when it reaches the bottling plant. Then the story of the laboratory and its constant, thorough supervision in checking up all processes. The refrigeration necessary to keep dairy products in good condition should be emphasized at all times not only to impress the consumer with the care exercised by the company but to suggest to the customer that milk should always be refrigerated in the home. Then the story of the service with all that that word implies; the prompt delivery three hundred and sixty-five days in the year, the convenience of the easy order blank or note in the bottle and the telephone and special delivery service and numerous other items. The field affords an abundance of material for the milk distributor to keep constantly pounding away and it seems to me that if these facts are put over we should not expect to accomplish any more with our advertising intended to reach non-customers. This leaves the vast field of the food value of milk entirely untouched and it is my opinion that the milk dealer should use this material in direct advertising to his customers, working exclusively on the food value and health giving qualities of milk for old and young, making suggestions for recipes and menus. A great deal of this work is being done by the National Dairy Council, by our public schools, our doctors and nurses. The distributor should merely tie up his program of direct advertising with whatever work is being done in his particular locality. Everyone, of course, understands that the material for the advertising message has been presented in a very dull and prosiac way, that in order to get these facts over to the public they must be told in many di
ways and only one idea or fact at a time. In shor
must be made into good advertising. Unsupportec
ments such as Jones' milk is the best milk sho
avoided and rather state some fact why the milk
perior which will suggest to the prospect the supe
of the goods. Advertising like personal salesman
built on confidence and obvious boasting does not
lish confidence while a plain statement of facts v
most invariably appeal to the open-minded. To s
the point of this paper is simply that in adve
directed to non-customers tell the story of superio
goods and service, when we are talking to our ow
tomers tell them how valuable milk is and how
attractive ways it can be used to the end that two
can be used instead of one.

NEWSPAPERS.

By Will A. Foster.*

The first point I want to get to you if I can i
there is nothing mysterious about advertising.
not hard. It is not complicated, and it does no
to scare anyone at all. It is simply putting dov
mass reading the same things that you would say
had a customer right across your desk. Now, let
the picture first, so that we will realize how simpl
and what we have to meet when we start in on an
of advertising. Take your own home, any home, an
ican home. A man, his wife, and two children. The
a milk man. They have had one for four or five yea
has given them good service and all that. The goods are satisfactory. They get their bottle of milk in the morning and bring it in. If you will just keep in mind that family of four, I think that you can plan your advertising project a litte bit more carefully. Here they are. They bring it in for breakfast.



Milk Is Not Expensive

COMPARE the present price of milk wi
that of meat Then compare the pric
of the same two items as they were fou
years ago.

Meat has increased over 300% Milk ha
increased less than 100%. And yet milk wa
man's first food and the most necessary o
It and its products are the only foods that
sess the substance know as "Vitamines," w
increases the growth of the young, impr
the health of the middle aged and add
the strength and longevity of the old.

Use more milk for drinking, cooking
baking and less meat and reduce the H.

(*Dealer's Name Here*)

Insist on Pasteurized

Well, the first thing we have to consider is that it be taken in promptly; that it be used properly in the home. Then you run into the first peculiarity of American homes.
Perhaps one of the two children likes milk and c
it, and perhaps the top milk is poured off fo
cereals. Perhaps the mother never drank milk sinc
was a little girl. Perhaps the father likes it on his c
or does not drink it at all. So you have first to co
the American home, and that is back of your advert
whatever it may be, and your methods of conduct
must be based upon the situation as you meet it.

I wrote to 160 newspapers all over the United S
practically every state in the Union, and asked th

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*D. H. Ewing's Sons, Louisville, Ky., at Detroit convention of International Association of Milk Dealers.

* Borden's Farm Products Co., Chicago, Ill.

Save a ton in Weight!

very pound saved in veight of the tank quals two pounds f pay load

THUS 99% Pure Nickel Milk Tank construction saves you 2000 pounds deadweight and adds 4000 pounds payload.

The reason for this outstanding advantage is that 99% Nickel is inherently stronger than steel and permits us to use much lighter nickel sheets which results in a nickel tank construction that averages one ton less weight than any units, heretofore, used.

Combine this weight advantage with the sanitary advantages of a one-piece seamless nickel construction and you have two excellent reasons why 99% Nickel Milk Tanks are generally preferred throughout the dairy industry.

Let our engineers co-operate with you.

NINETY NINE % NICKEL

SALES OFFICES

Detroit
1226 Bagley Ave. Bldg.

Philadelphia
516 Packard Bldg.

Boston
518 Little Bldg.

New York
1512 Borden Bldg.

Chicago
718 Crilly Bldg.

Canandagia, N. Y.
113 Park Ave.

NICKEL FABRICATING CORPORATION
— PHILIPSBURG, PENNA. —

When writing to NICKEL FABRICATING CORPORATION *please mention The Milk Dealer.*

send me sheets from their current papers carrying samples of fluid milk advertising. Those are hung up. There will be no comment or criticism of any advertisement there, but they do get over certain points. You have some in color. You have some rotogravure. You have some cashing in on a news incident. You have some using art work, some talking pasteurized milk, and all of them typical of the advertising that is being carried on in its every day work. The only object and purpose of those is to give you one or two ideas which you may take with you and carry into execution. The types of advertising are just as many as there are methods.

So, with that little background, we sort of swing into a consideration of the whole question of advertising methods. There is no best medium that I know of. The thing that you have to consider first of all is where you want to go, and if any man who sits down to plan an advertising campaign or build a budget, builds it under any other consideration than that he wants to go there in a certain length of time, he will not get the maximum value from it.

Now, what have you got to advertise? Get a bottle of milk. That is what the customer sees on the back porch. Did she see purity? No. You can't see purity in a bottle of milk. You might see a cream line. You can see a cream line. She sees the man. She sees the bottle. Can she see all the things you do to it? No. I am not so dog-gone sure, men, but what we are wrong when we put too much effort on telling the public what we do to a bottle of milk. Does the public care what we do to a bottle of milk any more than you are interested in what they do to the suit of clothes you have on? You do not know whether it is mercerized, or whatever it may be. Are the public primarily interested in what we do to a bottle of milk? No. They are interested in what it will do for them. Now, I do not know why. I think we have all overlooked a big bet. You just came from the dinner table. You have read a whole lot about health. Every man here, has read about vegetables, and so forth, and so on. How many men made a choice on their menus today because of something they thought was good for them? How many? Be honest. One out of ten. All right. Listen, any dairy product that is on a dairy wagon, milk, cottage cheese, butter, eggs, or anything else, goes down here. (Indicating). Ninety-five out of a hundred people eat the thing they like. That is the thing we have to get over to the American public, and the child who drinks its quart of milk a day up to five or six years, the thing we have to keep in mind is how dog-goned good it is, because if the taste is created, the appetite follows along. A bottle of milk. That is all it is. You can't see purity. You can't see cleanliness. You can't see a lot of these things that enter into a bottle of milk. But, we can't emphasize perhaps what it does for them in the way of specific things.

I took a current issue of the largest national magazine in the United States and I counted the advertisements in that particular publication. Twenty-seven that I counted used either directly or indirectly the health appeal. It has been used and it is used very widely. It is an indefinite and abstract thing at its best. I think we can and I think we do have a practical argument in the bone and tooth structure, because that is awfully definite. There is something that is very personal in the development of that particular phase of the human stature.

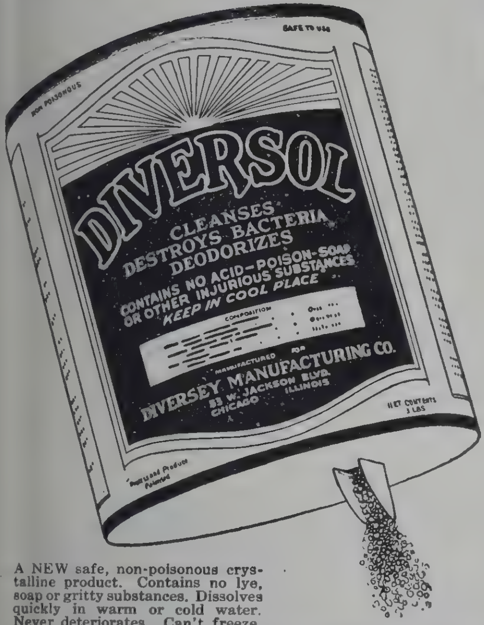
A bottle of milk. Let us keep the thing simple and not too complicated. Write it and put it in your desk. Take it out the next day and see if it is as good as the day you wrote it. If it is, the chances are you are all right.

Now, we will swing over into the methods. What have we? First, consideration of the one to which I am assigned is the newspaper, newspaper advertising.
Men, when you sign up with a newspaper for so
inches or lines of space, you have not done any
under God's big sun but pay for the privilege of s
something. The fact that you have signed for th
vertising does not mean a thing any more than t
might pay carfare to call upon a prospect. I hav
complished nothing. I have the opportunity. No
ter what that medium may be, newspaper, or any
else, it is what you say and how you say it, an
timeliness with which you say it that carries w
You will see some of those things brought out very
ly in the exhibit of individual copy on the line.
what you say and how you say it.

Newspaper advertising. I am going to read pa
the paper now, because it fits in well here. Becau
the influence of the weekly and daily newspaper o
life and habits of the American public, space with
columns must form the backbone of any adver
salesmanship for fluid milk and cream. The local n
of the paper denies it the privilege of the use of na
magazine advertising with highly finished paper
color treatment. I will analyze the advantages and
tations of newspapers. because it has them both.
only considering the fundamental and not actual
used in a given city, or when to use it, because
things must be determined by the application of
mon sense to the situation as it is. The criticism
newspaper advertising for fluid milk are known
readily admitted. The life of the daily newspap
weekly is 6 to 24 hours at the most. You also ha
consider the position of news for the attention o
leader, competition of bargain and price appeal co
department stores and other institutions against th
price product such as milk, and it costs money.
comparatively short life of a newspaper need not
cern any one particularly, because the good adve
ment should and can be made to gets its message
in 20 seconds. The next time you drive along a
check yourself in your car against some of the billbo
road signs, and other things, just for fun and see
many words you can read in the time that you are
ing. Not much over eight or ten at the maximum.
competition of the news appeal of the department s
bargains, and other things, is probably the hardest
petition that the milk man has to meet in a newsp
and I am wondering if we can meet it best by the
use of copy illustration if necessary, lay-out, and t
that have as good an interest as the news in the ad
ing column. Newspaper advertising offers an o
tunity to make a talk in print to a given numb
people. You bet it costs money and if you will sit
before you shoot it for a final insertion and figure
it is costing you from ten to fifteen cents a word, m
more, for every word you have in there, you will
ably eliminate a few before you get through, if the
calls for that sort of treatment. It costs money, an
after all, the way to figure all these things out is wh
costs per person. Figure out what the space the si
a letter head, inserted in any newspaper will cost
divide it by the circulation, which will give you the
per thousand. Frequently the higher the price o
paper, the lower the cost of reaching the reader.
not the cost per inch that costs, it is the cost per thou
readers. That is the basis of judgment, all other t
being equal.

Now the newspaper has certain definite advantag
an advertising medium. Some of them I do not al
think of and I will give the ones that seem most
portant. It has a definite, consistent circulation
can be reached at stated intervals with any messag
24 hours notice, a stated definite audience. I mea
that the same readers, as a rule, today and tomor
It is an inexpensive opportunity to present news

NEW! For Milk Plants



A NEW safe, non-poisonous crystalline product. Contains no lye, soap or gritty substances. Dissolves quickly in warm or cold water. Never deteriorates. Can't freeze.

Write for FREE Sample

INSTANTLY Destroys the bacteria that spoil your product

DIVERSOL

1—Cleans. 2—Destroys Bacteria
3—Prevents "off-flavors"

Does All 3 with ONE Operation

Diversol is a wonderful NEW product that combines in ONE product the properties of a (1) cleanser (2) sterilizer (3) and deodorant. Does all 3 at one time—ALONE! Diversol is *more* than a washing compound—it destroys bacteria as it cleans—and removes all odors . . . . cuts grease . . . . softens water . . . . never injures hands . . . . safe . . . . non-poisonous. Diversol is very economical—one pound makes 100 gallons of sterilizing solution. Does not lose its strength. Diversol destroys bacteria with cold water, mind you, that even steam misses. . . . . One wash or rinse with Diversol and your equipment is *instantly* rendered fresh and clean and free of bacteria and odors. Think of the time Diversol now saves you. No man producing or handling milk or milk products today can afford to be without this great NEW product that has taken the whole country by storm.

Read This

"We have had exceptional satisfaction with Diversol as a cleanser and sterilizer combined, also from the economical use of it, we have not found its equal."
Ira J. Mix Dairy Co.
Chicago

A few of the many satisfied plants using Diversol

- **Cloverleaf Milk Co., Chicago**
- **Trapp Bros. Dairy Co., Milwaukee, Wisc.**
- **Janesville Pure Milk Co., Janesville, Wisc.**
- **Polk Sanitary Dairy Indianapolis, Ind.**
- **Mennen Pure Milk Co., La Fayette, Ind.**
- **Kraft Cheese Co., Chicago**
- **Bowman Dairy Co., Chicago**
- **Ira J. Mix Dairy, Chicago**
- **City Dairies St. Louis, Mo.**
- **Phoenix Cheese Co., Beaver Dam, Wisc.**
- **United Milk Products Co., Elkhorn, Wis.**
- **Indiana Condensed Milk Company, Indianapolis, Ind.**

Diversol has taken the whole country by storm

Send for FREE Sample—Make this FREE Test

Mail the coupon now for YOUR *free* Diversol sample package. Contains 4 ounces of Diversol. Makes 25 gallons of sterilizing solution. Wash and rinse any milk cans, vats, coolers or sanitary equipment and see the *wonders* that even this sample of Diversol will work for you. Once you use this free sample you will see why you cannot afford to be without Diversol. You'll know why the biggest plants in the country endorse this great NEW discovery so enthusiastically. Mail free sample coupon today SURE!

Diversey Mfg. Co., Dept. 26-65
53 W. Jackson Blvd. :: Chicago, Ill.

FREE Sample Coupon

Diversey Manufacturing Company, Dept. 26-65
53 W. Jackson Blvd., Chicago, Ill.

Without any obligation please send me your FREE Sample Package of DIVERSOL. Also send me free literature telling all about this great NEW discovery.

Name
Address
State *R.F.D.*
Jobber

When writing to DIVERSEY MFG. CO. *please mention The Milk Dealer* or items of interest concerning the products, service or organization of the distributor.

The prestige of the newspaper in the home strengthens the morale of your own employees and extends even to the producer of milk. The advertising message is something that to my mind is very important. The advertising message in a newspaper is usually read under such conditions that prompt response to the appeal can be secured by the reader stepping to the phone or to the door. In other words, you are giving the story under such conditions that the action can be taken. The customer may phone you. It is right in the home. Or, she may call in the man in the neighborhood.

Here is the second big thing. Newspaper advertising talks to a greater market for milk than the buyers themselves. The mother may buy the milk for the home, and she does. She may buy it, but she may not drink it herself. She is therefore guided in her purchases by the opinions of all the members of the family. Now, to enlarge on that point. I mean just exactly what I say. The woman buys the milk, but only about three out of ten drink it. If the taste is the basis of judgment, then if we talk to the twelve-year-old daughter, or son, the father or the grown up man, who is eating in the home, he may say, "I like this or that. Why don't you try this? Why don't you try that?" In other words, most women buy and cook and prepare to please the members of their family and the newspaper advertisement reaches the young as early as six or eight years, through all ages, and they, after all is said and done are the users of the milk. The market for milk is constantly changing by births, deaths, marriages, moving and other factors. An interesting message consistently presented is unconsciously influencing this ever changing market by consolidating the present basis of paving the way for the growing up market. I do not know how many of you men have found out or know what your turnover is of customers. We talk of labor turnover. What percentage of your customers turn over, move, break up housekeeping, stop being buyers in the course of a year? If you have made the investigation, your hair will be grayer the next morning because the figure is one that is really worthy of serious consideration. Then you are unconsciously and constantly making an impression regarding your product or your service to the market that today may not be buying and tomorrow it may. Here is probably the greatest value of newspaper advertising of all, and that is this; that it confirms the implied contract. Get it. You do business. You buy goods and you sell goods. You buy them on a contract and you sell on a contract, price, delivery, and so forth, mentioned. Newspaper advertising confirms the implied contract which every reputable milk distributor must maintain with its public that he will give them good goods and adequate service on a fair margin of profit. It carries with it when you buy space and constantly remind the public of that obligation. And what is more the perfectly righteous belief we have in our own superiority set down in black and white, is by far the most effective of any known agent in making us constantly improve to be as good as we tell them that we are. Ninety per cent of the value of the advertising is not on some customer that you have got, but it is on those that you serve. It stills gossip regarding your product. It makes your own men tell what you have told by signing your name to it, and it helps in that way to maintain a uniform presentation of sales argument.

Now, do not gather from this paper that I believe in newspapers as the only medium. I do not. The other media will be discussed here. It is a question of the conditions surrounding each man's own business, his own locality and so forth, but with good products and good service, well trained route salesmen, because without the goods and the man, no advertising can ever succeed. A sound advertising program for any distribu be built with newspapers carrying the burden tailed sales argument, with billboards, signs, cards carrying the slogan or name and suggest vertising by specific appeals to your own custom specific grades, for certain products. Prepar executed, such a program will pay its way and the permanency of profits in years ahead. The bi to remember is that there is nothing hard about tising. There is nothing mysterious about it. T trouble is that I believe that we do not give a time to the preparation of copy as we should. want it in the morning. We sit down and write we shoot. We forget that we are so wrapped products and all the things that we do, that we paint something that is in it that the custome never see in a hundred years. She only sees the She drinks it or eats the dairy products because or tastes good and satisfies her hunger.

No advertising can ever succeed without fi goods, second service, and route distribution. vertising of any kind, will ever do, is hasten the ment and growth of a company that would ha ceeded without it. It can never do more.

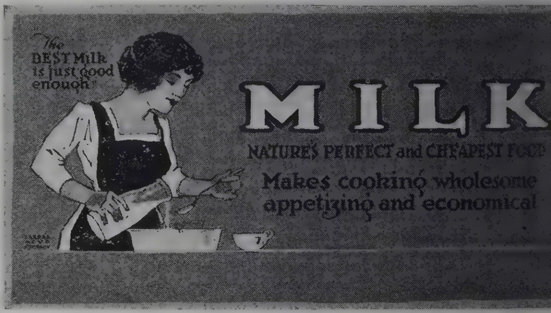
ADVERTISING WITH CAR CARDS.

By D. S. Horton.

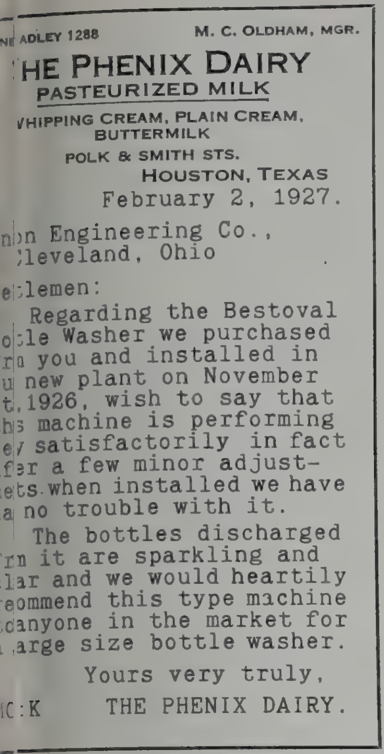
Most of us are quite familiar with this me publicity. The old saying, "Everybody rides an body reads," is very true.

Car card advertising is a big space medium. cards, with the exception of a few special cases standard size, being 11x21 inches. Compa magazines, the car card is about twice as large a page in the national weeklies.

Preferred position for one's advertisement i thing that every advertiser desires when he uses s periodicals. Back covers, food pages next to matter, are preferred positions, much sought aft advertisers usually don't get these special positi cept by paying an extra cost. In the car card the situation is entirely different. The standar are not scattered about the interior of the car, one preference over another. Instead, they are laid an orderly manner. They are placed end to e single line, parallel with the length of the car. count of the location of the cards they cannot be hidden from view in any manner. There are no " positions." Each card is a dominant, full size tisement. A feature worth mentioning is the fa the companies leasing card space generally make fort to place a light card next to a dark one, a versa, and to keep the competitive cards separat


"The BEST Milk is just good enough"
MILK
NATURE'S PERFECT and CHEAPEST FOO
Makes cooking wholesome appetizing and economical

The size of the advertiser's card is not affected size of his appropriation. Each card is of the sa and remains so, regardless of the amount of mo advertiser may spend. A small advertiser's card as large as the national advertiser, spending tho The only difference there can be is the number of which the card is placed. One is in good compa



ADLEY 1288 M. C. OLDHAM, MGR.
HE PHENIX DAIRY
PASTEURIZED MILK
HIPPING CREAM, PLAIN CREAM,
BUTTERMILK
POLK & SMITH STS.
HOUSTON, TEXAS
February 2, 1927.

on Engineering Co.,
leveland, Ohio

lemen:

Regarding the Bestoval
le Washer we purchased
n you and installed in
new plant on November
,1926, wish to say that
s machine is performing
satisfactorily in fact
er a few minor adjust-
ts when installed we have
no trouble with it.

The bottles discharged
n it are sparkling and
ar and we would heartily
ommend this type machine
anyone in the market for
arge size bottle washer.

Yours very truly,
:K THE PHENIX DAIRY.

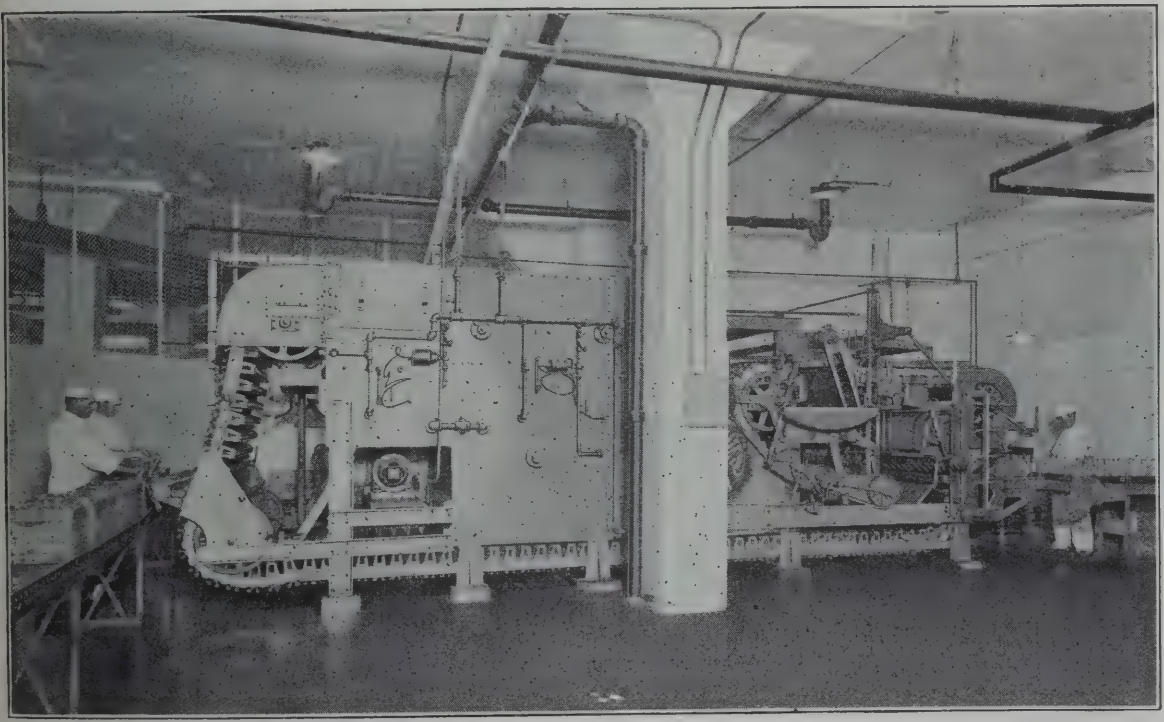
MORE PROOF!

of the SUPERIORITY of the

CLEVELAND BOTTLE WASHER

MR. OLDHAM of the Phenix Dairy, Houston, Texas, after having carefully studied all makes of bottle washers for more than three years, decided on the **CLEVELAND** for his new plant, which is one of the largest and most up-to-date in the South.

He was thoroughly convinced that the **Cleveland Method of Pressure and Dormant Soaking in Conjunction with Clean and Sterile Brushes** would give him the cleanest and most sterile bottles to match his unexcelled product. Furthermore he knew that the Cleveland Bottle Washer was the machine for service due to its rugged construction and simplified design and this has been conclusively proven by the fact that **The Phenix Dairy erected and put their bottle washer into operation themselves without the assistance of any representative of the Union Engineering Co.**



No. 120—CLEVELAND BEST-OV-AL in The Phenix Dairy, Houston, Texas

Guaranteed Cleaning Efficiency 99 9/10%

Clean and Sanitary Soaking Solutions with from 30 to 50% Less Alkali.

Clean and Sterile Brushes.

HE UNION ENGINEERING CO.

CLEVELAND, OHIO

LIST OF AGENTS

eco Dairy Supply Company	Cincinnati, Ohio
se & Company	Indianapolis, Indiana
er-Bassett Company	Philadelphia, Pennsylvania
ins Creamery Supply Company	Chicago, Illinois
Jensen Creamery & Supply Company	Oakland, California
Meyer-Blanke Company	St. Louis, Missouri
Wright-Ziegler Company	Boston, Massachusetts
Hughes Sales Company	Seattle, Washington

When writing to THE UNION ENGINEERING CO. *please mention The Milk Dealer.*

as many very famous food products are advertised in the cars regularly. There is ample room on a car card to print the product's name in big, bold letters, and at the same time tell a brief sales story. The messages on the cards are selling facts boiled down to their ultimate meaning, and presented in such a way that the reader can absorb them in a single glance. All colors can be used, and this is one of the big features of the medium. Really fine art work and good lithography attracts more than passing attention. Car cards are read voluntarily, and they are a relief from the tedium of traveling and waiting. We frequently find ourselves studying them.

We receive many letters about the cards. A particularly good art design will bring requests for copies. Many school teachers use car cards in their classes.

Repetition is a big feature in car card advertising. They are there every hour of the day. A system of transfers, or changing from express trains to locals—the cards are always there to greet the passenger. Riders are numbered by the million. In New York City the Interboro Subway and Elevated system transports over three million passengers a day, or more than 1,100,000,000 a year. This is a tremendous circulation.

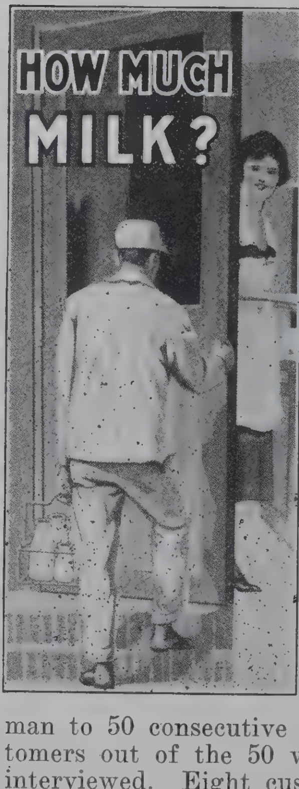
That car card advertising pays is almost self evident when we see in a car such names as Heinz, National Biscuit, Maxwell House Coffee, Colgates, etc. There is but one conclusion to come to, and that is, that car card advertising is a profitable medium.

Billboards and outdoor displays, the other section of our subject, is something else again—and we will touch on them in the future.

PAMPHLETS.

By F. R. Moore.*

This is a subject that is quite broad and it took a lot of work. I do not know as I have got much out of it to help you fellows, you ladies and gentlemen, but we will see what we can do.


HOW MUCH MILK?

Now, in order to get this information, I conducted surveys on pamphlets and bottle hangers. We have not gone into the pamphlet way of advertising milk very strongly. Consequently I took a pamphlet from the Franklin Chocolate Malted Milk Company, one that we used, and a bottle hanger from the Franklin Chocolate Malted Milk Company, and a pamphlet from the National Dairy Council, which pamphlet is very good.

Survey on Franklin chocolate malted milk bottle hangers conducted in Grandview, a suburb of Columbus, O. This territory is not considered a high aristocratic neighborhood, but is generally thought of as containing a very good class of people, mostly home owners.

There were 50 hangers distributed in this neighborhood by a competent route foreman to 50 consecutive customers. There were 42 customers out of the 50 who received hangers and were interviewed. Eight customers out of the 50 were not at home, and consequently were not interviewed

These questions were asked of the people: This route foreman passed the pamphlets and bottle out and we afterwards interviewed each person.

Question number one. Did you receive bott er? Forty-two customers out of 50 received Thirty-two customers out of forty-two receivin hangers, read them.

Question number three. Why did you rea hanger? Thirty-two customers said they read t cause they were interested to see what we wer tising. Ten receiving them did not read them, that they were not interested or did not have ti

Question number four. Do you think bottle are a good way to advertise? Strange to say a two persons interviewed said they thought thi good medium of advertising, although ten of t not read them.

Question number five. Do you dislike bottle on your bottles of milk? This was answered by a two customers that they did not object. The asked that was that I have heard our men expl people did not like advertising because it littere porch and yard, and I wanted to find out if that absolute fact.

Question number six. Did you purchase a Franklin chocolate malted milk after reading Twenty-one customers out of forty-two receiv hangers purchased a can.

Question number seven: Do you think you chase later on? Of course, we cannot tell wheth did or not. Thirty-two customers who receive hangers said they thought they would purchase l

Question number eight: Which do you r most, bottle hangers or pamphlets? Twenty-one forty-two persons said they read bottle hang most, although there were only thirty-two who them. They thought they were picked up by th wife due to the fact that they were over the b milk.

The final data on these hangers in this pa neighborhood is that there were 42 per cent sale distribution of advertising. This we consider qui and with future prospects of twenty-two per cen

Some of this, of course, you will have to o I put it down just as I got it, because I did not patch anything. Forty-two of those persans sa were good advertising, but only 32 of them read

Survey on Franklin chocolate malted milk ha another territory of the south end of the city whi sisted of a class of people mostly foreigners.

Fifty bottle hangers were passed out to fif secutive customers. In this survey the same was asked. Did you get bottle hangers? Forty out of the 50 were interviewed. Thirty-seven received the hanger.

Question number two. Did you read bottle Thirty-five out of these thirty-seven read them.

Why did you read bottle hanger? Thirty-fi various reasons, such as they were interested in milk advertisements as food, also they were int in the advertisement of malted milk as a food. who did not read the advertising were such th could not speak or read the English language.

Question number four. Do you think bottle are a good medium of advertising?

Thirty-nine out of forty said they thought the

Do you dislike to see bottle hangers on your of milk? Nobody objected.

Did you purchase a can of Franklin chocolate milk? There were five purchases in that territor

Do you think you will purchase later on? said they thought they would.

Which do you read the most in advertis

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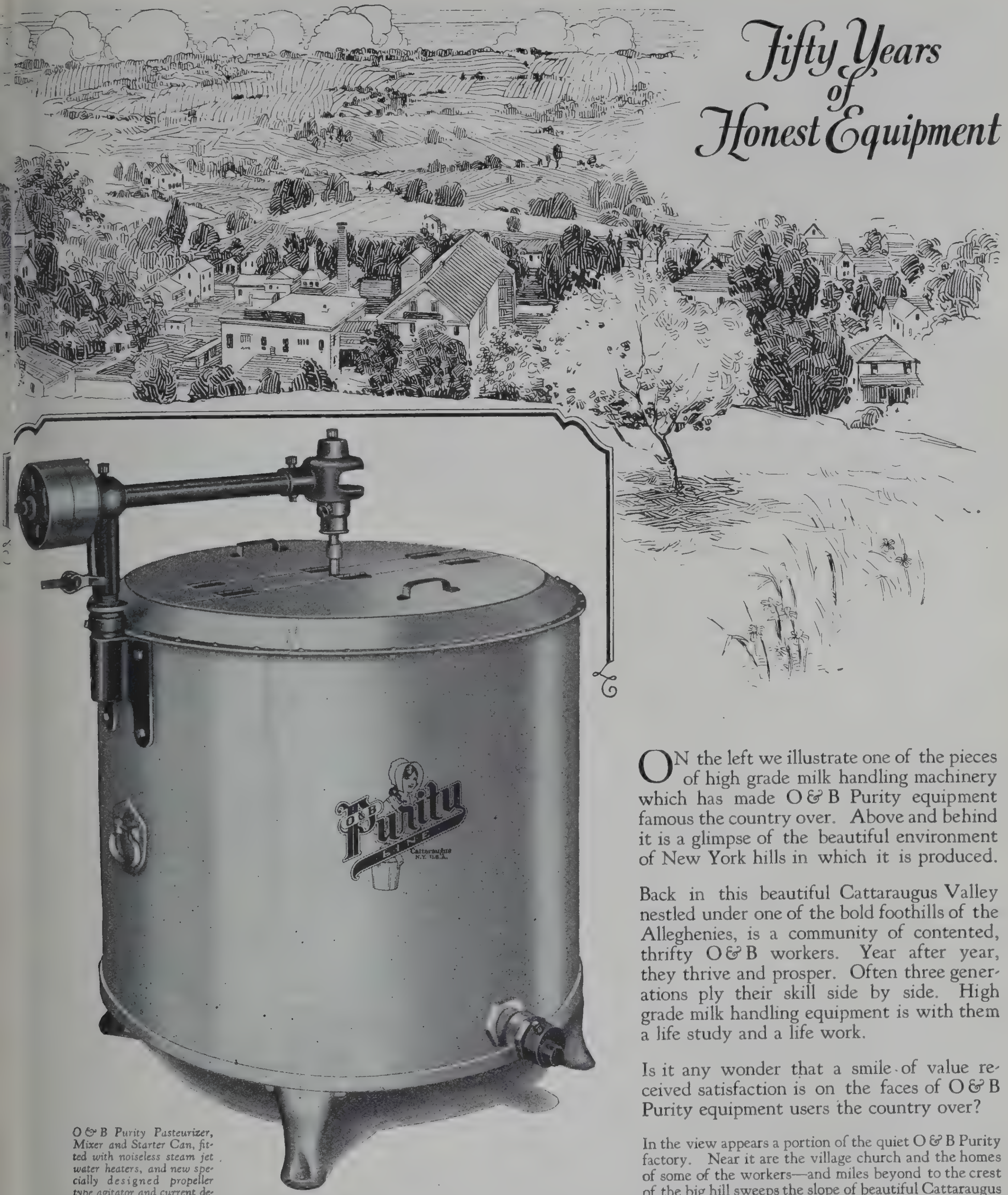
* Moores & Ross, Inc., Columbus, O.



Fifty Years of Honest Equipment

O & B Purity Pasteurizer, Mixer and Starter Can, fitted with noiseless steam jet water heaters, and new specially designed propeller type agitator and current deflector.

ON the left we illustrate one of the pieces of high grade milk handling machinery which has made O & B Purity equipment famous the country over. Above and behind it is a glimpse of the beautiful environment of New York hills in which it is produced.

Back in this beautiful Cattaraugus Valley nestled under one of the bold foothills of the Alleghenies, is a community of contented, thrifty O & B workers. Year after year, they thrive and prosper. Often three generations ply their skill side by side. High grade milk handling equipment is with them a life study and a life work.

Is it any wonder that a smile of value received satisfaction is on the faces of O & B Purity equipment users the country over?

In the view appears a portion of the quiet O & B Purity factory. Near it are the village church and the homes of some of the workers—and miles beyond to the crest of the big hill sweeps the slope of beautiful Cattaraugus Valley.

Oakes & Burger Co. Inc.

ESTABLISHED 1873

CATTARAUGUS, N.Y. ERIE, PA., U. S. A.

When writing to OAKES & BURGER CO., INC., *please mention The Milk Dealer.*

pamphlets or bottle hangers? Thirty-one said bottle hangers and nine said pamphlets.

The final data on these 50 bottle hangers was 10 per cent sales and prospects though the distribution amounted to 14 per cent.

Now, there is considerable to this. I won't go through it all, because I will just read one of each survey and then give you the final data on all of it.

Then we conducted this final summary of the surveys. The final figures on these three sections by the route foreman was the distribution of 150 bottle hangers was 100 per cent due to the fact that a special man was on the job. Eighty per cent were received; sixty-five per cent of the bottle hangers were read; twenty-five per cent caused sales immediately; forty-two per cent possibilities of future prospects.

Out of 100 per cent distribution of pamphlets seventy-six of the pamphlets were received; forty-eight per cent were read; 18 per cent actual sales caused by pamphlets; 36⅔ possibilities of future prospects.

On the baby pamphlets of the National Dairy Council, 100 per cent were distributed. Out of this 100 per cent distribution, 70 per cent were received by customers; 48 per cent were read; five per cent of customers used more milk after reading. I believe that more were not read due to the fact that I believe they are a little large and have a little bit too much reading in them. That was the reason that a larger percentage was not read, although I am not authority to say really.

Now, on these pamphlets, we consider that there is always a lot of contention and trouble when you go and give them to your man to distribute, due to the fact that it is extra work, and they dislike to do it. You can't do it in bad weather. It must be on a day that is decent for them to be distributed. I, myself, am not very strong on pamphlets and more so since I have made this survey, but I do believe that a bottle hanger that has a short message has considerable good in it.

We conducted a whipped cream contest and we had bottle hangers explaining how to whip cream, and what good dessert it made, and of course, the men were very enthusiastic over this contest and they distributed these bottle hangers very good, and they made a big hit and caused us to sell quite a bit of double cream.

Now, in the summer I run a bread and milk ad on a real hot day on one of these bottle hangers. The message was short. It got there and I believe it did us a lot of good, and at that time there was a contest on. I believe that you must have, when you distribute any such advertising through your men, I believe that you must have them sold on it. The only way that you can have them sold on it, I believe, is to have a contest of some kind, for them to have a special reason for distributing them. Otherwise about 50 per cent of them will go into the sewer and stop the sewer up, or be dumped in somebody's front yard. There is an awful lot of money spent for pamphlets and literature that never reaches the house, and consequently can't do any good, but it does do good if you can give the men a cause to do it, and I believe the only way that can be done is like I said, to have a contest of some kind that will create a pleasurable cause for passing them out.

STORE DISPLAY ADVERTISING.

By F. T. Cook.[*]

In most instances the experiences of various dealers have been much the same. They have, of course, differed to some extent as conditions in all cities are not alike.

From responses I received to the questionnaires sent to a number of sales managers, I have concluded that money spent for store display advertising is well invested **only** when used in advertising ice cream or specialties such as butter, cheese and whipping c It can be used to advantage in an effort to encoura use of a delicacy, but not a necessity which is in dail

The Market and the Medium, published by the can Newspaper Publishers' Association, states a lows: "Market cultivation has become a standa phrase in national selling. It marks a comparative cent realization that it pays to sell merchandise and when people want it and have the money to bu

In advertising dairy specialties, the store displa vertising has an advantage over other advertisin bringing the modity advertis the attention o housewife at place where it c purchased, and time when she a frame of min ceptive for su tions of pur The question whether or no going to exc her money or line of credit for merchandise has predetermined. One obstacle to the sale has the been removed.

MILK
MILK
MILK FOR HEALTH

As to the value of a dollar spent in advertising termined largely by the number of people who se advertisement, location of display is a large facto

As a rule the grocer does not occupy a prom corner, and, unless it is at a busy corner, compara few people see the window display excepting patr that individual store.

Another problem to be solved is that of keepin appearance of the display in such condition as to credit to the business.

Our merchandise is perishable. If merchandis play is to be used, it must be renewed daily, and, treme weather, even oftener, or it becomes unsigh

If display cards or merchandise cartons are care must be taken to see that they do not become and fly specked. Dairy merchandise is so closely re to sanitation that extreme care must be taken to se the appearance is right or the display becomes strong adverse advertising.

Some firms use painted signs on windows. problem is to secure permission of stores in good l ties to use the window. The advertising value of a on stores located on back streets with poor surroun is questionable.

Mechanical devices showing action will always attention, and are good mediums of advertising at times as a large crowd passing the window can sured. However, unless there be a convention of kind which will attract unusual crowds, or the d can be placed at a transfer corner which is always the expense is rather out of proportion to the be derived.

One question to be decided in connection with display advertising is whether or no the dealer w to encourage store sales at a possible expense of wagon sales, or whether the store milk business sh only care for extra milk and cream which the hous may decide to purchase after the regular deliver been made.

It seems to be the opinion of many dealers with I communicated, that store display advertising w tend to divert wagon sales to store sales.

In conclusion, will say that I believe store di advertising can be used to best advantage by those are in the ice cream business. The average drug

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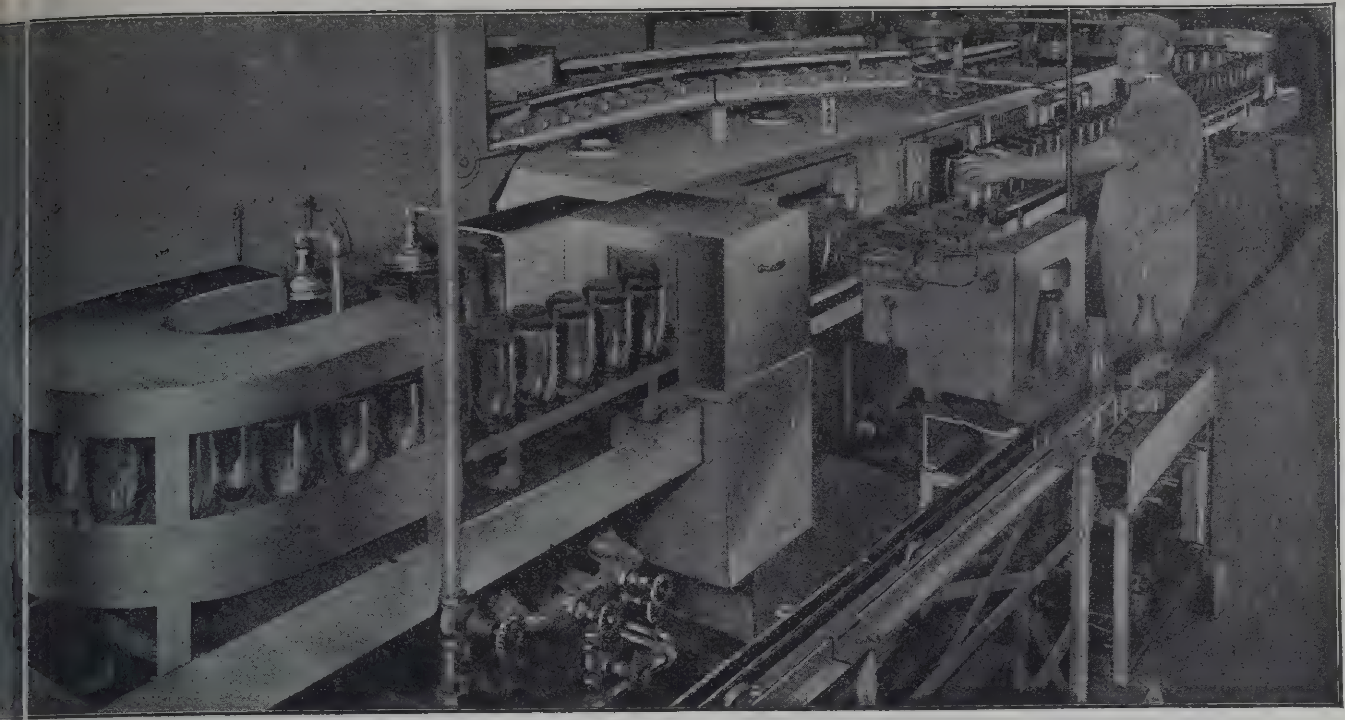
[*] Gridley Dairy Co., Milwaukee.



View of Miller-Hydro at the Roseland Dairy, Chicago, Ill.

The Great Step Forward in Bottle Cleaning Methods

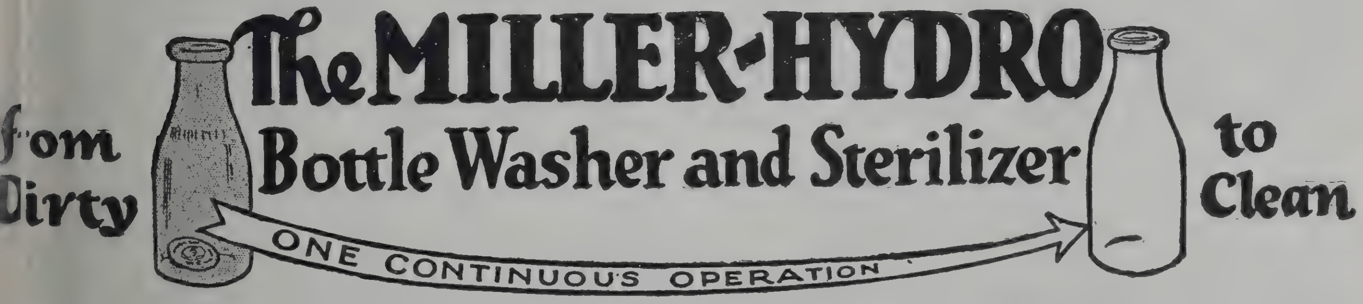
IN every large dairy the Miller Hydro will save several thousand dollars in salaries alone during the first year of its operation. It will completely eliminate bottle breakage and wastage even in handling an output of 2500 cases a day.

Figure what these savings will amount to in your own plant. Then consider along with the savings that over 3500 dairies, breweries and bottling plants of enormous capacity have pronounced the Miller Hydrostatic way of sterilizing bottles superior to any brush washing method that has ever been devised.

You can do away entirely with brush contamination, broken bottles and expensive replacements by installing a Miller Hydro. No other bottle washing machine made can equal its performance. It will pay for itself in your plant before you make the last payment.

Let us show you the many advantages of sanitation and economy that the Miller Hydro holds for you. Write today for complete information and list of large users.

THE MILLER MANUFACTURING CO., Bainbridge, Ga.
Chicago Office: 1305 Monadnock Block
New York Office: 105 West 40th Street



When writing to THE MILLER MANUFACTURING CO. *please mention The Milk Dealer.*

Power, Speed an

$670
¾-Ton Chassis F. O. B. Detroit

$1245
1½-Ton Chassis F. O. B. Detroit

$885
1-Ton Chassis F. O. B. Detroit

$1445
2-Ton Chassis F. O. B. Detroit
Dual Rear Wheels Optional at Same Price

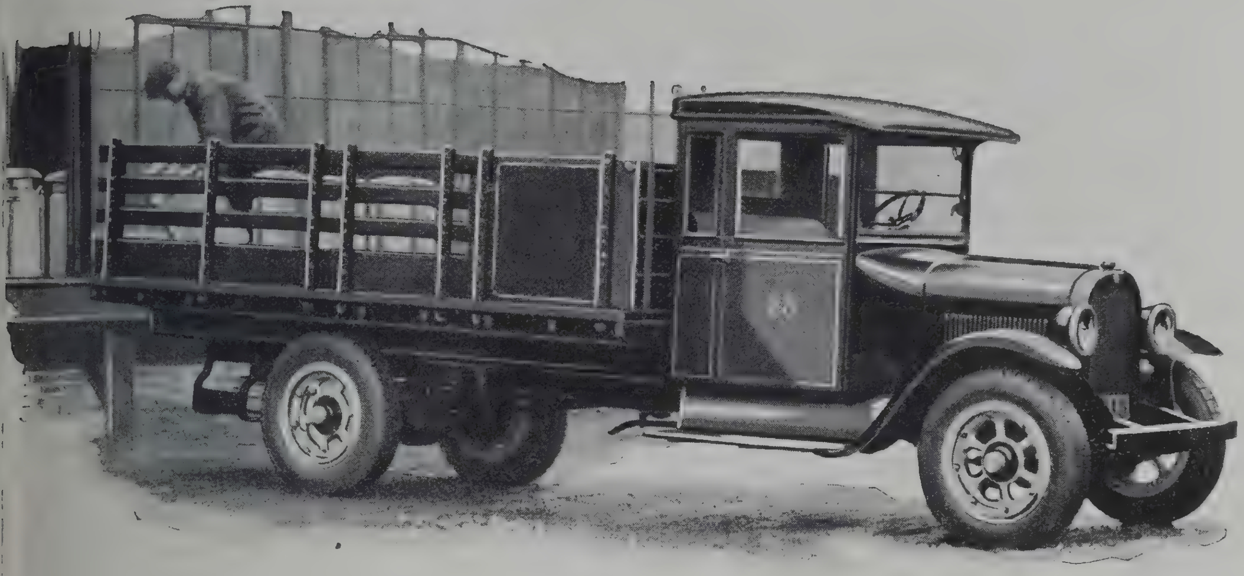
Quality—
Volume—
Low Price

They Are Good
67,293
were sold last year

GRAHAM

SOLD BY DODGE BROTHERS
DEALERS EVERYWHERE

Operating Economy



Whatever the need, there is a Graham Brothers Truck or Commercial Car to meet it—speedy, powerful, dependable.

Thousands of them are at work day after day reducing the costs of handling milk and milk products.

Body styles to fit your business.

Service from Dodge Brothers Dealers everywhere.

GRAHAM BROTHERS
EVANSVILLE – DETROIT – STOCKTON
A DIVISION OF DODGE BROTHERS, INC.
GRAHAM BROTHERS (CANADA) LIMITED, TORONTO, ONTARIO

BROTHERS
TRUCKS

When writing to GRAHAM BROTHERS *please mention The Milk Dealer.*

where ice cream is sold is usually better located than the average grocery. Therefore, the advertising would be displayed to better advantage and reach a greater number of people than would grocery store displays.

Unless introducing a new commodity or featuring some seasonable commodity, the dealer who is strictly a milk and cream distributor will do better to invest in other forms of advertising.

PHONE OPERATORS AND ORDER CLERKS—THE VOICE WITH THE SMILE WINS.

By F. E. Boyd.*

The telephone is still a comparatively modern instrument and most of us have much to learn to give it its most efficient scope. Telephone companies are demonstrating its facility in developing business as well as its low cost. In spite of aggravating delays and mistakes in handling calls which the telephone service is still subject to, it would be impossible to conduct modern business without it, and because of this it deserves considerable attention. When the prices of a number of merchants are equal, **service** is the **deciding selling** factor.

I presume we are all agreed on these general principles but, judging from personal experience, many firms have not given the subject the detailed attention which its importance warrants. One common fault is to hire someone without telephone experience and put them at a desk with the instructions "Take care of the telephone." Under such conditions it is not to be wondered at that telephone conversations are sometimes unsatisfactory. Careful instruction is essential to intelligent telephone operation.

There are several things which we can arbitrarily say cannot be omitted from the requirement of a satisfactory telephone salesman; and it should be remembered that everyone in our factories who is called upon to answer the telephone is a potential salesman.

First, I think, comes clear enunciation. An operator is of no use if what is said cannot be understood.

Second is courtesy. It is impossible to estimate the amount of good will a concern receives from the courtesy of its employees, but it is a very appreciable amount and well worth the time and trouble taken in assuring yourself that your employees exhibit that characteristic. Insist that it be cultivated, and remove anyone who will not do so. Many serious complaints may be satisfactorily adjusted through a courteous attention to the recital of the complaint and the assurance that, if possible to prevent, it will not be allowed to happen again. Many a trivial complaint has resulted in a lost customer because of the manner of receiving it.

Under courtesy, I would include a pleasant voice with some snap to it. Judging solely from the sound of their voices, some operators have at least one foot in the grave. On the other hand, too much slang and a slip shod enunciation must be avoided. Sometimes a telephone call is just an interruption in an interesting conversation in the office and the operator attempts to answer the call with a mind full of other affairs, or tries to maintain a double conversation usually with very poor results.

Third, the telephone should be answered as soon as possible after ringing. We are moving in a speedier world than our fathers and must catch up with the times in answering. We, none of us, like to wait at the telephone and won't wait very long. Also, the operator doesn't ring many times before reporting "They don't answer," and that lost call may mean a lost order, perhaps even a series of orders.

When the receiver is lifted off, the name of t
cern should be spoken clearly and if there are
more departments, the name of the department
follow the firm name.

As far as possible, the customer should be allo
do the talking except as may be necessary to k
conversation close to business. One particular
where the worth of an operator is shown is in the
ty with which calls can be taken without sac
courtesy or full and accurate information. If
orders, questions should be asked which will brin
information without waste of time. The order n
taken accurately, however, and accuracy is, I thi
fourth consideration. Having given an order, t
tomer expects to have it filled and is not inclined
cuse failures. Quantity, variety, time and plac
be exact and written so that the order may be r
whoever may be responsible for shipping and deli
The operator should also be accurate in the infor
given and after a short experience should know t
eral trend of questions asked and keep posted o
matters so that there is no delay in answering.

There are undoubtedly times when it is alm
possible to keep one's temper. Remembering, ho
that "The customer is always right," try to la
yourself when you feel like cussing and you'll
prised how many times that clears the air. If
that, it is impossible to hold in any longer answer
ing, "I am sorry that you feel that way." It is i
of trouble that the good operator shines most,
rush spells or at times when things are not going s
ly, by answering the telephone in the same cool,
ous manner, but the day after day calls are just
portant, perhaps more so, as we are expected to gi
ter service during normal times.

Expect super-service from your operators, b
until you have told them clearly and in detail, jus
you want, and you must expect to be able to demo
what you ask. In fact, one of the best ways to tr
new operator is to have them listen to one who
you want with the proper explanation as to w
want it.

And finally, all conversation with customers
end "Thank you for calling" or simply "Thank

PRESENT WAGE AND WORKING AGREEM SATISFACTORY.

According to an announcement made at a
meeting of the local union, held at Boston, Mass.
bers of Milk Wagon Drivers and Creamery W
Union and representatives of the majority of the
milk dealers of Greater Boston, have voted to ren
old wage and working agreement for another yea

The drivers, inside men and chauffers of th
have been working on a straight commission ba
some years past, which will be continued. Und
system, the bulk of the men average approximate
per week and receive three days off a month, with

James H. Dunn is the president of the local, w
situated at 995 Washington St. About 800 me
concerned in the negotiations.

CONDON NOW GENERAL MANAGER.

H. R. Condon, formerly an officer of the Pennsy
Railroad Co., was elected general manager of the
ican Mond Nickel Company, effective April 1, a
make his headquarters in the Century Bldg.,
burgh, Pa.

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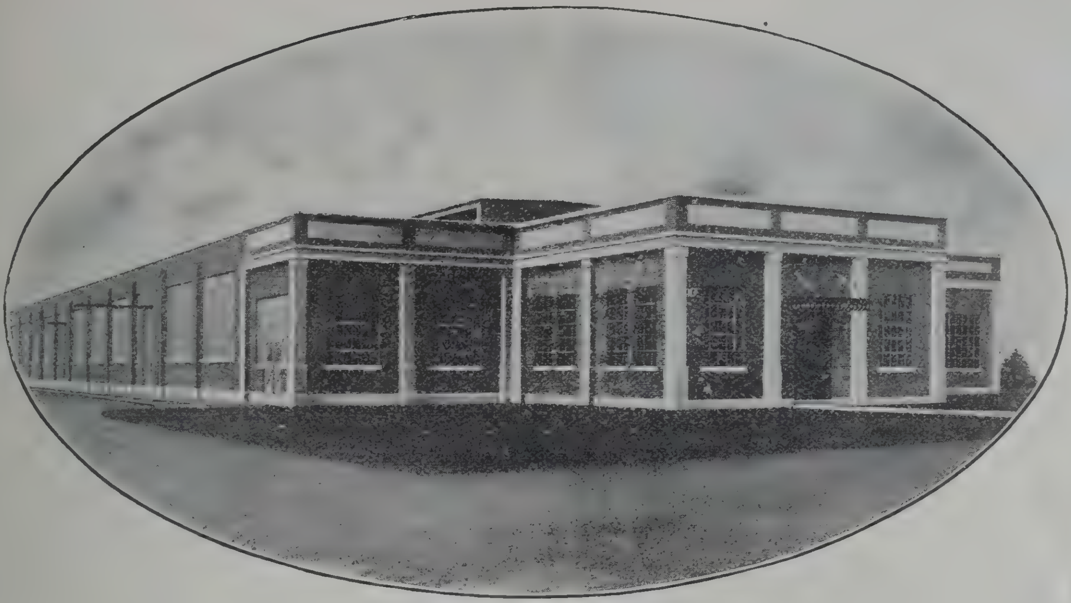
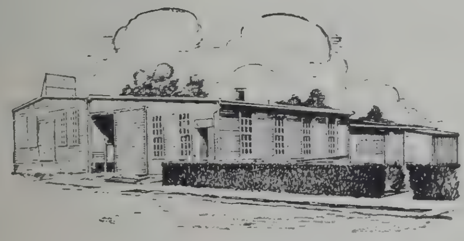
* The F. E. Boyd Dairy, Everett, Mass., at Detroit convention of International Association of Milk Dealers.

1917 1927



The Victor Cooler Door Plant—Today, 42,000 Sq. Ft. Floor Space



Victor Cooler Door Company Plant in 1917—
4,200 Sq. Ft. Floor Space

NOTHING but the superiority of a definitely better product could justify and sustain the unusual growth and development of the Victor Cooler Door Company.

From a few modest frame buildings, in 1916, this company has grown and expanded until it now requires more than ten times the amount of factory space to handle the demand for standard Victor products.

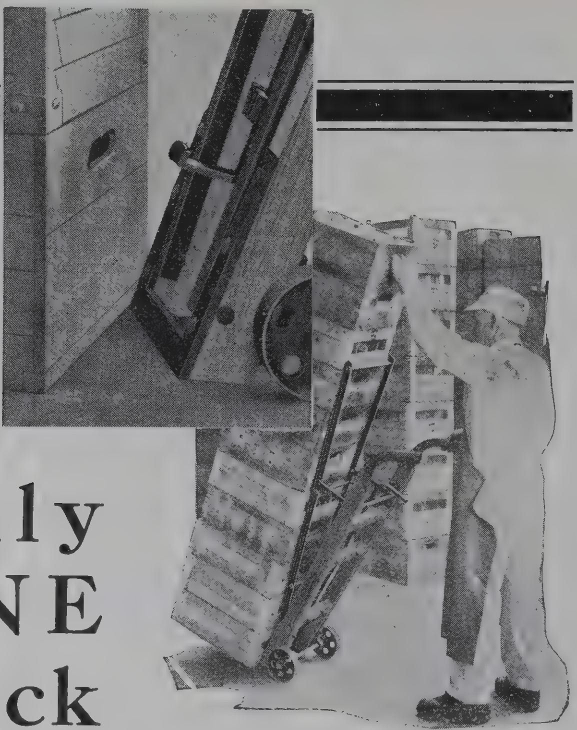
Naturally, the product itself must justify this condition and we refer, with modest pride, to the comparison of the two factory buildings—our former plant and the present one—as shown in this little folder.

Since comparison is the true unit of value, we suggest that your requirements, as they may apply to our various products, be checked by the accepted standard of Victor specifications.

A postcard will bring you complete information as to the possibilities of Ice-Conservation in your plant, by the use of Victor Standard Refrigeration Products. Address all correspondence to Hagerstown office.

VICTOR COOLER
DOOR CO., INC.

Main Office and Plant
HAGERSTOWN, MD.
NEW YORK, N. Y. CHICAGO, ILL.



Only ONE truck can do this work--

Nutting

Milk Case Truck

You can place stacks of milk cases snugly together without extra shoves. You can quickly load on a stack without first tipping it back to get the truck nose under—the Nutting has no nose.

You simply grab and go. The adjustable hook slips into the hand-hole of the bottom case. The rack helps to support and balance the load. This patented truck is giving hundreds of milk plants a quicker, easier way to move milk cases anywhere about the plant. It handles all makes and sizes of milk cases. Ask your jobber or write us for catalog C.

Nutting Truck Co.
1289 Division St. Faribault, Minnesota

Floor Truck Leadership Since 1891

SHORT COURSES FOR SUPPLY SALESM

Short courses for 1927 for supply salesmen ha announced by the Universities of Kansas, Illin Pennsylvania. The dates are as follows: Kansas, 1 to 13; Pennsylvania, August 15 to 27, and Illino tember 5 to 17. Only a limited number can be modated.

Schedules are not completed yet, but here is cation of subject matter. (The milk supply s may concentrate on milk plant subjects—the ic machinery salesman on ice cream constituency an ufacturing methods—the creamery equipment s on butter plant processes and technique—etc., et

Composition and properties of milk; testing acid testing; testing cream; neutralizing cream; ice cream; bacteria, what are they? fermentation enumerating bacteria in milk; standardization and cream; ingredients used in ice cream; com of ice cream; calculations of the ice cream mix; r ardization of the ice cream mix; processing th freezing ice cream; handling and processing milk; pasteurizing and bottling milk; milk plant tion—I; milk plant operation—II; soft cheese m cheese making; churning process; cream ripeni starters; churning directions; milk condensi cream and sherbet formulas; freezing exercises homogenizing and viscolizing studies, (2) homog and viscolizing studies—continued; (3) ice crea varying fat content; (4) ice cream with varying solid content; (5) ice cream with varying sugar c (6) the use of binders and improvers; (7) the use tine; (8) the use of egg powder and flake egg; use of egg.

⁂

PROF. HATCH GIVES INTERESTING ILLU TION OF BLUE TEST AT ANNUAL MEETIN MILK ASSOCIATION.

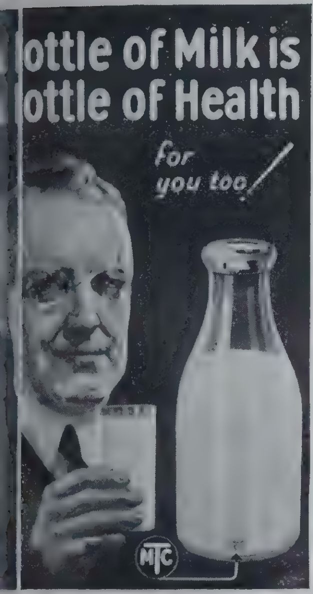
The principal speaker at the annual meeti banquet of the Wisconsin Milk Producers and Ad ment Association which was held at the Conway Appleton, Wis., was Prof. K. L. Hatch, of Madis

Prof. Hatch traced the development of the da dustry from the time the milk producer milked hi and delivered his milk to customers in the vil city, to the present time with its complexity of mi duction and distribution. Prof. Hatch mention butterfat test used to determine the quality of mi the sediment test used to determine the degree of liness in handling. He then gave an illustration way the lately invented blue test, which is used termine the bacterial content of milk, works. Hatch said in effect that if one throws yellow c a patch of ground, the surface changes to a yellow A flock of chickens finding the corn, would soon the surface to its original color, the exact time re depending upon the number of chickens and the a of corn on the ground. He then poured a blue into several test tubes containing samples of mil as many bottles which gave the milk a blue colo bacteria acting upon the coloring matter in the s of milk in some cases very soon restored the sam their characteristic color as the chickens were su to restore the original coloring of the surface by p up the corn. The number of bacteria in a sample under test is determined by the time required in moval of the coloring matter from the sample of

⁂

You cannot afford to miss a single copy of Th Dealer. Have you sent in your renewal?

How Large Michigan Dairy Kept Milk Sales Jumping



ut this Attractive Poster on our Wagons and Windows. Get your supply now.

"WE HAVE found it profitable to use Thatcher Superior Quality Milk Bottles and to be identified with the Thatcher slogan "A Bottle of Milk Is A Bottle of Health," writes the Freeman Dairy Co., Flint, Michigan.

"We use Thatcher Posters on our two hundred wagons and trucks. These posters, plus Thatcher National advertising have done much to increase public interest in milk in this section. This interest has been reflected in our sales. In one year, our milk sales increased 10%."

You, too, can increase milk sales in this simple, easy way. And it costs you absolutely nothing. Thatcher users save money in the long run!

"MORE TRIPS PER BOTTLE"

The most important item in buying milk bottles, is the final cost per bottle to you. The first cost or purchase price means little or nothing to you. From the actual experience of dairymen and from exhaustive laboratory tests, it has been definitely proved that Thatcher Superior Quality Milk Bottles will give you more trips per bottle. For Thatcher bottles are tougher, more uniform in quality, have a better distribution of glass, and consistently perform better in actual service than any other bottle made.

Specially designed lehrs, used exclusively by Thatcher, help to give Thatcher Bottles that Superior Quality and wear-resisting toughness not found in ordinary bottles. The Thatcher Trademark is blown on every Thatcher for your protection and guarantee.

Then too, millions of milk users see and read the celebrated "A Bottle of Milk Is A Bottle of Health" advertisements of Thatcher Bottles in The Saturday Evening Post and Good Housekeeping Magazine. If you want to increase your milk sales, fill in and mail the attached coupon. It will pay you to act at once.

THATCHER MANUFACTURING COMPANY, Elmira, N. Y.
Operating several plants throughout the country, each strategically located and devoted to making Superior Quality Milk Bottles. Prompt, efficient service—always.

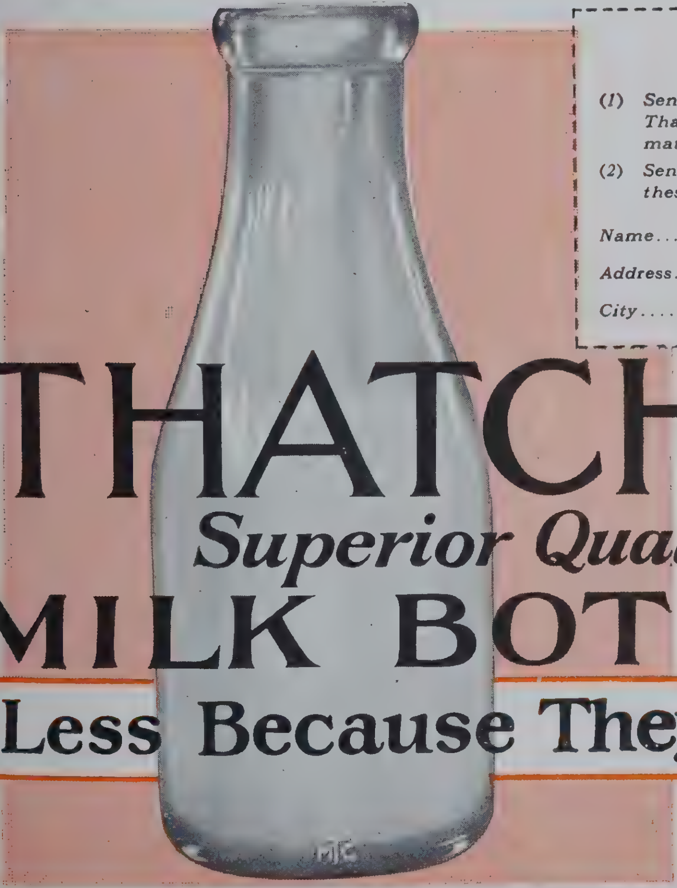
Mail This Today

THATCHER MFG. CO., Elmira, N. Y.

(1) *Send me prices and further information regarding Thatcher Superior Quality Milk Bottles. We use approximately.............bottles a year.*

(2) *Send me..........Thatcher Posters. I intend to use these Posters on my wagons........, windows........*

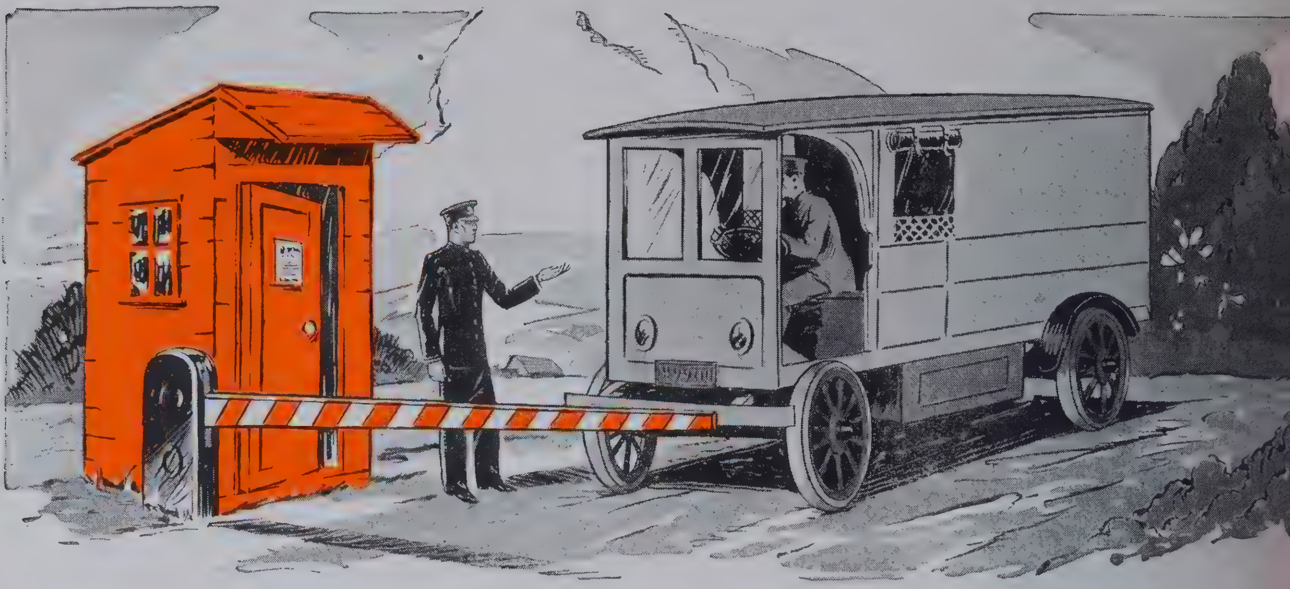
Name..
Address...
City................................*State*...................



THATCHER
Superior Quality
MILK BOTTLES
Cost Less Because They Last Longer

Tested and Approved 2517 Good Housekeeping Institute Good Housekeeping Magazine

When writing to THATCHER MANUFACTURING COMPANY *please mention The Milk Dealer.*



Will you continue to pay the toll

Excess battery weight is expensive. It acts as a direct toll charge against your profits. It is a toll that you have to pay just so long as you continue to carry the unnecessary load.

Why not free your balance sheet from this handicap and increase your profit? An Edison Battery for a two-ton truck weighs nearly *a thousand pounds less* than any other battery on the market. There's a half ton added to the pay-load capacity of every truck in your service, and the gains with lighter or heavier vehicles are proportionate.

The Edison Battery is the only one that can offer this advantage because it is the only battery of commercial importance made of steel, on an entirely different principle—*and light weight is but part of the picture.*

Longer life, greater strength, freedom from capacity losses and corrosive fumes, low maintenance and dependability have put Edisons in the battery compartments of over 61% of all battery-powered transportation equipment in the country.

EDISON STORAGE BATTERY COMPANY, ORANGE, N. J.

Thos A Edison
Built like a Watch—Rugged as a battleship

Edison

STEEL-ALKALINE

TRUCK BATTERIES

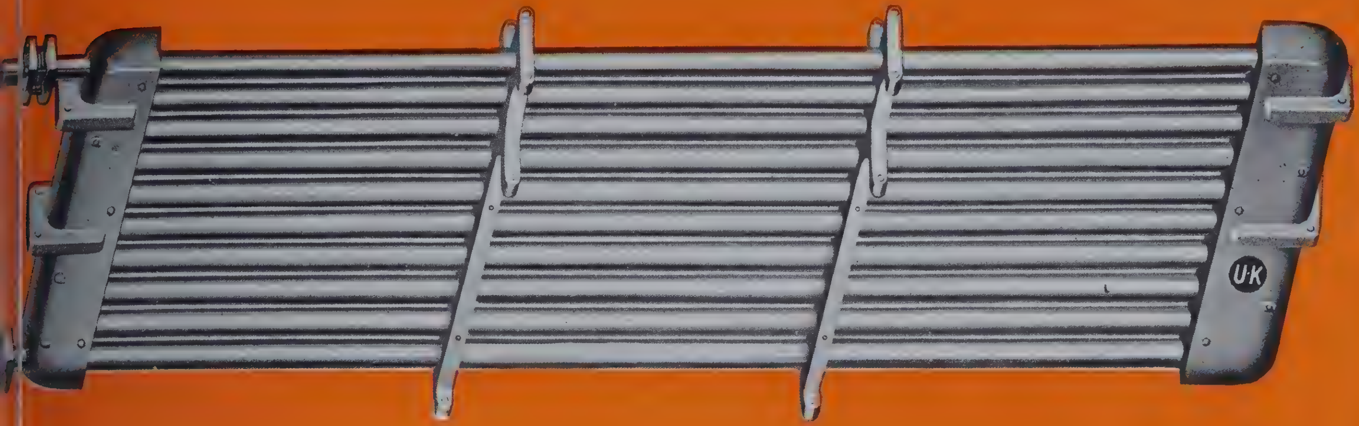
Thomas A. Edison is the World's largest manufacturer of storage batteries for motive power purposes (industrial trucks and tractors, street trucks and mine locomotives) although the Edison Storage Battery Company has been in this business less than nineteen years.

ATLANTA BOSTON BUFFALO CHICAGO CLEVELAND DETROIT HUNTINGTON LOS ANGELES
NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH SAN FRANCISCO SEATTLE ST. LOUIS WASHINGTON

Export: 26 West Broadway, New York *Canadian Distributors: International Equipment Co., Montreal, Quebe*

HAUL MORE FOR LESS MONEY

When writing to EDISON STORAGE BATTERY COMPANY *please mention The Milk Dealer.*



The Last Word in
Direct-Expansion Coolers

U-K Direct Expansion Sections have been pioneers in the development of this phase of milk cooling. A direct expansion section on a tubular cooler utilizes ammonia gas direct from the refrigerating machine, requiring no brine, brine tank and pump, etc. If operated with reasonable attention such a section is distinctly economical.

For ice cream plants direct expansion sections are quite easy to install and prove more satisfactory, everything considered, than increased capacity in brine sections, whenever it's necessary to add cooling capacity to the present equipment.

U-K Direct Expansion Sections are made of 2 inch steel tubes WITH A NICKEL SILVER TUBE DRAWN OVER THEM. All U-K Direct Expansion Tubes are made with them. Such construction is far superior to the tinned steel tubes or tinned copper drawn over steel commonly used. Frost on the pipes is reduced to a minimum. Nickel silver will not wear off, nor rust.

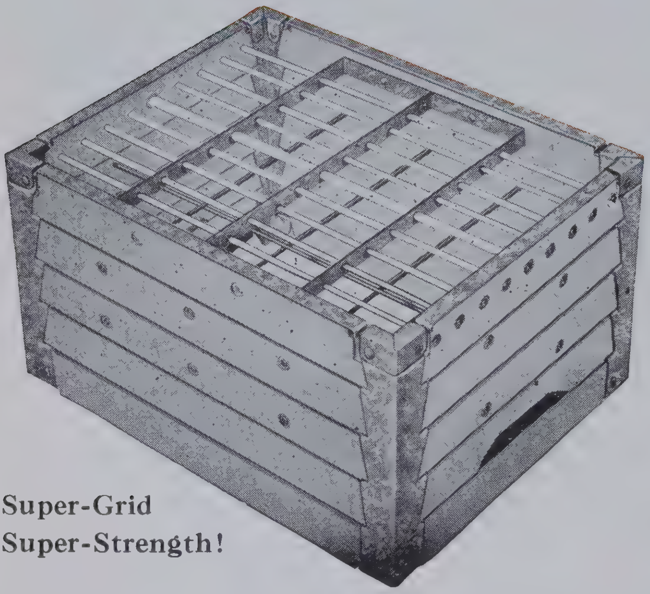
These Coolers are made of the solid surface type, and the joints are all welded and are guaranteed against any leakage whatever. The ends are covered tight with a U-shaped casting of brass, as well as supporting yokes in center of Cooler.

Summing up we do not hesitate to state that this Cooler is the finest and highest grade Cooler that has ever been made — being complete in efficiency, durability (will last forever) and everything that is required to enable us to present the highest quality Cooler that has ever been offered.

Uhlmann-Kinsey Co., Inc.

Manufacturers and Dealers in
MILK MACHINERY
25-27-29 South 20th St. PHILADELPHIA, PA.

"Woolsey" Use



Super-Grid
Super-Strength!

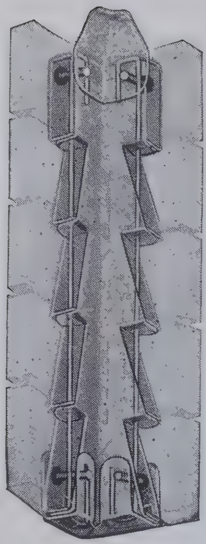
A List of

Woolsey Use

Would Look Like a
"Who's Who" in the
Milk Industry

Woolsey

Wire Laced Bottle Crat



Are made in all standard
styles for half pints, pints,
quarts and 30 bottle sizes

The Northwestern Collapsible Carrier

Ask These Jobbers:

A. H. Barber-Goodhue Co.,
Chicago, Ill.—St. Paul, Minn
Indianapolis, Ind.

The W. E. Barrett Co.,
Providence, R. I.

E. A. Kaestner,
Baltimore, Md.

Meyer-Blanke Co.,
St. Louis, Mo.
Birmingham, Ala.
Dallas, Tex.

N. A. Kennedy Supply Co.,
Kansas City, Mo.
Oklahoma City, Okla

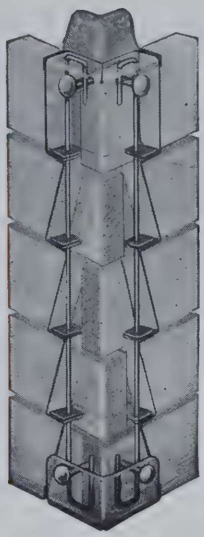
Oliver M. Dean & S
Worce

Beatrice Supply Co
De

Ohio Creamery Sup
Clev

When writing to THE NORTHWESTERN COLLAPSIBLE CARRIER CO. *please mention The Milk Dealer.*

uy *for* Service



IT IS the concern that weighs results against cost that standardizes on Woolsey Bottle Crates.

They have learned through actual trial that Woolsey Bottle Crates give more service per dollar of investment.

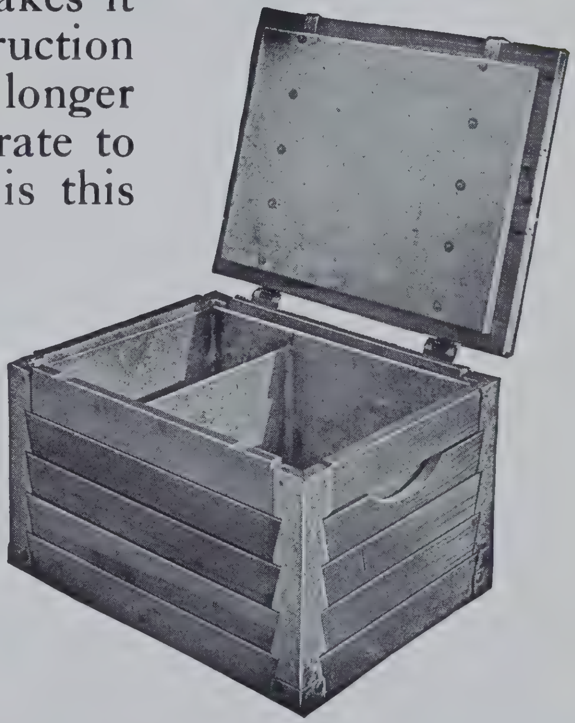
Why?

Because there is no other crate made just like a Woolsey—nor can it be.

It is the wire laced corner that makes it so different. It is this unique construction feature that gives the Woolsey its longer life. The wire lace permits the crate to "give." It absorbs the shock. It is this flexibility that saves the bottles and the cases.

The Woolsey Butter Box

has a separate ice compartment and insulated cover. It keeps your products cold, fresh and clean. It stacks perfectly with standard crates. A convenience and necessity for every wagon.



Send for prices or try a lot yourself.

Talmadge Ave., S. E.,
MINNEAPOLIS, MINN.

1821 Callowhill Street,
PHILADELPHIA, PA.

ply & Equipment Co., Pittsburgh, Pa.
or Bros., New Haven, Conn.
mond, Ltd., Toronto, Canada
Kennedy & Parsons Co., Sioux City, Ia.—Omaha, Neb.
Geo. G. Mill Co., Great Falls, Mont.
N. W. Creamery & Dairy Supply Co., Seattle, Wash.
T. C. Power Co., Helena, Mont.
Oakes & Burger Co., Cattaraugus, N. Y.—Erie, Pa.
Phoenix Seed & Feed Co., Phoenix, Ariz.
C. Peterson, Hartford, Conn.
Geo. W. Prising Co., Inc., San Francisco, Calif.
The Smith-Comstock Co., Bridgeport, Conn.
United Dairy Machinery Corp., Buffalo, N. Y.
Warr Supply Co., Los Angeles, Calif.

When writing to THE NORTHWESTERN COLLAPSIBLE CARRIER CO. *please mention The Milk Dealer.*

The Truth about Chocolated Mil

WE started it in the South at the Army Camps during the World War and it has now spread over the entire country and is a growing success where the Milk Dealers are using

CHOC-O-LISHUS

[TRADE MARK REG. U. S. PATENT OFFICE]

There is no reason for using imitations.
The original Choc-O-Lishus is just as cheap and it goes further.

It has the true Chocolate Flavor
It is the best by test.
It deserves your support.

The manufacturers of Choc-O-Lishus are the oldest and largest manufacturers of Chocolate Syrup in the world.

THE CHOC-O-LISHUS CO.
NORFOLK, VIRGINIA

Subsidiary of H. B. HUNTER CO., INC.

Your Milk Bottle Cap is Your Business Card

CO DAIRY
GRADE A
PASTEURIZED
DAIRY
ADE
URIZED

HOLSTEIN DAIRY
BUTTE, MONT.

1. *The new Sealright Liftright Cap. Patented groove makes it easy as ABC to lift the tab and remove cap in a jiffy.*

WM. J. BURBECK
COMPANY

2. *The Improved Sealright Pouring - Pull Cap. Has same patented groove as new Liftright Cap. Opening in Cap for pouring or inserting straws. Ideal in home, school and restaurant.*

□ □

3. *Sealright Regular Standard Cap. The best and biggest selling "regular standard" cap in the world.*

DEARY BROS.
B
MILK

It Deserves the Superfine Printing of a Sealright Cap

THE MILK BOTTLE CAP you deliver daily to your customers should be clean, attractive and easy to read. Sealright Caps are bright, clean, "snappy" looking. Because they are printed from clean electros made at our plant. They make a favorable impression.

Made from celebrated Fulton Board and scientifically waxed by a special process (which assures perfect sterilization), Sealright Caps are absolutely waterproof. They never become "soggy" or "leathery" under ice or moisture. They always look neat and attractive.

Uniform thickness and clean cut edges insure a perfect, liquid-tight seat in bottles as well as perfect operation in capping machines. There is a Sealright Cap for every need. (See illustrations at left.)

And Sealright Caps are nationally advertised and nationally preferred. No wonder it pays to use them. Write today for *Free Samples* of the three greatest caps in the dairy industry.

SEALRIGHT CO., Inc. - *Dept. MD-5* - **Fulton, N. Y.**
Write Today for Free Samples

"KEEPS THE GOODNESS IN AND THE FINGERS OUT"

SEALRIGHT
Milk Bottle Caps

When writing to SEALRIGHT COMPANY, INC., *please mention The Milk Dealer.*

CLEARNESS
ACCURACY
STRENGTH

The BEST BULWAR

CLEARNESS

—that the customer may see the quality of milk you are distributing.

ACCURACY

—that the customer may get the amount that he or she buys.

STRENGTH

—that the bottle may last the dealer as long as possible. Bottle loss is one of the milk distributor's problems. Less breakage, less cost.

ATLANTIC
Milk
Bottles

ATLANTIC BOTTLE CO.

FACTORY: BRACKENRIDGE, PA.

90 W. Broadway, New York 327 S. La Salle St., Chica

IRY CATTLE CONGRESS TO ENLARGE.

departments of the Eighteenth Annual Dairy Congress and Allied Shows to be held at Water- wa, September 26 to October 2, inclusive, will be d, it is announced by the management.

provide more room for the exhibition of large achinery, additional land has been purchased and ire grounds re-arranged. The land acquired will space in a prominent location for more than he number of exhibits that could be placed here- This addition will also enhance the attractive the grounds, relieve congestion of crowds around gs, and make available much more room for g cars.

ew barn to accommodate the dairy calf club de- nt will be constructed soon and will be completed the 1927 exposition. It will be 72 x 240 feet in ions, of hollow tile and brick construction and its r design will conform with the battery of seven uilt several years ago. The new structure will modern exhibition quarters for 275 head of club s which will permit the junior department to and be of greater service to the hundreds of nd girls of the Central West who are interested

industrial exhibit space in buildings will also eased to meet the demands of manufacturers who show their products and equipment. With the l of the calf club department from Exhibition o. 2 this entire building will be devoted to ex- f dairy farm equipment and supplies. This ad- will provide three buildings with a total floor f 60,000 square feet for machinery and supply s.

Dairy Cattle Congress plant now consists of n major buildings located on a 40 acre tract lies on the west limits of Waterloo and on the A. Y. P. and Red Ball highways.

⁂

WHAT TRADE ASSOCIATIONS DO.

v trade associations are branching out into new nd becoming more influential as competitive units osed in a brief survey made by the chamber of rce of the United States. Some of the activities re the following:

National Confectioners' Association employs con- chemists to analyze products of its members and for adulteration.

National Association of Retail Grocers helps in- ent dealers to meet chain store competition.

Portland Cement Association is using schools in onal work among craftsmen.

International Association of Milk Dealers is meet- vy bottle loss through simplification of equipment.

American Institute of Steel Construction is mak- scientific study to determine where steel should used.

Paperboard Industries Association conducts in- ng laboratory work.

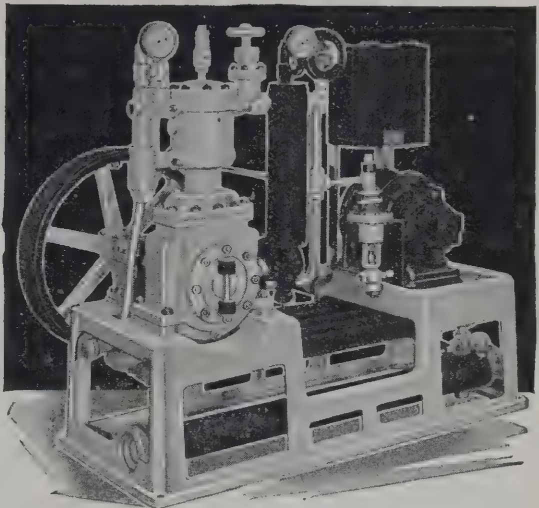
National Hardwood Lumber Association is estab- and enforcing standards.

Heating and Piping Contractors' National Asso- is developing certified heating.

National Leather and Shoe Finders' Association eveloping better repair work.

se are only a few of the many activities upon trade associations have embarked and their field tantly widening.

ROME
FULL AUTOMATIC REFRIGERATION



Installed Easily and Economically

A wise old Milk Dealer once said, "You can't beat our milk, BUT you CAN whip our cream."

Without doubt the above remark was made because the Milk Dealer had already installed a Mechanical Refrigerating Machine.

The ROME FULL AUTOMATIC is quickly, easily and economically installed and on such reasonable terms that no Milk Dealer need be without a Rome. Fill in your name and address below and mail today for the complete facts.

Rome Manufacturing Company
Refrigeration Dept. · Rome N. Y., U. S. A.

ROME MFG. CO.
Gentlemen:—
The undersigned would like to learn the facts about Rome Full Automatic Refrigerating Machine.
Name ________________________
____

Advertising Policy of The Milk Dealer

A Big Minneapolis Milk Dealer Tells How His Firm Uses Its Advertising Appropriation. Bases All Advertising on Sales

By L. H. HELLER*

THERE was a time, and it is within the scope of my memory so you may judge it is not so very long ago, when the statement "It pays to advertise" was open to some very serious arguments. There are still cases which you and I can name where big businesses have been built, wealth accumulated with the help of little or no advertising. Your presence at this section of the convention, however, is proof in itself that this is not the spot where the non-advertisers congregate. In any event, I am going to assume that in order that my talk be more of a treatise and less of a debate.

For the most part small dealers do not advertise. This is true to the same extent in our industry as in any other, but there eventually comes a time when hard work, aggressive methods or possibly price cutting create a sizeable amount of business for this small dealer and then his mind turns to advertising. The first thing he must do is set up an advertising appropriation. But possibly I'm going too fast. Is it necessary to have an appropriation at all? Many concerns have none and seem to flourish in direct competition to those having the most rigid policy, but the wealth of opinion seems to be in favor of the idea of a definite amount of money to be spent for advertising; with possibly a contingent fund for use in emergencies. This policy is almost universally adopted among concerns who do large amounts of local or national advertising. So let us assume that our small dealer who has just decided to do some advertising needs a fairly definite appropriation. How shall he decide what it is to be? There are four or five methods he may use.

The Task Method. In considering the task method he decides just what he wants to accomplish with his advertising. Possibly it is to get new business, or to get larger orders from present patrons, or perhaps he will attempt to introduce butter, a new buttermilk, or a special grade of cream. In any event, he decides what he will accomplish and then makes or has made a rough survey of his local conditions and decides about how much sales effort it will take to wedge his message into the milk buyers' mind. The proper mediums are then considered and their cost computed and finally a figure is reached that indicates about what the advertising needed will cost.

Another way to determine the appropriation is the **Percentage of Profit Method.** If this method is used, the gross or net profits of the preceding year are used as a basis of computation. A certain percentage of the profits are set aside for advertising. A disadvantage of this method is the inability of the dealer to advertise when his profits indicate he needs it the most.

The Percentage of Sales also form a fairly consistent method of appropriating funds for publicity. The sales in units or in dollars may form the basis. If this method is used and used consistently, it will develop a fund that increases gradually as the business is developed, but care should be exercised to compute from the nearest sales figures available.

Competitive Method. If the advertising of competitors is strong and apparently dominates a town, it is pos that none of the methods thus enumerated will fit the picture. In such a case it might be policy to t percentages out and base an appropriation on a petitive basis; that is, compute the amount of space, that must be used to create some sort of an impres Forming an appropriation in this way is, of course, ically wrong but is indulged in in a good many case because it is the only method that is practical, bu cause of the exaggerated idea of competitors' a tising a dealer obtains by listening to the advert pests that are always in one's office.

The last method I will speak of I will call, for cf a more comprehensive title, **The Insurance Me** If our small dealer cares to consider this metho will from his statement determine the physical val his plant and equipment and add to this the good value of his routes. This will give him a figure will be what his business is worth to him as a g profit-making institution. He may regard his a tising as insurance that he will hold what business good will he now has and assess the business fo protection advertising affords him.

These then are the five methods I would pick as sible ways of arriving at an appropriation. Let m peat them again.

1. Task Method.
2. Percentage of Profits Method.
3. Percentage of Sales Method.
4. Competitive Method.
5. Insurance Method.

Each method has undoubtedly some virtues, unquestionably some faults. One statement is, ever, nearly axiomatic. Any concern doing or plan to do any amount of advertising should know what going to spend and how it is going to spend.

In our company we base our advertising on because we feel that any other method would be practical. Basing an appropriation on profits in milk business is not particularly equitable since profits are often outside of the dealer's control. farmers or their agents on the market set the bu price of fluid milk while the selling price is ordin controlled by competition.) This condition does exist in most industries. We do not indulge in petitive advertising since we feel the logical wa beat our competitors is to spend less, not more than do. In our company the directors are so well sold o merit of advertising that I have not found it nece to convince them that it is business insurance. do not entirely disregard the task method. Somet we allot the advertising department additional f to be used to accomplish some definite task not seen when our appropriation was made.

So much for the appropriation. It is difficult t how much should be spent. Various amounts are sonable in different localities. We think 75/100 enough considering the margin we work on but are not unusual where 3 or 4% are spent.

When the money has finally been laid aside labeled "advertising," the question must be a

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* Northland Milk and Ice Cream Co., Minneapolis, Minn., at Detroit convention of International Association of Milk Dealers.

GUARANTEED PERFORMANCE

BUYING a bottle washer is like buying a car. The most important things are performance, price and the integrity of the house that builds it.

Rice and Adams offers you this Little Soaker bottle washer with the positive assurance that it is right in design and construction—that in bottle washing performance it will pass your most critical requirements—that it offers you unusual value for every dollar invested.

These things are presented as absolute facts. The washer itself, in action, will demonstrate the verity of every claim made for it.

We know these things, but to make our statements conclusive, we back them with an iron-clad guarantee. If you need a new washer, carefully investigate the Little Soaker. If you like it, buy it. Put it to work for you. Give it a month's hard service. Then, if it doesn't measure up to every claim made for it, we'll gladly take it back.

If clean bottles is what you're after this washer will give them to you—32 bottles per minute in the four wide model; 48 per minute in the six wide. Right under your eyes the transformation takes place—dirty bottles disappearing into the machine, to reappear in a few minutes—glistening and clean—properly cooled and ready for the filler. Every bottle gets a prolonged soak, 4 hydraulic solution washes thru pump, 6 pump rinses and, finally, clear water rinses outside and inside.

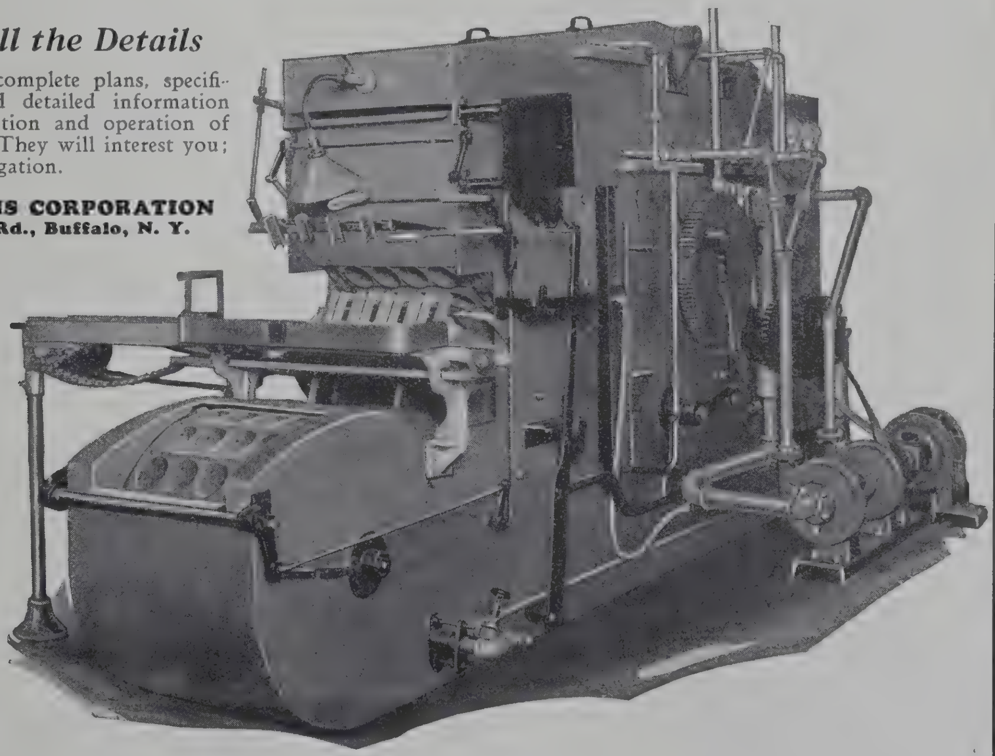
Feed and discharge at one end of machine; 4 rows of pockets always exposed for loading. Simple, trouble-free, accessible, and tremendously strong.

That, at least, presents a brief picture of the R & A Little Soaker-Hydro. Let us give you the whole story.

Send for all the Details

Let us send you complete plans, specifications, prices and detailed information about the construction and operation of the Little Soaker. They will interest you; and there's no obligation.

RICE & ADAMS CORPORATION
1148 Military Rd., Buffalo, N. Y.



OUR IRON-CLAD GUARANTEE

If after thirty days' service the purchaser of an R & A Little Soaker-Hydro is not fully satisfied with its performance, construction and value, we will take it back and refund his money.

R&A *Little* SOAKER~HYDRO

"What is advertising," and the question to be decided is what items can truthfully be called advertising, and here's where we get into deep water. Unless the guardian of the budget has a pretty definite idea of what he wants to call advertising he will find he is spending more money on the frills than he is on the backbone of his campaign. This condition is in no way improved by the bookkeepers, auditors and others who are anxious to keep donations at a minimum. As far as bookkeeping is concerned, they can call anything advertising they have in mind to but when I'm charging the advertising back against the appropriation, I want to know where I stand.

Maybe the easiest rule to follow is to say, "If in doubt, it is not advertising." I do not think solicitors' salaries, philanthropic donations, salary bonus, special discounts, etc., are advertising, but I do think there are some unusual items of expense that must be charged against the advertising appropriations since they fall into no other class. Dealers' signs, for example, may not be just your idea of forceful advertising but since their only possible value is such, they are left there. Tickets, etc., which we are occasionally forced to buy for no reason except to foster good will must be called advertising, some civic enterprises are advertising, some are not.

Occasionally the proper slant on an expenditure is negative. Not how much good it does it I play ball but how much harm will it do if I don't.

I believe it is up to every advertising manager to decide in his own mind what items are advertising and what items are not. He should be quite clear on this point in order that his advertising fund shall not become a slush fund. Don't let your own salesman or someone else talk you out of your convictions. Some things called advertising are not even propaganda.

I imagine we all have our pet advertising medium. I have, and it is entirely possible that because of this prejudice I give that medium more attention than the others and am, therefore, incompetent to do much talking. Results of any kind are usually hard to check but from my own experience I would place advertising mediums in the following order. (Entirely disregarding contests as they are a law unto themselves and will be treated separately by other speakers.) Here is the way I class them: (1) Billboards. (2) Newspapers. (3) Car Cards. (4) House-to-House. (5) Direct by Mail. My reason in placing mediums in the order just named is partly negative but I want to explain it to you.

Beginning with the medium I have named as least effective and working backwards, my objection to Direct by Mail advertising is **first** the difficulty of obtaining a reliable list of new prospects. It would seem easy with route men in all parts of the city, but we have never made it work properly and **second** the tremendous cost of obtaining business by this method. With the number of mailing pieces now being sent out in large cities, it is often conceded that unless "sale copy" can be used, it takes four letters to get optimum results. About a year ago in order to reconvince myself that direct mail was impractical in the dairy business, I tried a series of 5 letters which were prepared by an outside agency and which I must admit were good. They were sent to exactly 1,000 prospects. These 1,000 prospects were located on 8 milk routes and were obtained by sending a list of over 2,000 names onto these routes and having the routemen check off the customers we were already serving. A free bottle of milk was offered as an inducement but even with this extra bait, the results did not justify going on. To be exact it cost $3.40 to get every nibble. Even the agency admitted that it was about impossible to try and sell milk by mail.
other occasion we sent out a single letter that had
satisfactory in a smaller town. This also flopped.

We sometimes have good luck with house-to
pieces delivered by the drivers, but the distribu
such material is so dependent on the weather, t
position of the drivers and the attitude of the
that this class of medium is difficult to use consis

When our firm used car cards, we thought
sults were good, but we were forced to discontin
to the expense of art work and printing plates that
produce cards able to compete with the national
tisers. It is my opinion that most of us here wo
perience similar difficulties.

We use considerable newspaper space and
think it is policy for any milk dealer to disregard
papers. They are a universal medium. No mediu
cept your salesman, can go into the detail that
paper copy can. It is a place to talk health,
some new process, introduce a new article, buil
will by calling attention to your firm's activities.
thousands of virtues but is not without its limit
The competition is keen. Unless you can writ
copy, use large space, use it often, and set your
in a pleasing manner, you are lost in the shuffle.
a good agency or block cut the ads yourself a
a good artist to execute them.

Billboards are my pets. One third of our app
tion goes to them. I favor them for quite a few
which I at least think are sound. They enable lo
vertisers to compete with national users of paint
on exactly the same footing. His locations can
as good or better, and the same painters do all the
Billboards are graphic. Pictures have a univer
peal. Billboards overcome ordinary copy diffi
When you have boiled your thoughts down to 10
you are fairly sure those ten words will be re
Billboards are compelling and quick. When one
good copy, when you have seen it, you've read it
boards are always working, rain or shine, when
away on your vacation. The message you concei
the board you designed, keeps on working. Som
it takes months to arrive at first class, "**reason**
snappy copy but once you get it, it pulls results.

One of our boards which read, "16 Minneapol
pitals use Northland Milk" is I am sure the mos
able advertising we have ever done.

That, then, is the manner in which I classify th
ous "regular" mediums; first billboards, then
order named, newspapers, car cards, house-to-ho
direct mail.

Regarding "irregular mediums," we have tr
three policies, going into all of them; going int
of them; and staying out of all of them, and
without any hesitancy that the latter course is th
Without exception we steer clear of program
books, special editions, booster members, boile
sheets, membership rosters, club and school paper
books, etc. We simply explain that we cannot
one without going into all and should we go into
would have no money to spend on regular adve
The only time it is difficult to adhere to such a p
when you make the switch from the easy going
the hard boiled way. Sometimes solicitors who
do not care to offend are persistent and insist the
seen your ad in a similar publication. If your p
right you can say "Find the ad and you can run
out even calling us on the phone." In most
is only necessary to show the solicitor that goi

J.G.CHERRY
EST. JGCo 1880
COMPANY

Flexibility

That's one reason why Supplee-Wills-Jones bought Cherry Coil Pasteurizers

THE time required for processing milk differs. The Supplee-Wills-Jones Company, of Atlantic City, selected 18 minutes as their time cycle — meaning that they desired each of their vats to positively hold and pasteurize *two* batches of milk in about one hour and a half. Because Cherry Pasteurizers permit an optional selection of time according to the requirements of the operator they installed four 400 gallon Cherry Coil Pasteurizers in June 1924.

Ever since their installation these Cherry Pasteurizers have been consistently and continually delivering a fine product—excellent cream line — perfect flavor — and an average bacteria count of 3,000.

5 *More Cherry Coil Pasteurizers for Denver*

The West again indicates its confidence in Cherry equipment by the recent installation of five 300 gallon Cherry Pasteurizers by the Windsor Farm Dairy of Denver, Colorado.

14 *More Cherry Coil Pasteurizers for St. Louis*

The Middle-West again shows its liking for the Cherry Principle of Pasteurization by the recent installation of four 600 gallon and two 500 gallon Cherry Pasteurizers by the Highland Farm Dairy Company and eight 600 gallon Cherry Pasteurizers by the Saint Louis Dairy—both of St. Louis, Mo.

6 *More Cherry Coil Pasteurizers for Louisville*

The South's loyalty to Cherry is again demonstrated by the recent installation of six 300 gallon Cherry Pasteurizers by D. H. Ewing's Sons Company of Louisville, Kentucky.

Flexibility is another word for adaptability. The experience of Supplee-Wills-Jones is another bit of proof of the 100 per cent efficiency with which Cherry Coil Pasteurizers adapt themselves to the special requirements of different milk plants.

◆

Nation-wide preference is accorded Cherry Coil Pasteurizers.

Here are four new installations for Denver, St. Louis and Louisville.

◆

J.G. Cherry Company, *Cedar Rapids, Ia.*

St Paul, Minn. *Tama, Iowa* *Peoria, Ill.*

Ask for our latest literature

When writing to J. G. CHERRY COMPANY *please mention The Milk Dealer.*

his medium would brand you as a hypocrite to former solicitors. This appeal to fairness usually works.

A policy such as I have outlined has a wonderful advantage over any other less rigid. It gets rid of people in a hurry. You do not have to ask the price, the purpose of the circulation, you simply explain you can't do it. I might say that this has been our policy for over 4 years and I do not think we have lost 5 customers through its adherence. The frequency of calls may be estimated when I say that as I write this on September 28th, there have been four solicitors in my office.

On donations we are not so straight laced. Possibly it would be better if we were. Our policy in this regard is to give merchandise (except butter and ice cream) in amounts not exceeding $1.50 to churches and charities. We have a special order book for this purpose and when a recipient calls a second time, she is informed of the last date we gave, the amount we gave and who signed the delivery slip, and if the elapsed time is less than one year, we ask to be passed up this time and allowed to give at a future date. This system works well with the usual amount of exceptions.

So much for irregular mediums and donations. Be as rigid as possible and if you are ever forced to back down, do it in a manner that will not be embarrassing at a future date.

The milk dealer's policy as respects syndicated advertising is difficult to formulate. Whether he likes it or not, if he intends to do any extensive advertising, he will be forced by stress of economic conditions to use some syndicated material. On newspaper copy he may play a lone hand and get by with probably better results than by using ready made ads, but if lithographed display pieces are needed or elaborate sales campaigns planned, the size of run needed by the average milk dealer will not permit the use of made to order material.

Syndicated material obviously fills a genuine need. Its limitations are equally obvious. It is too general. It is nearly impossible to bring it into exact accord with local conditions. In syndicated newspaper ads, another objection is important. These ads, offered to all of us, have but one purpose; to make us use more newspaper space. They are lavish, they are carelessly worked out, they sprawl their half-hearted message over twice the space needed. They are mostly designed to sell more column inches of newspaper space, not more milk.

Another important bit of advertising policy which every milk dealer should definitely decide before going ahead is the relative wisdom of advertising his own business or advertising the entire industry. My own opinion is that the International Association should institute a national campaign to advertise the industry. With this background, local advertising could be tied up with this national campaign to do unlimited good, but in the absence of such a campaign, I believe it is foolish for local dealers to attempt to exploit the industry. It is in most cases a thankless job and not a particularly fruitful one. My reasoning in this instance seems out of all logic. If advertising the industry is good policy nationally, why not locally? It is not logical, possibly it is physicological, but I always think local ads playing up any industry unsigned or nearly unsigned have a "holier-than-thou" attitude that leaves readers in no doubt as to their selfish motive; while a national campaign in national mediums seems too broad gauged to be entirely selfish. This, of course, is only my opinion on an important subject.

I prefer to let the citizens of Minneapolis get their general information about milk from their doctors, nurses and the general news columns of the daily papers. I try to make our copy specific. I assume that they know
some of the health giving properties of milk. I
convince them our milk and our service have
which are strictly our own. Possibly I convince
small proportion but I do make them realize tha
is such a product as Northland Milk and this
down some of the resistance our salesmen would
wise encounter. Let me suffix these last stateme
saying that the problem of selecting a copy po
vastly difficult in cities where raw milk is the bi
petitor. In such cities, I believe, the public sho
schooled in the safety of pasteurized milk and th
of raw milk should be at least hinted.

Well, it won't be much longer. I have taken
of your time and tried to cover the subject in son
of manner. The question of slogans and trade
are all that remain.

There are certain general requisites of a good
mark. It should be easy to say and easy to read
tional advertisers who study these things closely
to avoid coined names, foreign names, script
possible to make the trade mark suggestive in
and distinctive in appearance.

Before definitely deciding on a trade mark, th
you will put it to should be thought of. Devise
thing easy to set up in ordinary advertising an
you won't curse all the rest of your days. Rem
the branding of cases, embossing of cans, dealers
and all of the places a good trade mark is an ass
a clumsy one a bother. Because of its multitude
in modern advertising, I think a baby's head or
or a plant picture make a poorer trade mark than
tinctively artistic name plate. Beyond any doubt t
value in a trade mark. It should be used on all co
everywhere it will consistently go.

A slogan is not such an unmitigated virtue.
often slogans are hackneyed, not at all descriptive
product or its merits and about half of these we s
not slogans at all. If you need a slogan, make i
cise, descriptive, euphonious and new. To illustrate
I mean, when I say that some slogans are not slog
all, let me quote two phrases which I have culled
about 4,500 slogans already registered by "Pr
Ink." They are both intended to advertise loos
folders.

One reads:

"One of the many distinctive loose leaf book

the other,

"The binder that grows with your business

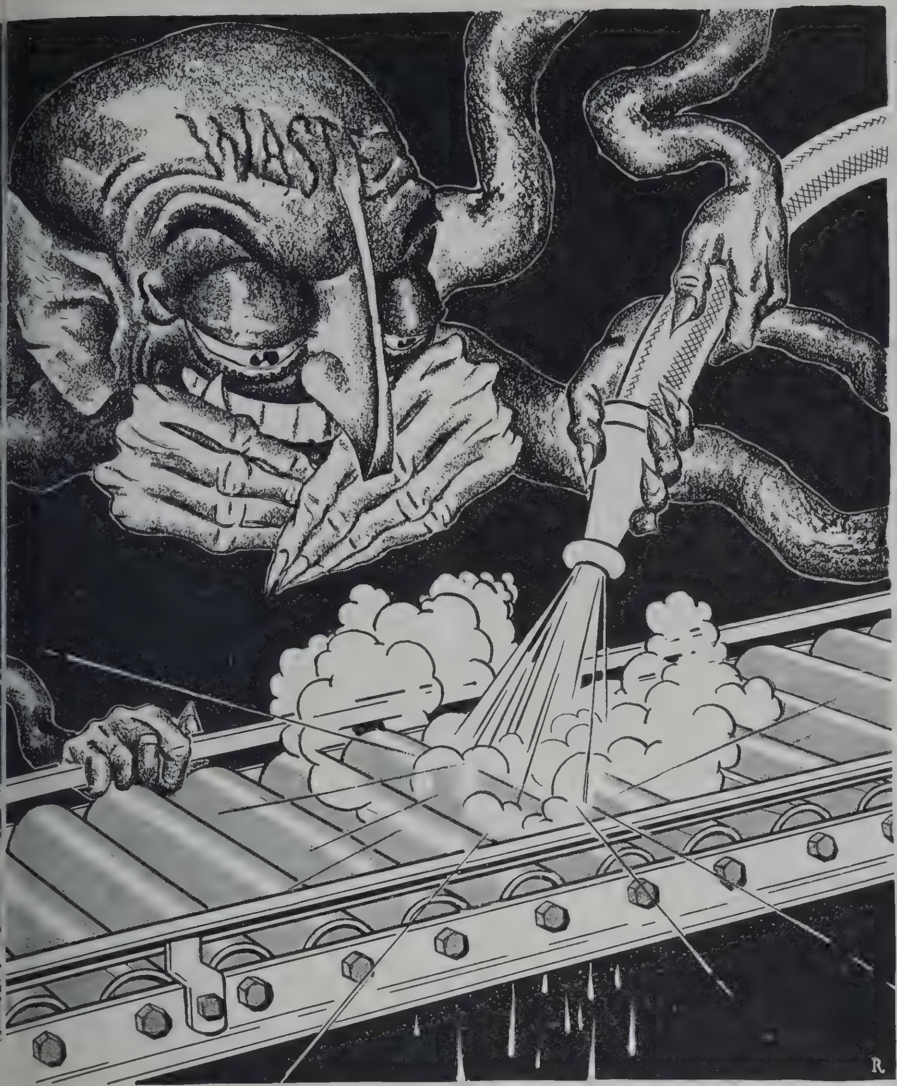
The second one may be of value if consistently
the first one is obviously worse than nothing.

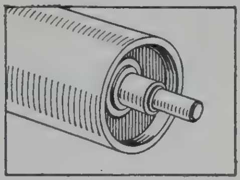
One of the sub-topics assigned to me was, "H
Get Free Publicity." I really can't tell you.
one of the things I'm here to find out. I've tried
ous methods but they have all been fruitless.
called reporters to the plant to witness incidents
I thought would be highly amusing to the readin
lic; we have horses with a cultivated desire for
nuts, we have an artesian well that some peop
has medicinal properties, we have cows and ponie
win blue ribbons, a driver who has never missed
in 20 years, we have used 4 horses to pull retail
during a blizzard, but the only headlines we ever
into read in 3-inch type, "Milk price advances on
tomorrow."

⁂

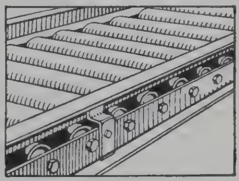
INTERNATIONAL IN NEW OFFICES.

The offices of the International Association o
Dealers are now in the Builders' Building, 228
La Salle St., Chicago. The old address was 139 Cl

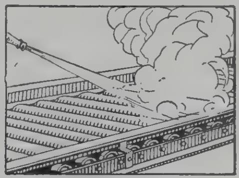




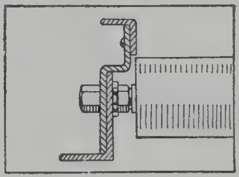
1 *Moisture can't get in.* Keep moisture out and you prevent corrosion. Lamson Rollers extra heavy throughout, have heads *welded in.* No joint through which moisture can enter.



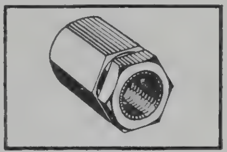
2 *Special guard rail over roller ends.* Prevents can chimes from dropping off and blocking the conveyors. *This saves wear.* Sliding cans over rollers that can't turn wears out rolls and cans, both. The Lamson conveyor never stalls or blocks.



3 *Stands up under flushing and steaming.* You can't harm the bearings, you can't force any moisture into any part where it will be harmful.



4 *Practical mounting.* The frame forms a cup-like protection to keep moisture and milk away from the shafts and bearings.



5 *Non-corrosive bearings of special design.* Cast of non-corrosive alloy. Hexagonal in shape and so inserted in the frame that they can never turn with the shafts. Consequently they cannot freeze, and always operate.

PROTECTED *—against*

water, steam, corrosion • •

ou can bank on it—Waste will ork the deteriorating effects of eam, water, and lactic acid on our conveyors.

ou can't remove the *cause* of such ss, but you can reduce its *effects.* ou can beat Wastes' game.

Lamson Sanitary Conveyors, for reasons given at the right, resist rust and corrosion. So they *last longer.*

Send the coupon for facts bearing on more economical conveyor operation.

ast longer. THE LAMSON COMPANY
SYRACUSE, N. Y.

LAMSON
SANITARY
CONVEYORS

THE LAMSON CO.,
Syracuse, N. Y.
I am interested in the conveyors that Last Longer. Please send further information.
Name ....
Firm Name ....
Address ....

When writing to THE LAMSON COMPANY *please mention The Milk Dealer.*

Municipal Pasteurization Requirements

Maximum Bacterial Counts of Standard Pasteurized Milk

DATA obtained from 250 municipal ordinances relating to the pasteurization of market milk, which were reported as being in effect in 1925, were given in the January and February letters. Further data obtained from the same ordinances are contained in the following tables, which show the maximum and average maximum bacterial counts allowed for stan pasteurized market milk, both before and after pas ization, for the various population groups. Table 1 shows the highest and lowest maximum counts in of the population groups.

TABLE 1—Maximum Bacterial Counts Allowed for Standard Pasteurized Milk for the Various Population Groups (

Population Groups	Bacteria Per Cubic Centimeter Before Pasteurization Average	 Highest	 Lowest	 After Pasteurization Average	 Highest
500,001 and over..................	1,614,000	5,000,000	300,000	83,000	100,000
100,001 to 500,000................	1,147,000	2,000,000	200,000	96,000	250,000
75,001 to 100,000................	1,250,000	1,000,000	500,000	73,800	300,000
50,001 to 75,000................	1,543,000	5,000,000	300,000	135,000	500,000
25,001 to 50,000................	518,500	1,500,000	100,000	80,700	300,000
10,001 to 25,000................	915,200	2,000,000	100,000	87,200	200,000
10,000 and less..................	1,035,000	5,000,000	200,000	62,600	100,000

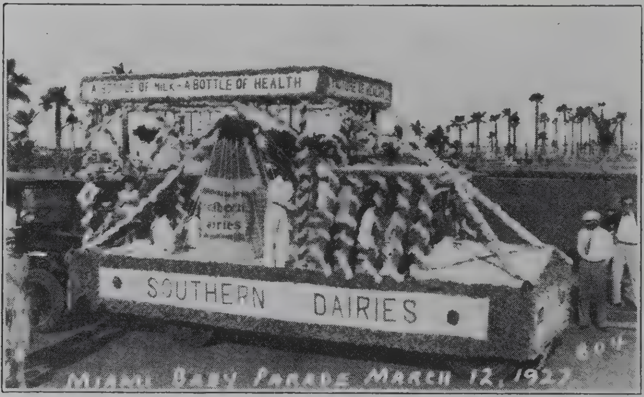
(1) Compiled from a study of 250 milk ordinances in effect in 1925.

TABLE 2—Maximum Bacterial Count Allowed for Standard Pasteurized Milk for the Various Population Groups

Population Groups	Bacteria Per Cubic Centimeter Before Pasteurization 100,000 and less	 100,001 to 500,000	 500,001 to 1,000,000	 1,000,001 and over	 Only special grades	 No requirements	 No. of cities in group	 After Pasteurization 10,000 and less	 10,001 to 30,000	 30,001 to 50,000	 50,001 to 75,000	 75,001 to 100,000	 100,001 and over	 Only special grades	 No requirements
500,001 and over...	.	1	4	2	.	3	10	.	..	3	.	6	..	.	1
100,001 to 500,000..	.	4	3	9	4	11	31	.	1	6	.	10	3	4	7
75,001 to 100,000...	.	.	1	2	.	10	13	.	1	4	1	3	1	.	3
50,001 to 75,000....	.	1	4	2	.	11	18	.	..	3	.	5	2	.	8
25,001 to 50,000....	2	9	7	1	.	26	45	1	2	6	5	10	2	.	19
10,001 to 25,000....	1	7	9	6	.	56	79	.	5	14	1	18	7	.	34
10,000 and less.....	.	5	7	1	.	41	54	.	2	15	1	7	..	.	29
Total..........	3	27	35	23	4	158	250	1	11	51	8	59	15	4	101

(1) Compiled from a study of 250 milk ordinances in effect in 1925.

—Milk Inspector Letter No. 115 by Bureau of Dairy Indus


A BOTTLE OF MILK - A BOTTLE OF HEALTH
SOUTHERN DAIRIES
MIAMI BABY PARADE MARCH 12, 1927

This float was awarded Grand Prize at the Miami, Fla., Fancy Dress Baby Parade in March. Several children were seated around the float, drinking milk, and a child was standing in the neck of a large milk bottle. Over the seat of the driver, a small child was in a swing, with the words: "A Picture of Health" over its head. It was entered by the Southern Dairies, Inc.

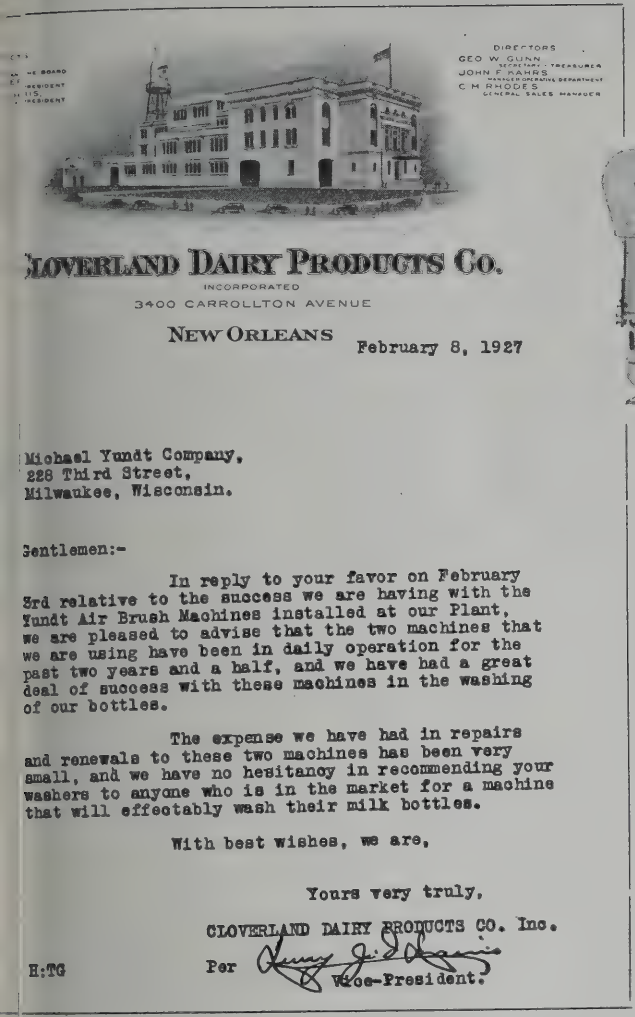
NEW MILK ORDINANCE FOR KANSAS CITY,

A new milk ordinance for Kansas City, Kan., cu the bacteria count for grade A raw milk from 10 per cubic centimeter to 50,000, was presented by Bassler, dairy inspector, to F. L. Cooke, park missioner and head of the health department. The posed ordinance will affect cream also, in that it mits a bacteria count of five times the total of milk. present count for cream is 500,000 bacteria per centimeter; under the new law it will be 250,000. bacteria count for grade AA raw milk remains at 1

The present ordinance virtually prohibits the sa certified milk in Kansas City, Kan., because cer milk must be produced under the direct supervisi a medical milk commission. The new ordinance vides that certified milk, if sold, must not fall belo bacteria count of AA raw milk.

State standards for butterfat, water content, were incorporated in the new ordinance. The butt requirement, 3.25 per cent, remains the same.

Unparalleled Service!



DIRECTORS
GEO W GUNN
SECRETARY - TREASURER
JOHN F KAHRS
MANAGER OPERATIVE DEPARTMENT
C M RHODES
GENERAL SALES MANAGER

CLOVERLAND DAIRY PRODUCTS CO.
INCORPORATED
3400 CARROLLTON AVENUE
NEW ORLEANS

February 8, 1927

Michael Yundt Company,
228 Third Street,
Milwaukee, Wisconsin.

Gentlemen:-

In reply to your favor on February 3rd relative to the success we are having with the Yundt Air Brush Machines installed at our Plant, we are pleased to advise that the two machines that we are using have been in daily operation for the past two years and a half, and we have had a great deal of success with these machines in the washing of our bottles.

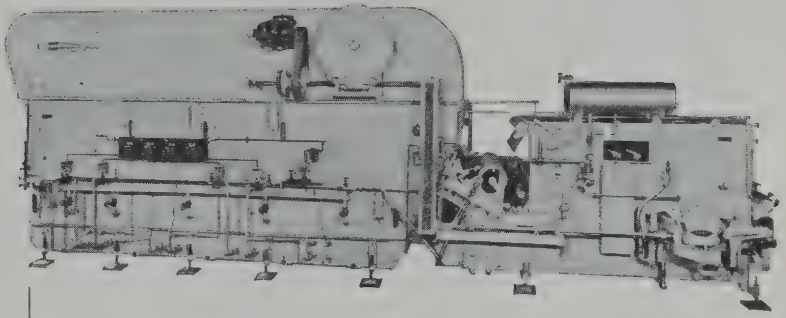
The expense we have had in repairs and renewals to these two machines has been very small, and we have no hesitancy in recommending your washers to anyone who is in the market for a machine that will effectably wash their milk bottles.

With best wishes, we are,

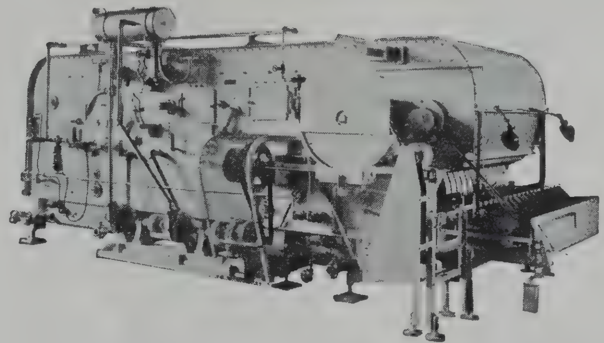
Yours very truly,

CLOVERLAND DAIRY PRODUCTS CO. Inc.
Per
Vice-President.

H:TG



THE YUNDT MILWAUKEE AIR BRUSH MILK BOTTLE WASHER
Built in capacities from 30 to 160 bottles per minute.
Write for Bulletin No. 109.



THE YUNDT MILWAUKEE JUNIOR COME BACK TYPE AIR BRUSH MILK BOTTLE WASHER—ONE MAN OPERATION
Built in capacities of 30 and 60 bottles per minute.
Write for Bulletin No. 110.

In the million dollar plant of the Cloverland Dairy Products Co., Inc., New Orleans, La., two large capacity YUNDT MILWAUKEE AIR BRUSH MILK BOTTLE WASHERS are installed.

Their experience for the past two-and-a-half years is convincing proof of the efficient service that can be obtained from the YUNDT AIR BRUSH MILK BOTTLE WASHER.

Superior Performance, combined with Minimun Operating Cost and Utmost Dependability, are a few of the many YUNDT MILWAUKEE AIR BRUSH MILK BOTTLE WASHER features.

Bottles are discharged sparkling clean, cold and bacteria free.

Write for bulletins, telling how to economize on your bottle washing cost with the YUNDT MILWAUKEE AIR BRUSH MILK BOTTLE WASHER.

Manufactured and sold by

MICHAEL YUNDT COMPANY

MILWAUKEE, WISCONSIN

WAUKESHA, WISCONSIN

When writing to MICHAEL YUNDT COMPANY *please mention The Milk Dealer.*

The Status of Tuberculin Eradication

Campaign of Education Among Producers of Milk Positively Necessary, Says Speaker at Detroit Convention of International Association of Milk Dealers.

By DR. F. D. WALMSLEY*

NO agricultural problem, possibly excepting that of co-operative marketing, has been given more space in the public press, or has occasioned more public utterances, than the subject of Bovine Tuberculosis. Like the advent of pasteurization, the tuberculin test has its champions as well as those who do not quite agree with the present day methods of eradication. The movement, however, is quite fast gaining momentum and, doubtless, before another session of this convention meets, many cities, towns and villages will have passed ordinances prohibiting the sale of any milk, pasteurized or raw, unless from herds that have been tested with tuberculin and the reactors removed.

It must be understood, however, that there is a vast difference between the tuberculin testing of herds, in order to comply with an ordinance to that effect, and the actual eradication of Tuberculosis from the herds of a given territory. In the last decade, the question of eradication has been largely confined to the sphere of economics in an effort toward conserving the herds of the nation and stamping out the disease in as orderly a way as possible, hoping that the interest of those producers could be more easily gained, the infected cattle removed, and with fewer but better herds increase the net profit per cow. In some sections of the country, this plan has met with substantial success and vast areas have been segregated, tested infected animals removed, and the percentage of disease in the herds materially lessened. In other sections, however, especially in those which were quite heavily infected, little or no response was encountered, and the plan was practically at a standstill.

During all of this period, and until quite recently, the consuming public has been educated to the point where it had implicit faith in the fundamentals of pasteurization. Evidence, in plenty, of outbreaks of contagious or infectious disease, was strongly on the side of the heating of the general milk supply to a point in excess of the thermal death point of all pathogenics, all of which tended to show that in rare cases only and those due to the human element existing, was any blame attached to pasteurized milk or the fundamentals of pasteurization attacked. So closely are the subjects of pasteurization and bovine tuberculosis associated, however, that to discuss one means virtually to discuss the other, which is exactly what is now taking place. An ordinance is proposed, hearings are held, at which the subject is placed under discussion. The consuming public is thoroughly aware of the pros and cons in the controversy, and the public opinion, stronger than any law or ordinance, is built up, which, if not in advance, quickly follows the enactment of the ordinance; the economic reasons for the tuberculin testing of dairy herds are eliminated, and the question quickly assumes a public health dimension in the sense that the consumer of milk will demand milk only from those herds that have received the tuberculin test. This condition increases tremendously the cost of the work necessary as preliminary; is demoralizing to a producing territory; destroys markets gained over a long period of years and decreases the per capita consumption of fluid milk, temporarily at least.

This word picture in fact is the difference between the tuberculin testing of cattle to meet an ordinance and save a market, and the eradication of tuberculosi orderly manner, which carries the good will of t ducer; on one hand, a slower process, but one de to effect the greatest economy possible; the quicker, but very much more expensive.

For years, in one of the heaviest producing s of the country, the program of eradication ha under way with very indifferent success. The forces had vainly endeavored to get before the Legislature a sufficiently effective measure to fa the work. Farm bureau organizations were not eff and a statute was already in force prohibiting cit villages from demanding milk from tuberculin herds only. After a very bitter series of debates, a ure was proposed providing for the tuberculin tes all herds after seventy-five per cent of the cattle given county was **tested**. While this would seem vide the necessary machinery, still there develo stronger opposition to the test than before, due thought, evidently, that there must not be forth the 75 per cent tested. At this point, the Health missioner in the State's largest city placed an o effect which demanded the tuberculin testing of a tle supplying milk to that city, and placing th limit at one year. Instead of trying to comply wi order, and in an orderly way as posssible atte least the eradicating program, an organized opp developed, which had its culmination in the issua a temporary injunction directed against the Comm er of Health and certain milk dealers, prohibiting from conspiring together in the interests of the culin test. This temporary injunction is still courts and has neither been dismissed nor made fin

At this point, the Common Council of that ci acted into an ordinance the order of the Health missioner and cut down the time limit to somethin four months. The Governor of the State then app a Commission to study this question and make a to him of what should be done. After several me of this Commission, a report was rendered which nized the tuberculin test as the best means of eradi bovine tuberculosis; advocated the immediate s by the producers of applications to have herds t recommended immediate enactment of legislation interest of more adequate funds; paid tribute fundamentals of pasteuriaztion; recommended p tion of pasteurization of all milk supplies, exc certified, and provided for the study of various me vaccination against reinfection (Calmette).

A heavy response in the way of applications signed follows, but funds and available men we forthcoming, and the Ordinance went into effect less than 50 per cent of the producers in the ter formerly supplying milk having had the test. existed. Markets went glimmering and the pro for early recovery were not promising. There w shortage of available milk, however, to meet the de due to the close proximity of a vast supply of milk adjoining state, where the slower process of eradi had been steadily going on for years.

It is undoubtedly true that the eradicating pro both by Federal and State plans, has reached a where milk distributors generally must face the

---

* Borden's Farm Products Co., Chicago, Ill.

Gaulin-For Chocolate Milk!

tandard
of
fficiency

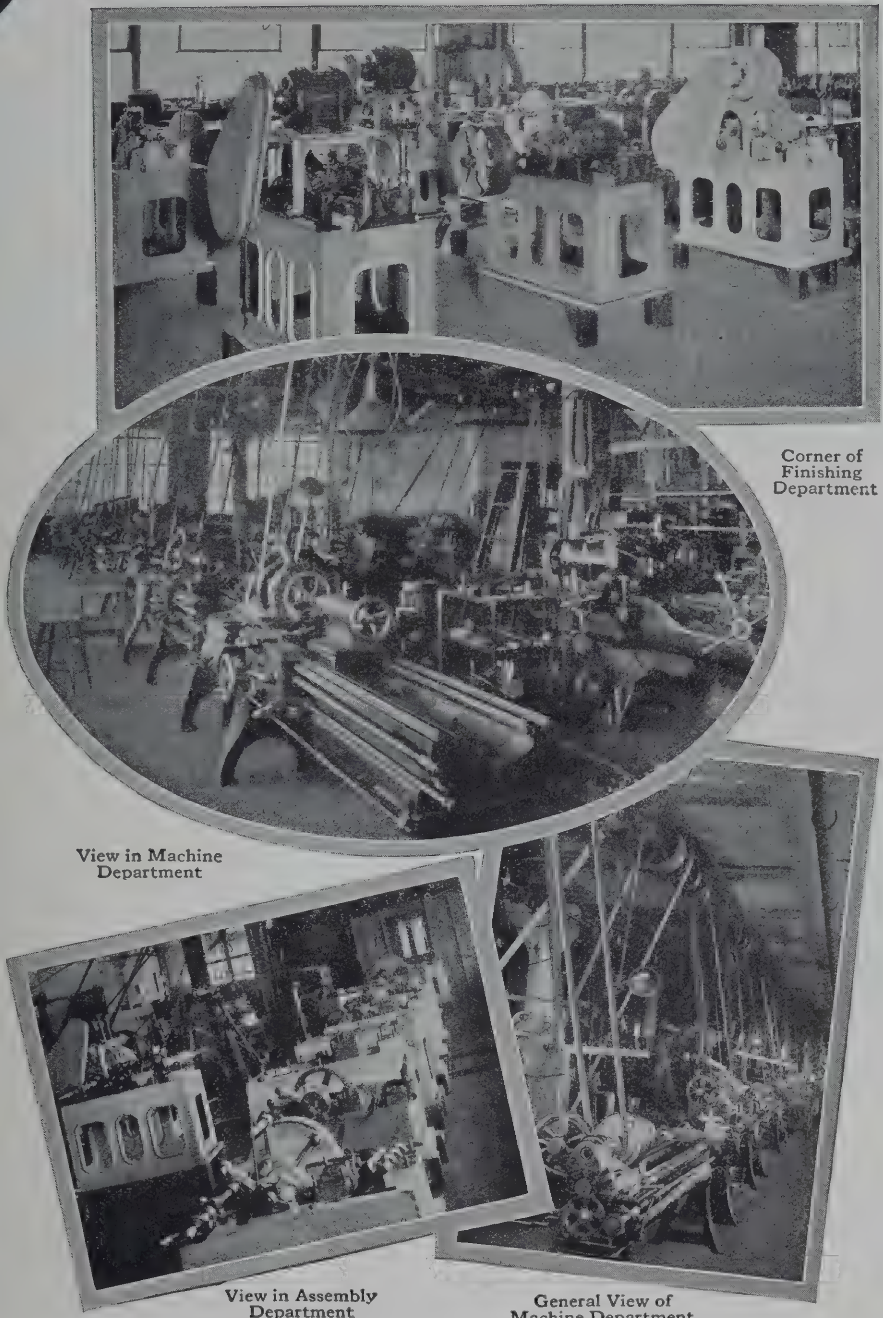
nequalled
in
Durability

Stage Valve
Equipped
0% Efficiency
Increase
Positively
Controls
Viscosity

Designed
and built by
Engineering
Experts

In use
the world
over

Standard
Equipment
in
Majority
of
Ice Cream
Plants


Corner of Finishing Department

View in Machine Department

View in Assembly Department

General View of Machine Department

THE superiority of the Gaulin Homogenizer over any other machine of its type, is due to the fact that *for 17 years,* our efforts have been devoted *constantly* to improvements in its design and construction. If you require ***unequalled service*** and an Homogenizer which will give the maximum of durability and mechanical efficiency you will ***standardize on the Gaulin.*** Send for your copy of the Gaulin Catalog today!

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"Only *Gaulin* can build a *Gaulin*"

When writing to MANTON-GAULIN MFG. CO. *please mention The Milk Dealer.*

Friendly Talks on the Important Subject of Sterilization

Conducted by
J. W. YATES
formerly Dairy & Food Commissioner, Health Dept., Kansas City, Mo.

Talk No. 7

Doing Away with "Ropy" Milk

Ropy milk can be easily and effectively eliminated by the use of B-K. The simplest method to control this condition lies in disinfection.

By spraying B-K solutions upon the walls, floors and the equipment, you can destroy all forms of ropy milk organisms.

If the source is thought to be from the producers, take a small sample from each farmer's milk in a sterile bottle and permit it to stand at room temperature, or as near 60 degrees F. as possible, for 36 hours. If the ropy organism is present it will develop.

If the source of infection proves to be from the farm, insist upon the thorough disinfection of all of the utensils, both inside and out, with a solution of B-K, and disinfect the cow's flanks and udders immediately preceding the milking time. This procedure has been successfully used in plants and on farms that were confronted with serious ropy milk problems.

Write me:

If the above does not cover your ropy milk situation, write to us about it in detail, and we will supply you with information that will remedy this condition.

J. W. Yates.

Consultant in Sanitation.

GENERAL LABORATORIES
Dept. 13E MADISON, WIS.

B-K
Bacili-Kil

lem as a reality. For two reasons is this cours
visable.

It tends to increase the producer's interest in t
operative plan of Federal and State in the eradic
program.

It also tends to reduce the cost to the producer.
may argue that it costs no more to test one time
another, but where practically all of the testing has
left until an ordinance demanding action has
passed, markets are in a dangerous position; me
not available to do the work; replacements may be
which immediately places a large replacement d
due to increased cost of stock.

The entire fabric of the wonderful work that has
the result of years of study of the fundamentals o
teurization hangs by a slender thread, unless the
for the eradication of bovine tuberculosis go ste
forward. Just the tuberculin testing of cattle doe
necessarily mean that the problem is solved, becaus
less the cattle owner has been properly sold on the
ticability of an eradicating program for the good
own, as well as his neighbor's herd, for the value i
lars and cents that he will enjoy in succeeding yea
a result of his foresightedness, the plan will not su
as it should. If the eradication of the disease is to
the wholesome value to the producing element th
should, the testing work should in the majority of
be accomplished in advance of any city ordinanc
that an orderly program may be carried out.

Any plan that the distributor decided on must n
ally be changed to meet the conditions existing i
Section, based generally on a probable percentage
actions to the test.

A survey completed by the U. S. Department of
culture in July says that the disease has been red
since 1922 from 4 to 2.8 per cent. This figure, i
probability takes into account all animals, but the
centage in dairy animals would probably run some h
in both cases. In territories where the percentage of
tion is lowest, the eradicating program is meeting
the greatest success, and the milk distributor, wo
with the Federal and State authorities, can accompl
great deal. There are some sections, however, in w
the percentage of reaction is quite high, where a diff
form of plan will have to be worked out, so that
producer will actually assist in the work. It may
the form of a premium, if this can be carried out i
vance of some city ordinance. In special cases, it
been found advantageous to dispose of the entire
for slaughter, thoroughly disinfect the premises an
place with cattle purchased from an area known to
a very small percentage of reactors. This plan w
be advised in special cases where high reaction was
pected and a long, tedious task of eradication in fo
ing some other plan.

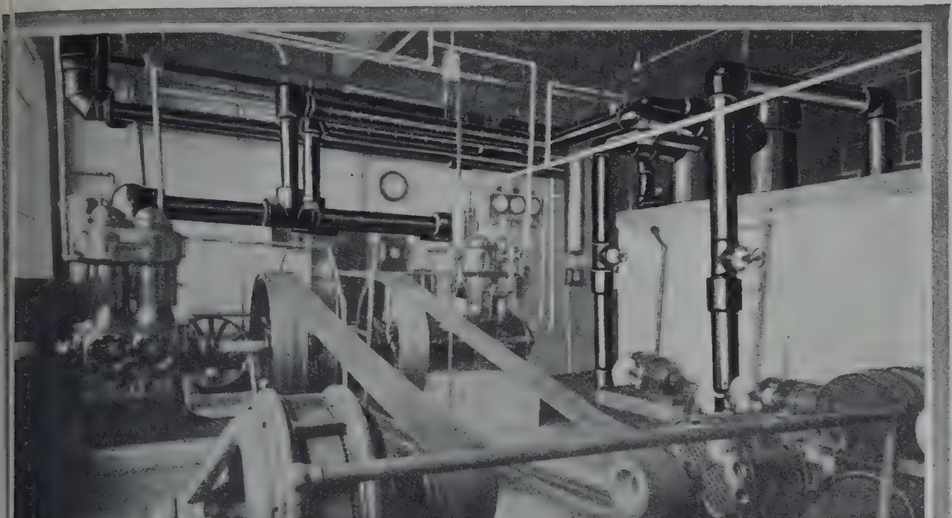
There is positively only one way in which the era
tion of tuberculosis can be satisfactorily carried out,
that is through a thorough campaign of education an
the men producing the milk.

⁂

CREAMERY MAN INVENTS NEW DEVICE MAKE MILK CAN SHIFT EASY.

J. C. Nabb, Pendleton, Ore., has invented a s
hand cart with an automatic device that saves both
and labor. Equipped with rubber tires, the cart is n
less in operation and is easy to handle.

The operator of the cart does not touch the can a
in trundling it from place to place. All that is ne
is to run the cart up against the can and a hook ca
the can handle, which, with short arms near the bot
holds the can to the cart for transportation an
quired distance.



Crescent
ork Pipe Covering
n Machine Room

". . . We are pleased to say that the work you have completed is of a superior quality, and we want to take this opportunity to thank you for the cooperation and courtesies that you have extended to our company."

THE SANITARY MILK
& ICE CREAM CO.
Peru. Indiana.
By H. P. Sullivan, Vice-Pres.

Interior of Milk Cooler
The McCormick Co., Inc., Pittsburgh, Pa.—Architects and Engineers

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WHEN you place your insulation contract with UNITED you are assured of an entirely satisfactory installation. echanics who take pride in their work—operating under the ersonal supervision of our trained engineers—carry your job hrough to completion, speedily and efficiently. There is no waste motion; no confusion; no delay. Of course it has taken a long time to build up this efficient erecting organization, but it means *service* to customers. And "UNITED'S SERVICE"—the recognized leader in the insulation field—is after all made possible only because of its popularity with buyers.

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Crescent 100% Pure Corkboard
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nvariably provide Cold Storage Rooms that please them. Repeat contracts from satisfied customers make up a large volume of his huge insulation business.

May we have the opportunity to figure on your insulation requirements?

United Cork Companies

ew York—50 Church St.
hiladelphia—1042 Ridge Ave.
oston—45 Commercial Wharf
altimore—801 Whitaker Bldg.
artford, Conn.—143 S. Highland St.

Main Office and Factories:
Lyndhurst, N. J.

Chicago—1151 Eddy St.
Cleveland—1200 W. 9th St.
Cincinnati—Cin. Term. W. H. Bldg.
Pittsburgh—624 Bessemer Building
Milwaukee, Wis.—Federal Asbestos & Cork Insulation Co., Agent.

When writing to UNITED CORK COMPANIES *please mention The Milk Dealer.*

Insuring The Purity of The Milk Suppl

Pathogenic Types of Bacteria and Their Relation to the Market Milk Supply. Destruction of these Bacteria Dependent on Efficiency of Plant Operators

By WM. H. E. REID*

MARKET milk is a term applied to milk consumed in its fluid state, and the production and handling of it requires the highest type of scientific skill. Market milk must be produced economically and marketed expeditiously; from cow to consumer it must be carefully guarded by sanitary measures, on account of its susceptibility to infection.

Aside from the useful bacteria in milk there are present many harmful types. For a great many years it has been recognized that there is a close association between unclean, carelessly handled milk and human health. This fact has been substantiated by data presented by dairy bacteriologists. Modern research has shown that specific bacteria cause specific diseases; and, furthermore, we know that these disease-producing bacteria may be carried in milk. Fortunately, milk borne epidemics are relatively few; but those that occur cause needless suffering and in some instances death, and every effort must be made to prevent them.

The main diseases borne by milk are typhoid fever caused by B. Typhosus, scarlet fever, septic sore throat caused by Streptococcus hemolyticus, diphtheria caused by diphtheria bacillus and diarrhea caused by dysentery bacillus.

Typhoid bacilli causing typhoid fever are short, plump rods and are longer than most other types of bacilli. They are motile, and develop best at thirty-seven degrees to forty degrees centigrade. On drying most typhoid bacilli will die within a few hours, although a few of the more resistant organisms may live for several weeks or even a month. Being non spore bearing they are easily killed by heat or cold and will not live above sixty degrees centigrade. Typhoid bacillus does not cause coagulation of milk but does produce a little acid from lactose. Typhoid bacillus are frequently discharged from the body in the secretion. Twenty-five to fifty per cent of patients show typhoid bacillus in the urine when with the disease. In the case of pneumonia with typhoid fever, typhoid bacillus are present in the sputum and are eliminated in great numbers. In all cases they are eliminated through the feces, even in some cases during the incubation state. Accumulated evidence shows that two or three per cent of convalescents become chronic carriers, some for the remainder of their lives. In some instances people have been known to be a carrier who have never had typhoid fever.

Scarlet fever is a highly infectious disease, characterized by a diffuse, punctuate, skin eruption accompanied by catarrhal, croupous or grangrenous inflammation of the upper respiratory system. In connection with the conveyance by means of milk, the danger comes from throat, ear and nose discharges. Most cases have been traced back to some milker who is convalescent.

Diphtheria bacilli causing diphtheria are small rods. They do not develop spores and grow best at thirty-seven degrees centigrade.

Toxic bacilli may be found in healthy throats. In fact, they have been known to be present in the throats of patients who have recovered from the disease. safe to say that in ten per cent of the cases a few exist for two weeks and one per cent survived weeks.

Diphtheria bacilli can be killed by heating to degrees centigrade for ten minutes, can be dest easily by use of disinfectants, cannot be destroy freezing, will live in damp, dark places and die exposed to dry and light places. The usual sour the bacilli are the discharges of diphtheria patie

Streptococci found in milk cause an infection throat known as septic sore throat. They are fou the udder of the cow and may be transmitted direct means of the milk. It appears some times as a s epidemic and in most cases can be traced back t milk supply, to a human or the cow's udder.

Dysentery bacilli causing diarrhea are found o the intestines. The feces are therefore the only tions containing them. They die in excretions or in one to two days and in water after a week. Th fected person is mainly responsible for the commu tion of the disease. The infection may be direct direct. Outbreaks of this disease occur more oft the summer, as the milk usually has a higher bac content. The disease is especially dangerous a children.

Milk is infected through three principal cha namely: direct bovine infection, direct or semi- human infection and indirect infection. Certain tococcic infection of cows' udders cause diseases lik tic sore throat. In this case the disease is transm directly from the cow to the man.

Direct human infection of the milk supply is established. Milkers or milk handlers suffering mild cases of infectious diseases are the chief Bacteria or infectious material can be introduced the milk from dairy hands either during milking or dling milk utensils. This is particularly true in the of typhoid fever. People who have apparently ered from this disease may harbor bacteria in bodies for years. These bacteria are excreted in the and feces and contaminate the hand of the milker

Indirect human infection may come through pe who have been in contact with an infectious diseas who are allowed to handle milk afterwards. Oth direct means of infection are water supplies and and from water by washing milk utensils in con nated water. Water supplies may be contaminat surface drainage, privys, barn yards, hog pens, Many cases of typhoid fever have been traced t luted water. Flies may carry infectious material unscreened privys to the stable or milk house and taminate the milk in this way.

In relation to the indirect sources of milk inf Carl L. Fellers and Roy S. Dearstyne have writt article in the Journal of Dairy Science, entitled, Relation of Water to Milk Borne Typhoid." Out hundred and thirty-eight cases of typhoid fever in gated one hundred and eleven, or seventeen per were caused from milk. One hundred and seventy

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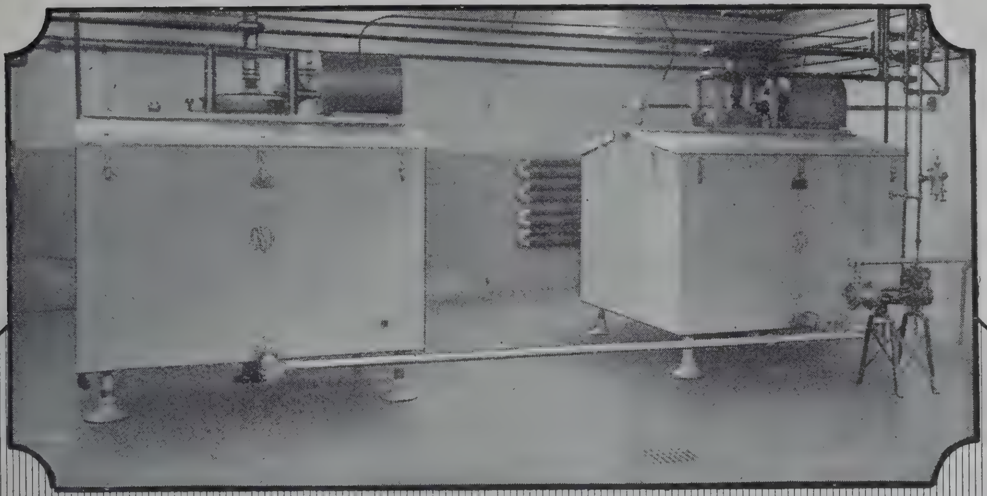
* Assistant professor of dairy manufacture, University of Missouri, Columbia, Mo.



Just as clean as it looks

—this efficient installation of Jensen Pure Nickel Equipment

IF you could see these Nickel machines—where they are and how they look—their quality would be established without further discussion. They are used in manufacturing culture milk in a dairy whose name is nationally known—where sanitation and cleanliness are the primary essentials.

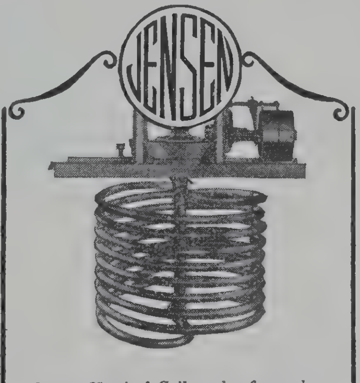
Jensen Pure Nickel equipment was ordered for this installation because:

1. It protects the culture milk from contamination—
2. It lowers bacteria counts—
3. It is easy to clean and keep clean—
4. It has no coating to wear off—
5. It lasts longer in hard service.

The trend in dairy equipment is toward Pure Nickel. This trend is indicated by the increased use of this attractive silvery metal for vats, coils, pasteurizers, cooling equipment, etc. It is also evidenced by the adoption of Pure Nickel by the world's leading manufacturers of dairy equipment.

To be safe—be sure that your new equipment is made of INCO Pure Nickel.

If you require further information, ask your regular manufacturer, or write direct to us.



Jensen Vertical Coil made of seamless Nickel tubing with Pure Nickel headers and Nickel shaft, of the type used in the two 750 gallon Pure Nickel machines illustrated at top of page. Mfd. by the JENSEN CREAMERY MACHINERY CO. of Bloomfield, N. J. and Oakland, Cal.

SEND FOR "LIST B" OF NICKEL AND MONEL METAL LITERATURE

INCO NICKEL **Nickel** INCO NICKEL

INTERNATIONAL NICKEL COMPANY (INC.), 67 WALL STREET, NEW YORK CITY

When writing to THE INTERNATIONAL NICKEL COMPANY *please mention The Milk Dealer.*

cases investigated were due to milk, and one hundred and thirteen of these were traceable back to the farm. Four cases were due to infected milk bottles, two to infected milk utensils. They found that typhoid bacilli will live in water for several days and that these organisms retained their vitality in surface, mineral and salt water for at least several days. The danger of a polluted dairy farm water supply is indeed a real one.

Raw milk is more dangerous, but pasteurized milk has also been the source of outbreaks due to infection after pasteurization as pathogens grow in pasteurized milk as well. Pasteurization has been a great factor in reducing communicable disease spread by milk. This is especially true in the case of typhoid, scarlet fever, septic sore throat and diphtheria. Outbreaks in many cases have caused the installation of pasteurizers.

Milk as a source of diphtheria is negligible. Milk borne scarlet fever cases furnish a small percentage. Milk borne typhoid is very serious. Four hundred and ninety-six, or seven and seven-tenths per cent, out of six thousand three hundred and thirty-one cases reported, were due to this cause. Pasteurization ought to greatly decrease the per cent of frequency of milk borne cases.

An investigation of an outbreak of streptococcal sore throats in one of our largest cities was found to be due to the milk supply. The epidemic involved several thousand cases. A number of deaths occurred. The epidemic was worse in some parts of the city than in others. The source of infection was traced to a pasteurizing plant. Several outbreaks occurred. It was found that a few days before each outbreak that there were defects in the pasteurization.

There are many other epidemics and diseases thought to be caused from milk, but there is not sufficient evidence to always substantiate that statement. The fact that milk is certified does not mean that it is pure. Even certified milk may be the means of an outbreak, particularly of the streptococcal form. Even pasteurized milk may be the cause of some outbreak, because of defects in pasteurization or contamination of handling after the pasteurization process. Thus a cough over a pail, a finger inside the can as it is lifted may be the cause of contamination.

In the plan to safeguard our population against the diseases borne by milk, the first thing to be considered is veterinary inspection of cows producing milk to be used for human consumption. It is known that a disease can be caused by the cow. Such diseases are due to udder contamination and are known as bovine diseases.

Unsanitary conditions around the barn, of the milkers, dust particles in the air, dirty utensils, or unsanitary water in which the utensils are washed may bring about infectious diseases.

Cooling is a most important factor in the production of high grade milk. Bacteria will thrive and grow in warm milk more readily than they will in milk that has been cooled. All milk as soon as drawn from the cow should be cooled to a temperature of at least fifty degrees Fahrenheit and maintained at that temperature until consumed.

Aside from all these precautions to be followed in the production and handling of milk, pasteurization is the safest method to be practiced in obtaining a wholesome milk for human consumption. Pathogenic bacteria are destroyed when milk is heated to a temperature of one hundred and forty-five degrees Fahrenheit and held at that temperature for thirty minutes and cooled to fifty degrees Fahrenheit immediately. Careful pasteurization will practically eliminate the dangers of infection from milk. The inspection of the dairy establishments should be enforced to see that all milk is properly past
So far as records have shown there has been
break from properly pasteurized milk.

In conclusion, we find from a record of outbre
pathogenic bacteria actually occur in milk eithe
raw or pasteurized state. Although it is difficult
down every epidemic, it has been found that th
several epidemics caused from milk. As each
disease has a specific organism we conclude th
are several types of pathogenic organisms to be f
the human milk supply. One precaution withi
will not keep down the danger from infection.
are eight precautions to be taken in placing milk
market ready for human consumption, namely:
erinary inspection of the animals two times a y
Milk inspection of production. 3. Cooling of
fifty degrees Fahrenheit and held. 4. Rejection
suitable milk. 5. Proper pasteurization with a
ing thermometer. 6. Putting into sterile containe
sterilized. 7. Machine capping of the contain
Holding below or to fifty degrees Fahrenheit un
sumed.

By the use of the foregoing precautions mark
can be produced which is free from pathogenic
and will not serve as a source of possible infecti

⁂

WILLIAM HORLICK HONORED BY KING HA OF NORWAY.

Malted milk, the food product now known
the world, was discovered by William Horlick at
Wis. This was the first time in history that whol
milk was reduced to powder form, together w
nutritive extracts of malted cereals, so that it wa
ily transportable and would keep in any clima
named the product, "malted milk."

Years later, in 1895, Mr. Horlick combined
milk with chocolate, cocoa and other flavorings, m
in tablet and other forms.

The discovery of Horlick's malted milk has b
means of saving thousands upon thousands of live
cially of infants, and invalids requiring a highly
tious and easily digested food, many of them in
regions. It has been carried by explorers ever
and by Amundsen and Peary to the North and
Poles.

In recognition of services rendered to polar e
tion, the rank of Knighthood in the Royal Nor
Order of St. Olaf was conferred upon Mr. Hor
King Haakon of Norway.

⁂

YOUNG DAIRY SOON TO HAVE NEW HO

The Young Dairy Company, at present loc
711½ Pierce St., Sioux City, Ia., will soon move
new home, a two-story brick structure, which is
at West Fifty and Perry Sts.

The business was established many years
Edward Young, father of George W. Young, the
proprietor. During the World War the Robert
Company bought the interests of the Young Da
November of 1925 George W. Young again bec
terested in the business and since that time the
Dairy Company has carried on both a wholes
retail business.

⁂

You can get somebody to sell you anything yo
if you use "The Milk Dealer" Want Departme

PAYGROUND ASSOCIATION HAD GREAT PARTY.

ditor:

ought I would drop you a couple of lines and about the great time we had down at the party by the Dairy Playgrounds Association at the ter Beach Hotel, April 21st.

w some of the members of your company down ut I didn't see you. You missed a swell party. big party was given to celebrate the fact that ociation, though only one year old, has all its ships sold. Also to celebrate the fact that this ion has one of the best North woods club grounds ind in the country.

go on telling you about the party; it started off bang, a dinner and ended with a dance and noth- fun all the way through. R. E. Little was made ster, because he can talk so fluently and he was g leader on a lot of the stunts that were pulled.

ny things happened at the party that I can only ber a few things that did happen.

old Christiansen of Chicago fixed up a wonderful but it did not go off as planned, and it was the st thing you ever saw. Here is how the stunt was ed to have been worked: Robert and Mrs. Trapp Milwaukee were at the party and Arnold fixed it he entertainment committee that they should hire ractive young lady who should act the part of Chicago sweetheart. This actress was to come bawl Bob out for not coming to see her and then Bob by the coat collar and pull him out with her.

ll, this is what happened: The entertainment com- hired the young lady all right and when she n she made a lot of noise and headed straight for d Mrs. Arnold Christiansen. She grabbed Arnold coat collar and said, "What are you doing here? didn't you keep your date with me?" Then a man came in and took them both out.

bert Stoddard of Chicago put on a good stunt by sonating Health Commissioner Bundesen. With sistance of several prominent members Stoddard, impersonation, gave Frank Kullman, Sr., a very health examination to see whether he could stand rain of a party. After considerable consultation he was permitted to stay with the party until 4:00 a. m., but must not stay any longer.

R. E. Little, whom you know is secretary of the club, started to make a wonderful speech about the club being an organization, not for commercial purposes, but for pleasure and good fellowship and not for the business one could get by being a member of the association. Just then a bell boy came rushing in with a special delivery letter which was read to the audience as follows:

April 21, 1927.

Mr. R. E. Little,
Secretary, National Playground Association,
Chicago, Ill.
Dear Mr. Little:

I am informed that you are to serve as master of ceremonies at the National Playground banquet at the Edgewater Beach Hotel, Thursday evening. There is a matter which I would like to have you bring before the club at that time. Last year I bought a membership in the National Playground Association on representations of one of the members that it would bring together the leaders of the dairy industry, and that my contact with the buyers of our product and the business that I would be able to do would pay for my membership many times over.

This is to notify you that I have been a member of this club now for over a year and I have not as yet taken one darn order. What is the good, anyway, of joining a club of this kind if you can't sell something? I have followed your crowd around for the last two years and tried to be a darn good fellow. I have spent lots of money on entertainment, soda pop, and cigars and what do I get out of it? Not even the ghost of a dollar's worth of business. I go out and play golf with you and purposely play a "lousy" game so the buyers could beat me. Does it get me anything? I will tell the cockeyed world I have not got 5c to show for it. If I hope to get anything back out of what I put into this darn club I got to roll dice for it, and even at that I sometimes get cleaned out.

Then I went out to fish, thinking maybe I would get some sport that way that was worth my dues. What kind of a deal did I get there? The guide was tipped off to take me out to fishing grounds where George Wieland had been the day before and cleaned them all out. I ask you, is that fair?

I am serving notice on you right now, and if I do not write up $100,000.00 worth of business during the coming club season, you can take your darn old membership and sell it to one of my competitors and "goof" him a while. What is the use of belonging to a club anyway unless you get something out of it?

You can read this to your bunch tonight if you want to. I don't care. I'm sore.

Yours truly,
(Signed) ED. NEUMEISTER.

Well, you know Ed. Neumeister did not write that letter, as Ed. is too good a scout to say anything. He would rather throw his membership away than to let anybody know that he wasn't getting any business from it.

Anyways, who ever wrote the letter pulled a good joke and Ed. says that he'd be willing to be the goat this time.

William B. Wanzer and J. J. Jackson were captains, respectively, of the two membership teams. Because both teams won the contest that was put on, both of these gentlemen were called on the stage and, after another beautiful speech by Secretary Little, they were both graciously presented a tin hat for their work in the interests of the club.

Last, but not least, must be mentioned the marvelous musical contribution given at this party by the Ta-Shi-Ta-Wins, a secret Indian society of the club. This society is made up of all members of the Playground association who would make truly wild American Indians. I understand that the annual Spring Pow-Wow is scheduled for the week-end of June 19th, up on the club grounds. All new members of the association who are wild enough to become a member of this secret society should be prepared to take in this initiation, which is being planned.

Enclosed are some pictures taken last winter of some of the new cabins that are being put up on the club grounds and which are about ready now to take care of members and friends this season.

Yours truly,
YE SCRIBE FOR TA-SHI-TA-WINS.

⁂

THE CUB WRITES SOME EDITORIALS ALL HIS OWN.

"There are two milk dealers in a certain town that I know of," said a visitor in our office recently. "One has about the niftiest looking plant I ever saw, modern in every respect, mechanically perfect, and in every way complete—almost complete, I mean. The other man's plant is not much to look at, and I am afraid he is far behind in equipment. For the good of the industry, I wish he would straighten out things and dress up his business, but do you know—well, can you guess which one has the better business?"

"Why the —er—"

"No," said the other with a sigh, "you are going to guess wrong, I see right off the bat. The sad part of it is the fellow with the bum machinery and seedy looking appearance sells almost two-to-one against the better-equipped plant. The explanation? It's almost beyond me—just one of life's little jokes.

"For one thing neither proprietor is right in his viewpoint, but the man with the good equipment went farthest from the truth. He got too far away from fundamentals; he became so worked up over modern details, modern machinery, etc., that he soon began to believe the mechanics of the business were all that counted—believed that if he got together enough good equipment the plant would sort of take care of itself, an automatic arrangement. Well, life isn't so well ordered yet.

"So it is that the other fellow, who really is sadly lacking in appreciation of proper equipment, is emphasizing the human element. He is working. He is applying himself to his business, putting flesh and blood and human thought into his work. He knows that his fundamental job is—selling milk. So he is out selling. The other fellow takes better care of it and turns out the milk in better shape, but he is taking up so much time with his inside operations that he doesn't get to the important part of the work; there is a break in his system, break at the important end of the business.

"Of course, neither one of them will hold up long at this rate. Somebody else some day will step in and do what each of these men is doing. That is, he will have a good plant and a good sales organization, too. It's dern funny, though, why either one of these men won't take a tumble to himself and profit from the other's lesson. What an ideal combination they would make—one a merchandiser and the other a genius at plant routine. It all just goes to show, though, that whatever we do, how much money we may spend on good equipment, the milk business is a human proposition and we never, never can get far away from the fundamentals—selling milk."

That's a pretty good editorial as it stands, without further comment. There are two kinds of people who won't like it very well, possibly — the two types mentioned here. They are not confined to any particular town, however.

We like our slogans in the milk industry. Pro
no other commercial product ever had so many s
as milk, bringing out various thoughts of why m
the perfect food.

We know many milk dealers who have sloga
their own, not just business slogans, but personal sl
like "Do It Now," "Pulling Horses Don't Kick,"

"What," asked a milk dealer of us recently, "
you recommend to me for a business slogan—I me
an inside slogan—one personally to apply to me a
organization?"

"Don't kid yourself," we replied, and it was
time before he took in the meaning, and still lat
fore he ever absorbed it to any appreciable extent-
even some time after that, perhaps, before he very
appreciated the meaning—if ever.

Those three words, however, we firmly believ
good mottoes for every business to follow, whether
milk business or not. They are good for all of us
beings, for that matter. We are all given, more o
to that low, common form of deception—self-deceit
get certain ideas about our business, our organiz
and we think of apt terms to describe the superio
our business and its service over all others. In ti
begin to believe much of these fanciful things a
come firmly convinced that our one particular lit
stitution is about the only one in the world that i
ducted in just the proper way, faultless and flawl

The successfnl businessman—permanently succ
that is—is the one who keeps an open mind towa
business all the time, the same open mind that he sh
any business proposition, to any scheme that a ma
launch calling for some of his money for investme
is strange how many of us can calmly and coolly
a business proposal on its merits and quietly tel
our best friends why they are wrong, why their pr
tion won't go. Then, although we can weigh othe
ters rationally, we are absolutely incapable of acc
unbiased thought on our own business affairs.

Perhaps we in the milk business have kidde
selves more than any other class of men. Perhap
because it is such an exacting business, demand
much of ourselves, keeping us ever with it, so clos
in fact, that we can't see it in the right perspecti

It would do 90 per cent of our milk dealers a
deal of good to get up from their desks three o
times a day, walk off two or three blocks and then
around their plant three or four times. The chanc
that, in so doing, they would begin to get new
points that have been escaping them for many yea
then they might be able to **see the plant where the
been prisoners all these years!** Prisoners who hav
kidding themselves!

⁂

INSTALLS RADIO IN BARN TO KEEP CO CONTENTED.

One of the chief duties of a dairyman now-a-d
to make his cows contented with life, to ensure a
ful supply of milk, according to J. G. Sterchi, of
ville, Tenn.

Mr. Sterchi installed a gramaphone in the barn
time ago, but feeling that the cows would beco
contented if not given the latest inventions, he
cently installed wireless.

Mr. Sterchi is continually studying the whims
herd and has discovered that dance music from
clubs appears to be the most enjoyed by the cow
songs such as "My Old Kentucky Home" and
Rosary" seem to soothe the animals.

PACIFIC COAST COMPANY REPORTS GOOD YEAR.

ection of a prosperous year for the dairy indus- lifornia during 1927, together with a report of l operations for the past year, marked the re- . E. W. Pioda, chairman of the board of direc- e Golden State Milk Products Company, at the eeting of stockholders and election of officers. ing was held at headquarters of the company, ery Street, San Francisco, Cal.

-ection of all officers and the appearance of the S. Waldo Coleman as the new member of the directors marked the election.

Prosperous Year Predicted.

esenting the annual statement, Mr. Pioda sur- te dairy industry of California for the past year; ss of the Golden Gate company in broadening ets through its international sales organization, eased production that has come through the of one new plant, purchase of two others and to several other of the many plants owned and by the Golden State company in California. ise predicted an unusually successful year for ymen of the state in view of the growing de- all kinds of dairy products and improvements iry population of the state, with its attendant in production of raw product.

fficers re-elected are as follows: L. E. W. Pioda, n of the board; C. E. Gray, president; B. G. Tog- e-president; Thomas E. Day, general manager; eefer, secretary. Directors: L. E. W. Pioda, C. Moore, G. A. Berton, M. A. Gale, John Freu- . Buck, S. Waldo Coleman, B. G. Tognazzi, C. R. N. Oschwind and Gavin McNab.

financial statement of the Golden State Milk Company, as announced by Mr. Pioda, showed assets of $1,658,238.29 and current liabilities of 63.79.

* * *

CIATION CATALOG" OF MACHINERY AND SUPPLIES NOW BEING MAILED.

Association Catalog"—a compilation of sources hinery and supplies for all the dairy products tries—has come off the presses and is now being d o dairy products plants throughout the world Dairy and Ice Cream Machinery and Supplies ion, the latter announces.

catalog includes extensive and cross-indexed of all the member houses of the association— aling nearly 200—and of all of their products ertain to dairy products manufacture and mer- ding.

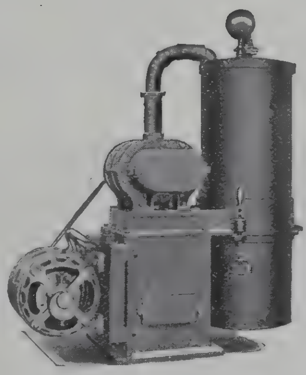
purpose of the association is to supply this nd reference book to every dairy products plant d throughout the world. The catalog contains s, is of a size suitable for desk or traveling bag tion, and is attractively and substantially d.

compilation and issuance on an international regarded by the association both as an enter- unusual service to the dairy products industries ray, and as a notable example of the possibilities ciation work.

* * *

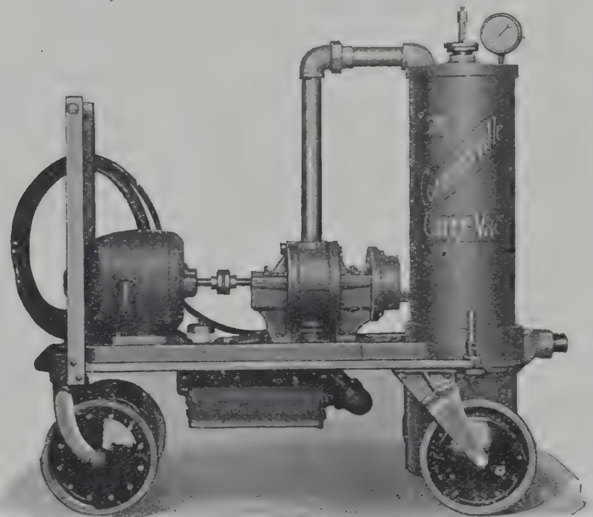
soever neglects learning in his youth, loses the l is dead in the future.

Both
Horses *and* Cows
are better cleaned with
Curry-Vacs



Vacuum currying is economical, sanitary and efficient. Connersville Curry-Vacs are the "last word" in currying equipment. They reduce bacteria count, increase milk production, and keep the cows more healthy. They keep horses cleaner, and enable them to do more work on less food.

Stablemen are in love with the machine, it reduces cleaning time, makes the work easier, and eliminates the dust flying in the air. Curry-Vacs are here illustrated in two types, truck and stationary.



Please send information on ( ) Truck ( ) Staticnary Type Curry-Vac for cleaning ( ) Horses ( ) Cows.

Name ....
Address ....
City ....

United Vacuum Appliance Corp.
CONNERSVILLE Dept. M5 INDIANA

Dairy Pilgrimage Well Attended

Twentieth Century Dairy Pilgrims Not Interested in Rocky Soil and Pass Plymouth Rock for Nation's Capital

By a Correspondent too Timid to Speak for Himself

BY JIMMINY, if anybody thinks that the hardest day's work in the world is a farm hand's work on a dairy farm, he has another bunch of thinking coming. He just wants to visit the first day of a Dairy Pilgrimage once, and then he will find out what a real day's work is.

I thought I was going to write a funny story all about this Dairy Pilgrimage thing, but By Jimminy I am too tired.

Just like the first hundred years, the first day was the worst. The bunch came in in all kinds of ways and times, but they all got off to a bum start by the big buses being late, but once started, the party which set out as if they were a bunch of sight-seers in a couple of rubber-neck wagons, soon found out that it was worse than a day in the old country school, with a big raw boned school teacher just humping them from one subject into another one. And that is what the Dairy Pilgrimage was like.

American Dairy Federation 1927 Pilgrimage to Washington, D. C. April 26, 1927.

However, I had better tell this story straight through from the beginning. There was so much of it, that if I don't get it off my mind pretty fast, and in pretty near straight order, I will forget more than half of it. I never knew these government folks were poking into so many things as they told us about in the last three days. And say, they were not just skimming over the surface either but most of them were getting right down to brass tacks, and knew all they were talking about.

First thing was that Assistant Secretary of Agriculture Rennick W. Dunlap. He must have been the last of a big family to have drawn that first name after all the good ones were used up, but he sure knew his sprouted oats. He was put in as pinch hitter — you know what I mean—when the Secretary of Agriculture didn't get back from some important trip down in Virginia. He made us all feel welcome for Dunlap was, is, and expects to continue to be a real dirt farmer and dairyman down in Pickaway, Pickaway county, Ohio. Then he was dairy commissioner out there for four years, so he knew both ends of the business, making good butter and making buttermakers be good.

Then after Secretary Loomis lost about ten pounds of his surplus weight running around in circles trying to find out why his buses didn't show up on ti all started out for the Beltsville Experiment Stati bus tried to make up some of its lost time by three lumber wagons all at once on a narrow ro dropped two wheels into a ditch full of Marylar and water. Three ladies screamed, but the rest crowd remained cool and they all climbed out and the rest of the way—not very far. The prog Beltsville was well started when this crowd—you writing informant being one—arrived.

Learning Their Oats.

Doctor Meigs, the man who invented sprout had charge of one-half of the program, and Mr. who knows the first names of all of the ances more cows than any other man in the United S unless it is Charley Hill of the Guernsey clan charge of the other. For the rest of the day the was pumped full of information about breedi feeding dairy cows, all illustrated with the howl amples—especially some of the bulls that were and howled dolefully when they saw who all wa I have not had enough experience as a "shorthor none at all as a full fledged junior, sophomore or to tell you all about what these fellers were about, but I am told that in a few days, the Ar Dairy Federation is going to get out a printed of everything that was said. Maybe they will se one, if you ask for it.

One thing they said was that the feeding of sp oats had been tested out with fine results. Dr. told just how they knew this, all about what the scope showed. Dr. Meigs told of the increased ness of the older bulls with this feeding, and of creased age which the cows could attain and ke ducing good calves. The result of exercise on t sire was also shown very definitely. More ab need of adequate minerals in the diet and espec the necessity for careful selection of the source which such minerals could be secured. Feedir erals directly did not seem to be of so much value there was a lot of work having to do with new minations of the amount of protein in the ration is needed. Some very interesting charts show high protein feeding really makes itself felt in t pail seemed to raise some questions about other recently reported about the lack of necessity protein rations.

Over in the section which was studying br one real point was shown up by a chap who was on the comparative merit of high producing sires high producing dams. His figures on what sires—proven sires—had done toward increasir yield ought to give a boost to the price of som I know of.

Getting Them Young.

One new idea got out around. It was that mil could be brought to maximum production much than is now the practice, if some different early practices are put into effect. It was shown tha the young animal was violently separated from her milk diet, it hurt his growth curve just as b

[The use of gelatine in buttermilk will build more sales for you]

Gelatine in Buttermilk

Is Approved by Dairy Industry Experts

BECAUSE:

1. It checks "wheying off"
2. Improves taste and texture
3. Retards development of acidity
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5. Is successful in both natural churn and commercial buttermilk
6. Costs less than 1 cent per gallon
7. Does not change the manufacturing process

[Directions for the use of gelatine in buttermilk,—samples, prices, etc., may be obtained by writing to any of the following—members of the Edible Gelatin Manufacturers' Research Society of America]

ATLANTIC GELATINE COMPANY,
Woburn, Mass.

CRYSTAL GELATINE COMPANY,
121 Beverly Street,
Boston, Mass.

ESSEX GELATINE COMPANY,
40 North Market St.,
Boston, Mass.

KIND & KNOX GELATIN COMPANY,
Camden, N. J.

MILLIGAN & HIGGINS GELATINE CO.
222 Front Street,
New York, N. Y.

SWIFT & COMPANY,
Union Stock Yards,
Chicago, Ill.

UNITED CHEMICAL & ORGANIC PRODUCTS CO.,
4200 South Marshfield Ave.,
Chicago, Ill.

UNITED STATES GELATINE COMPANY
Milwaukee, Wis.

THE J. O. WHITTEN COMPANY,
Cross Street,
Winchester, Mass.

EDIBLE GELATIN MANUFACTURERS' RESEARCH SOCIETY OF AMERICA, *Inc.*

457 BROADWAY " " " NEW YORK

[The use of gelatine in buttermilk will build more sales for you]

he writing to EDIBLE GELATIN MANUFACTURERS' RESEARCH SOCIETY OF AMERICA, INC., *please mention The Milk Dealer.*

did his or her temper. In other words it started out an entirely new and not so good growth curve. The expert who was talking about this said that it was a lot of theory yet, but he showed a surprising lot of facts to back it up. I wouldn't be surprised if they brought out some infant prodigies next year—that is if the fellers on the Pilgrimage survive so they can get back another year.

Then the boss of the farm, Mr. Woodward, told about the struggle they had gone through to finally get enough land and enough buildings together to handle the big job they have on hand. "Would you believe it," he said, "that they figured a profit on every crop they raised; the farm crops being principally corn, hay and pasturage?" In Mr. Woodward's talk there were two very interesting suggestions for the future, one was that the farm was now supporting a cow per acre, and that a lot more cows were needed—where were the additional acres to come from unless some one got busy? The other was that they were tired of apologising for a horse and mule barn that was older than the dome of the Capitol—why should Uncle Sam spend several hundred million dollars in various ways when not a dollar could be spent for a horse and mule barn. Of course Mr. Woodward as a loyal part of the government, didn't say it this plain but that is what he meant.

A Pointed Meeting.

They have discovered a new way to use baled hay out at Beltsville. Since there is no meeting room for any crowd that might be interested enough to go there, the men in charge decided to make a place, so they cleared out one end of the loft in the barn, and piled bales of hay up to make a regular Roman amphitheatre, the visitors sat around on the tiers of baled hay, and it was a lot better than standing or sitting on the level. Worked all right except where the baling wire ties had some sharp ends standing straight up. Wouldn't wonder if some of the boys pried some of these ties up a little, just to see what the result would be when some of the visitors sat down.

After this we all were taken up to the "upper barn" where the part—nearly half—of the herd which was found to be infected with contagious abortion are kept under careful attention. Dr. Buck of the Bureau of Animal Industry told us about the test which is used, which seems to be pretty sure to pick out every aborter from this cause. He said there were some other causes, however, which cause a lot of trouble. Then he told of the methods used to gradually cut down losses, keep the new calves free from the disease, and generally get the better of it. Looks like they were on the right track.

Encroaching on the Cows' Home.

They fed us between times. Great lunch. All the rolls and Swiss cheese they could pile on the tables, lots
of milk, big bowls of what they call down here "
sausage," just plain wieners (you Milwauke
ought to know); ice cream, and cake. Tables
out in the barn with the bossies all looking in
ing where they were coming in. Showed us all th
too and this man, Graves, told us all their first
and pedigrees back to the first one that came

Then they fixed up the bus they had hauled
the mud and took us back to Washington, whe
wouldn't let us go to a movie—or somewhere el
herded us down to hear a trio of speakers, an
pictures of the corn borer. You won't catch me
any green corn this summer if those fellers get u
the lake into Wisconsin. The speakers were Doc
who bosses the whole research game—seemed
all about it too, and told us every dollar spent
back a thousand plunkers. Had his figures rig
him. Next was Secretary Dunlap—just assistan
tary, you know—but he was as near to secre
we could find out that they had down here by
him, that is. The other speaker was Dr. Erne
told us a lot about what they were doing to
tuberculosis plague, and then a lot more we didn
to be told about why they were doing it, and apol
because they couldn't do it any better. We a
they were doing as good and as fast as they coul

We were notified that we would have to be
job again Wednesday at nine o'clock, and we
some of us. Part of the party dropped out, bu
were a lot of new folks. Wednesday was all ab
better dairy sires, cow testing results, better
work, how to keep the bottle washers from brea
all the bottles and making us sell milk cheaper
new ones, and one fellow who showed us how
a sterilizer that was guaranteed to keep your c
pails all o. k. Then up to the laboratories whe
lost in the big words. The speakers explained
them but what I liked best was telling how to m
ter cheese, and butter, and ice cream, and es
about how to make powdered and condensed mil
are always all right and especially the powder
that always makes better bread when it is used
bakers. They have found a way to make mil
and some other powdered material out of swe
that ought to make the cheesemakers happy.
wasn't a dod-gasted cheese man on the whole tr

After a lunch which was all made up and s
the dairy laboratory, we all went over to the eco
part of the department. They seemed to be
just as hard, and doing about as much, and may
ing just a little more about it over there, so I di
where the economy part came in, but that is
they named it—Bureau of Agricultural Economi

Economical agriculture is what we all want
about, and say, I found out they really were doi
thing to tell us about how to make more mon

AMERICAN DAIRY FEDERATION
WASHINGTON D.C.

The American Dairy Federation as Guest of President Coolidge on the Grounds of the White House.

ANNOUNCING

The new

PFAUDLER "PFEATHERWATE" Truck Tank

A light-weight construction that will stand the "gaff"!

¶ After meeting rigid road tests successfully for over a year, the Pfaudler "Pfeatherwate" Glass-Lined Truck Tank is offered to you, with a proven record of merit. This model has been in continual service for the Detroit Creamery Co. for the past year and has met actual conditions perfectly.

¶ All this has been made possible by a special fabricating process which adds great strength to light-gauge open-hearth steel. A new cradle construction also absorbs the road shocks and preserves the life of the complete unit!

¶ If road laws have barred you from effecting the economies of bulk transportation, they are no longer a consideration. The Pfeatherwate, though only half the weight of our standard model, is equally durable. Avail yourself of the most sanitary and economical transportation system now in existence!

Manufactured in four standard sizes 600, 750, 1000 and 1250 gallons. Write for Bulletin 686!

Pfaudler THE PFAUDLER CO. Pfaudler
Transportation Division ROCHESTER, N. Y.

When writing to THE PFAUDLER COMPANY *please mention The Milk Dealer.*

first man told us about how many less cows there are now, and how they kept track of them, and were going to do more in the future with a monthly report on the amount of milk produced in the country. Another man told us how they kept track of all statistics of production all over the country, and how, after securing the market and production information, they put it out in various ways, market letters and reports. Still another one makes it his business to watch all foreign markets and production and trade between the countries. Still another one told about the work of grading, and packing and preparing for market, and still another about the work they do to help dairymen to work together in co-operative associations and in other ways.

More Assistants.

For a wonder they let us off after this morning and afternoon without asking us to spend the evening with them.

Wednesday night I thought I was all in, but Thursday morning the sun was shining pretty and it was clear and cool, and I thought I could stand the last half day, so I rubbed the stiffness out of my ears, and limbered up my note book, and started in again. This time it was just the same, only different; no agricultural at all, but up with Mr. Hoover's bright young men in the department of commerce. Funny but they looked just like the other fellers that had been talking agriculture to us, and, say, if I hadn't known that we went up Pennsylvania Avenue, instead of down Fourteenth Street, I couldn't have told the difference between what they were talking to us about Thursday and Wednesday. "You must find a good market for what you have to sell, and sell it in good shape at a good price, else better not stay in the business," was the gist of what Assistant Secretary Brake told us. Secretary of Commerce Hoover had been sent down to Memphis to tell the Mississippi river where to head in—like that King Con-not or something of the kind who tried to sweep the ocean back, and we had to have another assistant secretary open up the meeting.

Then he told how the department of commerce was trying to do for all kinds of business, the kind of things individual business men could not do for themselves. One after another a number of the heads of departments came out and told what their divisions were trying to do. One was lining up foreign agents and opportunities to sell American goods; another was keeping posted on the laws, rules, and tariffs in every foreign country. Another one was working on everything you could think of that had to do with transportation and communications, even to the number of nails, and the thickness of lumber to make the best shipping crates for butter tubs. Another one—this was Dr. Montgomery, chief of the division of foodstuffs—told how his department kept a constant record of the trade between every country in the world, in every important article of food, not only about the American exports and imports, but about how food was moving all over the world between every nation. They had a big map of the world over on the side wall. When you ride in a flivver from Milwaukee to Washington, you think you are seeing some of the world, but gosh, that world map made that trip look like visiting your wife's cousin just over in the next county, and on this map there were about a thouand little yellow and red and black dots, each dot showing where the department of commerce had a man or an office getting information to help American business or actually helping American business men who might be there on their own business. Some outfit.

Then they hustled us all out and down to t
of President Coolidge. They didn't give us time
to lunch at the department of commerce, but I
could have done just as good a job at putting u
tasty snack up there as they did the other day
Department of Agriculture.

We couldn't get into the real White House,
is in the hands of about a thousand workmen,
on a new roof, and fixing up the inside so the P
will like it so well he will want to stay anoth
years. This isn't any joke. If you think it is a
Shaver, and Governor Lowden.

The President was at work, but he came out
lawn and stood up in the front row, and had his
"took" with us. Then he stepped out in fr
looked the crowd over and looked like he was
make a speech. Probably some one had told h
we had listened to three dozen speeches in the p
and a half days, and he took pity on us, for all
was, "You certainly have a fine day for your vis
I hope you are having a profitable visit in Washi
Everyone said they were, and started to clap thei

The final event was at the Chestnut Farms Da
big show plant of the biggest milk distributing c
in the city, so they told us. Mr. Henry N. Bra
pretty proud of this because he designed it, buil
is running it. He took the whole crowd up there
big busses, gave us another luncheon, and then t
party through every part of the plant. It was a
slick place, so clean that you wouldn't know i
milk shop anywhere. And, say, I saw something I
was pretty nearly extinct — a whole barn full
horses, and some of them fit for a horse show an
Mr. Brawner is too proud of his hores to let the
get the best of them, and says that he finds horse
delivery wagons still the best for a large part of
livery business. If a lot of farmers would take a
from Mr. Brawner there would be a bigger mar
some things the farmers raise—oats for instan
mcre farm fertility.

Well I didn't tell Mr. Olsen that I would thr
lecture on farm management free, along with th
rambling story of what we did and saw and t
about on a Dairy Pilgrimage, so I'll cut it off
tells me whether he wants it or not. Mr. Olsen
was here and spent the whole two and a half day
the Pilgrimage, and he ate just as many chees
wiches and drank as much buttermilk as anyb
the trip. He says he persuaded about half of t
who were here to go to Europe to the World's
Congress with him, next summer. If they all go t
it will be "some party."

* * *

KLUETER TO BE ASSISTANT COMMISSIO

Wisconsin dairymen will be glad to learn t
retiring state dairy and food commissioner, Hon.
Klueter, is to remain as assistant commissioner an
chemist.

When he was advanced from that position la
tember the question was raised whether he woul
matically resume his old position upon his retire
commissioner. One of the first official acts of C
sioner Kramer was to settle the question by takin
to see that the records were put in shape so as
move all doubt.

Mr. Klueter has also been reappointed superin
of Dairy Hall at the Wisconsin State Fair, which
other pleasing item of news.

Wants To Know Why

TRADITION
PROGRESS

"Lad—

what the dickens is the matter with hse motors in the plant?

First they say it's bearing trouble.

Then it's insulation trouble.

Now it's called overload trouble.

What's the real cause or causes?"

"All, Pop—

all you've said and more.

They're like the auto a fellow brought into the repair shop last night. He said that everything on it made a noise but the horn.

I told you those motors were made to run a yarn winder or feather pillow packer.

The motor that fainted this morning is rated 5 H. P. If it gets 5½—it heats up and blows like a fuse link.

But give a Linc Weld 5 H. P. motor a load up to 7½ H. P. and it doesn't seem to know the difference. (For the technical reasons see pages 14 and 15 of the Linc Weld book.)

The repair man tells me that the Linc Weld is like the old mountain burro—thistles are as spinach to its hard boiled tongue."

The Lincoln Electric Co., Dept. No. 25-5, Cleveland, Ohio

MA-7

"Linc-Weld"

LINCOLN MOTOR

When writing to THE LINCOLN ELECTRIC COMPANY *please mention The Milk Dealer.*

Fluid Milk Market Report for United States for April, 1

By Bureau of Agricultural Economics, Market News Service, United States Department of Agricultu

Table I—Producers' Prices for Standard Grade Milk Testing 3.5% Butterfat, Delivered F. O. B. Local Sh Point or Country Plant.

Prices which appear in this report are secured through the co-operation of milk distributors, producers' ass and municipal officers. Dealers' buying prices unless otherwise indicated, represent prices applying to all milk c by producers. For cities where a "surplus plan" is in effect, the prices reported in table III are for "basic" qu All per cwt. buying prices have been converted to a 3.5% butterfat basis for comparative purposes.

Sections	Range of April Prices		Prices Compared for Same Markets			
	Number Local Markets	Prices per Hundredweight	Number Local Markets	1927 Average for April	1926 Average for March	1 Av for
New England	11	$2.69–$3.95	9	$3.32	$3.33	$3
Middle Atlantic	15	2.35– 3.00	15	2.80	2.83	2
E. North Central	24	1.80– 3.13	23	2.52	2.57	2
W. North Central	21	1.66– 3.10	21	2.32	2.35	2
South Atlantic	14	2.80– 5.00	14	3.62	3.60	3
E. South Central	5	2.05– 3.39	5	2.46	2.62	2
W. South Central	5	1.90– 2.70	5	2.33	2.44	2
Mountain	6	1.79– 3.20	6	2.33	2.35	2
Pacific	10	1.70– 3.13	9	2.54	2.60	2
United States	111	1.66– 5.00	107	2.71	2.73	2

Above prices include "basic" prices where a surplus plan or cooling plan is in effect. Cities where prices a upon current butter quotations not included.

Table II—Prices for Special Grades of Milk and Certain Milk Products.

The following table shows the wholesale and retail prices reported for "special" and "certified" milk and certa products delivered at wholesale buyers' places of business and at the home of retail customers.

Cities	Special Milk	Certified Milk	Cultured Buttermilk		Cottage Cheese		Light Crea 18-25% B.
	Retail Price per Quart	Retail Price per Quart	Wholesale Price per Gal.	Retail Price per Quart	Wholesale Price per Lb.	Retail Price per Lb.	Wholesale Price per Gal.
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Akron	15–18	20	20	8	8	10	1.30–1.60
Albany	18	..	28	10	..	..	1.60
Albuquerque	..	..	..	..	20*	25*	1.75
Allentown	18	..	..	13	9–11	..	2.00
Altoona	15	22	25	10	..	..	1.35
Asheville	19	25	..	..	15	..	2.00
Baltimore	..	30	44	14	10	15*	1.70
Birmingham	..	25	25	9–22	18	24	1.50
Boston	18½	26	..	10	..	..	1.17–1.79
Buffalo	14	26	24	10	12	15	1.44–2.00
Chicago	17	25	..	10–20	13	15*	1.30–1.80
Cleveland	19–20	25	..	12–13	8–14	15	1.26–1.87
Colorado Springs	17	..	15	6	..	..	1.25
Columbus	17	25	30–35	12	10	15	1.45
Dallas	24	..	20–25	8–9	17	..	1.50
Denver	14	..	20	8	..	14*	1.40
Des Moines	14–25	20	9–20	11	10	14	1.40–1.55
Detroit	..	25	..	35	..	..	..
Duluth	14	25	13	8	..	..	1.45
El Paso	17	..	20–25	10	15*	20*	1.35–1.40
Evansville	15	..	25	9½	..	..	1.60
Harrisburg	..	..	36	12	..	..	1.50
Hartford	20–25	25–35	..	10	..	..	1.40
Indianapolis	16	..	25–35	10–12	12	..	.90–1.25
Jacksonville	25	..	30–35	10–12	20	30	1.60–2.50
Kansas City	15	25	25–30	10	14	20	1.60–1.90
Lincoln	14	15	20	10	12	15	..
Long Beach	16–20	28	25–45	10–15	10	..	1.60–1.80
Los Angeles	..	28	25	10	..	..	1.60
Louisville	16–17	24	..	13	12½*–15*	15*–17*	1.00–1.63
Memphis	..	30	15–20	6–7	15	20	1.10–1.40
Miami	30	28–35	50–55	20	20–30	..	2.00–2.25
Minneapolis	..	22	..	13	10*	12*	1.32–1.44
Milwaukee	14–18	25	16–18	6	7	9–10	1.20–1.65
Nashville	18	..	20	10	17	20	1.50
New Orleans	18	31	40	14	..	..	1.20
New York	30	28	28	11	..	..	..
Philadelphia	15–16	30	..	9–13	..	..	1.56
Pittburgh	..	25	20–25	10	..	..	1.30–1.50
Portland	14	..	35	12	10	20	1.40
Richmond	16–18	..	25	8	..	..	1.20–1.30
Rockford	18	18	..	..	..	20	1.40
Salt Lake City	15	..	15	..	12½	15	1.35
San Diego	20	28–32	20–25	9	10–15	..	1.80
San Francisco	..	25	..	14	..	20	1.80–2.50
Scranton	18	23–25	20–32	8–10	..	..	1.40
Seattle	25	18	..	..	14	20	1.30
Sioux City	..	25	15	6	10	10*	1.25
Spokane	..	..	..	..	..	..	1.40
St. Louis	18	25	..	10–18	13	15	1.26–1.75
Trenton	17	30	38	13	..	..	1.76
Trinidad	15	20–25	25	10	20	25	1.25
Washington	18–22	30	..	15	15–20	15–20	2.00
Wheeling	17	..	30	10	..	..	1.40
Wilmington	20	..	..	10	..	13*	..

* 12 oz. package

Butter contains a vitamine which is essential to
Life, Growth and Health.
Mother Knows

This New Display Service *of the* Dairy Council is *Ready*

Attractive-Educational-Effective

Artists in the Educational Display Department of the National Dairy Council have just added the "finishing touches" to another unique exhibit, emphasizing the value of dairy products. Whenever doctors, dentists, school authorities, health commissioners, or other influential groups meet, the Council's outstanding message is there to inform them of the latest scientific and practical information.

Many of these effective displays are available for rental to the dairy industry, on a cost basis, for conventions, food shows, window exhibits, schools, fairs, etc. As this new department develops, more of these unusual displays will be announced. This is another striking service of *your* educational organization.

NATIONAL DAIRY COUNCIL
Promoting Health and Child Welfare
910 South Michigan Avenue
Chicago, Illinois

When writing to NATIONAL DAIRY COUNCIL *please mention The Milk Dealer.*

Table III—April Cost and Selling Prices

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5–20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
ALABAMA—							
Birmingham	3.42–3.91	Varies	45	12–14	17	12–17	3.6–
Mobile	..	..	35–45	10–15	18	18	3.2
ARIZONA—							
Phoenix	..	..	32–40	8–10	10–12½	10–12	..
CALIFORNIA—							
Fresno	Butter Market Basis		35	11	13	12–13	3.
Long Beach	3.15–3.33	9–9.5	43.3	13	15	15	3.6–
Los Angeles	3.15	9	43.3	13	15	..	3.6–
Oakland	2.92	2.9+	35	9	13	11	3.6–
San Diego	..	..	41.6–42	13	15	14–15	3.6–
San Francisco	3.11–3.21	2.9+	41.3–41.6	12–14	14	13–14	3.75–
Santa Barbara	3.33	9.5	40–45	..	15–16	15–16	3.8–
COLORADO—							
Boulder	1.87	5.35	32	9	11	10	3.
Colorado Springs	2.45*	6	30	9	11	10–11	3.4–
Denver	2.10	6	35	10	12	10	3.
Trinidad	..	..	30–35	8–9	8–10	10–12	3.0–
CONNECTICUT—							
Bridgeport	4.22*	4	48	14	16	..	3.
Hartford	4.22*	4	46–48	14	16	14–16	3.8–
New Haven	4.22*	4	50	14	16	16	3.
DELAWARE—							
Wilmington	..	..	44	13	13	14–15	3.7–
DIST. OF COLUMBIA—							
Washington	3.60*	7	44–48	12	15	13–15	..
FLORIDA—							
Jacksonville	4.01–4.53*	10 to 4.2%	55–60	17–18	18–21	18–21	4.0–
Miami	5.75*–5.80*	Varies	65–70	20	22	18–25	4.0–
Tampa	4.67–4.77	Varies	60	18	20–21	20–21	3.5–
GEORGIA—							
Atlanta	2.80	8	50	..	..	..	4.
ILLINOIS—							
Chicago	See Table II		32–38	13	14	14	3.5–
Rockford	2.55	6	28	9	11	11	3.
Springfield	2.63	5	36	12	14–28	13–15	3.
INDIANA—							
Elkhart	..	..	30	7½	10–12	10–12	3.8–
Evansville	2.42	6.9	34	11	12½	12½	3.
Fort Wayne	..	..	40	11	13	12–13	3.
Indianapolis	2.10	6	30	10–10½	12	12	3.6–
South Bend	2.43–2.55	4	32	10	12	11–12	3.
IOWA—							
Burlington	2.55	4	30	8	10	10	3.
Cedar Rapids	2.63*	7.5	35	10	12	12	3.
Clinton	Butter Market Basis		30–32	9	11	11	3.6–
Davenport	2.35	5	30	7½–9	10–11	9–11	3.
Des Moines	2.65*	5	32	9	12	10–12	3.
Fort Dodge	2.75*	5	38	10½	12	12	3.8–
Iowa City	2.45	7	30	9	12	11	3.5–
Ottumwa	2.25	5	35	10	12	12	3.
Sioux City	2.30	5	30	8	10	10	3.
KANSAS—							
Kansas City	..	..	35	..	12	12	3.
Topeka	2.10–2.20	4	30–35	8	8–12	8–10	4.
Wichita	2.10–2.35	3	35	10	12	12	3.
KENTUCKY—							
Lexington	2.10	5	35	11	14	12–14	4.
Louisville	2.42–2.59	4–5	32	11	13	13	3.8–
LOUISIANA—							
New Orleans	2.81*	4	35	12	14	14	4.
MARYLAND—							
Baltimore	3.55*	5.8	44	14	14	15–16	3.
Cumberland	3.90*	7 to 4%	40	13	15	15	4.0–
MASSACHUSETTS—							
Boston	3.62*	B. M. Basis	39	11½	14	12	3.
Easthampton	..	..	46	12	14	14	3.
Fall River	..	..	..	12	14	12–14	3.
Lawrence	3.72	Flat	44	12	14	12–14	..
Lynn	3.95	Flat	.	11½	14	..	3.
Pittsfield	2.94	4	36	11	14	14	..
Springfield	3.25	Flat	40	12	15	12	3.

* Basic prices for fluid milk.

HUNDING DAIRY COMPANY
HUNDING'S BEST MILK

Semi-Low-Down, Rubber-Tired.

he New Guedelhoefer Silent Wagon

47 YEARS of Wagon Making for the dairy industry has given us a thorough understanding of the essentials of practical wagons and trucks for milk delivery.

We also appreciate the advertising qualities of good looking wagons, besides the absolute need for ruggedness to do daily service.

ohn Guedelhoefer Wagon Co., Inc.
2-220 Kentucky Ave. : INDIANAPOLIS, IND.

Wagons That Will Cut Repair Bills!

TIMKEN-BEARING AXLES eliminate renewal of axles and axle boxes. New type wheel with new style rubber tires that outlast three sets made of steel.

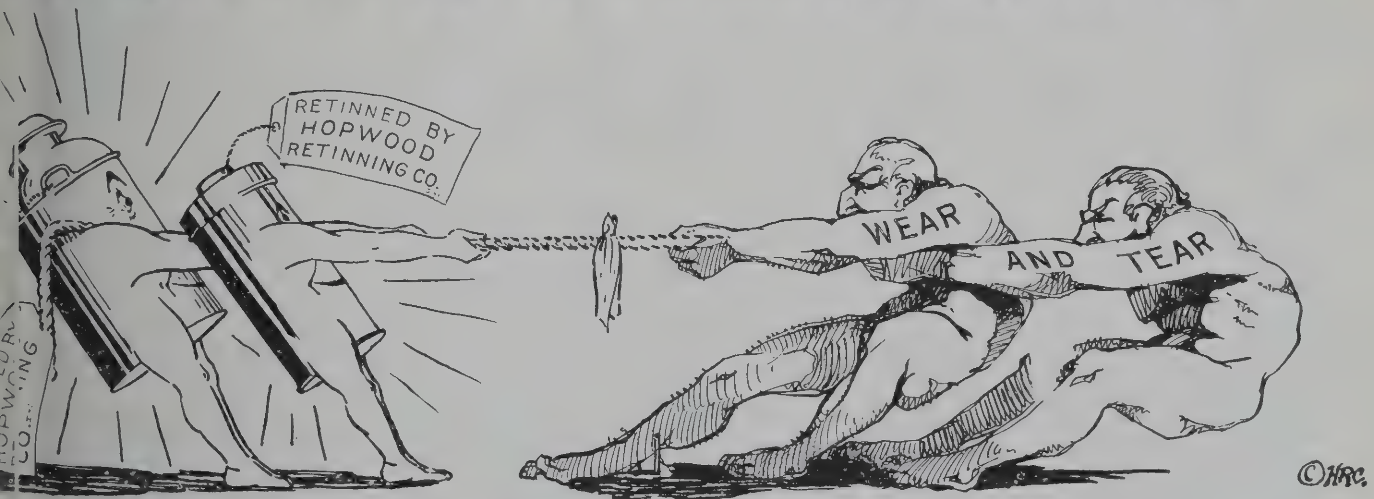
One greasing lasts a whole year.

DRAFT—Extremely light for the horse. Reduces noise on all routes.

BORDEN'S
QUALITY SERVICE
MILK

Low-Down, Rubber-Tired.

OLDING THEIR OWN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TEAR
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Ship your rusty or leaky cans to us for re-tinning. We are a Reliable, Experienced Concern.

High Quality, Quick Service at Right Prices.

We have been connected with the manufacture and re-manufacture of Milk Cans and Ice Cream Cans since **1898**

HOPWOOD RETINNING CO., Inc.

Office **56 Commercial Street** Brooklyn, N. Y.

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Table III—April Cost and Selling Prices

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat Test of Milk Sold
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5–20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
MICHIGAN—							
Battle Creek	..	..	..	..	12	12	..
Detroit	3.00*	5	..	..	14	14	..
Grand Rapids	2.48*	4	30	8–9	9–12	9–12	3.5
Kalamazoo	3.00*–3.20*	4 to 4%	38	11	13	13	3.5–4
Lansing	2.25	Flat	30	8	10	10	3.3–
MINNESOTA—							
Duluth	2.80*	5	30	10	12	12	3.8
Minneapolis	2.70	5	32–34	9–10	11	10–11	3.5–
Northfield	2.37	5	32	8½	10	10	3.
St. Paul	2.70	5	34	9½	11	..	3.
Winona	3.10	Flat	35	9.58	11	11	3.
MISSOURI—							
Kansas City	2.50	3.5	40	10–11	13	10–13	3.6–
St. Louis	2.60	3	32	11	13	13	3.
MONTANA—							
Butte	2.60	10	30–35	11	13	13	3.5–
Lewistown	..	..	30	10	12½	12½	3.2
NEBRASKA—							
Lincoln	2.01	5.75	..	..	10	10	..
NEW HAMPSHIRE—							
Concord	2.69	5	37½	11–14	11–14	11–14	3.7–
Portsmouth	..	..	42	10½	13	13	4.
NEW JERSEY—							
Atlantic City	..	..	48	..	15	..	..
Camden	..	..	38	..	13	..	..
Trenton	3.41*	4	38	11	13	14	3.6–
NEW MEXICO—							
Albuquerque	3.20	5.8	40	12–12½	15	15	4.0
NEW YORK—							
Albany	3.11*	4	38	..	15–17	16–19	3.
Buffalo	2.90*	4	36–40	11–11½	13	11–13	3.3–
New York	See Table II		40	14	15	15	3.
Rochester	2.85	4	40	11	12½	..	..
Schenectady	..	..	40	12	15	12	3.
Utica	3.07*	4	34	10	12	12	3.
NO. CAROLINA—							
Asheville	3.80	4	48	14	17	17	4.
Greensboro	3.70	6	50	14	17	18–20	4.
Winston-Salem	3.30	4	50	12½	16.15–17	17–18	4.3–
NO. DAKOTA—							
Mandan	2.75	4	35	8	12	10	3.
OHIO—							
Akron	3.40*	5	40	11–13	13	13	3.5–
Cleveland	3.24	5	40–44	11–12	14–15	12	3.
Columbus	..	..	38	11	12	12–13	3.5–
Toledo	2.50	3	36	10½	12	..	3.
OKLAHOMA—							
Tulsa	2.45	7	40	12	15	15	4.
OREGON—							
Portland	2.10	5	30–35	9	12	10–11	4.
Salem	1.95–2.05	5	32	9½	12	12	4.0–
PENNSYLVANIA—							
Allentown	3.16*	4	36	11	13	13	3.
Altoona	3.16*	4	42	11	13	13	3.
Harrisburg	2.60	4	34	11	12	12	3.
Philadelphia	3.49*–3.52*	4	38–40	12	13	..	.
Pittsburgh	3.45*	5	35–39	13½	14	..	3.5–
Scranton	3.12	4	38–40	12	12	12	3.5–
RHODE ISLAND—							
Newport	..	..	..	13	15	15	3.9–
Providence	3.62*	B. M. Basis	42	11½	14½	..	3.
SOUTH DAKOTA—							
Sioux Falls	2.50*	5	30	10	12	12	3.6–
TENNESSEE—							
Chattanooga	2.45	7	40	12	18	16	4.
Memphis	2.58–2.73	4.5	32–40	10–11	15	12–13	4.2–
Nashville	Butter Market Basis		35	12	14	14	4.
TEXAS—							
Dallas	2.60*	4	35	11	13	12–13	4.0–

* Basic prices for fluid milk.

Looking for New Equipment? Read the Advertisements.

The POWER within

PERFECTION
ROTARY PUMPS

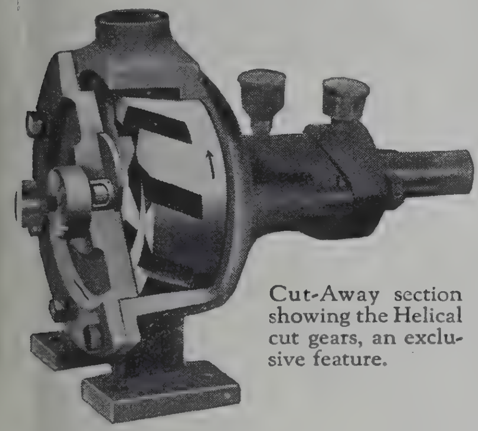
LIFTING water out of a well 25 feet deep and discharging it 120 feet, without shock or strain to the pump, is another example of the positive suction, discharge and stability of the Perfection Rotary Pump.

The teeth of the rotor in the pump work like a pair of scissors on an angle instead of head on. Smooth running helical gears prevent excessive churning and deliver a uniform flow.

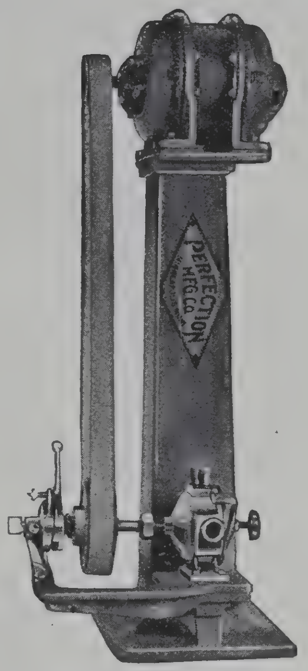
The Perfection Rotary Pump is made in Iron or Bronze. Bronze Sanitary pumps nickel plated if desired. Capacities 8 to 90 gallons per minute. Mounted on base with tight or loose pulleys or with reducing gear for individual motor drive.

Write for catalog and prices.

Perfection Manufacturing Co.
2187 East Hennepin Avenue
Minneapolis, Minn.



Cut-Away section showing the Helical cut gears, an exclusive feature.



Sanitary Pump mounted on pedestal for individual motor drive.

Smoother, Creamier Buttermilk!

with ESSEX GELATINE

ESTABLISHED 1903

YOU can give your customers a smoother, creamier buttermilk and stimulate a greater demand for your product by improving it with Essex Gelatine.

¶ Essex Gelatine softens the curd and gives it a finer and smoother texture. It retards excessive acid, and prevents wheying-off. Essex Gelatine is widely used by manufacturers of highest grades of ice cream for body and smoothness; similarly, it is a wonderful improver for cultured or natural buttermilk. Very little need be used, and this small cost is quickly made up by increased sales.

Write for Sample, Instructions for Use and Prices.

Essex Gelatine Company 40 North Market Street
BOSTON - MASS.

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NEW YORK CITY
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400 So. Broadway
LOS ANGELES
412 West Sixth Street
SEATTLE
1018 4th Ave., South
CHICAGO
323 West Polk Street
GRAND RAPIDS
135 Ionia Ave., S. W.
PORTLAND, ORE.
403 Hoyt Street

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Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices: Wholesale Trade: Per Gal. in Lots of 5–20 Gal. in Bulk	Dealers' Selling Prices: Wholesale Trade: Per Qt. Bottled (Cases of 12)	Dealers' Selling Prices: Retail Trade: Per Qt. Bottled to Family Trade	Dealers' Selling Prices: Retail Trade: Store Prices per Qt. Bottled	Prevailing Butterfat Test of Milk Sold
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
El Paso	2.85–3.00*	5	35	11	14	12–14	3.6-
Houston	2.80*	8	..	..	15	..	.
UTAH—							
Salt Lake City	2.45	7	30	8	10	10	3.
VERMONT—							
Burlington	..	..	36	10	12	..	.
VIRGINIA—							
Newport News	4.20	5	50	15	17	18	3.
Richmond	3.93*–4.05*	5	44	13	14	..	3.8-
WASHINGTON—							
Everett	..	..	30	8	10	10	3.
Seattle	2.83	7.2	32	9	12	12	3.
Spokane	2.15	5	30	8	10	10	4.
Tacoma	2.30*	5	32	8	10	10	3.
WEST VIRGINIA—							
Clarksburg	3.25	5	40	13	15	16	3.8-
Wheeling	..	..	40	12	14	14	3.
WISCONSIN—							
Beloit	2.50*	5	30	8	10	10	.
Kenosha	3.00	4	40	11	12	12–13	3.
Madison	Butter Market Basis		36	9	10	10	3.
Milwaukee	2.90*	4	30	9½	11	10–11	3.55-
Oshkosh	Butter and Cheese M'kt Basis		..	9	10	10	4.
Racine	2.60	4	38	10	11	11	3.
Sheboygan	Cheese Market Basis		..	10	11	11	.
Superior	2.80*–2.85*	5	32	10	12	12	3.7-
Wausau	2.10	3	..	8½	10	10	3.

* Basic prices for fluid milk.

Table IV—April Cost Prices of "Standard Grade Milk" 3.5% B. F. for Cities Where Part of the Supply is Purchased Through Country Stations.

Cities	Prices Paid Producers per cwt. raw Milk (Flat prices of 3.5% B.F. basis): F. O. B. City	Prices Paid Producers per cwt. raw Milk (Flat prices of 3.5% B.F. basis): At Country Stations	Freight Zones to Which Country Station Prices Apply
New Haven, Conn.	$4.22*	$3.70*	28c rate.
Washington, D. C.	3.60*	3.02*	35c 10-gal. can.
Chicago, Ill.	Unavailable	2.50	All.
Baltimore, Md.	3.55*	2.97*	35c rate.
Boston, Mass.	3.62*	2.86*	181-200 mile zone.
St. Louis, Mo.	2.60	2.00	34c rate.
Trenton, N. J.	3.41*	2.85*	41-50 mile zone.
Buffalo, N. Y.	2.90*	2.62*	28c rate.
New York, N. Y.	Unavailable	2.95*–3.00*	201-210 mile zone (53c rate).
Cleveland, O.	3.24*	2.86*–2.93*	All.
Pittsburgh, Pa.	3.45*	2.70*	All.
Philadelphia, Pa.	3.49*–3.52*	2.91*–2.95*	51-60 mile zone.
Scranton, Pa.	3.12	2.82	30c rate.
Dallas, Tex.	2.60*	1.90*–2.10*	All.

* Basic prices for fluid milk.

NOTE: At all places in the above tables where prices are not shown, the information was either not reported or i available.

NET EARNINGS OF NATIONAL DAIRY PRODUCTS CORPORATION FOR 1926 ENORMOUS.

The combined net earnings of the National Dairy Products Corporation, New York City, and subsidiaries in 1926 were $11,119,549, after all taxes and charges, including preferred dividends of subsidiaries and $8,339,886 for depreciation and repairs, available for the securities of the corporation, were deducted.

After interest on the six per cent notes and dividend requirements on the preferred stock, the balance was $9,420,451, equal to $9.01 a share earned on 1,04 outstanding shares of no par common, as compared $4,933,258, or $6.55 a share, on 752,216 shares of com outstanding at the end of 1925. The above figure clude the earnings of companies acquired during year, both in 1926 and 1925.

Thomas H. McInnerney, president, stated "We every reason to anticipate a continued growth of volume of business and of net profits during the cur year."

lobe Milk Tickets for safe collections

Meyer Sanitary Milk
25 cts
Good For Merchandise
1/2 PINT
HAMILTON MILK Co
NOT TRANSFERABLE
Good for
ONE HALF PINT
CREAM
21671
THE MOORES & ROSS MILK CO.
NOT TRANSFERABLE
GOOD FOR
ONE PINT MILK
165-171 N. WASHINGTON AVE.
COLUMBUS, OHIO.
F9541
F9542
F9543

MILK tickets, *accurately numbered*, simplify collections and safeguard receipts. They represent cash in advance—hence they put a stop to bad debt losses. They represent convenience and safety for customers and drivers.

Globe tickets are noted for accuracy of numbering and quality of printing. Consult us about designs and prices.

Specialists for half a century

Globe
TICKET COMPANY
112 North Twelfth Street
PHILADELPHIA
NEW YORK BALTIMORE CLEVELAND LOS ANGELES

A WISE THOUGHT

"Keep good milk or cream clean and cold and the quality question pretty well takes care of itself."—Butter, Cheese & Egg Journal.

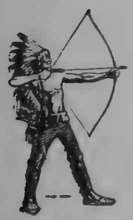
This thought tells a whole story to the creameryman, cheesemaker, or dairyman.

Yet simple as it is to keep milk or cream clean, it involves a great deal of care and time, so much so that the wise milk food producer specifies

Wyandotte
Dairyman's
Cleaner and Cleanser

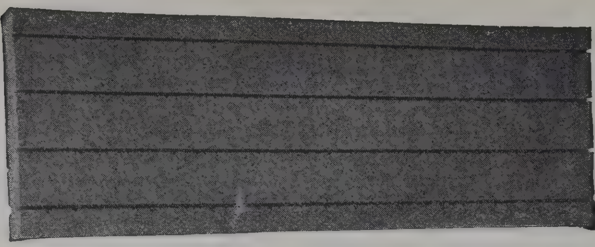
for all his cleaning work because years of experience have proved its quality, dependability, uniformity, and economy.

Ask your supply man for "WYANDOTTE"



Are you using Wyandotte C. A. S. [cream acidity standardizer] for standardizing the acidity of your cream?

The J. B. Ford Company *Sole Manufacturers* Wyandotte, Mich.



Mundet Jointite Cork Board
TRADE MARK

COMPLETE
Cork Insulation Service

It is no longer necessary for plant owners to worry about insulation for cold storage or for cold pipe lines. The House of Mundet has effectively solved that problem and now takes care of EVERY DETAIL.

WE ADVISE

Our Practical Refrigerating Engineers, located over the entire United States, are always glad to help solve cold insulation problems. They will not make you feel obligated to buy from us. Their advisory service is absolutely free.

WE SELL

Our sales offices, also, cover the entire United States. If you want to talk to a Mundet salesman just say the word.

WE INSTALL

Our contract department is equipped to take care of every installation detail all the way from shipping the materials to the job, to applying, and finishing. Put the installation work in our hands and you do not take any chances whatever. In that way you can be assured that all work will be done properly.

Mundet
Jointite
TRADE MARK
Cork
Pipe
Covering

ASK FOR PRICES OR ANY
OTHER INFORMATION
YOU MAY WANT. :: ::

L. MUNDET & SON, Inc.
Hillside, - New Jersey
Established 1865
New York Office: 461 Eighth Ave.

LACK OF SUNLIGHT AND VITAMINE D CA RICKETS.

Rickets is a disease of the bones common amon tle-fed babies and of frequent occurrence in brea infants. The feeding of cod liver oil or exposu direct sunlight, together with a proper balance be the calcium and phosphorus in the diet, will almo ways prevent or cure the disease. If not properly t the disease will result in permanent malformation as bow legs.

Doctors are successful in the treatment of ricke as to prevention not much progress has been made W. E. Krauss, dairy biologist at the Ohio Exper Station. From recent work with rats, Dr. E. V. M lum of Johns Hopkins University, obtained results warranted the recommendation that the expecta nursing mother as well as the infant, be given su amounts of cod liver oil and exposed to direct su as much as possible.

However, cod liver oil is distasteful to many a expensive that some families cannot afford it. To ultra-violet light artificially is also expensive. sunlight, though free, is not always easily obtain children in winter.

The problem, then, as Dr. Krauss sees it, is t nish the anti-rachitic substance, or vitamine D, su chiefly by cod liver oil and sunlight or ultra-violet and to discover a source that will be within the of all.

Most natural foods are lacking in this vitamine, leafy foods as a rule being richer in this respect. contains vitamine D, the amount present being influ by the feed of the cow.

It is possible to increase the amount of vitamin milk by feeding the cows cod liver oil, or by irrad the milk. Neither is practical for the farmer.

To make milk a more potent source of vitamine practical way, cows should be given access to fresh pasture as long as possible during the pasture and in the winter months they should receive well leafy roughage, such as alfalfa hay, and be permit run out of doors daily. By increasing the consu of milk produced in this way, Dr. Krauss believes advance will be made in the prevention of rickets

GROWTH OF BUSINESS NECESSITATES IMPROVEMENTS.

Growth of business has necessitated making so provements in the factory building of the Co Creamery Company, Conneaut, O.

An ice cream hardening room, which will p space for 2,000 more gallons of ice cream, and cold room, to be used for milk only, are among t provements, the two projects to cost approximate 000. The ice cream hardening room is kept at a t ature of between zero and 10 to 15 degrees below the cold room standard temperature is 35 to 40 d

The floor space in the milk pasteurizing and b department has also been increased. A new thirty power boiler has been ordered.

NONE OTHER NEED APPLY.

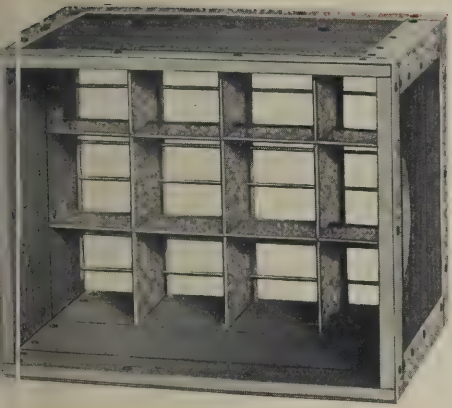
Mistress: "I saw the milkman kiss you this m I'll take the milk in myself after this."

The Maid: "It won't do you any good, mu promised to kiss nobody except me."

Announcing

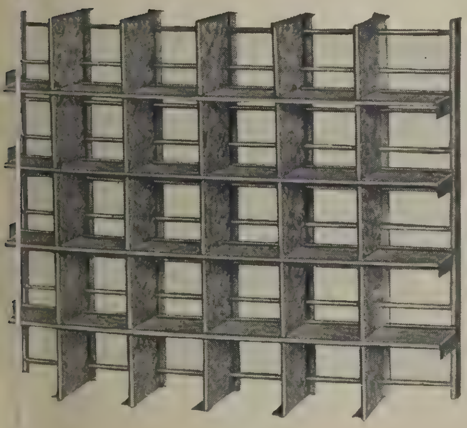
DEFIANCE

SEMI-STEEL MILK BOTTLE CASES



THIS new Defiance Case is a marvel of strength and endurance. It is practically indestructible and will easily outlast two ordinary cases.

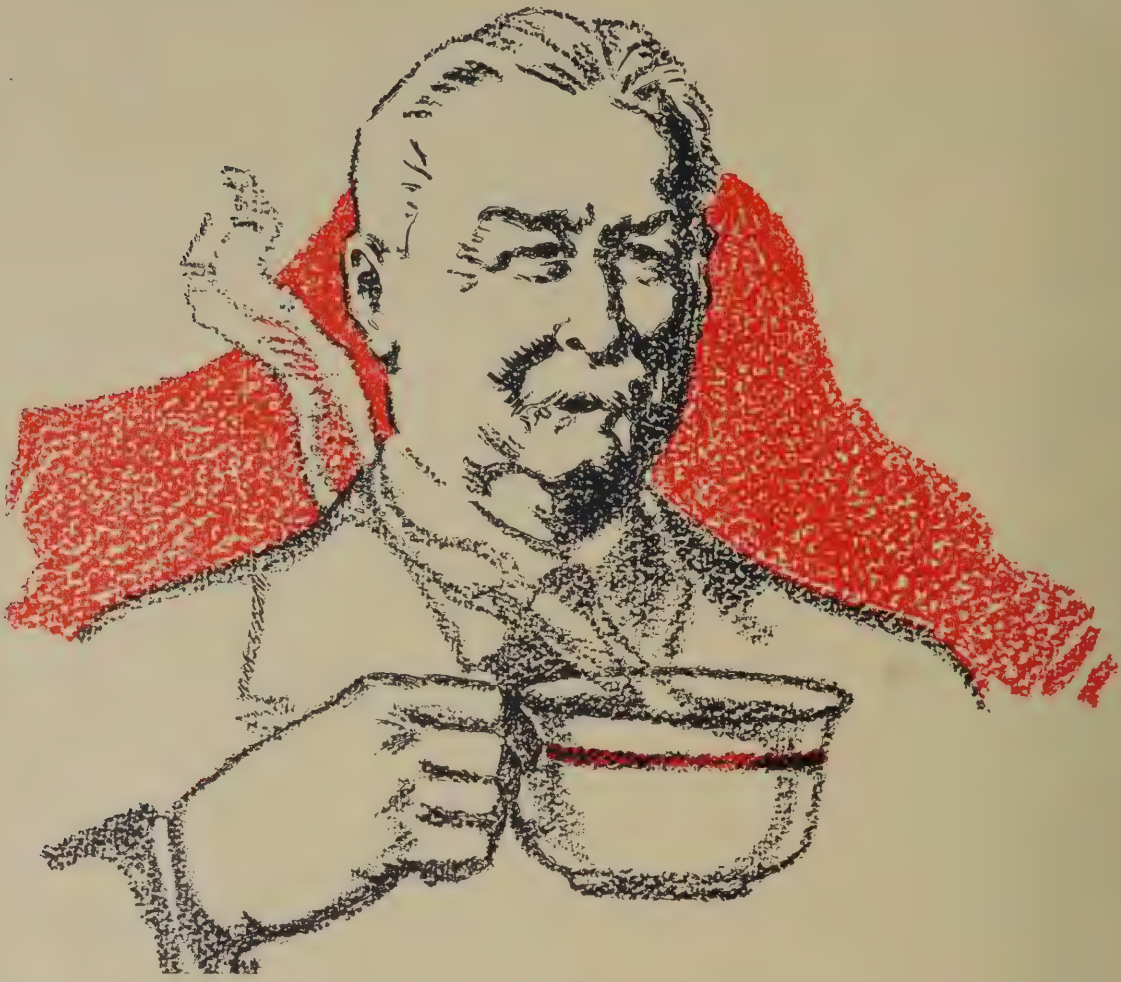
The top and bottom of the case is heavily bound with a galvanized steel band welded into one piece. The corners are completely protected with steel angles extending from top to lower band.



The partitions are made of sheet steel, reinforced with wire beaded into each edge for extra strength; and all partitions and bottom wires are made into one unit and heavily galvanized after assembly. Sides and ends first grade, sound hardwood. No nails or screws to get loose. Case is assembled throughout with large head rivets.

Thompson-Bremer & Co.

1750 Carroll Avenue
CHICAGO - - ILLINOIS



A new milk dri
the invigorating
coffee; zippy and
ing; wholesome ar
by everybody.

A New Milk Drink with a Universal App

Every day will bring you dozens of new customers for COFFEE-MILK in offices, shops, stores and homes.

COFFEE-MILK has fast become a favorite wher- ever enterprising milk dealers have introduced it. For getting new business, it is a splendid special with a wide, popular appeal. Coffee-Milk gives your driver-salesmen something new to talk about, and enables them to increase their business with present customers.

Made from full flavored, fresh roasted coffee, highly concentrated in syrup form. Easy to mix with milk; no equipment necessary. Never settles at bottom of bottle; no sediment. Write for prices and sample.

D. ABELSEN & SON, - - Providence, R. I.
Central States Representative: M. C. DRESHFIELD, 405 East Main St., Kalamazoo, Mich.

To insure prompt reply when writing for samples or information, address direct to factory.

ARABIAN BRAND
COFFEE SYRUP

Sold in 12 oz. and 16 oz. bottles for home use and in one gallon and ten gallon jugs for milk dealers.

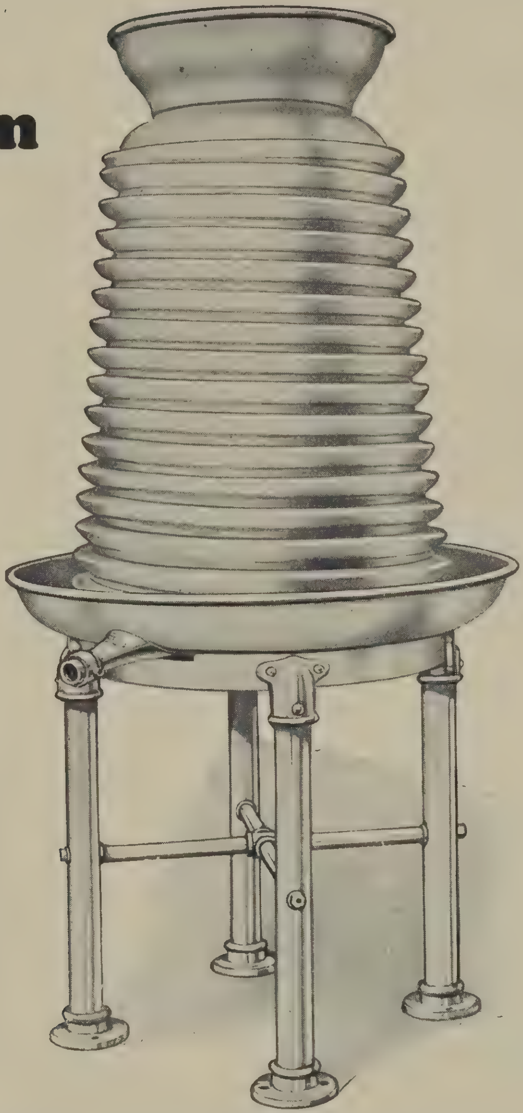
THE

H·H·MILLER INDUSTRIES CO.

CANTON, OHIO.

Chilly King Milk and Cream Coolers

Unexcelled for the cooling of Fluid Milk, Heavy Cream and Pasteurized or Homogenized Ice Cream Mix.



Made in sizes 1,000 to 10,000 lbs. per hour.

Also manufacturers of MILLER BRINE ICE CREAM FREEZERS, MILLER PASTEURIZERS, AUTOMATIC MILK HOLDING MACHINES, VATS, TANKS, M&M BOTTLE WASHERS, ETC.

Please Ask for Bulletin and Prices

When writing to THE H. H. MILLER INDUSTRIES CO. *please mention The Milk Dealer.*

The Finest Drinking Milk

comes from those dairies *that* HOOD-SEAL *the bottles*

A VERY special milk service is offered you by one or more leading dairies in your city. A service that has done more to insure you pure, clean, full-flavored milk than all other agencies combined.

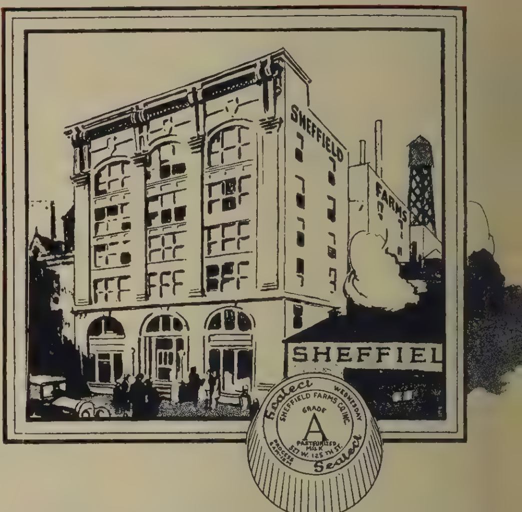
You can easily identify these dairies by the Hood-Seal they use on their bottles of better drinking milk—the paper hood locked on by the wire ring.

Leading producers of better drinking milk use this wire locked Hood-Seal. Dairies like Sheffield Farms and Borden's in New York, H. P. Hood & Sons and Whiting Milk Companies in Boston, were the pioneers of this clean sealed drinking milk idea. They are the largest distributors of sealed Grade A Milk in the world. Now more than two thousand other leading dairies in leading cities all over the United States and Canada have adopted this sealed Grade A drinking milk service.

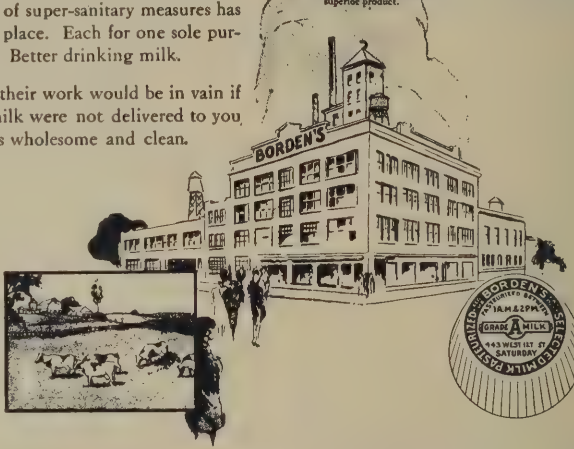
The Hood-Seal is more than a perfect, sterile seal against contamination. It is a symbol of the tremendous efforts these progressive dairies have made to insure you clean milk.

For up to the moment the Hood-Seal is fitted over the bottle, a great chain of super-sanitary measures has taken place. Each for one sole purpose. Better drinking milk.

All their work would be in vain if the milk were not delivered to you just as wholesome and clean.


SHEFFIELD
FARMS
SHEFFIEL
Sealect
SHEFFIELD FARMS CO. INC.
GRADE
A
PASTEURIZED MILK
WEDNESDAY
527 W. 125 TH ST.
PROCESS
6AM–1PM

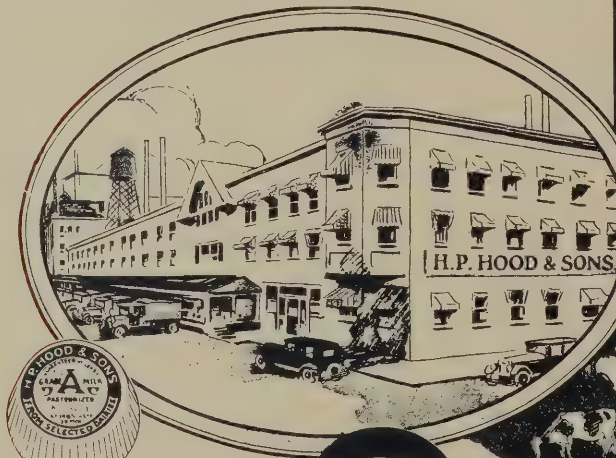
In New York and the whole metropolitan area where only Grade A milk will pass for drinking, there the wire locked Hood-Seal is universal. Such leaders as Sheffield Farms, Borden's, Chardavoyne, Renken Dairy, Reid Ice Cream Co., Model Dairy, Beakes, Dairyman's League, Willow Brook Dairy, Newark Milk & Cream, Wood Brook Farm, Henry Becker & Sons, Janssen Dairy, Keystone Dairy have always relied upon the Hood-Seal to protect and identify their superior product.

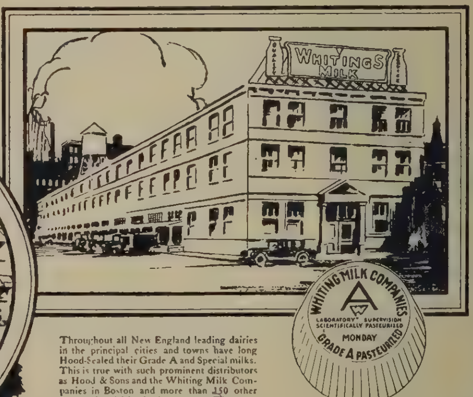

BORDEN'S
BORDEN'S
1AM & 2PM
GRADE A MILK
443 WEST 11T ST
SATURDAY
PASTEURIZED
SELECTED MILK

To safeguard this, they all a seal for the bottle. And th the sterile paper hood locke the wire ring. Last year o hundred million Hood-Sea tles were used.

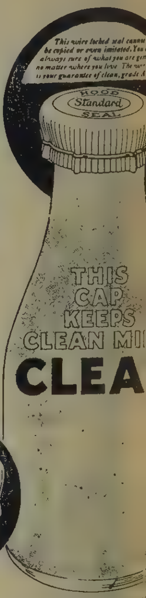
Milk is so essential to goo that more of it should be in the daily menu. With th richer flavor of Hood-Sea you will find new delight in milk. You owe it to your to have this better drinking ways on hand.

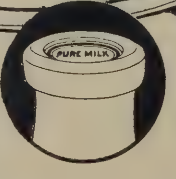
Write for illustrated book It tells all about better milk and how it is produce sent on request by Stand and Seal Corp., 1200 Fullert Chicago.


H.P. HOOD & SONS
H.P. HOOD & SONS
GRADE A MILK
PASTEURIZED
FROM SELECTED DAIRIES

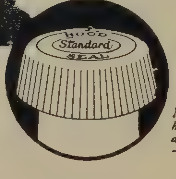

WHITINGS MILK
WHITING MILK COMPANIES
A
LABORATORY SUPERVISION
SCIENTIFICALLY PASTEURIZED
MONDAY
GRADE A PASTEURIZED

Throughout all New England leading dairies in the principal cities and towns have long Hood-Sealed their Grade A and Special milks. This is true with such prominent distributors as Hood & Sons and the Whiting Milk Companies in Boston and more than 150 other progressive dairies in these states. The same is true wherever you go; in Washington, Buffalo, Chicago, Los Angeles, Toronto, Montreal, Miami, Seattle, Kansas City, Cleveland—the wire locked Hood-Seal is your faithful sign of better drinking milk.

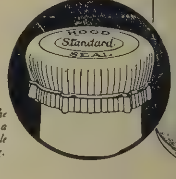

This wire locked seal cannot be copied or even imitated. You always sure of what you are get no matter where you live The wir is your guarantee of clean, grade A
HOOD
Standard
SEAL
THIS
CAP
KEEPS
CLEAN MI
CLEA



First an inner disc cap is placed on the bottle. This cap is sterilized because it comes in direct contact with the milk or cream.


HOOD
Standard
SEAL

Then a paper Hood is placed over the entire bottle top which keeps the pouring lip clean and sterile.


HOOD
Standard
SEAL

Next a wire sealing ring locks the hood on the bottle, providing a double seal that is non-replaceable—positively prevents tampering.

THINK MORE ABOUT THE MILK YOU DRI

One of the full page advertisements in colors in the American Weekly Magazine read in over 5,000,000 families building milk sales for you.

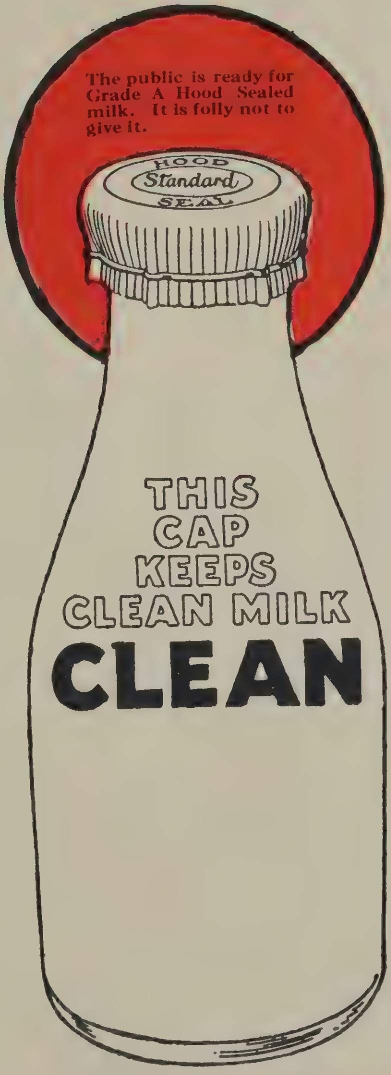
A National Trade Mark for Better Milk

The HOOD-SEAL is more than a perfect, sterile seal against contamination. It is a symbol of the tremendous efforts progressive dairies have made to insure clean milk.

To safeguard this milk they adopted a seal for the bottle. And they chose the sterile paper hood locked on by the wire ring. Last year over five hundred million HOOD-SEALED bottles were used.

Consumers now look for the paper hoods sealed on with the wire ring. It is a national trade mark for better milk.

Write for sample and full information.

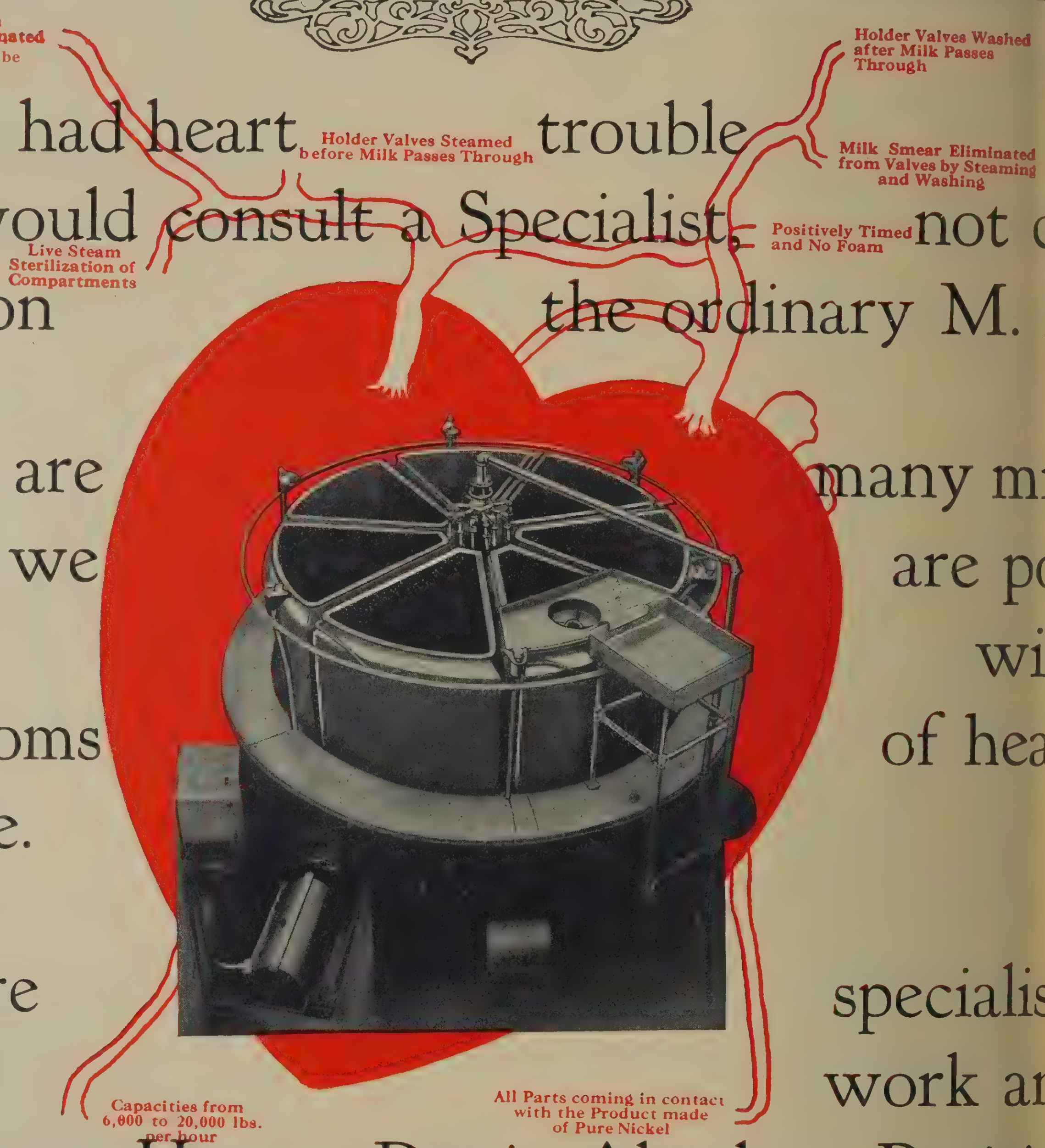

The public is ready for Grade A Hood Sealed milk. It is folly not to give it.
HOOD
Standard
SEAL
THIS CAP KEEPS CLEAN MILK
CLEAN

Standard Cap & Seal Corp.

00 Fullerton Avenue **Chicago, Ill.**

What the Heart is to Your Bod
the Holder is to Your Milk Busine

If you had heart trouble you would consult a Specialist, not d pend on the ordinary M. I


All Foam Entirely Eliminated by Wier Tube
Holder Valves Steamed before Milk Passes Through
Live Steam Sterilization of Compartments
Holder Valves Washed after Milk Passes Through
Milk Smear Eliminated from Valves by Steaming and Washing
Positively Timed and No Foam
Capacities from 6,000 to 20,000 lbs. per hour
All Parts coming in contact with the Product made of Pure Nickel

There are many mi plants, we are po itive, wit symptoms of hea trouble.

We are specialis in this work ar the Jensen-Horton-Davis Absolute Positiv Holder is the remedy.

Ask Us for Quotations and I

Jensen Creamery Machinery Company
BLOOMFIELD, N. J. OAKLAND, CALIF.

When writing to JENSEN CREAMERY MACHINERY COMPANY *please mention The Milk Dealer.*

"Yum, Yum that certainly tastes good"

Children love Morehealth Chocolate Milk

Increase Your Milk Sales

MOREHEALTH PREPARED CHOCOLATE

NET WEIGHT 1 LB.
MOREHEALTH
PREPARED
CHOCOLATE
FOR DELICIOUS BEVERAGES, FOODS
CAKES, FROSTING, PIES, ETC.
Chocolated Milk
Chocolate Sundaes
CONTAINS NO PRESERVATIVES
MANUFACTURED BY
CHOCOLATE PRODUCTS CO.
CHICAGO, U.S.A.

A Specially Prepared Chocolate for making Chocolate Milk, for ice cream, frostings, puddings, cakes, etc. Packed in 1-pound glass jars, double sealed. Will not mold or ferment but keeps sweet and fresh. Stimulates consumption of milk and makes dairyman a splendid profit.

Every dairyman is interested in any plan that will increase the consumption of milk. Here is one that has proved eminently successful in hundreds of cases.

Children are the great consumers of milk but it is difficult for the parents to get them to drink enough of it. But these same children love chocolate—especially when it is made into a delicious, appetizing Chocolate Milk.

As a result dairymen everywhere are preparing and selling large quantities of Chocolate Milk and more than 600 of them have chosen our Morehealth Chocolate Syrup.

Morehealth Chocolate Syrup is of the highest quality and concentration and is prepared in plain and malted form. It is made from pure cane sugar and the finest grade chocolate ingredients by Dr. Pashkow's Special Process, giving it an exceedingly rich, mellow, delicious flavor. No artificial coloring or preservatives are used.

Our "Silent Salesman"—a unique plan of effectively advertising Morehealth Chocolate Milk to the housewife is furnished free with each order of syrup.

Send today for a liberal sample of our Prepared Chocolate and our plan for introducing it to your trade.

Send for Free Sample Today

CHOCOLATE PRODUCTS CO.,
415 Beethoven Place, Chicago.

Gentlemen:—Please send us:

☐ 1-pound sample jar Morehealth Prepared Chocolate.
☐ Sample Morehealth Straight Chocolate Syrup.
☐ Sample Morehealth Malted Chocolate Syrup.

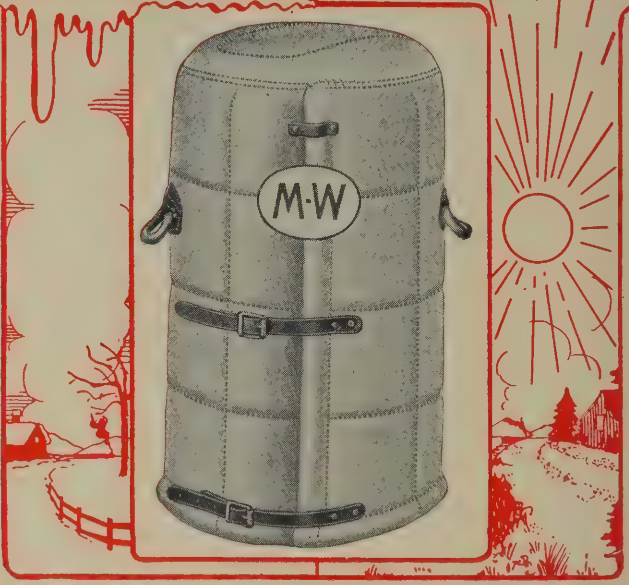
Name . . . .
Street and No. . . . .
City . . . . State . . . .

When writing to Chocolate Products Co. *please mention The Milk Dealer.*

M-W MILK CAN JACKET

PROTECT AGAINST EXTREMES OF TEMPERATUR

Increase your sales by reaching new territory and add to your profits by eliminating adjustments caused by shipments spoiling.

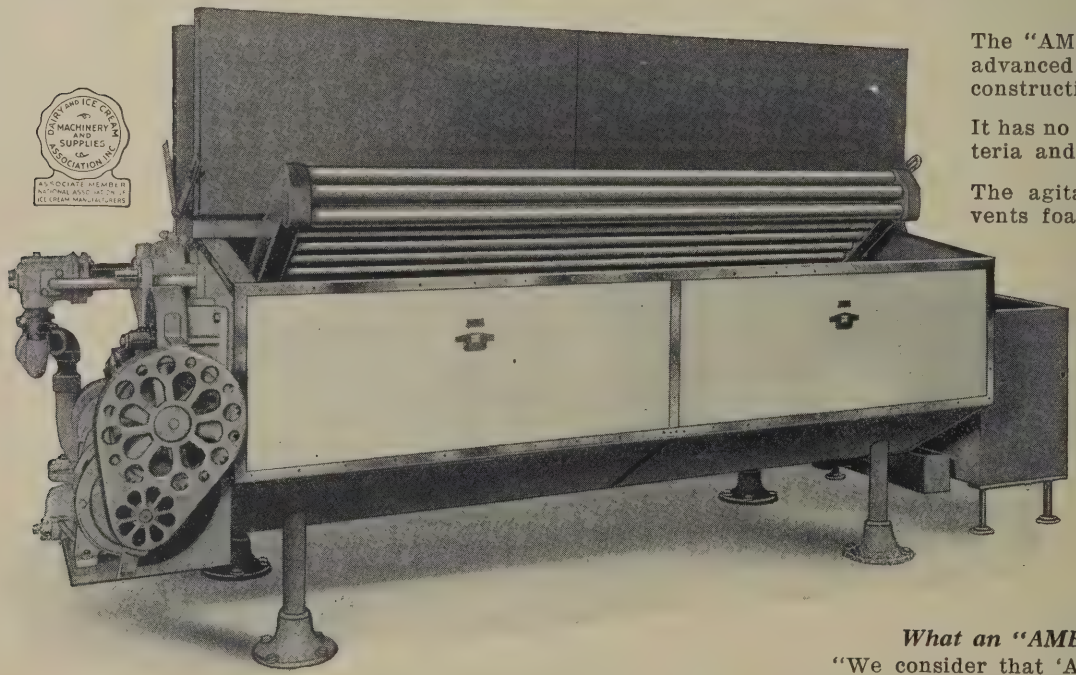


Milk,
Sweet Cream
or Ice Cream Mix
shipped in
"M-W" Jackets
arrive in good condition.

Made by the manufacturers of the original "M-W" ICELESS DELIVERY JACKETS
The Jacket that Defies Heat

MONTGOMERY-WASHBURN CO. - Saugerties, N. Y.

"AMERICO" THE PASTEURIZ WITH A PURPO



The new "AMERICO" with improved coil control

The "AMERICO" embodies the advanced principles in design construction.

It has no stuffing boxes to gather teria and contaminate the batc

The agitation is gentle. This vents foaming, churning and b ing of fat globules.

Heating is done water below 160 There is no burnin the coils nor scorchi the product.

The flush type o valve is standard o vats.

Thorough cleaning o parts is accomplished ease as the coils ca raised out of the va

What an "AMERICO" User Says:
"We consider that 'AMERICO' is nearer pe tion than any pasteurizer we have ever use

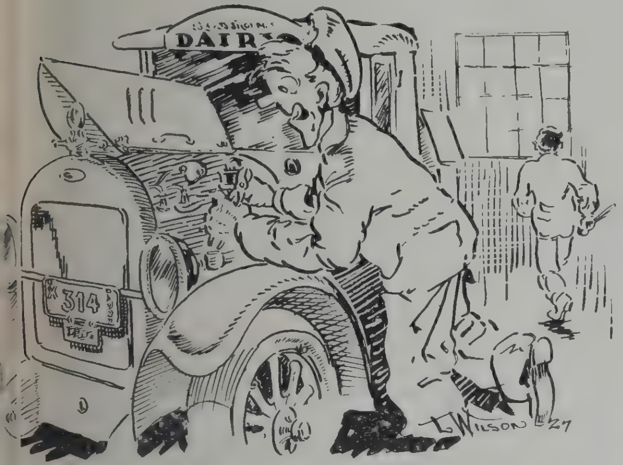
AMERICAN COPPER & BRASS WORKS
Manufacturers of Dairy Equipment

610-616 E. FRONT S
CINCINNATI,

MIKE THE MILKMAN

ANTICIPATING LOSSES.

I el it is my privilege and my duty to the boss to ate expenses and curtail potential loss, so with i mind my motor I have learned from A to Z, and not make a murmur that is foreign talk to me. I hear the faintest grumble or the smallest click-nd, in a jiffy I am leaping from the saddle to the , and the murmur is corrected and the clicking is cured, then I have that sweetest feeling of a d worthy steward. When my auto starts its jour- my early morning drive, every valve is working ly, every lever is alive, every tire is well inflated s proper dose of air, every bolt and bur is tight- the engine everywhere. Now, supposing in the ng when I started on my run half my tires were

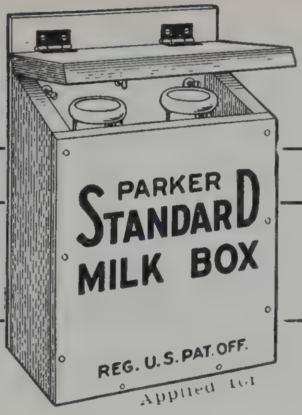


flated and one cylinder undone,—well, I might ough till dinner and I might get through till night t stopping by the wayside in a tantrum or a plight, e cost would still be piling, piling, piling for the nd his profits would be falling, there would be ex- cost; for those tires would both be wearing twice kly as they should, and there'd be excessive wear-derneath the painted hood! Time would come 'd be halted, laid up, useless half a day, while the oor helpless jigger, he's the fellow who would pay! ly have I lost a minute since I started with the r I learned at once, I'm saying, where potential s are; no, they never do develop to make free with nd gas, and they can not wear out bearings, un-ted, as they pass. Nickels saved make shining rs, quarters saved make dollar bills, and the dollar ake eagles in the boss's money tills; but the eagles be lacking, there can never be a doubt, if I didn't ff troubles just before they come about!

⁂

SENTIMENT NEEDED.

"here must be sentiment in the handling of dairy ts," Dr. W. C. Hassler, health officer of San Fran- said at a recent meeting of the California Dairy il. Dr. Hassler went on to say: "Cold finance can- the basis, nor can milk be dealt with as Rocke- dealt with oil and gasoline. The dairy industry en into the fabric of human welfare and the foun- of the industry is the consumer."



PARKER
STANDARD
MILK BOX

Will Give Triple Satisfaction—

To Your Customer

Every housewife likes to get her milk in a Parker Milk Box. She is sure that it will be there for breakfast and in perfect condition. Not frozen, not sour, not tipped over and spilled, or gone entirely; but pure, clean and sweet.

To Your Driver

This strong, well constructed Parker Milk Box will help your driver fill out his route and increase business. His daily order card is conveniently hung inside the box which enables him to deliver extras without errors.

To Yourself

The Parker Milk Box eliminates losses through broken bottles and insures the return of empties. It guarantees the delivery of your milk in perfect sanitary condition. It adds prestige and builds business through the Good-Will it creates.

WRITE FOR PRICES AND INFORMATION

Parker Standard Milk Box Co.
228 Warren Avenue - - Saginaw, Mich.

Prof. Burke's Inquiry -:- Department -:-

This Service is Free to Readers of The Milk Dealer

FORMULAS FOR MAKING SOUR CREAM AN FORMATION ON EFFECT OF PASTEURIZATION ON BACTERIA.

Pennsylvania.

Dear Sir:—I am interested in a formula to make a good heavy sour cream. By using an 18 or 20 per cent cream by the use of the viscolizer. Also a good heavy sour cream by using 18 or 20 per cent cream without the use of the viscolizer.

Reply: I believe the following formulas will assist you in turning out a heavy sour cream. I have used them many times and obtained very satisfactory results.

Formula I.

Add two per cent of skim milk powder to 18-20 per cent cream at a temperature of 100 degrees Fahrenheit. Stir for ten minutes to prevent lumping and heat slowly to a temperature of about 120 degrees Fahrenheit, or until the powder has gone entirely into solution. Now pasteurize the cream at a temperature of 145 degrees Fahrenheit for thirty minutes. Cool to 120 degrees F. and run the cream through the viscolizer at about sixteen hundred pounds pressure. Then continue the cooling to 68 degrees Fahrenheit and add about three per cent of good culture. Hold the cream until it curdles at this temperature and then place in the ice box until it has cooled down to 50 degrees Fahrenheit. Then break up the curd.

Formula II.

To 20 per cent cream add two to three per cent skim milk powder. Heat slowly to 120 degrees Fahrenheit to dissolve the powder and follow this by pasteurizing at 145 degrees Fahrenheit for thirty minutes. Cool to 70-72 degrees Fahrenheit and add three to five per cent good starter, thoroughly broken up. Dilute twenty drops of commercial rennet extract in about one-half glass of water and add this to one hundred pounds of cream, agitating it thoroughly to distribute the rennet. The rennet helps to form a thick curd and the cream may curdle in a relatively short period. However, you should hold it over night at the ripening temperature of 70-72 degrees Fahrenheit to develop the desired acid flavor. Follow this by breaking up the curd while cooling to 40 degrees Fahrenheit and hold at this low storage temperature.

* * *

Kansas.

Dear Sir:—I am very much interested in knowing the effect that pasteurizing has on milk. I am desirous to know whether or not pasteurizing milk destroys the germs which cause tuberculosis, diphtheria, scarlet fever, and typhoid fever. Also what effect does pasteurizing have on the vitamines contained in the milk? I will be very glad for any information which you may be able to furnish me along this line

P. S.—Is the statement, "That all milk bought for resale in the state of Oklahoma must be pasteurized," true?

Reply: Pasteurization at 145 degrees F. for thirty minutes readily destroys the germs of tuberculosis, diphtheria, scarlet fever, typhoid fever, septic sore throat and other pathogenic bacteria in milk. As a matter of fact, the tuberculosis germ is killed at a temperature of 140 degrees F. maintained for even a shorter period.

The chemical changes produced by pasteurization are very slight. In fact, Rupp, in Bul. 166 B. A. I., U. S. Department of Agriculture, states that "milk past by the holder process at 145 degrees F. for thir utes does not undergo any appreciable change." work it was found that the soluble phosphates and magnesium were about the same in the serum and pasteurized milk on the same sample. Also bumin was not coagulated. Some recent work printed in a foreign publication appears to indica differences in the digestibility of ash and prote apparently not affected by pasteurization. This tend to substantiate the data obtained by Rupp t chemical changes, if any, produced in milk by past tion, are slight. Apparently it does not affect dig ity.

Work on the food value of pasteurized milk w product is fed to infants, has shown slightly vari sults under different systems. However, a very c experiment in co-operation with some twenty phy in Washington, D. C., performed on about one th babies showed the balance to be in favor of the p ized product.

Now as regards the vitamines. Vitamine A an both relatively thermostable. They may be destr oxidation but they are not injured by the tempe of pasteurization. Vitamine C is entirely or par stroyed. However, since C varies in amount in ra and may even be present in insufficient quanti can not be considered either a limitation or a dis tage of the pasteurization process.

Finally to answer your last question. The Ok State law, House bill 401, Section 10, reads as f

"All milk and cream used in the manufac creamery butter and ice cream for commercial p and all milk bought to be resold, must be pasteur a temperature of 145 degrees Fahrenheit for twe minutes, or to 150 degrees Fahrenheit and h twenty minutes, using the holding system of pa ation, etc."

* * *

Mich

Dear Sir:—We want some information relativ handling of our coffee cream.

Our cream has been separated at 40 per cent. cooled and the next morning let down to 20 p with whole milk. This cream develops a half skim milk at the bottom of the bottle.

Lately we have been standardizing with some skim milk as soon as separated and viscolizing a hundred pounds pressure, temperature about 95 We are not satisfied with the body of this, thoug is little if any serum at the bottom of the bottles. tell us the best way to put out a 20 per cent coffe with a good body that will not feather in coffee. give temperatures, pressures, etc.

What do you advise regarding whipping crea are putting out a 33 per cent cream. What will effect of viscolizing?

Reply: I believe you can overcome the separ cream from the serum of 20 per cent coffee cr using higher viscolizer pressure at a warmer t ture. I suggest the following:

Standardize the cream to 20 per cent using sk

Glascote is the Standard in the Dairy Industries

GLASCOTE

New Glascote Vat with Glass Coated Cooling Coil

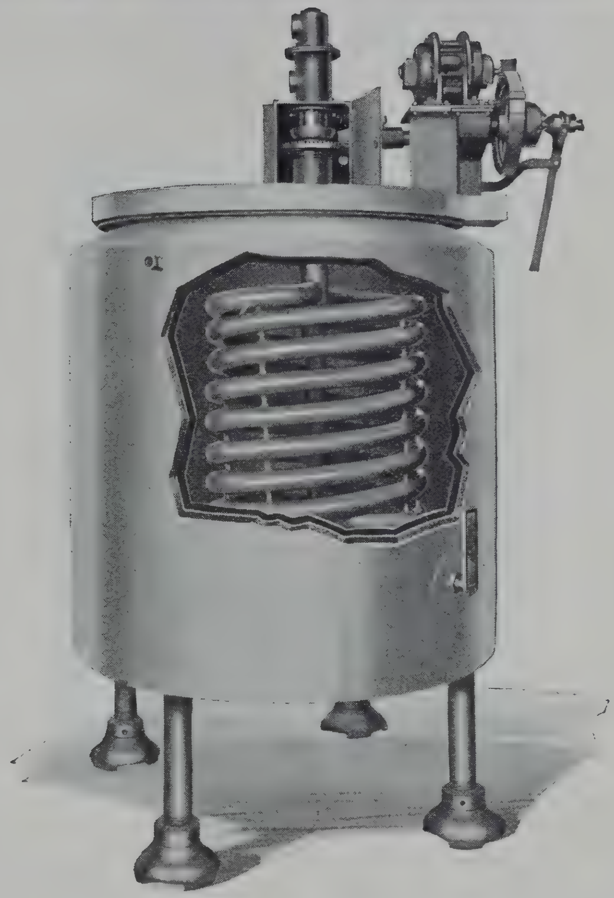
STEAM goes in the jacket. Brine goes in the coil. The two never meet, and the life of the unit is indefinitely long because there is no corrosion.

The tank is completely glass lined. The coil is completely glass coated. The coil acts as the agitator, working from the bottom to the top to expel air and gases. No foam is produced.

Absolutely no exposed metal in the liquid area. Brine leakage impossible. Agitation is continuous and complete whether tank is partly or wholly filled. High glaze glass lining is smooth even over seams. Coil is sturdy and rigid and cannot chip at braces. No crevices for bacteria or mold formation.

Highly efficient heat conduction shortens time of operations. Standard Glascote cork insulation applied without pitch and sealed airtight in welded jacket. Motor driven agitator, thermometer, special outlet valve and operator's platform, complete. 350—550—750 and 1050 gallons.

Send for bulletin.



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rclay 1784

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Dearborn 9731

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1217 Book Building
Cadillac 0799

ST. LOUIS OFFICE
905 Carleton Building
Garfield 3561

Mechanically and Technically, Glascote Leadership is recognized

When writing to THE GLASCOTE COMPANY *please mention The Milk Dealer.*

Clean Equipment Lasts Longer

It is a well known fact that things kept clean will last longer and wear better. This is especially true with all equipment in the milk business. Here, cleanliness is an absolute necessity irrespective of the cost.

And when Solvay Super Cleanser is used the cleansing is perfectly done while the cost is extremely low.

SOLVAY
SUPER CLEANSER
Trade Mark Reg. U. S. Pat. Off.

the ideal cleaner and cleanser, is produced and sold direct to the trade by the largest producer of alkali products in the United States.

You receive the benefit of the large scale operations and enjoy an exceptional product at a most reasonable cost.

Place your special cleaning problem in the hands of our Technical Service Department. Their experts will help you. No charge of course.

You can quickly demonstrate the efficiency of Super Cleanser—send today for a testing sample and a copy of the Super Cleanser booklet.

Ask for booklet No. SC-2

Solvay Sales Corporation
Alkalies and Chemical Products
Manufactured by the Solvay Process Company
40 Rector Street, New York
Boston Syracuse Chicago Indianapolis Cleveland Cincinnati
Pittsburgh Detroit Philadelphia Kansas City St. Louis Atlanta

or whole milk, warm to 120 degrees F. and visc
if you pasteurize the product, cool to 120 degrees
run through the viscolizer. In either case use a
of about 1600 pounds. This pressure may be v
obtain the desired consistency in the cream.
cream as quickly as possible to 45 degrees F.

If you do not wish to viscolize, then it will b
sary to regulate the separator to separate approx
a 20 per cent cream and use as little skim milk i
ardizing as possible, even then the cream will
somewhat from the serum. When milk is once se
the component parts, skim milk and cream, can
remixed and have the same physical properties
milk before separating. This is why your prod
less viscolized as above, shows cream separating f
serum the same as in milk when it stands.

Now, as to feathering in hot coffee. Viscoli
vors feathering and the higher the pressure t
readily the cream will flake. This is therefore
reason why you should regulate the pressure to
a point as possible, that will prevent separation
cream from the serum.

A second cause of feathering in coffee is the
of adding the cream to the coffee. It has bee
that mixing cream with sugar and then pourin
coffee, usually produces flaking, probably beca
sugar takes up moisture from the cream and
precipitation of some casein which shows up a
when the coffee is added. There is much less c
flaking if the sugar is first dissolved in the co
then the cream added.

A third cause of feathering is the acidity
cream. The higher the acid, the more pronoun
flaking.

Now as regards whipping cream. There
eral important factors in securing a good whip.

First: The fat content. Cream should conta
30 to 35 per cent. Thirty-three per cent as spe
your letter is very satisfactory.

Second: Temperature. Cream should be wh
temperature as near 40 degrees F. as possible.

Third: Aging. As cream ages it gains in v
Aging 15-24 hours at 40 degrees F. should yiel
desirable viscous cream if the product has be
viously handled properly.

Fourth: Viscosity. The method of handl
milk from which the cream is obtained is very
ant. If cream is held in storage for a day or s
pasteurizing and then this if followed by anothe
of storage to age it, you will find a decided det
effect on whipping.

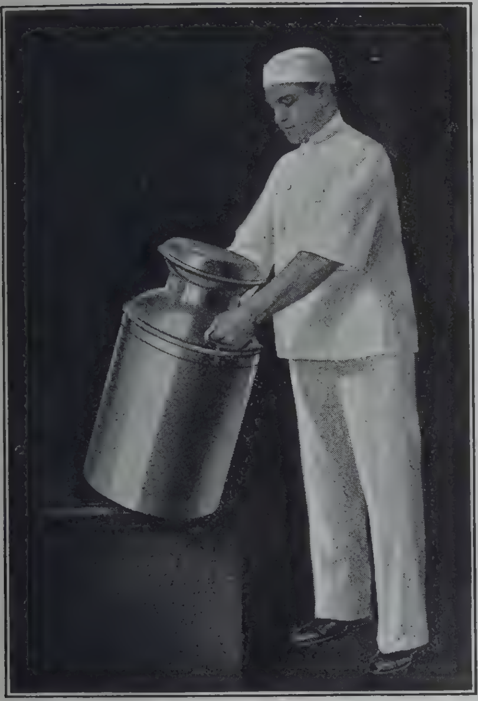
I suggest you pasteurize the cream right aft
rating and hold it 24 hours at 40 degrees F. to

If the above does not give you the viscos
whipping properties try the following. Paste
milk as soon as received at the plant. Hold ov
at 40 degrees F. The next morning warm to 80
or 90 degrees F., no higher, and separate. T
cedure gives the fat globules time to harden
vents their injury during separating and past
If the resulting cream is aged 24-36 hours at 40
F. a great increase in viscosity will be noted an
did whipping properties should be secured.

As to the effect of viscolizing. Cream so treat
on air rapidly, but experiments have shown it
stiffness and the yellow color of good whipped cr
stiffness is a characteristic of a good product.

HART'S

Super-Shrunk Service Suits



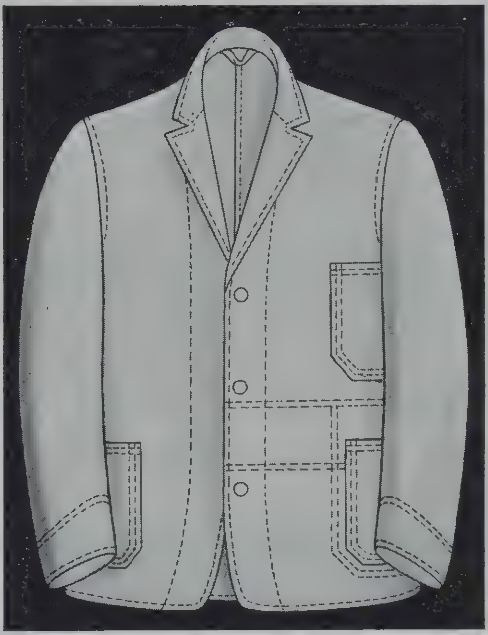
A suit that is SHRUNK before you receive it.

By this we mean, when you send one of our SUPER-SHRUNK SUITS to the laundry, it will not come back two or three sizes smaller.

SHRUNK Bleached White Duck Suit. Price each	$3.00
SUPER-SHRUNK Twill Duck Suit. Price each 2 pc. suit (Overall and Jumper)	$2.60
SUPER-SHRUNK Twill Duck Union-all. Price each (1-piece garment)	$2.50

Your name embroidered in script in any style desired on each garment, gratis.

Summer Driver's Uniform Coat



A Driver's Coat,

designed to meet every requirement of a Summer Uniform.

Made With Three (3)

outside pockets. One of which has a double lining to be used for money and change. Also an extra large inside pocket for route book and papers.

Name embroidered on collar, gratis.

Write to us for sample of material.

Price, each $2.50

Write to us for samples, catalogue and further information.

Hart Waterproof Clothing Corp.

PATCHOGUE, LONG ISLAND

Sole Manufacturers of the HART'S Waterproof 6 in 1 Apron

When writing to HART WATERPROOF CLOTHING CORP. *please mention The Milk Dealer.*

In The Southern States

By Our Special Correspondent in Memphis, Tennessee

Memphis, Tenn., still has hopes of entertaining the National Dairy Show this autumn at the Tri-State Fair, that event to be deferred until October if the plans in contemplation work out and held at the same time as the National Dairy Show. C. L. Hill, president of the National Dairy Show, was in Memphis recently in conference with the Tri-State Fair people headed by O. P. Hurd, president, representatives of the chamber of commerce and other civic bodies. S. H. Anderson of Chicago, secretary, was here several days ago. He visited the fair grounds east of the city with Frank Fuller, manager of the fair, and R. E. Logsdon, manager of the convention division of the Memphis Chamber of Commerce. Stables to accommodate 1,200 head of cattle, a large live stock pavilion and covered space for the dairying and general agricultural machinery exhibits are required. The combined show and fair gauged by former attendance records fair week here and the show attendance would attract about 250,000 people. The dairy show people will expect a heavy guarantee to pay part of the expense of the show. Memphis is becoming the center of the dairying industry of the central south, which has had recent fine developments in the towns of Lewisburg, Tenn.; Starkville, Miss.; Tupelo, Miss.; Murfreesboro and Clarksville, Tenn. The result of the conference at Memphis will be made known in due course.

* * *

Reed Bros. Dairy, 135 North Pauline St., Memphis, Tenn., feature their early morning deliveries, and under the slogan "Let Us Be Your Milkman" they are getting their varied and fine product before many new patrons in Memphis this spring.

* * *

The Clarksville Creamery Co. at Clarksville, Montgomery county, Tenn., has been chartered with a capital stock of $15,000 by E. E. Laurent, J. A. Boillin, G. W. Scarbrough, John S. Daniel, L. C. Westenberger and others.

* * *

Knoxville, Tenn., the principal city of east Tennessee, shows a population now of 134,688, according to the new city directory estimates. The last directory census was 125,496. Within a radius of 100 miles of Knoxville it is stated there are 1,560,000 people. It might be remarked that Knoxville is the center also of a very fine dairying section of Tennessee. On the hard road pikes out of the city are some of the finest dairy plants in Tennessee and the adjacent counties have many of
J. C. Sterchi, the furniture magnate of Knoxville,
one of the celebrated dairy farms near the city.

* * *

The Dixie Creameries Co. of Texarkana, Ark.,
branch plant at Camden, Ark., has filed an amen
to its articles of incorporation which will perm
company to engage in additional lines of business.
company will add candies to its present lines whi
clude milk, ice cream and ice.

* * *

A development of some interest to the dairy a
cream people of Arkansas is progress in ice plan
struction. Prescott, Ark., and Nashville, Ark., are
to install large ice plants this season. Contracts
been let for new structures.

* * *

The Maple Grove Dairy at Trenton, Tenn.,
county, is one of the largest in that important
Tennessee county. It is owned and operated by
Dodson.

* * *

The J. L. Dairy at Brownsville, Haywood c
Tenn., is an active one located on a farm near Br
ville, and is owned by Dr. J. L. Edwards and asso
It covers the city of Brownsville with daily delive

* * *

At Fulton, Ky., the Culver Ice Cream Co. was s
March 10 to the DuQuoin Bottling Co. of DuQuoi
who will operate the same. For 14 years it has
managed by John Culver. The Culver Ice Crea
at Dyersburg, Tenn., was not included in the sale.
two factories do an active wholesale business in t
spective cities and ship to many points along the
and M. and O. R. R.

* * *

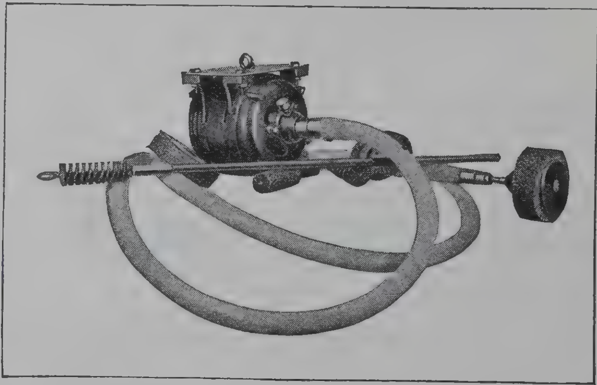
At Little Rock, Ark., the Mayflower Dairy on
St. in North Rock, Ark., devotes some attention
cream manufacture. They get out the product for
manufactured by Clark Ice Cream Co. and their
deliveries are active in the cities on either side
river, different municipalities but the same post off

* * *

The Terry Dairy in Little Rock, Ark., located a
Scott St., is one of the most attractive in Arkan
equipment and the output is large. The buildin
in white and the wall on the south side portrays
cow and a few words about the product. They, to
give some attention to ice cream.

* * *

The Rock City Dairy at Nashville, Tenn., opera
T. B. Taylor, is active both in dairy and ice cream
ucts. Their location is in the central section of th



The King Cleaner *vs.* Steel Wool and Harsh Brushes

RESULTS—Both will keep Sanitary Piping and tubular pasteurizing equipment perfectly clean,—but—the King Cleaner will not ruin the tubing, and requires far less time and effort for the work.

Send us diameters and lengths of tubing in your equipment and we will advise you size and price of Cleaner needed.

King Sanitary Pipe Cleaner Co., Inc.
SANDY HOOK, CONN.

SANS, Meaning *Without!*

Without

Extra Advertising
Extra Salesmen
Extra Manufacturing Expense
Extra Packaging Expense
Or Better Milk

You can secure a 50 per cent increase in your cottage cheese sales. Learn our method of making *flaky, creamy, low-in-acid* cottage cheese.

The largest and best dairy companies report a 50 per cent increase after learning our method.

Without obligation to you, we will be glad to send full details.

Write us about it TODAY!

Flake Cream Cottage Cheese Co.

400 SO. CLINTON ST. **CHICAGO, ILLS.**

IF YOU were your own Customer—

You too would appreciate having your milk delivered in n attractive—modern inviting wagon. Add to this the dis-inctive practical features of

• The HESSE •
AUTOWAGON

and you have an ideal wagon or delivering your milk.

MILK
MILK
CREAM
COTTAGE
CHEESE
BUILT BY THE
HESSE MFG CO

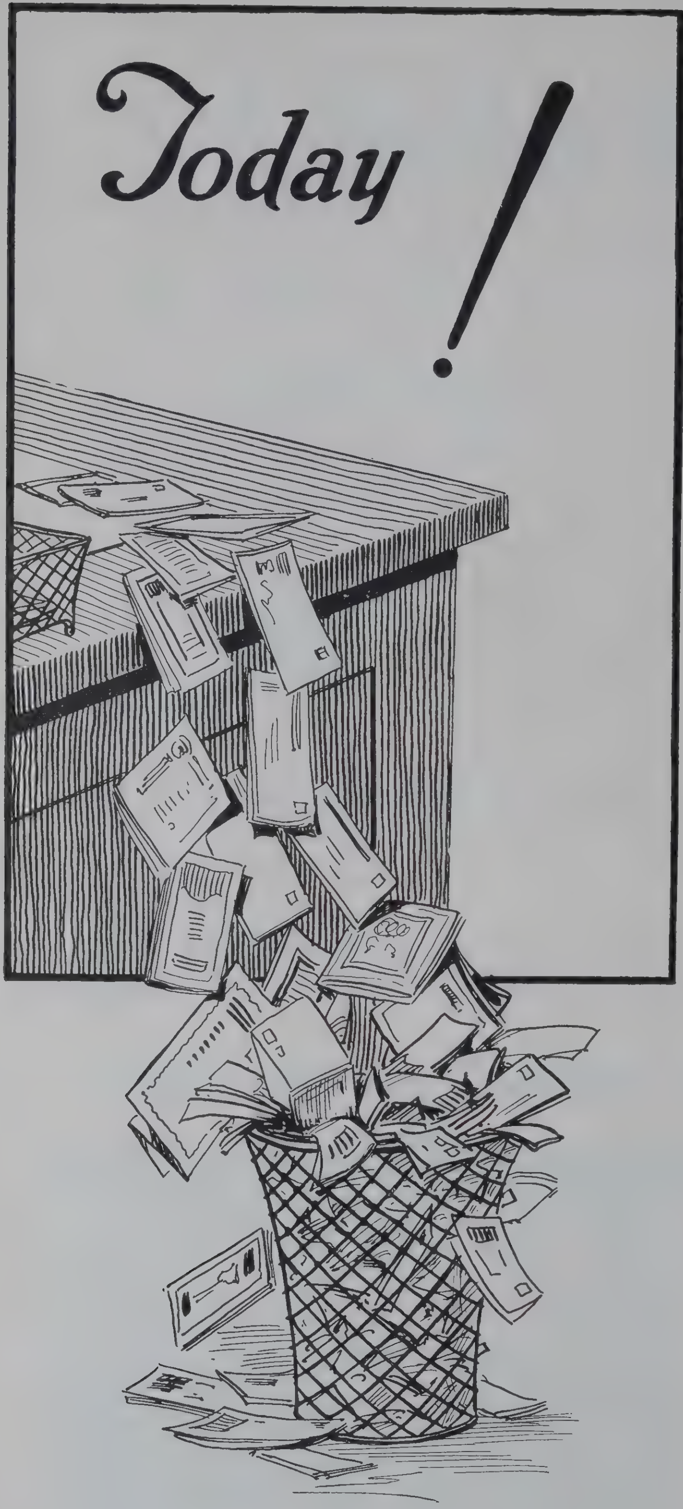
Made in Straight or Drop Sill Styles

Two Sizes, 24 or 42 Case Capacity

WRITE FOR FULL INFORMATION AND PRICES

THE HESSE MANUFACTURING CO., Leavenworth, Kansas

WAGON BUILDERS FOR 70 YEARS



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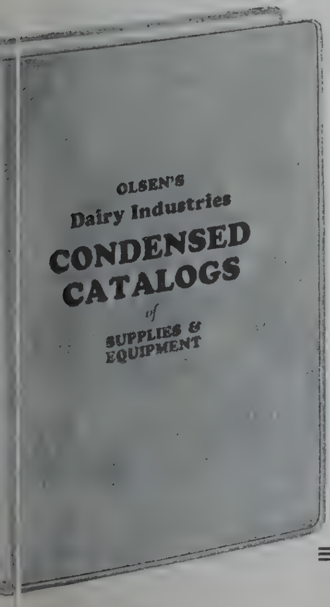
his Valuable Volume FREE to Dairy Industries Buyers



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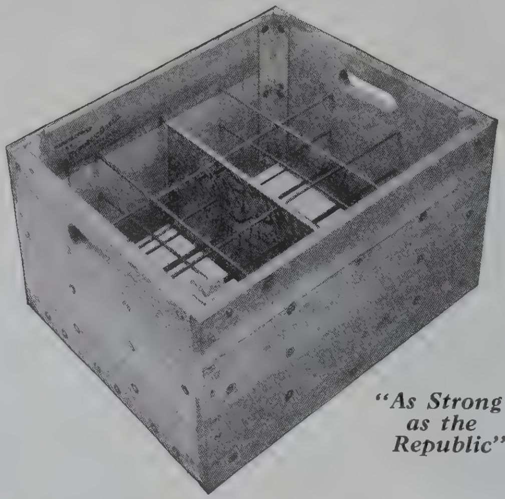
CATALOG DIVISION
THE OLSEN PUBLISHING COMPANY
501-515 Cherry Street, Milwaukee. Wis.

REPUBLIC
Bottle Crates


"As Strong as the Republic"

Will Cut Down Delivery Costs For You

THE Strong, enduring construction of Republic Milk Bottle Crates will help you to economize on your delivery costs. Republic Crates provide complete protection for your bottles, are standard in size to stack perfectly, and slide easily into wagons and on conveyors. Everything that a good Bottle Crate should be at a very moderate cost.

In addition to these features, "Toncan", the highest and longest-lasting grade of galvanized metal obtainable is used for all metal parts of Republic Crates.

Republic Bottle Crates save money in their initial cost as well as the up-keep. Write for prices and quantity discounts.

THE REPUBLIC BOX CO.
1693-1711 Merwin Street
CLEVELAND - - OHIO

just a block from Broadway. Mr. Taylor states
spring outlook in Nashville is very good.

* * *

The Nashville Pure Milk Co. on Church St
ville, Tenn., has one of the largest delivery fleet
city, both horsedrawn and motorized. Their pl
brick structure with concrete floors, much plate
the front and a typical fine milk bottle at the
The wagons carry a good trade slogan and t
widely known and popular in the Athens of the

* * *

The past year and the present spring have wi
in Nashville and middle Tennessee the establish
quite a good many dairies on the pikes leading
Nashville. It has always been a section noted
cows. The demand of residents, hotels, rest
hospitals and other users is larger and they all
be enjoying a good activity. The wagons in N
in most instances carry the name of the dairy
drivers and the mutiplicity of them in recent m
very notable.

* * *

The towns of middle Tennessee, such as M
boro, Lewisburg, Clarksville, Lebanon and Galla
show a decided increase in this industry. At L
some celebrated butter is produced. Fayetteville
coln county is another point in Tennessee that
progress. When the history of 1927 in Tennesse
ing is written it will be an interesting one.

⚜

BUSINESS INCREASES AT DAIRY PLAN

H. Rabild, general manager of the Titusville
Products Company, Titusville, Pa., announces t
month of March was the best month since the b
was started.

"We handled over 600,000 pounds of milk and
during March," said Mr. Rabild. "This is a
amount of milk to be 'dumped' by one man,
means that with the weight of the cans, this em
of the dairy plant has lifted about 800,000 pou
thirty-one days."

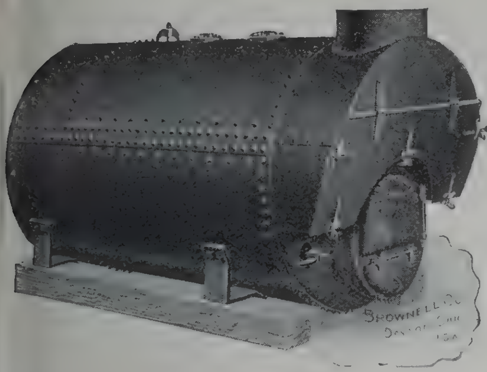
"While we are finding a ready market for ou
ucts," said Mr. Rabild, "we could handle more mi
we invite farmers who have been contemplating s
their milk to our plant to start at any time, as
in shape to handle all the milk we can get. We
that the returns from milk sold to the Titusville
Products Company will equal any market to which
ers in this vicinity have access, and our prices
generally better than many of the markets avail
local farmers."

During the month of March the plant receive
and cream from 212 different farmers within a ra
fifteen miles of the city, the farmers receiving t
over $16,000.

⚜

NEW COUNTY DAIRYMEN'S ASSOCIATI FORMED.

For the purpose of studying and strengthenin
marketing and production conditions, leading da
of Maury county (Columbia, Tenn.) have laun
county dairymen's association. A committee is a
formulating a constitution and will report at a
meeting to be called the latter part of May. Those
committee are: Dr. Lucius P. Brown of Spring H
John Whitworth, chairman; L. R. Neal of the
Tennessee experiment station, Henry H. Hill,
Andrews of Culleoka.



NSPECTION!

ROWNELL Creamery Boilers covers careful inspec- of the open hearth steel plates that go into the uct, rigid inspection of workmanship during and each operation, and pressure tests at completion to official o. k.

, through intensive supervision, the outstanding WNELL reputation, rightly earned in the earlier of steam, is zealously safeguarded today.

BROWNELL line of creamery boilers is very com- —affords exactly what your particular boiler re- ments demand.

BROWNELLS COMPLY WITH SME AND ALL STATE CODES.

Representatives near you, ready to serve you. Consult them; also write for illustrated Bulletin B-3.

BROWNELL COMPANY - DAYTON, OHIO

BROWNELL

Lactea-Lac

Buttermilk Culture

Will always assure you of getting a fine, uniform quality buttermilk with no wheying off.

The culture is ready for immediate use. It does not require transferring for three days.

Culture cabinets or special apparatus are unnecessary. A fine quality buttermilk can be made in ordinary milk cans, vats or tanks.

actea-Lac Culture

for making Special Lactic Buttermilk $2.50

This price includes our Mail Laboratory Service, which insures uniform quality at all times.

e will gladly mail you a Free sample of Buttermilk made from Lactea-Lac Culture. Judge for yourself the delicious flavor and quality.

ACTEAL ANALYTICAL LABORATORIES
NCORPORATED
176 FRANKLIN ST. BUFFALO, N. Y.

ARCUS COUPON BOOKS

Used All Over America and Every Customer Pleased!

No matter how far from Chicago you are you'll save both time and money—and a lot of worry—by trading with Arcus.

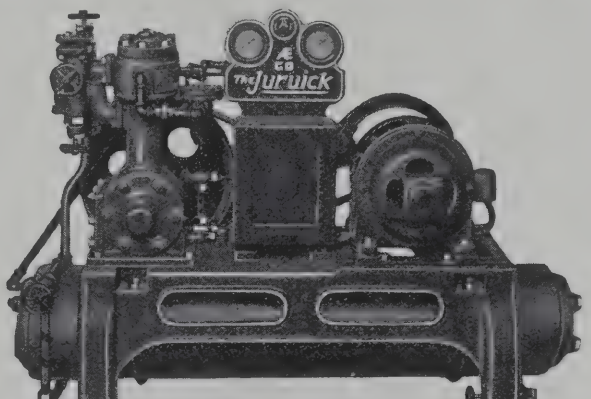
Our ticket factory—one of the largest in the world—is equipped with special machinery of our own design; the like-of-which nobody else has, or can get.

Get our quotations on coupon books, and numbered tickets of all kinds. Send samples.

The Arcus Ticket Company
350 N. Ashland Avenue CHICAGO, ILL.

Juruick

REFRIGERATION



The Juruick Refrigerating Unit

Send for the *Juruick Folder* which tells how by simply turning a switch you can have the best in

ELECTRIC REFRIGERATION

American Engineering Company
2417 Aramingo Ave., Philadelphia, Pa.

Better Than the Law Requires

Texas Milk Firm Has Worked for High Quality During All These Years and Makes It Pay Big Dividends

By AUSTIN E. BURGES

NEARLY twenty years ago a young man, fresh from the agricultural department of the Tennessee State University, turned his eyes westward in search of a suitable place to follow his chosen occupation of milk production. He chose Dallas, then a city of 60,000 to 70,000 population, and started with twenty cows, four men, and one delivery wagon.

Lindsley Waters, president of the Tennessee Dairies, was that young man His modest enterprise has since expanded to where it is necessary for him to run 75 milk wagons to deliver his product. The drivers of these wagons deliver from 36,000 to 37,000 bottles of milk daily.

Exterior View of Tennessee Dairy's Plant at Dallas, Tex.

From the first Mr. Waters was imbued with the idea that the people of Dallas wanted and were willing to pay for a quality product. Since that time he has spared no expense or effort that was calculated to produce the highest grade of milk and to get this milk to his customers with clock-like regularity and dependability.

When he set up in business the faucet can and milk pitcher were in vogue in the Southwest He was the first in his territory to adopt the more modern idea of selling milk in bottles capped at the dairy. With the adoption of that innovation he changed his plan of delivery from two deliveries a day to one. He was also the first in Dallas to sell milk from tuberculin-tested cows and the first to install a modern refrigerating plant for cooling and caring for his product.

By 1918 the business had expanded to 700 cows, and there was a lively demand for the whole of the product from the dairy. Instead of one wagon, twelve wagons were being run. Dallas was beginning to grow in real earnest and it was decided to change from a producing dairy to a distributing plant.

With this change came a modern pasteurizing equipment which has been constantly added to to keep it abreast of the times. Upon reaching the plant the milk is discharged into a 3,000-gallon, glass lined thermos tank where it is kept at a temperature of 40 degrees to keep it sweeet and agitated lightly to discourage the tendency of the cream to rise.

Leaving the storage tank, the milk is pumped to the aerator where it pours over the outside of the pipes being warmed as it falls. At the bottom of the aerator it is caught and carried to the pasteurizer, whe
quickly heated to 142 degrees and kept that hot
minutes, which is enough time to allow a safe
over the minimum required for pasteurization.
are four pasteurizers of the vat type, each ha
capacity of 500 gallons per hour.

From the pasteurizers the milk flows back
aerator, this time inside of the pipes, giving up s
its heat to the cold, raw milk which continues
over the outside of the pipes. By this means b
refrigeration applied at the receiving stations a
heat applied at the plant in the pasteurizing vats
twice

While the milk is being pasteurized bottles ar
prepared for it by the washer. This machine,
never breaks a bottle, handles hundreds of the
tainers at one time, putting each one thro
thorough cleansing process. The bottles move
through a solution of caustic potash, fresh
being supplied all the time, until they are gli
clean. The whole cleansing process consists of
number of separate operations.

From the cleaning machine the bottles travel
filling machine. The bottles rest on a metal pl
which is in slow but continuous motion. An ins
watches the bottles as they pass to make sure t
of them are clean and that none is broken or c
If the bottle has sustained even a small chip at an
it is removed and discarded.

Reaching the filling machine, the bottles me
milk that has all this time been traveling towar
from the pasteurizer. This bottle filler has a capa
sixty bottles a minute. The filled bottles travel in
stant stream toward tables where they are pla
hand in the cases, ready for the daily delivery.

The Tennessee Dairies have 75 retail routes in
and seven receiving stations in Dallas and adj
counties. The drivers on these retail routes w
commission only and are responsible for all trans
they have with customers. They get their initial tr
under the personal supervision of a crew manag
starts them out as solicitors.

In keeping with their policy of keeping well
vance of legal requirements, the Tennessee Dai
1926 began the process of equipping themselves to
all their milk into the city in glass-lined steel th
tanks.

There are three of these 1,500-gallon tanks in
far and a fourth has been ordered by the company.
are constructed of two coats of welded, quarter-inc
between which is a two-inch layer of cork as a
lator. This glass lining is made just as thin as it
to thoroughly cover the steel, as otherwise the u
expansion of steel and glass might cause the lin
crack.

So thoroughly do these thermos tanks preve
entrance of heat, said K. V. Lipscomb, vice-presid
the concern, that tests have shown a rise of on
degrees of heat in the chilled milk inside after
been kept there twenty-four hours with summe
outside. The thermos tanks are mounted as semi-t

Particularly
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Powdered
MILK

acobs Barrels

Made for the purpose they are to serve. They are tight and stay tight. Strong—to withstand shipping. Clean and attractive as a sales package.

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Every seam is stitched to stay. Pockets reinforced with double thickness of material. All buttons covered. Your choice of many colors: Solid blue; solid white; solid khaki; blue and white striped; blue and khaki striped. Sizes 34 to 56.

12 Suits or Coats.... **$3.00** each
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One Suit or Coat FREE with each dozen ordered at above prices.

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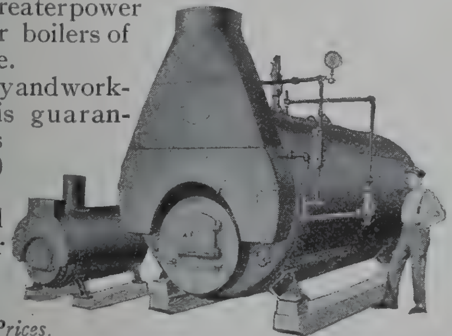
ly a boiler built especially for the creamery t de could give such perfect satisfaction as the ffel Creamery Boiler.

ese boilers are quick steady steamers—that r uire the minimum amount of fuel to operate e ciently.

S ve time, labor and fuel. Need but little space a have greater power t n other boilers of s ilar size.

equality and work- nship is guaran- t d. Sizes to 150 P.

eet all s teboiler l vs.



Vrite for alog and Prices.

he James Leffel & Co. BOX 330 SPRINGFIELD, OHIO, U. S. A.

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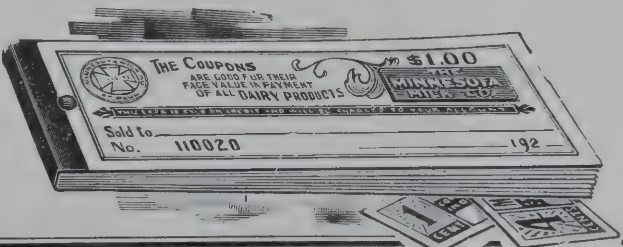
Are Practical and Profitable to Use.

Fluctuations in the prices of your commodities have no effect on the use of National Dairy Coupons. They are the same as cash and they will put your sales on a cash basis without loss of trade.

LET US TELL YOU HOW OTHERS USE THEM

NATIONAL CHECKING COMPANY
ST. PAUL, MINN.


THE COUPONS
ARE GOOD FOR THEIR FACE VALUE IN PAYMENT OF ALL DAIRY PRODUCTS
$1.00
MINNESOTA MILK CO.
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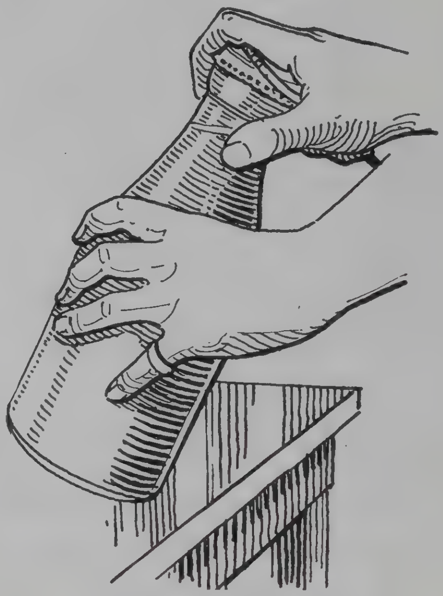
Here at last is the perfect package of Milk or Cream, pure and sweet pasteurized IN the bottle! Made possible by a mechanically perfect closure.



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Inventors and originators of the famous "Crown Cork"

on the back of trucks, the two having three p
wheels between them. The milk is quickly chille
is received at the collecting stations and is fed i
thermos tanks at a temperature of 36 degrees
which temperature it practically is when it is disc
into the tank of the same kind but double the c
at the main plant. Milk could not, of course, be
ported in cans at any such low temperature as tl

About 3,000 gallons is hauled from the Deca
tion each day by thermos tanks and about 1,000
from the station at Farmersville, Dallas county
intended to put the next tank in to serve the A
tion, and eventually to haul milk from receiving
in no other containers.

From the first until now it has been the aim
company to sell the cleanest milk that it is in the
of man to produce and deliver on a commercia
Tennessee advertising always carries this sta
signed by the president: ''The purity of every
Tennessee Dairy Milk is guarded as though I e
my own babies to drink it.'' Doubtless such car
ly explains the growth of the Tennessee Dairies.

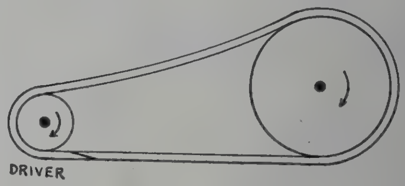
IDLERS, BELTS AND PULLEYS.

By W. F. Schaphorst, M. E., New York Cit

Not long ago I read this in a prominent engi
journal:

> ''This idler is near the driven
> pulleys, which is contrary to
> the best engineering practice.''

It is not poor engineering practice to place a
pulley near the driven pulley when the driven p
the smaller of the two. The best practice is to
place the idler
the small pull
gardless of wh
is the driven
driving pulley.



It is also stat
if a belt is run
the lap the bel
ble to go to pieces if moisture is in the room. Th
tion of the lap is dependent more upon the direc
slip than it is upon the direction of motion of t
Since slip is usually greater on the smaller pull
on the large pulley, and since slip is always
the tight side, it is evident that in a drive such as
in illustration above with the small pulley as the
pulley, the direction of the lap should be in the d
as indicated so that the joint will have as little te
to roll or peel as possible. True, when the joi
the large pulleys, the slip is in the opposite direct
there is a tendency to peel or roll, but the peelin
ency is less severe than on the smaller pulley. Th
tion of motion of the belt which was at one time re
as the criterion is therefore of less importance t
question: ''On which pulley is the belt liable
most?'' The answer is: ''Slip is always greater
small pulley.''

The same writer recommended facing pulle
leather. I would discourage the use of leather
unless absolutely necessary, because such covers
ducive of excessive wear. If a drive is prope
signed, if the belts are wide enough, and if the
are large enough, there is seldom any necess
leather or canvas covers.

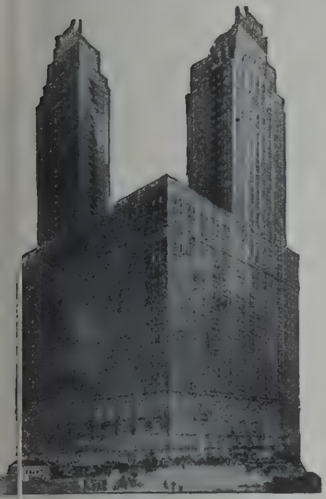
Vhen in CHICAGO

E joy your stay — at the superb new

IORRISON HOTEL

Cor. Madison and Clark Streets

The Tallest Hotel in the World
Forty-six Stories High



Th New Morrison, when completed, wi be the largest and tallest hotel in the world, containing 3,400 rooms

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Grade Milk for Bacteria with the

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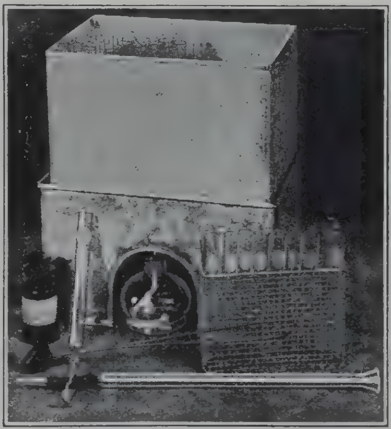
Dependable — Rapid — Economical



Milk samples quickly taken with dipper. Dye added rapidly with special burette. Sample tubes easily handled and observed in groups in wire baskets.

Specify Nafis Glassware to your Jobbers.

Do not accept substitutes.

Write for our instructive catalog, containing directions for many tests.

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ASK THE MEN WHO USE IT

Considerations in Buying Washers

Can Washer to be Efficient Must Thoroughly Wash, Sterilize and Dry Rapidly With Minimum Labor

By L. F. HATCH*

DUE primarily to the persistent campaign which has been carried on by trade papers serving the interests of creamerymen and fostered by dairy departments of state universities and state and local organizations, the practice of returning buttermilk in cream cans is being discontinued to a large extent.

The losses through moldy butter directly due to the practice of using the cream cans as a container for buttermilk had reached alarming proportions and the elimination of this custom is a great stride forward in the creamery industry.

More and more progressive creamerymen are coming to the realization that just so long as this practice continues just so long will there continue to be large quantities of sour, moldy and off-flavor cream.

Instead of sending buttermilk back to the farm in the cream cans, they are now properly cleaned and sterilized and the creameryman is either disposing of all the buttermilk to one individual, or using separate containers for the buttermilk or in some instances installing buttermilk drying machinery.

The farmer does not have adequate means for washing and sterilizing his cans nor does he in many instances realize the importance of doing so. To assure themselves that their cream will be delivered in a fit container, the creameryman must see for himself that when the can goes back to the farm it is in proper condition.

Washing cans by hand is a slow, costly, inefficient and antiquated method of doing the work. The farmers usually deliver their cream at about the same time and resent having to wait around for their cans to be washed. If cans are being washed by hand, extra labor is required for this purpose, and usually the job is only half done.

When proper modern power driven can washing machinery is installed, cans are quickly washed, sterilized and dried with a minimum of labor and much more thoroughly and efficiently than can be done by hand.

While the style of machine to be recommended in each instance depends upon the number of cans to be washed, the speed required, the method of handling and plant layout, for the medium sized creamery the rotary type can washer will usually be found most suitable.

Machines of this type can be obtained which will handle from 180 to 360 cans per hour and require but one man to operate them. Another feature favoring the rotary machine is that being more compact, it requires considerably less floor space than the straightaway type. On the other hand where large quantities of cans must be washed quickly the straightaway machine is to be recommended. In such installations, cans are usually delivered at one platform, are dumped and then washed, sterilized and dried in the can washer which at the same time delivers them to another platform where the farmer picks them up.

In considering the installation of a can washer the creameryman should ask himself these questions:

(1) What size and type machine will be best suitable for my requirements?
(2) Does the machine under consideration embody those features which are necessary to properly wash inside and outside, thoroughly sterilize and thoroughly dry cans at the speed which quired?
(3) Is the machine under consideration s structed that it will be economical to both as to labor and steam and water co tion?
(4) Is it a machine so designed that all pa easily accessible for cleaning or for adjus replacing of parts?
(5) Are the materials used in the construc such character as to insure long lif minimum upkeep expense?

The first question as to size and style (rot straightaway) machine best suited, we have alrea sidered.

With regard to the second question, in which sidered the construction of the machine from th point of efficiently washing, sterilizing and dryi cans at the speed required there are many thing said. We will mention just a few.

A machine equipped with preliminary rinse operates intermittently flushes out much of the fore the can reaches the solution wash jets and intermittent in operation but little water is used.

Wash jets should be so constructed so that th of the jet is delivered directly to the neck of the as well as to the sides and bottom. A jet of wate ing the bottom of the can only and which is supp wash the neck as the water falls back down the s the can is obviously not as efficient as the jet unde pressure which directly strikes the neck of the well as the bottom and sides.

Ample provision should also be made for wash **outside** of the can. Large jets delivering water high pump pressure are most effective for washi outside of cream cans.

After passing the washing jets, cans should b oughly rinsed and then sterilized with live steam

The machine should be equipped with a large heater so that a sufficient supply of hot air is de into the can to thoroughly dry it.

Not only must the machine be equipped to g cans the treatment outlined above but it must designed so that the speed at which the cans a cessed through is fixed and the capacity cannot be by the operator. This is accomplished by means automatic power drive which is set at the spe which the machine is designed. Where this aut drive is intermittent in its operation, the cans co stop over each washing, sterilizing and drying p and receive a more thorough treatment. With to the covers, these are more easily washed an thoroughly dried if handled on edge. In this posi water can be carried either on the inside or out the cover.

Economy of operation is also an important Machines which are equipped with pumps use this over and over again, and the only water wasted preliminary rinse water as the sterile rinse water again to freshen the wash water. Steam is use for sterilizing, blowing water off bottoms of th and for the hot air heater. These steam jets op

---

* Assistant Secretary, Rice & Adams Corp.

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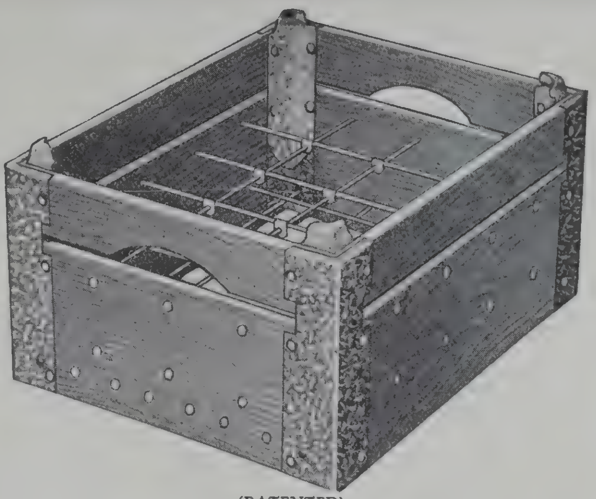

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Heavy galv. corner irons overlapped at top and bottom.
Long galv. stacking irons riveted through corner irons.
Strong — Durable — Yet light in weight.
Bottom runners if desired.
Will stack on any standard size cases.
Simplest and strongest construction — lowest in price.

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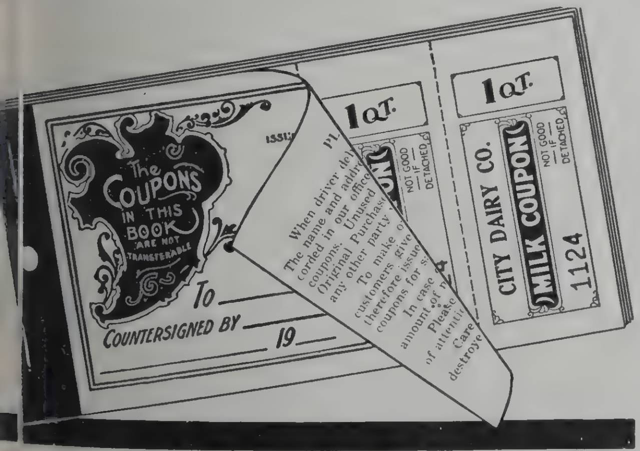
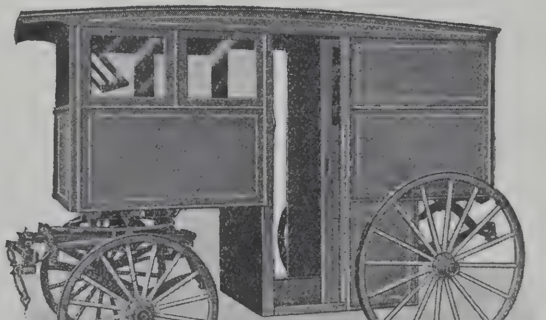


Sturdy Construction MEANS ECONOMY



We have built milk wagons for over 25 years and fully understand the needs of the dairyman in this line. We make a specialty of installing equipment for carrying cases in any of our wagons.

Send for our No. 48 free catalog showing eight styles and many sizes of gear from which to make selections

Special Wagons Built to Order.

DeKalb Wagon Company
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Cleans down to the metal
— *and stops*

THAT is exactly the way Oakite cleans! Powerfully active against dirt in any form, quick to loosen even hard, burnt-on casein, Oakite cleans right down to the metal—and stops. Oakite cannot attack or harm the surface in any way because it contains no acids, alkalies, caustics or metal-harming ingredients.

Take milk cans for instance. The exceptionally long service derived from cans and similar equipment washed with Oakite is but one of many ways in which you profit by using Oakite methods. You save time and money in all cleaning operations. You require *less* labor in cleaning—have *more* labor available for other work. And you get that *thorough* cleanliness which is a positive safeguard to purity.

A postal to us brings an Oakite service man to you with full details. No obligation.

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OAKITE PRODUCTS, INC., 30B Thames St., NEW YORK
(*Formerly OAKLEY CHEMICAL CO.*)

Oakite Service Men, cleaning specialists, are located at

Albany, Allentown, Pa., Altoona, Pa., *Atlanta, Ga., Baltimore, *Birmingham, Ala., *Boston, Bridgeport, *Brooklyn, Buffalo, Camden, Charlotte, N. C., *Chicago, *Cincinnati, *Cleveland, *Columbus, O., *Dallas, *Davenport, *Dayton, *Denver, *Des Moines, *Detroit, Erie, Pa., Flint, Mich., Fresno, Cal., *Grand Rapids, Harrisburg, Hartford, *Indianapolis, *Jacksonville, Fla., *Kansas City, *Los Angeles, Louisville, Ky., *Memphis, Tenn., *Milwaukee, *Minneapolis, *Montreal, Newark, Newburgh, N. Y., New Haven, *New York, *Oakland, Cal., *Omaha, Neb., *Philadelphia, *Pittsburgh, Portland, Me., *Portland, Ore., Providence, Reading, *Rochester, Rockford, Rock Island, *San Francisco, *Seattle, *St. Louis, South Bend, Ind., Springfield, Ill., Syracuse, *Toledo, *Toronto, *Tulsa, Okla., Utica, *Vancouver, B. C., Williamsport, Pa., Worcester.

*Stocks of Oakite materials are carried in these cities.

OAKITE
TRADE MARK REG U.S. PAT OFF.
Industrial Cleaning Materials and Methods

intermittently reduce steam consumption to a mini The rotary machine is most economical as far as is concerned as one man loads and unloads from the position.

Another point to consider is accessibility of th chine for cleaning, adjustment or replacing of The machine should be designed so that the can or carriers can be easily removed making the ins the machine accessible for cleaning of tanks and All moving parts should be simply and strongly structed and located where they are easily acce All push valves, etc., should be on the outside of th chine where it is possible to see that they are wo properly and adjustments made if required. All ing parts should be heavy and durable.

These are just a few suggestions that it is hope be helpful.

Manufacturers of can washing machinery a course, always glad to tell you about their equip Our advice is to get all of the facts, weigh them fully, having in mind the points mentioned briefly

Modern efficient can washing machinery is ess equipment in every progressive up-to-date creamer those who are installing machines of this type ar ting big returns on their investment.

* * *

GIVING THE TIMID EMPLOYEE SELF CONFIDENCE.

Jake worked in the office. He came to us well- mended, and I didn't note anything particul specting him at first, except that he was shy. He color at the least attention from a superior. I had sion to call his attention to a trifling error, and th low turned pale. I noticed that he acted sick f rest of the day. It was plain that he was a very ser fellow; the fact was more apparent every day.

There came a spell of dull business, and there was not enough work for Jake in the office. Jake it, of course. When I sent for him, I knew he ex to be let out.

"Jake," I said, "there isn't work for you office, and we are going to give you some work o set you to work drumming up business. There is of opportunity. You'll begin tomorrow."

Jake took it hard. I thought for a second he w ing to faint—not at a job being saved him, but work he was asked to do.

"You don't mean—selling?" he whispered. course!" I said.

"I can't sell!" he wailed. "Why, I'd die first have to resign, if you mean this."

I told Jake to resign then, if outside work him. I used the word scare. I think it stung his At any rate, his head went back, and he said he try it. He was mad clear through.

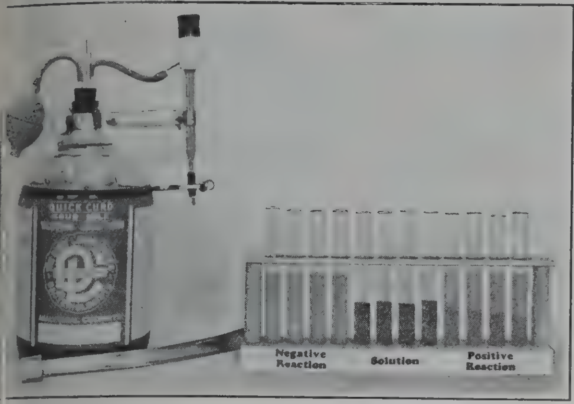
Did you know that sensitive men make the best men, that timid men are good selling instrumen have demonstrated it again and again. I knew th timid Jake, with his sensitive nature, would sell house afire—if he once got past the initial fright idea.

We helped Jake over some rough spots, and he good in a wonderful way.

The best plan to put confidence into a timid if you think he really has stuff—is to throw hi the cold water. If he has the stuff, he'll come th

* * *

Send your news and personal notices to "The Dealer" and see how well they look in print.



QUICK-KURD
Sour Milk Testing Solution
RAPID *ECONOMICAL* *CONVINCING*

simple and reliable test for high-acid and Garget milk that can be performed by **anyone in a few seconds.**
lacing a dipper of milk in the test tube containing solution and shak-ir undesirable milk will produce an unmistakable **curd** at once.

N 18. Supplied for eliminating milk over 0.18% acidity and Garget milk. One Gallon (sufficient for 375 tests), $2.50.
N 22. Supplied for eliminating milk over 0.22% acidity (milk that will curdle on heating), and Garget milk. One Gallon (sufficient for 375 tests), $2.50.
Ofit Complete, tubes, dippers, etc., without solution $5.00

HE DAIRY LABORATORIES
2 0 LOCUST STREET PHILADELPHIA, PA.
New York Baltimore Washington
"The Home of Flav-O-Lac Liquid Cultures"

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BARLASS
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DEPENDABILITY *and* EFFICIENCY !

We can give you this in the following lines
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MANTON-GAULIN HOMOGENIZERS
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OAKES & BURGER CAN WASHERS
MID-WEST BOTTLE CAPS
BERNEY-BOND MILK BOTTLES

We also carry a complete stock of Dairy Supplies which have been carefully selected for quality and service.

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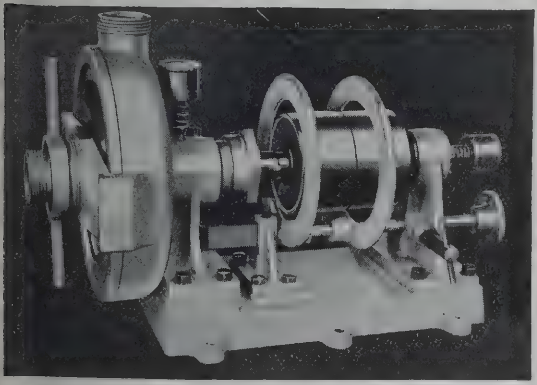

Nofome

The Pump that Gives Greater Satisfaction!

NO CHURNING—NO FOAM.

Send for Descriptive Circulars

PECIALTY BRASS CO.
ENOSHA, WIS. ALBION, N. Y.

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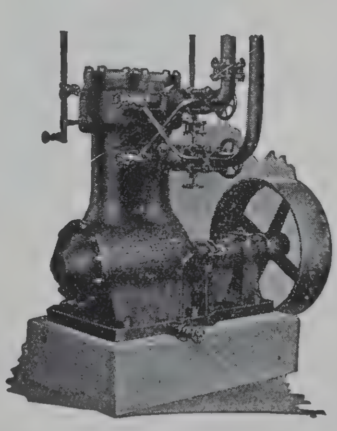
Enclosed Type
Ammonia Compressor



An ideal ice machine for the moderate size plant. Modern in design, made of high grade materials and thoroughly inspected and tested. Let us send a copy of our Bulletin No. 29R to you. It tells of the force feed lubrication to the piston pins, the easily operated Vilter plate valves, the oil sealed stuffing box and gives other information of value.

Let us Submit quotations on your requirements —no obligations to you.

The
Vilter Manufacturing Company
ESTABLISHED 1867
875 Clinton Street Milwaukee, Wis.

PUBLIC INSTITUTIONS
GRADE "A" DAIRIES
MILK PLANTS
HOSPITALS
Recommend this Equipment
Ladd
Ladd's 42nd

Ladd's Blue Line Pasteurizer, Ladd's Tubular Filter, Ladd's Cooler, Milwaukee Filler and Capper, Ladd's Brine Maker and Ladd's "42nd" Washer.

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You Can Build a Steady, Good-Will Business with

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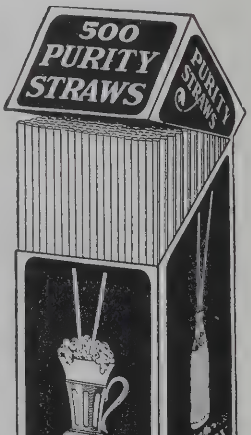
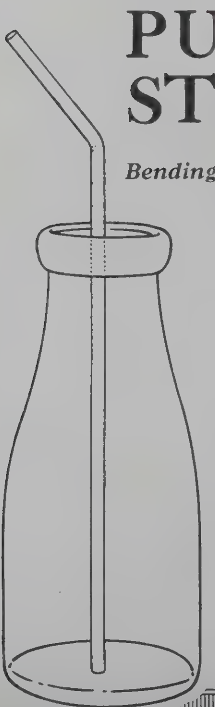
Bending Won't Break Them





Purity Straws will create a demand for your milk. School, office and shop customers are pleased with the convenience they offer—no glasses to wash. Purity Straws are strong, sanitary, and will not dissolve or soften.

Write for free samples.

COE MANUFACTURING CO.
53 Park Place New York, N. Y.

WASHINGTON MAIN

Notes From Far and Near

CALIFORNIA FLORID

Shrewsbury, N. J.—A new internal tubular coo been installed in the Shrewsbury Dairy Co. plant.

Washington, D. C.—Upon the recommendation United States Public Health Service, the United Sta partment of Agriculture has further modified the e against Canadian milk with respect to the Province bec so that only such milk and cream as emanate Montreal is restricted, Secretary Jardine announced on

Santa Barbara, Calif.—The Enterprise Dairy Pla cated at Carillo and Castillo Sts., has expended tho of dollars to provide the latest and most modern machinery to insure absolute sanitation in the hand their milk products.

Macon, Ga.—Every one of the 59 dairies supplying with raw milk, including whole milk, cream, skim m buttermilk, has complied with the new law that becam tive May 1, and all rates Grade "A," according to D Exley, milk inspector.

Circleville, O.—Funeral services for William Kel well known dairyman of Glenford, Perry county, w at White Cross Hospital, was recently held at Glenfo

Northampton, Mass.—Jacob Diemand, aged 75, 15 years delivered milk to the Northampton home vin Coolidge, died at his farm on May 4.

Pennsgrove, N. J.—The New Jersey Milk Company stalled automatic bottle washers.

Sioux Falls, S. D.—The Lakeside Dairy has ju chased the new and up-to-date plant known as the Dairy at Madison. The plant has all the latest type equipment and is considered one of the finest milk p the state of South Dakota. The new dairy will be un personal supervision of R. W. Rogers.

Kansas City, Mo.—A supply of white list pasteuri for this city is promised in the organization of the Club Dairy Company. J. V. Quigley is the intereste He was for six years dairy adviser to the Kansas Ci sumers' League.

Greenville, O.—During the past two weeks so important work has been under way in health ma Greenville and Darke counties. The state departn agriculture, in co-operation with the Darke County Unit, has been making inspections of food and dai ditions.

Albemarle, N. C.—Dairy farming received added and the progress of the state toward further diversi and livestock growing was stimulated by the ope the new creamery at Asheboro in Randolph county. Millsaps is the county agent.

Belmar, N. J.—Holmes Wilson of Eighth Avenue posed of his business to Henderson and Son.

Chester, N. J.—Henry Lueddeke has installed pasteurizer in his milk house. The milk pasteurize tirely from Lueddeke's own dairy, which consists of sey cows.

Lakewood, N. J.—Frazee Brothers have sold the business to Manasquan and Bay Head Dairies of Man

Shrewsbury, N. J.—Keyport Dairy Company has ju a new pasteurizing plant. Ernest Priest is preside ing formerly been connected with Monmouth Dairy C of Red Bank.

Plymouth, Wis.—A new milk can washing mach been installed in the Adell plant of the Wieland D

Delavan, Wis.—Irvin Wallenzie is starting a mil here.

Waupaca, Wis.—Chas. Baker purchased the mil here from Leon Swan.

Wilmington, Del.—The Central Dairy Products tion has recently been organized here with a capital o 000 to deal in dairy products.

Atlanta, Ga.—Margaret Darlington, a girl scout city, has just recently been awarded the dairymaid b taking entire care of a cow for one month. The ba small square of khaki with a milking stool embroider

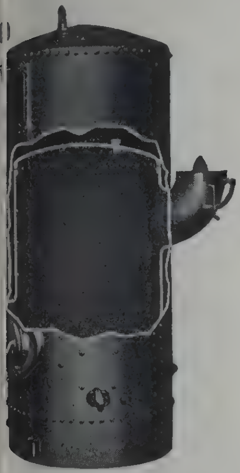
Grand Forks, N. D.—Mrs. J. D. Wilde, city food i is engaged in a campaign of education amongst the that are shipping milk into the city and is mailing a of copies of government bulletins dealing with m duction.

Oshkosh, Wis.—Tentative plans have been m "Dairy Day" which will be held in this city some t

The Famous Flueless — Boiler —

Famous as a Quick Steam Producer.
Famous as a Fuel and Repair Economizer.

BOILER is regularly constructed with extension to form ash pit, but can be furnished with cast iron ase, in all sizes up to and including 48 in. diameter, without extra charge. Boiler comes complete ith fire door and frame, ash door, grates, elbow nd damper, hand hole plates complete. Steam immings include safety valve, steam gauge and yphon, water gauge, gauge cocks, blow-off valve, injector complete with check and feed valve. All constructed to comply with the A. S. M. E. code for 100 lbs. working pressure and tested to 150 lbs. hydrostatic pressure.

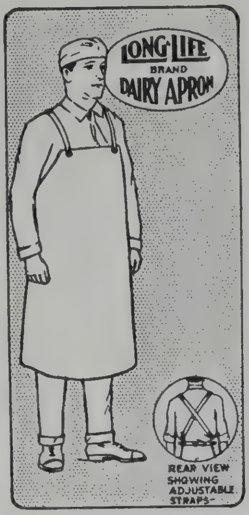


Boilers carried in stock at all times.

See your nearest jobber for further particulars.

Schwab Boiler & Machine Company
16th & Canal Streets
MILWAUKEE, WIS.

ACTUAL USAGE
Proves this IS A *Long-Life* Dairy Apron



Special fabric, scientifically treated to resist the disintegrating effects of fats and acids about dairy plants, gives the Long-Life dairy apron an ability to render continued useful service long after other aprons have been discarded

A TRIAL ORDER WILL PROVE IT!

You Will Learn a New Item on Which to Save Money.

The M. F. Murdock Company
RUBBERIZED FABRICS
266 So. Main Street AKRON, OHIO

To Preserve
Chocolate Milk
Or Similar Products Packed
— IN —
Glass Bottles or Tins

USE THE
FORT WAYNE AGITATING TYPE STERILIZER

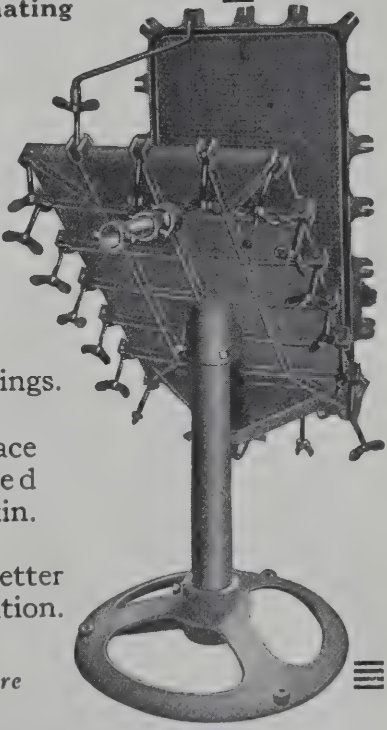
Backed by
TWENTY YEARS OF EXPERIENCE

Built to Meet Any Requirements as to Capacity or Type of Container

Fort Wayne Dairy Equipment Co.
1600 WINTER ST. FORT WAYNE, IND.

Von Gunten
Continuous
Sediment Eliminating

Milk and Cream Filter
—Improved.



Solid bronze Castings.

The Milk Surface heavily coated with pure block tin.

A Different and Better Method of Filtration.

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STOUT MFG. CO.
610 Sycamore St. Milwaukee, Wis.

Protection
for Your
Powdered Milk!

In Storage or Transit is
assured when packed in

Tongued and Grooved
Slack Barrels
OF CORRECT GRADE

THE experience gained in years of close cooperation with powdered milk producers in the development of proper packages places us in a unique position to be of assistance to those contemplating the production of powdered milk.

Your inquiry will have immediate and courteous attention.

Illinois Cooperage Mfg. Co.
General Office: **220 S. State Street, Chicago**

June. The program this year should prove of spec
terest.

Xenia, O.—A cheese factory in Greene county is a
possibility.

Fort Atkinson, Wis.—As further evidence of the
spread recognition of this city as a dairy and poultry
conference extension executives and leaders in dair
poultry work from thirteen different states will visit th
soon on a tour of inspection.

Madison, Wis.—Marschall Dairy Laboratory, this ci
nounces $1,000 in cash prizes in the 1927 "Beautify
Surroundings" contest for Wisconsin cheese factories.

Rock Creek, O.—Dairymen marketing their p
through the D. C. S. at Pittsburgh, Pa., were callec
meeting here last week to consider a plan for divertin
milk to Cleveland to be sold through the Ohio Farme
operative Milk Association.

Berlin, Wis.—E. E. Bickenbach, superintendent
local plant of the Carnation Milk Products Co., this c
to be sent to Murfreesboro, Tenn., as superintenden
new factory which the company is building there.

Elgin, Ill.—August Nolting, founder of the second
ery in America in 1869, and known as "Father" of the
dairy products industry, is dead here at the age of 93

Xenia, O.—Dr. R. R. McClellan was elected presid
the Greene County Milk Commission, organized for th
pose of insuring a safe milk supply in Green County
H. C. Messenger, also of Xenia, was elected secretary
commission and other members were: Dr. T. W. Tre
Zimmerman; Dr. A. D. Ritenour, Jamestown, and Dr.
Marshall, Yellow Springs.

Evansville, Ind.—Louis H. Grewe has purchase
Evansville branch of the Quality Dairy Company, 11
Governor St., this city. The purchase price was said
$15,300.

Costa Mesa, Calif.—Costa Mesa will soon have ar
dairy within its borders. The dairy barn is now unde
struction on Santa Ana Ave. at 22nd St. The cost
new barn will be between $5,000 and $6,000. Earl P
son and his father, of Los Angeles, are the owners.

Long Beach, Calif.—J. D. Sherer & Son have been
the contract for the erection of a one-story brick and
mental plaster structure for the Mountain View Dairy c
city. The dairy building will occupy a lot 30 x 40 ft.

Columbus, O.—According to an announcement ma
this city, F. E. Foy of Canton and E. L. Mauck of Clev
have been appointed chairmen, respectively, of the di
of the Ohio Association of Creamery Owners and Man
composed of Cuyahoga, Stark, Ashland, Summit, L
Wayne, Richland, Erie, Huron and Medina counties.

Washington, D. C.—Modification of the America
bargo on shipments of milk and cream from Canadian
tory within a radius of 200 miles of Montreal so as to p
entrance of milk from the province of Ontario, was anno
April 26 by the Department of Agriculture.

Bowling Green, O.—With three centers of activity al
partially organized, Bowling Green, Portage and Haskin
Northwestern Co-operative Sales Co. is endeavoring th
the agency of the Wood County Service Co. to establish
for the marketing of milk and cream in all parts of
county.

Harrisburg, Pa.—The Hershey Creamery Co., this
will not be connected with any outside dairy combin
cording to an announcement made recently by E. N.
shey, new president and for many years general manag
the creamery company.

Boston, Mass.—Commissioners of agriculture in th
New England states have been asked by the New En
Council to make a study of the dairy situation in their s
The marketing of milk has been so affected by chain
methods of milk distribution as to create new and se
problems vital to the dariy industry in New England.

Malone, N. Y.—The Dairymen's League is plannir
build a new fluid milk shipping station between Churu
and Shateaugay on the Rutland railroad at a point k
as "The Lost Nation." The plant will cost about $3
It is expected that it will be ready for operation by
tember 1.

West Milton, O.—Brown's Dairy has installed a
milk cooler in their plant. By using the chilling ma
milk is given a much better flavor, being cooled quickl
perfectly.

Philadelphia, Pa.—The Meyer Dairy Corporation
purchased the Hersey Creamery Co. of Harrisburg.

Canton, O.—Announcement was made that John
bach of Canton, and O. E. Barkey of Canton, had bee
pointed chairman and vice-chairman, respectively, of th
trict of the Ohio Milk Distributors' Association, whic
braces Stark, Summit, Tuscarawas, Wayne, Portage,
land and Ashland counties.

New York, N. Y.—The Bureau of Education, Depart
of the Interior, has just announced that milk is suppli

il en during the morning session of school in 42 cities and lages of New York.

id, Okla.—Possibilities of obtaining a milk condensing ar for this city were discussed recently in the chamber of merce board of directors' meeting. The excellent reurces of this county were pointed out and the secretary of hamber of commerce was instructed to obtain more fite information about the needs of a plant.

owling Green, O.—The Acme Dairy & Ice Co. has been ized with 1,250 shares of stock with no par value. The sted parties are E. S. Rathbun, J. E. Kelly, Fred Kim- C. W. Lowell and R. D. Avery.

ebster, W. Va.—Plans are under way for the establish- a new dairy here.

w Kensington, Pa.—An overheated flue ignited wood- around the chimney of the roof of Star Creamery, 1240 h Ave., this city, resulting in little damage.

ledo, O.—The new and modern dairy plant of J. H. bile & Sons, located at 3250 Vance St., this city, has leased for a term of years to the Independent Dairy any, manufacturers and wholesalers of creamery butter. ew plant represents an investment of $50,000.

inneapolis, Minn.—A milk pasteurizing plant costing $2,000 will be provided for the workhouse farm at rs Lake. At present the workhouse herd is producing 100 gallons of milk daily.

owagiac, Mich.—Improvement in the quality of milk n this city is noted in a report filed by Dr. C. M. Meyers, ealth officer, after a study which lasted over a year.

ompano, Fla.—The largest permit issued in this city e month of March was for a dairy building to cost 0 to be built by D. A. Story.

oose Creek, Tex.—W. S. Plummer, of Oklahoma, was the latter part of the week looking over this section to mine the possibilities for a large dairy plant and ice factory. Mr. Plummer was very pleased with the ities offered, and it is possible that a cream plant will tablished here.

alesville, Wis.—A new industry for the Northwest, by buttermilk from country creameries is dehydrated old in the form of chicken and hog food, is to be estab- here as the result of the decision of the Hyter Com- Lima, O.

ewisburg, Tenn.—Dairymen of Marshall county have pring held a series of dairy meetings for nine commun- in the county. H. G. Cress, the county agent, assisted, ll as O. E. Van Cleave and C. A. Hutten.

orristown, Pa.—An $85,000 incendiary fire early yes- y morning consumed the barn on the dairy farm of h Heacock & Co., at Woodside. The Heacock company e of the largest milk producing concerns in Bucks y.

azleton, Pa.—The Gabuzda Bros., who recently secured to the Ayershire stock breeding farm and dairy at Pond , are now planning improvements. They are now ing bids for the erection of an ice house and milk cool- ation.

olumbus, O.—Real Jersey milk, a product of the Hart- Farm Dairy, this city, can now be had fresh daily. It ed exclusively by the following Chicago (Ill.) clubs: Chicago Athletic, Illinois Athletic and University Clubs.

ashington, D. C.—According to an announcement made e Bureau of Dairy Industry of the Department of Agri- re, exhibits are being prepared for the National Dairy sition and Dairy Show to be held at Memphis, Tenn., er 15 to 22, and for the Dairy Industries Exposition at land, O., to be held October 24 to 29.

olumbus, O.—A large number of people attended the eon at the Monroe Cheese Co. which was held to stim- interest in a proposed trip to the sale of milch cows at ter to be held soon. It is planned to make Van Wert y a dairying county.

est Palm Beach, Fla.—The Royal Palm Produce Grow- Inc., was recently capitalized at $10,000 here. The in- ted parties are N. J. Murphy, Harvey G. Woods and Geo. ryson.

ittle Falls, N. Y.—The D. H. Burrell Co. this city, manu- rers of dairy machinery, cream separator equipment, has asked bids on a general contract for a one-story ion to cost about $65,000 with equipment.

ilwaukee, Wis.—Three hundred salesmen from all parts e United States and Canada attended the annual dinner e Carnation Milk Products Company sales convention at ky room of the Plankinton Hotel recently. A feature of onvention was a tour of the farm, condensery and gen- offices of the Carnation Company at Oconomowoc. Harry all, general sales manager of the American Appraisal pany, addressed the meeting.

endersonville, N. C.—Hendersonville's milk supply rat- under the United States Public Health Service survey 926, gave it fourth place in North Carolina. This is out

NAPACANS
FOR
COTTAGE CHEESE

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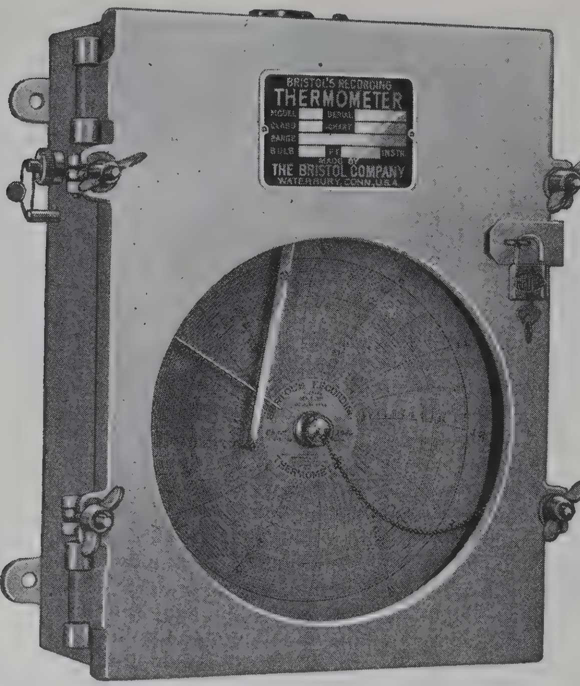
COTTAGE CHEESE
THE PAGE DAIRY CO.
TOLEDO — OHIO

MANUFACTURED BY
W. C. RITCHIE & COMPANY
831 W. VAN BUREN ST.
CHICAGO, ILL.



This Chart

Gives You Accurate Check on Temperatures

From the moment heat is applied at the start of the pasteurizing process, and up through progressive stages until the pasteurization point is reached, Bristol's Recording Thermometers patiently and accurately write the complete story of what is happening.

Plain, clean-cut record lines show each successive step and variation in temperature. At no time is it necessary to guess.

And, when the batch is run through this record is your proof that pasteurization has been carried out—*thoroughly.*

The "Bristol" is wonderfully simple in operation; in fact there's nothing to get out of order. And they are absolutely fool-proof.

Write for Bulletin No. 349.
It gives complete details.

The Bristol Company *Waterbury, Connecticut*
FOR 38 YEARS MAKERS OF
Ask Any Technical Engineer
BRISTOL'S RECORDING INSTRUMENTS

of 35 cities in the state, five of which are administered one inspection.

Bloomer, Wis.—The Chippewa County Dairy Co. city, has just put into service three new milk tank be used in the transportation of their milk from the plant to the Chicago market. Each car is of 50,000 capacity, and equipped with an automatic cooling syst keep the temperature of the milk on arrival in Chicago same degree as when it leaves Bloomer.

San Francisco, Cal.—Berkely and Palo Alto, whe situated the University of California and Stanford Univ have the largest per capita consumption of milk in the according to figures received by S. H. Greene, secretary ager of California Dairy Council, from the state bure dairy control. During 1926 college students and othe ing in Palo Alto consumed on an average of 1.13 pi milk daily. In Berkely the average daily per capita sumption was 1.25 pints.

Little Rock, Ark.—F. M. Henry, former chief of po this city, has purchased the dairy, fruit and poultry formerly owned by W. D. Hearn.

Washington, D. C.—The embargo against milk and from points within 200 miles of Montreal, imposed be of the typhoid epidemic in that city, will neither be re nor modified, Secretary Jardine has announced, unt United States public health service is convinced that al ger to the health of people in this country from such im tions is past.

Pullman, Wash.—A modern milkmaid is Miss Mabel only co-ed majoring in dairy husbandry at the State C this city. She is learning to operate the pasteurize other modern machinery so that she will be able to m her own dairy farm after graduation from college.

Memphis, Tenn.—This year's meeting of the Na Dairy Exposition will be held in this city from Oct. 15

New York, N. Y.—The Dairymen's League Co-ope Association, Inc., will distribute approximately $2,508, farmers throughout the New York milk shed, May 1, i ment of principal and interest on maturing and outsta certificates of indebtedness.

Pittsburgh, Pa.—The Bell Farm, which has long considered a model dairy farm and the finest in Alle county, will be sold to E. E. Rieck and C. F. Nettro $200,000, it has been announced.

Malone, N. Y.—The Dairymen's League is planni build a new fluid milk shipping station between Chur and Chateaugay on the Rutland Railroad at a point as "The Lost Nation." The plant will cost about $30,00 will be equipped to handle about 400 cans of milk dai the New York City market, and it is expected to be rea operation by September 1st.

Columbus, Tenn.—It has been announced by J. Cowden, field agent for the company, that the Borden Company, which took over the Maury County Co-ope Creamery, will be ready some time in the middle of The plant here will have a capacity of more than pounds of milk daily.

Clermont, Fla.—A new dairy has been incorporated the Clermont Dairy, Inc. It has a capitalization of $3 A charter has been granted to the new company.

Albany, N. Y.—Fire virtually destroyed the old Shaker settlement farm, north of this city, with a los mated at nearly $100,000. Nine of the sixteen bui comprising the dairy were destroyed. The farm is by Leonard Bol and three sons.

Vancouver, Wash.—The Vancouver Creamery, 1320 St., this city, is now ready to care for the spring incre milk production, according to H. E. Gill, head of the co The company has recently made up an exhibit of the v food elements contained in four quarts of milk, and th hibit will be lent for instruction or exhibition purpose time.

Winneconne, Wis.—The Atlantic and Pacific Pr Company, a New Jersey Corporation, will build a mil densery here which is expected to be in operation by Se ber. Contracts have been let for the output of 4,000 to supply the condensery.

Steubenville, O.—August W. Koch, this city, nir years ago started as an employee of the Steubenville Milk Company. Recently the ownership of the co passed from Messrs. Earl Bruner and August W. Ko the sole ownership of Mr. Koch, who will continu business.

Norristown, Pa.—Dairymen having cows producing or more pounds of milk a year are making money, a ing to C. I. Cohee, head of the department of quality control of the Inter-state Dairy Council, who recentl dressed 435 interested dairymen. Other speakers were Allebach of Trappe, president of the Philadelphia Inter oducers' Association, and H. D. Davis of the Supplee-ones Company.

K osha, Wis.—The Landgren Dairy, located at 5417 h Ave., has built up a large and growing patronage city. Milk, cream and cottage cheese are delivered this firm to a large Kenosha clientele.

noke, Va.—A new association has been incorporated ider the name of the Roanoke Milk Producers' Co-e Association of Roanoke. C. F. Webster of Salem resident and P. M. Moir of Roanoke is the secretary.

ter Valley, Wis.—The new building of the Murphy and airy Company will be a one story brick on a concrete ion, 40 by 100 feet, equipped with the best of modern ery. It will cost about $75,000 and will have a daily of 120,000 pounds of milk.

kville, Miss.—Modern machinery for the receiving of being installed in the new addition of the Borden hich just recently was completed.

nas, Calif.—The Sago Milk Products Co. of Salt Lake tah, are planning the erection of a one-story manu-g plant here, which will be 60 by 160 feet.

icer, Wis.—The Spencer Milk Products Company is many improvements in their plant.

ville, Ill.—An announcement has been made by A. ck, president of the Blue Banner Dairy Company, 408 airchild St., this city, that the company has purchased ilding in which they have been conducting their s.

umbus, O.—The central district of Ohio, including re, Fairfield, Fayette, Franklin, Knox, Licking, Madi-arion, Morrow, Pickaway, Ross and Union counties. ext to the east central district in the increase in the of heifers kept on farms for milk purposes, according tement of the Ohio Dairy Products Association. There 3000 fewer dairy cows than there were in 1925, but iore heifers.

phin, Pa.—The Susquehanna Dairy Products Co., this s been incorporated with a capital of $5,000. W. J. Jr., 349 N. Front St., Steelton, is the interested party.

indsville, W. Va.—Modern machinery fills the bottles, the cream, separates the milk, makes the cottage makes the ice cream, and does all the other work in lants, under the direction of trained products experts lant of the Marshall Dairy Products Company, Tenth city.

sa, Okla.—The Tulsa Dairy Products Company has corporated here with a capital of $24,000. The in-tors are E. Neoson, P. E. Estill and R. D. Smittle.

fordville, Ontario, Canada—The City Dairy Co., Ltd.,), is altering and constructing a concrete and brick and dairy additions to the milk factory here accord-J. A. Vance, 197 Light St., Woodstock. The cost of rovements is estimated at $75,000.

ipa, Fla.—The directors elected at the recent meeting Hillsborough County Milk Producing Association are ows: W. F. Allen, W. E. Bostick, F. S. Bray, Jose o, J. F. Gore, Jose Garcia, P. C. Lane, G. M. Simmons F. Whitehurst. At their meeting next week they will president, two vice-presidents, a secretary and a er.

nilton, O.—Election of officers of the Darrtown local, No. 5, of the Co-operative Pure Milk Association, coming year resulted as follows: W. F. Weiss, presi-Franklin B. Cory, vice-president; George O. Manrod, ry-treasurer.

freesboro, Tenn.—Farmers of Rutherford county ecided to milk themselves out of debt. During the of March the Rutherford County Creamery received pounds more of butterfat than for the same month ar. Total receipts during the month this year were) againsa nearly 81,000 last year.

thport, Pa.—W. Barnum, the manager of the McKean Creamery, has announced that he is overhauling the reparatory to installing modern pasteurizing machin-y 1.

City, Okla.—This city is soon to have a new industry ill be of great benefit to the city and surrounding , and that is a milk pasteurizing plant. D. A. Fender, ty, has ordered the entire plant necessary for this .

nphis, Tenn.—A movement to establish a dairy at City, Tenn., is reported and stock is being sold.

viston, Ida.—The Riverview Dairy and Products Co., h B. F. Huggins is manager, has closed the purchase t here from Thomas Hall, building contractor, for . The erection of a building to accommodate the dis-n and retail lines of the company is now in progress.

City, Mich.—Carl E. Schmidt, formerly proprietor of radella farm at Oscoda, has taken over the manage-f the Bay City Dairy Co. at 902 Columbus Ave., this nd will continue to operate the dairy as in the past.

"THE ROGERS WAY
MAKES YOUR SURPLUS MILK PAY"

Rogers SPRAY PROCESS
MILK POWDER PLANT

is the only process that—

Produces a uniformly high grade Milk Powder.

Guarantees complete recovery of solids.

Produces milk powder completely soluble even in ice water.

Gives you greater capacity at lower costs.

Guarantees uniformly low moisture content.

Eliminates all possibility of second grade powder.

That's why there is more milk powder produced by Rogers Spray Process Milk Powder Plants than by any other process.

That's why Rogers Spray Process Milk Powder is always in demand.

Rogers Vacuum Pans

Rogers Vacuum Pans are the most efficient means of removing water from milk. They double the capacity of your drying unit, besides putting you in position to take advantage of the Condensed Milk market, as well as the Milk Powder market.

Rogers Vacuum Pans, as well as Rogers Drying Equipment, can be operated efficiently on exhaust steam.

C. E. ROGERS CO.
Detroit, Michigan

C. E. ROGERS CO.,
8731 WITT STREET,
DETROIT, MICHIGAN.

Show us how the "Rogers Way" will turn our surplus milk into real profits.

Firm ....

By ....

Street ....

Town .... State ....

Anthony Frieder, one of the former owners, will serve as local manager.

Bellingham, Wash.—The Whatcom County Goat Breeders' Association has arranged with Cyr Brothers at the Ford Dairy plant, to deliver goats' milk the same as Mr. Ford did last year.

Walla Walla, Wash.—Rapid progress is being made in the construction of the new milk plant of the Walla Walla Dairymen's Association on Palouse St. between Main and Alder. The building, according to Howard Ransom, manager of the company, will be ready for occupation some time the middle of May.

San Antonio, Tex.—Organization of the Independent Milk Producers of the San Antonio territory has been effected. An organization meeting was held at the Coveland Creamery, 1803 West Huisache St. Paul Loven, president, presided.

Lewisburg, Tenn.—Dairymen of Marshall county have this spring held a series of dairy meetings for nine communities in the county. H. G. Cress, the county agent, assisted; also O. E. Van Cleave, representative of the American Jersey Cattle Club; C. A. Hutton and other leaders from the agricultural extension service of the University of Tennessee.

Nashville, Tenn.—The Jersey Farms Milk Co. had a booth at the April Food Show in Nashville and served old-fashioned buttermilk, cream, cottage cheese and received many compliments on the excellent quality of their products.

Akron, O.—The Akron Pure Milk Co. recently acquired a milk plant, formerly owned by the Ewart Dairy Co., which is located on Northampton St., Cuyahoga Falls.

Delaware, O.—The central district of Ohio, which includes Delaware, Fairfield, Fayette, Franklin, Knox, Licking, Madison, Marion, Morrow, Pickaway, Ross and Union counties, ranks next to the east central district in the state in the increase in the number of heifers kept on the farms for milk purposes, said a statement issued by the Ohio Dairy Products Association.

Harrisburg, Pa.—The average cow in the herd of F. H. Merrill, Littleton, N. H., has increased its annual milk production by about 700 gallons in eight years.

Boston, Mass.—Members of Milk Wagon Drivers' and Creamery Workers' Union 380 and representatives of the majority of the large milk dealers of Greater Boston have voted to renew the old wage scale and working agreement for another year, according to an announcement made at a recent meeting. The drivers of the local have been working on a straight commission basis for some time, which will be continued.

Bowling Green, Ky.—An explosion took place recently at the Glen Leven Dairy, of which Charles L. Goodrum is the proprietor. The boiler used in generating steam exploded. The equipment was a total loss.

Goshen, N. Y.—W. J. Kingsland has sold to John W. Tolley of New York, vice-president of the Ward Baking Co., his 210-acre Derrydale farm, which is located two and a half miles from here.

⁂

STUDENTS BRING COWS TO COLLEGE.

According to a report issued by the Texas Technological College, Lubbock, Tex., seventeen students attending the college have brought their cows to school—not to educate the cows—but to help pay their expenses. The agricultural college has set aside a part of the dairy barn to accommodate the cows. The students sell the milk to the residents of Lubbock who are very willing to patronize the "Student Dairy."

LOUISIANA FARMERS MAY TAKE ADVA OF DAIRYING OPPORTUNITIES.

At the recent dedication of the Hope Haven trial and Mechanical School at Marrero, La., States Senator Joseph E. Ransdell made a plea to ana farmers now in distress to turn to dairying the farmers of Wisconsin, Mississippi, and other Senator Ransdell used the following story as th duction of his address:

"It is of record that once an Irishman stole and a Dutchman a cow," said the speaker. "Bo lodged in jail, in adjoining cells. Time passed and became tiresome. To break the monotony, twit the Irishman, the Dutchman said, 'Pat, vat is?' Characteristic of his nationality, Pat replie toime to milk.'

"It's time to milk in Louisiana," declared th senator.

"Wisconsin found it time. Practically every the great Central West has found it time. Wis prosperity," Mr. Ransdell said, "is largely due dairying."

"One of Wisconsin's earliest victories was a at the Cotton Centennial in New Orleans in 1884 said Senator Ransdell. "More than 50 year passed since its enterprising people decided that time to milk,' and statistics show that Wisconsin the leading dairy state of the Union."

Louisiana is generously equipped for dairyi the fine modern dairy at Hope Haven stands as e of progress that is being made in Louisiana in dustry.

⁂

WEBSTER COUNTY (KY.) SHOWS BIG GA DAIRY BUSINESS.

According to E. Prewitt, dairy specialist for th of Kentucky's College of Agriculture, Webster has made the most phenomenal gain in the dair ness in the last three years of any county in th

In 1919, Webster county produced 707,447 ga milk, and in 1924, 1,580,480 gallons. In five ye production of milk was doubled. In 1919 the cow produced 351 gallons of milk per year, and 389 gallons, an increase of 48 gallons per cow years.

In 1919 Webster county sold 1,705 pounds of fat, worth $767.25, in 1924 75,000 pounds, worth and County Agent C. O. Dickey estimates there 250,000 pounds of butterfat sold in 1927, worth $ These figures were taken from the agricultural report of the government.

TUBULAR AND CORRUGATED
COOLERS
Extra heavy and well constructed
at low price. Help make good milk.
Write for circular
R. G. WRIGHT & COMPANY
BUFFALO NEW YORK

I YOU MAKE BUTTERMILK
OR COTTAGE CHEESE

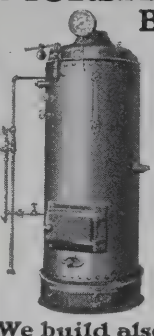
Hansen's Lactic Ferment Culture and Hansen's Rennet a Color are the most economical and reliable Dairy P parations you can use. They may be obtained from y r regular dealer in dairy supplies.

FREE BOOKLETS

'Soft Cheese Manufacture" gives, among other things, fi directions for making Sweet Cottage Cheese. "Start- e and Cultured Milk" gives directions for making Com- n cial Buttermilk. May we send you either or both of t se booklets?

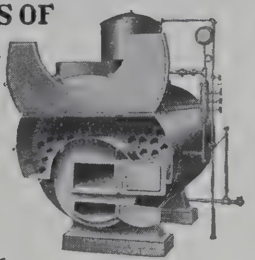
CHR. HANSEN'S LABORATORY, Inc.
LITTLE FALLS, N. Y.
M vaukee, Wis. Toronto, Can.

MURRAY IRON WORKS COMPANY
BURLINGTON, IOWA
INCORPORATED FEBY 1,1870



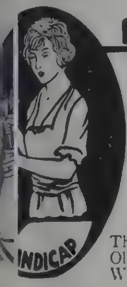
STEAM BOILERS OF ALL STYLES AND SIZES

The cuts show vertical and horizontal boilers requiring no brick work



We build also Water-Tube and Tubular Boilers to be set in Masonry

HANDYCAP
Milk Bottle Opener and Cover



TWO IN ONE
REVERSE SIDE
INDICAP

The Old Way

The Handy Cap Way

Good Housekeeping has approved the Handycap. It's a real convenience to the housewife and an excellent means of advertising for the milk dealer.

Ask Your Advertising Specialty Dealer to Show You Samples.

E HANDYCAP CO. Sales Office **Irvington, N. J.**

FILTERING
STERLING
PADS

"Sterling" Cotton Filtering Discs are made from the highest quality of cotton, and will fit all standard milk strainers. All sizes in stock for immediate delivery.

Warranted Full Count and Perfect Circles.

Use "STERLING" Discs and have CLEAN MILK!

SANITARY COTTON CO.
1413 W. Jackson Boulevard Chicago, Illinois

MOND
MALLEABLE
NICKEL
99%+
FREE-FROM-COBALT

The Ideal Metal for DAIRY Equipment

erican Mond
kel Company, Pittsburgh, Pa.

RETINNING
Ice Cream and Milk Cans

GALVANIZING
Ice Cream Lids Galvanized Outlast Lids Retinned

Sanitary Tinning Co.
3753-63 E. 93rd St. Cleveland, Ohio

WILLIAM H. TIMM
CONSULTING ENGINEER AND ARCHITECT

PERRY BUILDING
Chestnut & 16th Sts.

PHILADELPHIA
PENNSYLVANIA

DAIRY AND ICE CREAM PLANT SPECIALIST
Consulting Service for By-Product Processes

ONLY CO-ED MAJORING IN DAIRY HUSBANDRY AT STATE COLLEGE.

Miss Mabel Maas is the only co-ed majoring in dairy husbandry at the State College, Pullman, Wash. Miss Maas is learning to operate the pasteurizer and other modern machinery so that she will be able to manage her own dairy farm after graduation from college.

"Nothing could persuade me to stay indoors all day to pound a typewriter or teach school," says Miss Maas, sophomore.

The Neil House
Opposite the Capitol
650 ROOMS
Each With Private Bath
$2.50
AND UP PER DAY
Unexcelled Cusine
DINING ROOM FEATURES
Neil House Dinner (Main Dining Room) .. .$1.50
Capitol Luncheon (Main Dining Room) . . .75
Club Breakfast (Grill Room) .. .60
Blue Plate Luncheon (Grill Room) . .... .60
Dinner (Except Sunday) (Grill Room) 1.00
For reservations address
F. W BERGMAN, Managing Director
in Columbus OHIO

CLEAN MILK
SELLS ITSELF
USE....
DAIRYWEAVE
DAIRYWEAVE
Means OBLONG Weave
MILK-FILTERING FABRICS
(FILTERGAUZE and FILTERFLANNEL)

These Dairy Fabrics are built to clarify milk, and, are the topic of discussion in Dairy circles. Their accurate, oblong meshes, strong and tough, make them efficient for clarifying hot, cold, raw, or pasteurized milk, better than any other straining medium.

Put an end to your terrifying, clarifying problems, with a 36 inch wide bolt (any yardage) or we will make you Bags, Cones, Discs, Tubes or any Special Shape. Pamphlet and Sq. Yd. samples FREE.

Send Your Specifications *Get Our Factory Prices*
THE PRICKETT MANUFACTURING COMPANY
HAMPDEN, MASS., U. S. A.

GOATS BECOMING POPULAR.

Jos. A. Finney of Xenia, O., is the owner and ger of Finney Farm, that city, on which farm Mr. devotes practically his entire time in the care twenty head of Toggenberg goats.

The breeding of goats the country over for mi duction is multiplying rapidly. Goat milk for is vastly superior to cow's milk. That is beca globules of fat in the former are much smalle those in the latter. This difference results in easie tion. It takes an average of half an hour to dige milk; one and one-half hours to digest cow's milk

Goat milk has another quality that commends that is the freedom from germs. Tuberculosis goats is comparatively unknown. That is probal to the successive generations that have lived in t air of the Alpine region. All imported Swiss che richest and most palatable in the world, as well most nutritious, is made from goat milk. It is that a cheese factory will be established in Green

⁂

ENGLAND ADVOCATING DRINKING OF M

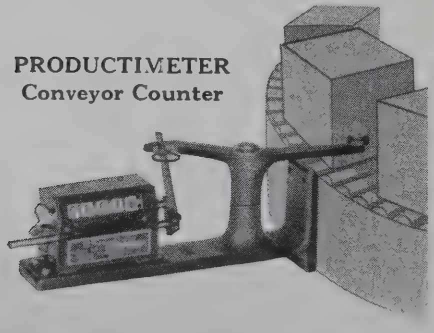
According to the statement made by Prof. V. tram, the well-known dietetic expert, speaking a pia, London consumes more milk per head th other city in England, but Londoners are still far the Americans.

Dr. Mottram went on to say as follows: "Da nations are the most progressive nations in th and there is no reason to grumble, therefore, England is becoming a great dairying country. the one food which ensures that wounds heal it effects rapid convalescence after illness, and all, it supplies those properties which create the growth of children."

⁂

BUSINESS IS BOOMING.

The Geo. J. Meyer Manufacturing Co., Mil Wis., has submitted a report that the following c have recently purchased a Meyer Dumore Junio cleaner: Arlington Dairy Company, Chicago, Ill. Grove Creamery Co., Chicago, Ill.; Eich's Dair pany, Chicago, Ill.; Louis Rosen Dairy, Chica East Chicago Dairy, East Chicago, Ind.; Mavis tion, Baltimore, Md.; Grove Dairy Company Haven, Mich.; Paterson Milk & Cream Co., Pate J.; Graffenburg Dairy Company, Utica, N. Y.; M Selected Dairies, Cincinnati, O.; Shaw Brothers ery Co., Fort Worth, Tex.; Pure Milk Dairy Co Seattle, Wash.; Royal Ice Cream Co., Tacoma, and the Guernsey Dairy Company, Oshkosh, Wi



COUNT 'EM ACCURATELY—BOTTLE or CA

PRODUCTIMETER
Conveyor Counter

Productimeters recording daily volume on important machines or operations give you an accurate count, in plain figures, quickly and dependably. They tell you at a glance just what has been done in a given period of time; make it easy to figure costs, bottle and case requirements, etc.

Built in various models—to fit washing, filling, sealing machines, conveyors, and to tally bottles, cases, packages, boxes. Our Service Department advises you which model is best for particular applications. Write for the Productimeter Catalog, telling us what you wish to count.

Durant Mfg. Co., 663 Buffum St., Milwaukee, Wis.

Productimeter Bottle Co

WANT DEPARTMENT

HELP WANTED
(Rate: 2c per word)

TED—Young man to sell record-
truments and automatic tempera-
ntrol equipment to the dairy and
am industry for long established
cturer. Candidates must have
character references and be free
ck transfers and unlimited travel
parts of the United States. Young
men preferred who had operating
neering experience in the dairy in-
Write stating age, education, ex-
e and salary desired. Address:
The Milk Dealer. 7-27

SMEN—Now calling on dairy trade
dle a high class, moderate priced
ottle case on commission basis. Ad-
D-291, The Milk Dealer. 5-27

you the right man for the right
? If not, consult "The Milk Dealer"
Department.

TED—We desire a man who has
perience in an executive capacity,
nderstands the buying and selling
and is a business builder. Would
in a proposition of selling an in-
in the business if after sufficient
ve found it mutually satisfactory,
gh the proposition of an interest is
cessary unless sought by the em-
In reply please give education,
nce and at least four references.
mmunications will be regarded as
confidential. Address: D-295, The
Dealer. 5-27

MISCELLANEOUS.

TED—To furnish increased capital
or more successful milk plants op-
; in territories where milk is avail-
n large quantities at fair prices.
expansion and investment. A rec-
successful operations and ability
nage is necessary. Address: D-250,
ilk Dealer. 7-27

wealth of a nation lies in the pros-
of its people. The power of a Want
in the number of subscribers read-
em. Do you read "The Milk Dealer"
Ads—regularly?

10,000 *Salesman Wanted*

**ne who lives in New York City
the East and who is acquainted
h the Eastern trade preferred.
Must be familiar with dairy and
cream machinery and equip-
nt line. Past experience in sell-
; a high class line of this kind
l be very valuable to you in
s new connection, which has
competition.
Salesmanship and knowledge
nt most — not high-pressure.
less you are the right kind of a
-getter we can't use you, but if
u are that kind, we have a prop-
tion that will interest you.
We are a large, responsible con-
n and offer a permanent and
ofitable connection for the man
th ability to produce.
Write us fully. Your corre-
ondence will be held strictly con-
ential.
Address: D-199, The Milk Deal-
5-27**

RATES

2c per word for ads placed under headings "Help Wanted" or "Position Wanted."

5c per word for ads placed under all other headings — "Wanted to Buy," "For Sale or Exchange," etc.

In computing amount of remittance, add six (6) extra words if wanted published under Blind Address.

Bold Type—Double regular rates.
Minimum Charge—50c.
Blind Address — EXTRA — 25c in U. S. only; 65c Foreign — To cover postage in sending out replies from this office.
REMITTANCE MUST ACCOMPANY ORDER.

IT PAYS TO ADVERTISE

NOTE: Names and addresses of advertisers using blind addresses cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of this paper.

NOTICE

The publisher disclaims any responsibility for the reliability of parties advertising in the Want Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting suspicious dealings.

We reserve the right to refuse to accept advertisements which we believe are detrimental to the dairy industries.

Want Ads are accepted up to 7th of month preceding date of issue. Forms close on that date.

NOTICE—Correspondence desired with attractive young protestant woman, age 20 to 30, widow or single, who is saddled with a large milk business or whose father wishes to retire in few years. I am unincumbered, have agreeable personality, technical college education and ten years experience with my own milk businesses. Have successfully built up two milk distributing organizations of my own. One had output of over 15,000 quarts a day and operated 12 trucks and 8 horses. At present own business which although successful has suffered heavily from forces of nature and willing to sell out. Consider myself admirably equipped to handle large milk business efficiently and invest a few thousand if desired. References exchanged. Replies absolutely confidential. Address: D-249, The Milk Dealer. 5-27

POSITION WANTED
(Rate: 2c per word)

POSITION WANTED—Young man 31 years old desires position as manager or assistant manager in city milk plant. Have had 15 years practical experience. Address: D-221, The Milk Dealer. 5-27

POSITION WANTED—As sales manager and supervisor of milk routes by American, 32 years old, married, with sales promotion experience. Yearly contract, $50 weekly. Desire to purchase interest at expiration of contract. Present contract expires July 1. East or Southeast. Prefer Pennsylvania, Maryland. Protestant. Masonic. Address: D-217, The Milk Dealer. 5-27

POSITION WANTED — As production superintendent of milk plant. Many times when something has gone wrong with the production end of your plant, you have wished that you had a man who really had an interest in the operation of the plant and the quality of the products put out. Have had adequate technical training and practical experience to take charge. If in need of such a man write. Address: D-215, The Milk Dealer. 5-27

POSITION WANTED—By an experienced dairy man as plant foreman. Have 18 years of experience; holding at present position as plant foreman in large milk plant handling 45,000 pounds of milk daily; know the business and willing to work hard. Have the best of references. Will work in Michigan, Illinois or Indiana. In small or large plants. Address: 1336 Jefferson St., Muskegon Heights, Mich. 5-27

POSITION WANTED — Chemist with considerable experience standardizing milk, evaporated milk and ice cream wishes change. Can operate a Mojonnier tester for fat and solids. References. Salary willing to pay in first letter. Location immaterial. Address: D-265, The Milk Dealer. 5-27

POSITION WANTED—Laboratory technician, trained and experienced dairy bacteriologist and chemist. Accustomed to control work in large dairies, including the making and handling of acidophilus milk. Prefer position in West or Middle West. Address: D-272, The Milk Dealer. 5-27

POSITION WANTED—As working foreman in milk and ice cream plant. 25 years experience in all kinds of this line of work. South preferred. Address: D-274, The Milk Dealer. 5-27

POSITION WANTED—Bookkeeper and accountant wants position in milk plant. Willing to invest in small concern and take charge of office. Central West preferred. Address: D-286, The Milk Dealer. 5-27

FOR SALE or EXCHANGE
(Rate: 5c per word)

BUSINESSES

FOR SALE—Ice cream and milk plant in central Illinois. Fully equipped. Sell reasonable. Address: D-214, The Milk Dealer. 5-27

FOR SALE—Completely equipped retail dairy. Daily output 650 quarts. Dairy is located in the southwestern part of Michigan. Address: D-244, The Milk Dealer. 6-27

FOR SALE—Well equipped dairy plant. Two fine brick buildings. Almost new machinery, boiler, motors, etc. Good milk supply. Arthur L. Bates, Meadville, Pa. 7-27

FOR SALE—Modern creamery, milk and ice cream plant in Missouri town of 5,000, 100 miles from St. Louis, doing large volume of business. Write for particulars. B. Riley Hauk & Son Co., 201 S. First St., St. Louis, Mo. 5-27

FOR SALE—Wholesale milk and butter business, established two years. Eighty thousand volume last year. City of 60,000. Address: D-259, The Milk Dealer. 5-27

FOR SALE—Newly built and fully equipped modern milk plant in a city of a hundred thousand not far from Chicago. Daily bottling 2,500 lbs. Good reason for selling. Address: D-297, The Milk Dealer. 5-27

FOR SALE—Combination creamery and milk plant selling 700 gallons of milk and 500 pounds of butter daily. $10,000 will handle, and balance easy terms with security. Address: D-296, The Milk Dealer. 7-27

(Want Department continued on next page)

FOR SALE—Creamery, market milk and ice cream plant located in city of 15,000 population. Business established fifteen years. Equipment all renewed in last two years. Everything guaranteed in first class condition. Will sell or trade for good city real estate. Address: D-268, The Milk Dealer. 6-27

MACHINERY AND SUPPLIES

FOR SALE — Refrigeration Machines — Used—We have several used and new machines of nationally known make, which we can sell at a big saving to you. Will erect and guarantee the plants fully. Address: Erecting Engineers Company, 4725 West Lake St., Chicago, Ill. 5-27tf

FOR SALE—One 300-gal. Cresco pasteurizer, belt drive, used but 18 months. $200. H. S. Holder, Hudson, Mass. 5-27

FOR SALE — Meyer Dumore Junior, $1,250. Formerly used at Bowman Dairy's State Street plant, Chicago. Replaced by Miller Hydro. Offered as is, subject to inspection before shipment. Miller Manufacturing Company, Bainbridge, Ga. 6-27

FOR SALE—One brine box with 1-in. belt drive pump, $30; one line shaft, 1 7/16-in., 18 feet long, with hangers, $15; steel split pulleys to fit above shaft; one Ladd No. 1½ milk filter, $10; one steam turbine bottle washer, $8; one 2½-h.p. single phase motor, $60. Miscellaneous belting. Urbana Pure Milk Co., Urbana, Ill. 5-27

FOR SALE—300-gal. white enamel finish, motor driven C-P pasteurizer, late type; one motor driven sanitary pump, almost new; 150-gal. Cherry pasteurizer, belt drive; 1,500-lb. capacity De Laval separator. Price reasonable for a quick sale. A. J. Baird, 919 No. 5th St., Sheboygan, Wis. 5-27

FOR SALE—Ice cream and dairy equipment of all kinds, including boilers, compressors, vats and separators. The Telling-Belle Vernon Co., Cleveland, O. 7-27

FOR SALE—Two boiler plate steel bottle sterilizers, doors at each end, 4 feet wide, 6 feet high, 8 feet long. Price $175 each. Also motor driven bottle washer; Chilly King cooler; 5-ton Reliance ice machine; large ice making tank, etc. Brook Hill Farm, Genesee Depot, Wis. 5-27

FOR SALE—One new $285 Rice & Adams brush bottle washer and sterilizer. Sacrifice price, $185.

One new $640 Cresco 200-gal. pasteurizer with motor direct connected. Sacrifice price, $490.

One new $285 Rice & Adams 2-valve 8 and 10-qt. can filler. Sacrifice price, $225.

One new $306 Cherry 100-gal. batch mixer. Sacrifice price, $265.

One new $75 Milwaukee bottle drainer. Sacrifice price, $55.

One new $325 Alvey bottle case elevator. Sacrifice price, $275.

One rebuilt C-P 150-gal. coil pasteurizer. Sacrifice price, $225.

One No. 12 $110 De Laval separator; universal drive, used only about 6 months. Sacrifice price, $67.50. Address: D-270, The Milk Dealer. 5-27tf

FOR SALE CHEAP—One complete four-foot condensing outfit with vacuum pump, Milwaukee filler and large steam-driven air compressor. Herman Stier Mfg. & Eng. Co., 814 George St., Chicago, Ill. 5-27

FOR SALE—We offer at bargain prices two 4,000-lb. and two 6,000-lb. Burrell Simplex centrifugal pasteurizers. Wire us for prices. B. Riley Hauk & Son Company, 201 S. First St., St. Louis, Mo. 5-27

FOR SALE—Wire us for quota one 600-gal. and 300-gal. Cher teurizing vats. Can quote exce low prices. B. Riley Hauk & S pany, 201 S. First St., St. Louis,

FOR SALE—We offer, subject sale, one 1,200-lb. automatic Yun washer, capacity 120 bottles per used about two years, first clas tion. Wire for our bargain p Riley Hauk & Son Company, 201 St., St. Louis, Mo.

FOR SALE—One No. 112 N clarifier No. 2594901. Less than in use. Culhane Dairy Co., Hur

FOR SALE—Two 40-qt. Fort freezers; No. 3 300-gal. viscolize ice cream tubs and cans in size and 5 gallons. Address: Che Creamery & Bottling Works, Clin

WANTED TO BU

(Rate: 5c per word)

WANTED—Used pasteurizing va ers, ice breakers, ice cream cans a churns, etc. Send us list of what for sale. B. Riley Hauk & Son C 201 S. First St., St. Louis, Mo.

WANTED—One 2,000-lb. section holder in good condition. State y est cash price. Write at once.

D-260, The Milk Dealer.

WANTED TO BUY—A used visc homogenizer. Address: Albert S Winslow, Ill.

Send news items to "The Milk and see how well they look in pri

EMBARGO LIFTED ON MILK FROM ONTARIO, CANADA.

According to an announcement made by the Department of Agriculture, Washington, D. C., the American embargo on shipments of milk and cream from Canadian territory within a radius of 200 miles of Montreal (Canada) has been modified so as to permit entrance of milk from the province of Ontario. The full text of the announcement follows:

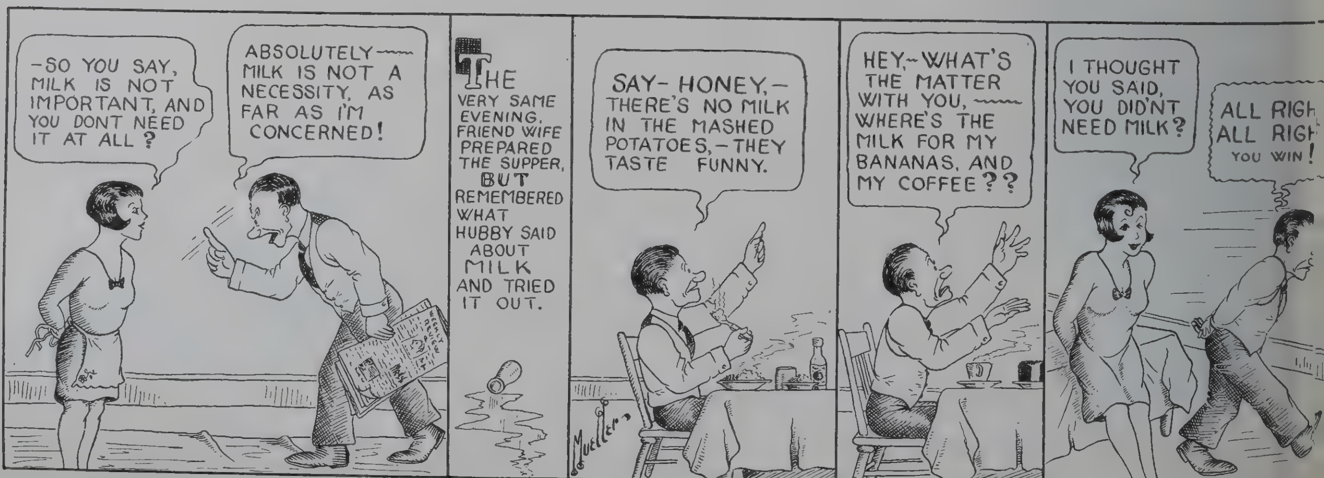
"The embargo against milk and cream from the Canadian territory within a radius of 200 miles of Montreal March 26, under the provisions of the food and drugs act, because of an epidemic of typhoid fever, was modified April 26, 1927. The change in the embargo permits milk and cream produced in this section of Ontario to be brought into this country, but the embargo remains in force on all the territory in the Province of included in the original embargo."

The modification was made by the Departm Agriculture on the recommendation of the public service, based upon information secured from i agents and the Dominion health authorities and or ances of extremely rigid sanitary control by the cial authorities of Ontario. Milk and cream prod any part of that province may now be shipped i United States, but no milk and cream produced restricted area of the Province of Quebec shipp Ontario may be shipped out to the United State

Telegraphic instructions advising of the modif of the embargo have been issued to collectors toms, consular officers in Canada, and to import officers in Canada, and to import laboratories bureau of chemistry which enforced the terms Food and Drug Act under which the embargo was

THE MILK MAN

By E. S. Mueller


-SO YOU SAY, MILK IS NOT IMPORTANT, AND YOU DONT NEED IT AT ALL ?
ABSOLUTELY— MILK IS NOT A NECESSITY, AS FAR AS I'M CONCERNED!
THE VERY SAME EVENING, FRIEND WIFE PREPARED THE SUPPER, BUT REMEMBERED WHAT HUBBY SAID ABOUT MILK AND TRIED IT OUT.
SAY- HONEY,— THERE'S NO MILK IN THE MASHED POTATOES,— THEY TASTE FUNNY.
HEY,—WHAT'S THE MATTER WITH YOU,— WHERE'S THE MILK FOR MY BANANAS, AND MY COFFEE ??
I THOUGHT YOU SAID, YOU DIDN'T NEED MILK?
ALL RIGH ALL RIGH YOU WIN!
Mueller

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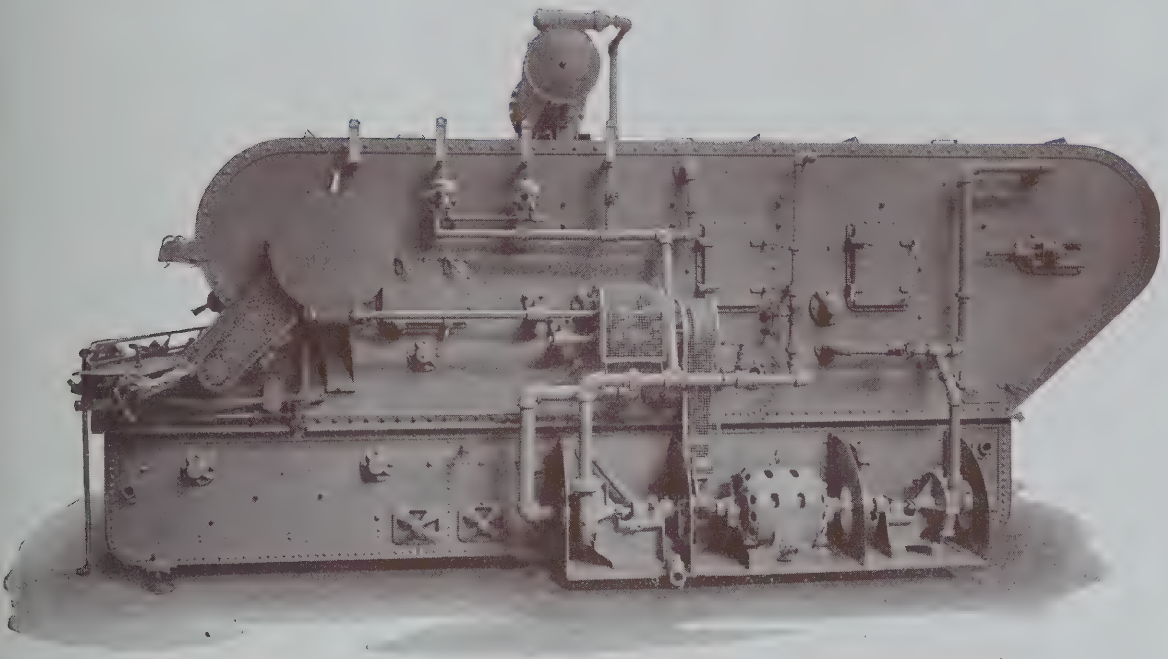
How Fast, *or*,
How *Clean*?



The illustration is of a standard 12 wide *CP* Ladewig Unit Type Bottle Washer with sterilizer attachment. Also made in 6, 8 and 10 wide sizes. The 12 wide has a capacity of 3600 bottles per hour.

The *CP* Ladewig Unit Type Milk Bottle Cleaner is a relatively slow speed machine. Because it is, wear on all moving parts is minimized and the bottles delivered are *clean*.

Without increasing the cost of the machine we could greatly increase the speed if we so desired. But, in line with an established *CP* policy, we build the kind of a machine which we think the majority of users want. Some people think we are mistaken in this. Perhaps we are but our 40 years of manufacturing experience has taught us that a machine which will produce 100 clean bottles a *day* is to be preferred to one which turns out 10,000 "doubtfuls" an *hour*.

You can't get excessive speed and clean bottles from the same machine. In the *CP* Ladewig you can't get excessive speed but you CAN get clean bottles.

Bulletin 1131 gives complete information. Write for a copy.

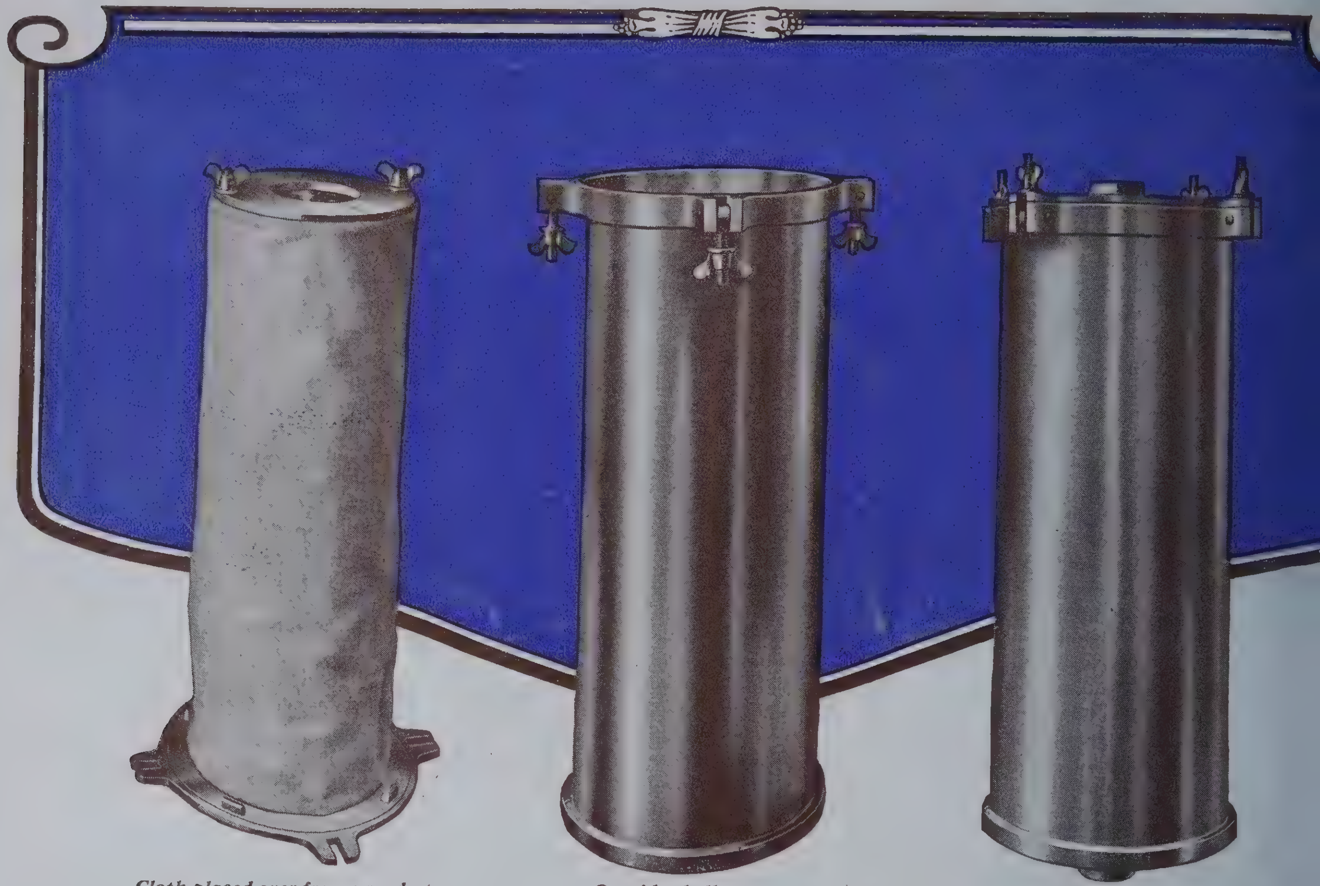
THE CREAMERY PACKAGE MFG. COMPANY

SALES BRANCH OFFICES (Write Nearest One)

Atlanta, Ga.,	58-68 Nelson St.
Boston, Mass.,	138 Washington St. N.
Buffalo, N. Y.,	14-16 Ellicott St.
Chicago, Ill.,	1243 W. Washington Blvd.
Denver, Colo.,	1649 Blake St.
Jersey City, N. J.,	122 Morgan St.
Kansas City, Mo.,	1408 W. 12th St.
Los Angeles, Cal.,	627 E. Ninth St.
Minneapolis, Minn.,	318 Third St. N.
Omaha, Nebr.,	113 S. Tenth St.
Philadelphia, Pa.,	1907 Market St.
Portland, Ore.,	6-8 N. Front St.
San Francisco, Cal.,	699 Battery St.
St. Louis, Mo.,	508 N. Second St.
Toledo, Ohio,	119 St. Clair St.
Waterloo, Ia.,	406 Sycamore St.

QUIPMENT BEARING THIS *Trade* CP *Mark* IS ALWAYS HIGHEST QUALITY

"FOR BETTER MILK HANDLING"



Cloth placed over frame ready to be set into shell

Outside shell—empty

The YORK Filter completely assembled

Illustrations show No. 1 YORK Filter, capacity up to 6,000 lbs. per hr.

A New Milk Filter

in which the cloth is placed in position before being assembled

THE YORK Milk Filter is the very latest type of improved filtering device. Since the cloth is placed in position before being assembled, you are able to see that it fits properly and that no milk is passing through unfiltered.

There are no wires or screens to clog or catch the dirt. Simplicity of design makes it extremely simple to operate. The cloth is the only part which must be replaced. The filter can be taken completely apart and cleaned thoroughly. The ease with which this can be done causes little wear and therefore long life.

The YORK Milk Filter is made of 2-ply tinned heavy copper sheet and brass castings heavily tinned all over. Like all other YORK products, it is produced—

"For Better Milk Handling"

For further information or prices, write

YORK MILK MACHINERY CO.

Manufacturers of Milk Handling Equipment

York Penna.

THE LIBRARY OF THE
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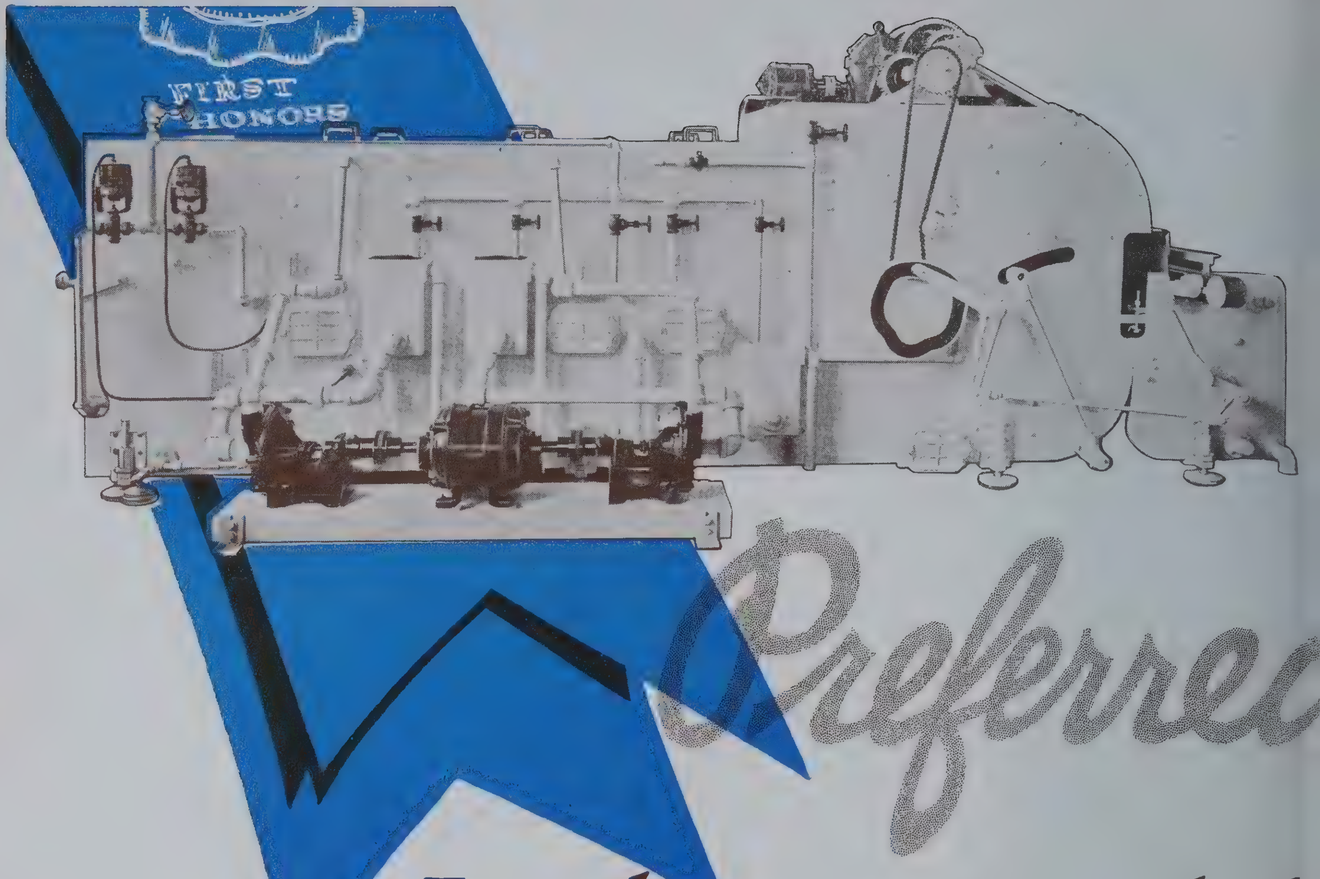
UNIVERSITY OF ILLINOIS

THE MILK DEALER

AGRICULTURAL LIBRARY

CLOTHES MADE OF MILK

ume 16 June, 1927 Number 9



Ladewig-Soelch

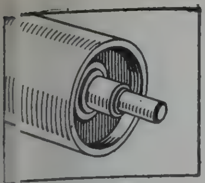
SUPER EIGHT

WHEREVER progressive milk plant managers foregather, the talk inevitably turns to bottle washing—and the new Ladewig-Soelch Super Eight. For this new Ladewig-Soelch has, in a few short months, turned a fresh page in bottle washing history. It has won a preferred position in the minds of milk plant managers the country over because it washes bottles faster, cleaner, and *cheaper* than they have ever been washed before. And yet the purchase price of the Super Eight is surprisingly lower than one might expect for such an extraordinary machine. Make any comparison you like, and you will prefer this New Ladewig-Soelch.

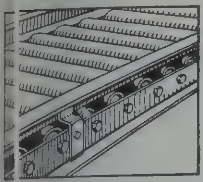
A. H. ARNOLD & COMPANY

718 W. RANDOLPH STREET, CHICAGO, ILL.

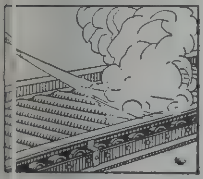
Manufactured by LADEWIG-SOELCH CO., 38th & Lapham St., Milwaukee, Wis.



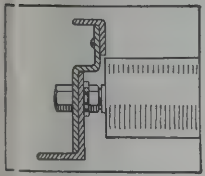
isture can't get in. ep moisture out and event corrosion. Lam- Rollers extra heavy ro hout, have heads *ld in.* No joint through ic moisture can enter.



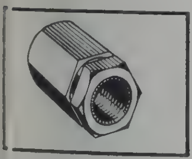
ecial guard rail over ler ends. Prevents can from dropping off ocking the conveyors. *ves wear.* Sliding cans ollers that can't turn out rolls and cans, The Lamson convey- er stalls or blocks.



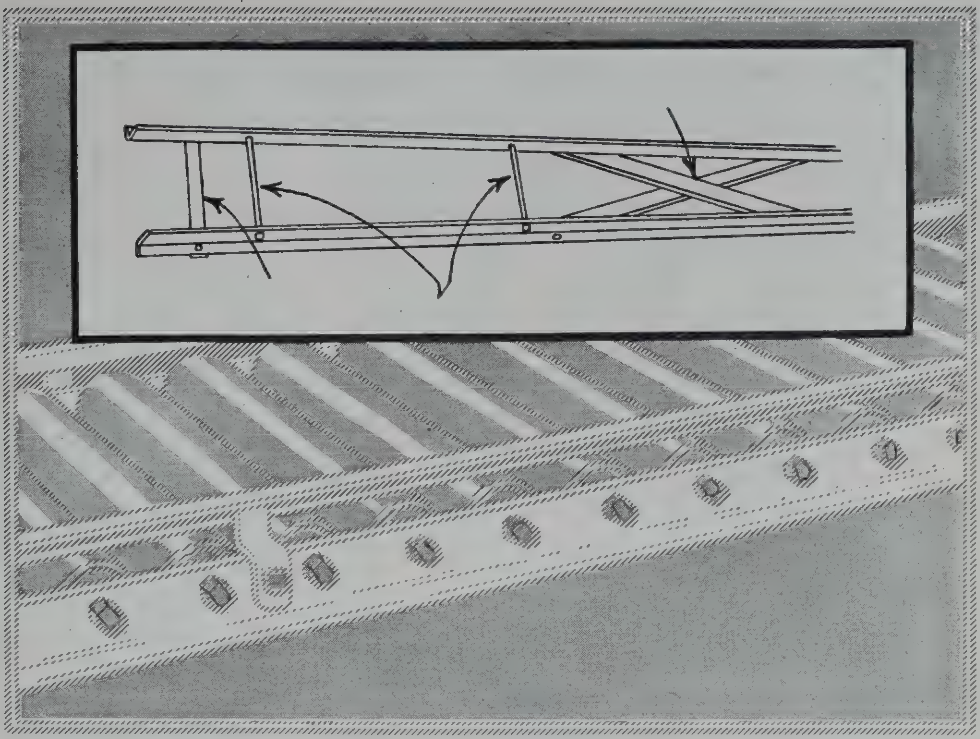
ands up under flushing d steaming. You can't the bearings, you can't ny moisture into any here it will be harmful.



actical mounting. The me forms a cup-like ion to keep moisture nilk away from the and bearings.



n-corrosive bearings of ecial design. Cast of rrosive alloy. Hexag- n shape and so in- in the frame that they ever turn with the Consequently they freeze, and always



BRACED
LIKE A BRIDGE
ANOTHER REASON WHY LAMSON SANITARY CONVEYORS
LAST LONGER

The frame of a Lamson Dairy Conveyor is truss-built, cross-supported like the framework of a steel bridge.

Rigid—firm—permanently aligned—this conveyor resists the daily volleys of shocks and blows from milk cans and cases.

This feature, plus the others described at the left, are reasons why Lamson Sanitary Conveyors will save you money by giving ***longer service, free of trouble.***

Send coupon for descriptive booklet.

THE LAMSON COMPANY
SYRACUSE, N. Y.

last longer
LAMSON
SANITARY
CONVEYORS

The Lamson Co.,
Syracuse, N. Y.

Please send me your booklet which shows why your Sanitary conveyors save money through longer life.

Name ....

Firm ....

Address ....

When writing to THE LAMSON COMPANY *please mention The Milk Dealer.*

You buy selling power when you buy this package for cottage cheese —

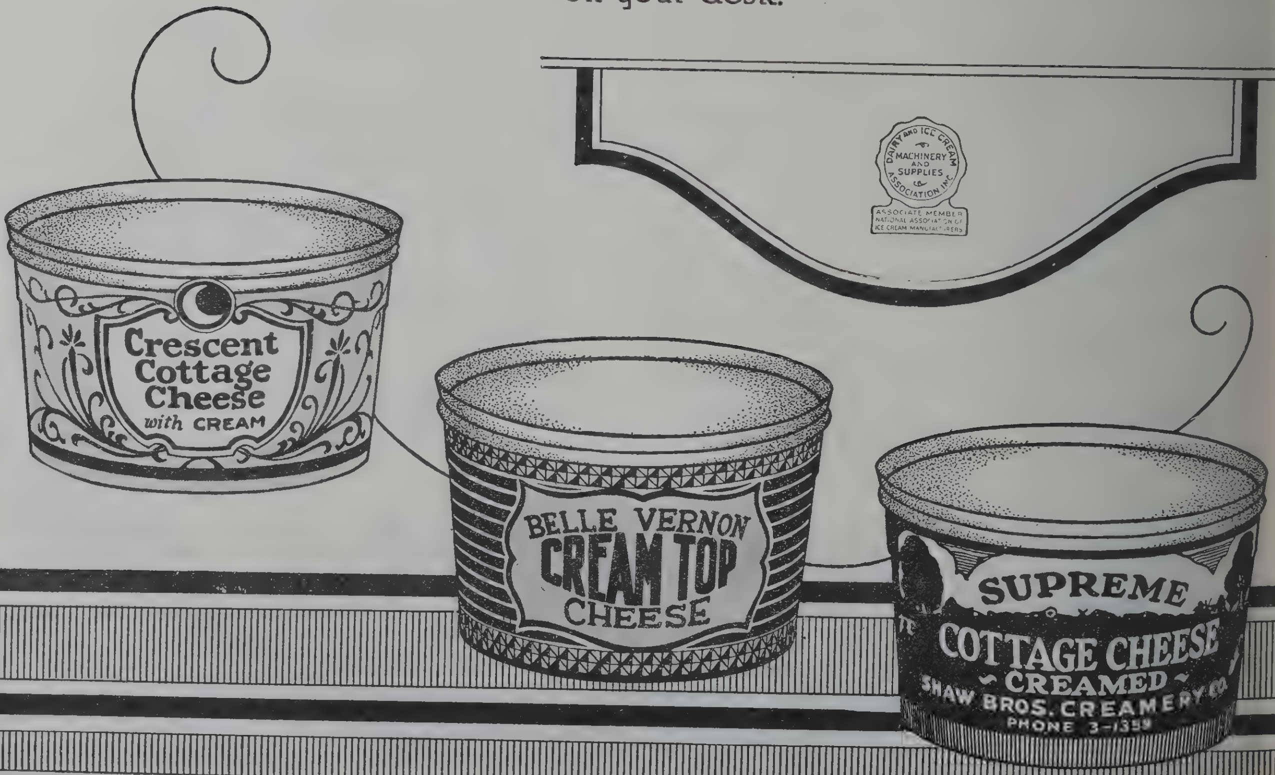
KLEEN KUP

The Package That Sells Its Contents

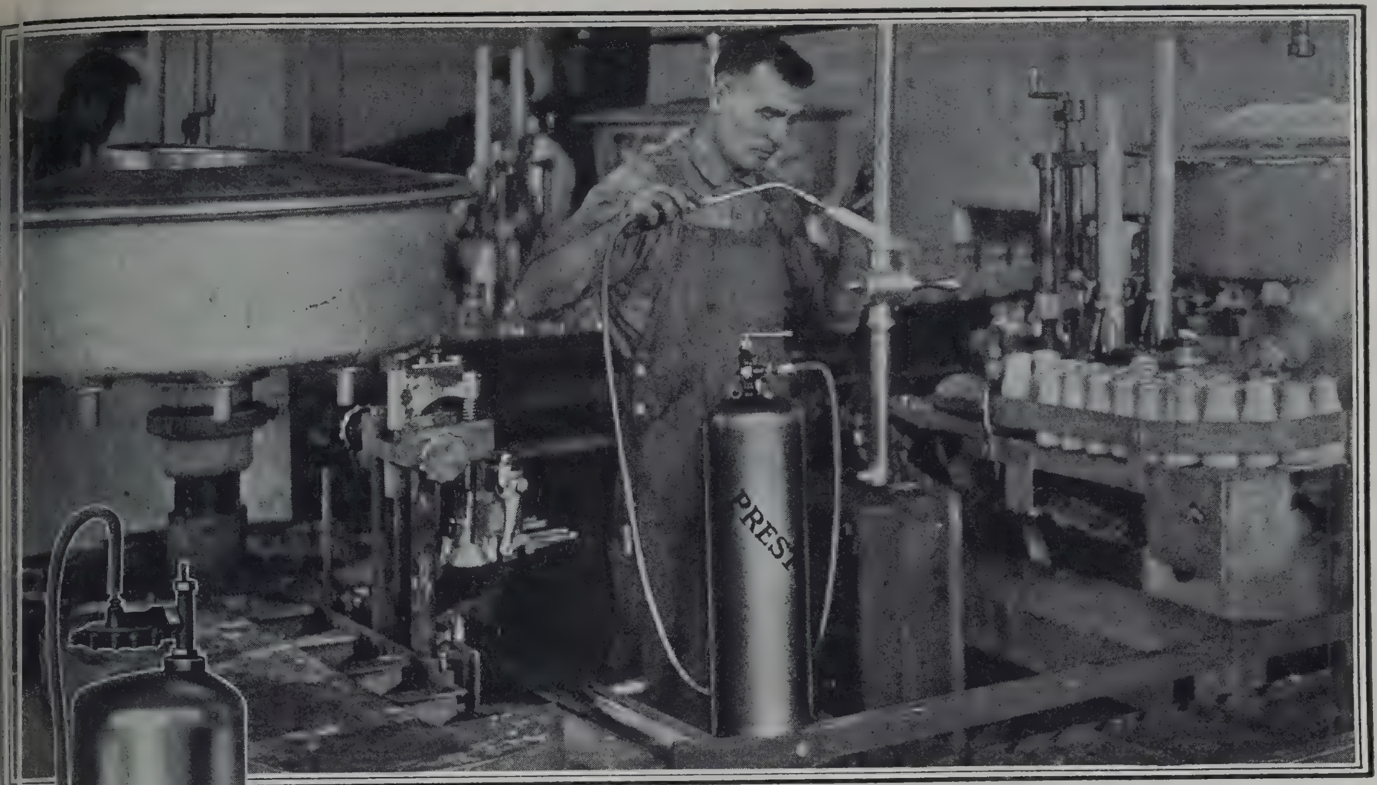
Mono Service Co.
NEWARK NEW JERSEY

The package either makes or ruins the sales. Use this proven sales builder and dominate your market. Sizes one ounce [sampler] to ten pounds. Tell us to place a set of samples on your desk.

Dairy and Ice Cream Machinery and Supplies Association, Inc.
Associate Member National Association of Ice Cream Manufacturers


Crescent Cottage Cheese with CREAM
BELLE VERNON CREAM TOP CHEESE
SUPREME COTTAGE CHEESE CREAMED
SHAW BROS. CREAMERY CO.
PHONE 3-1359

When writing to MONO SERVICE CO. *please mention The Milk Dealer.*



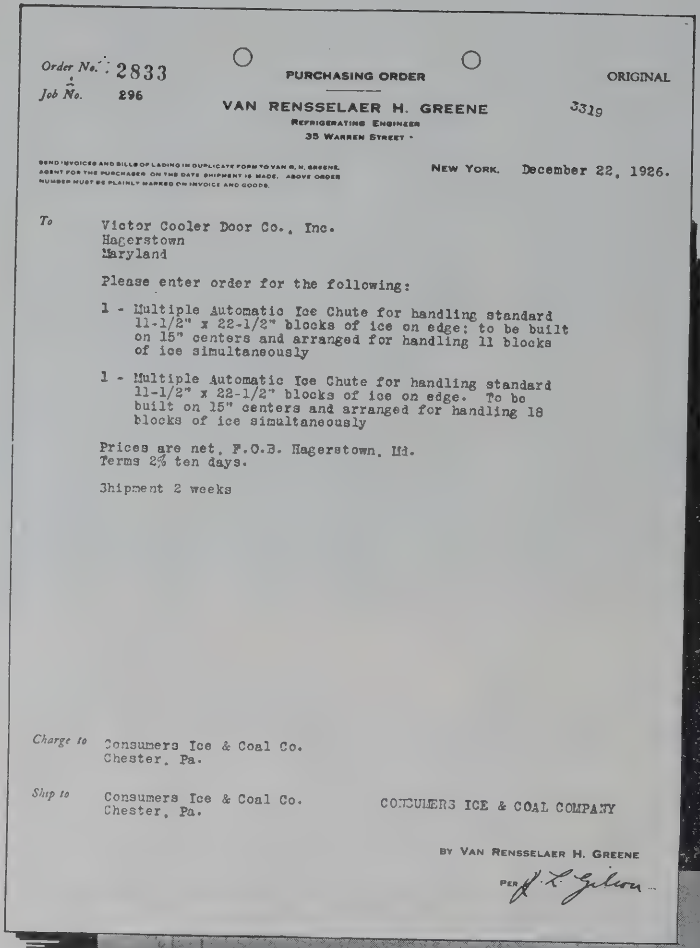
Dairies and Creameries in all parts of the United States are cutting costs by using this modern blow-torch for repairing vats and vat coils, maintaining sanitary pipe lines, etc. Write for details.

Thirty-six large charging plants supply more than 15,000 Prest-O-Lite Gas Exchange stations throughout the country. Only a moment is required to exchange empty Prest-O-Lite tank for a full one. You pay only for the gas.

THE PREST-O-LITE COMPANY, *Inc.*
New York INDIANAPOLIS San Francisco
In Canada, Prest-O-Lite Company of Canada, Ltd., Toronto, Ontario
Unit of Union Carbide and Carbon Corporation

Prest-O-Lite
Gas
The Gas of a Thousand Uses

When writing to PREST-O-LITE CO., INC., *please mention The Milk Dealer.*



Order No. 2833 PURCHASING ORDER ORIGINAL

Job No. 296

VAN RENSSELAER H. GREENE

REFRIGERATING ENGINEER

35 WARREN STREET

3319

SEND INVOICES AND BILLS OF LADING IN DUPLICATE FORM TO VAN R. H. GREENE, AGENT FOR THE PURCHASER ON THE DATE SHIPMENT IS MADE. ABOVE ORDER NUMBER MUST BE PLAINLY MARKED ON INVOICE AND GOODS.

NEW YORK. December 22, 1926.

To

Victor Cooler Door Co., Inc.
Hagerstown
Maryland

Please enter order for the following:

1 - Multiple Automatic Ice Chute for handling standard 11-1/2" x 22-1/2" blocks of ice on edge; to be built on 15" centers and arranged for handling 11 blocks of ice simultaneously

1 - Multiple Automatic Ice Chute for handling standard 11-1/2" x 22-1/2" blocks of ice on edge. To be built on 15" centers and arranged for handling 18 blocks of ice simultaneously

Prices are net, F.O.B. Hagerstown, Md.
Terms 2% ten days.

Shipment 2 weeks

Charge to Consumers Ice & Coal Co.
Chester, Pa.

Ship to Consumers Ice & Coal Co.
Chester, Pa.

CONSUMERS ICE & COAL COMPANY

BY VAN RENSSELAER H. GREENE

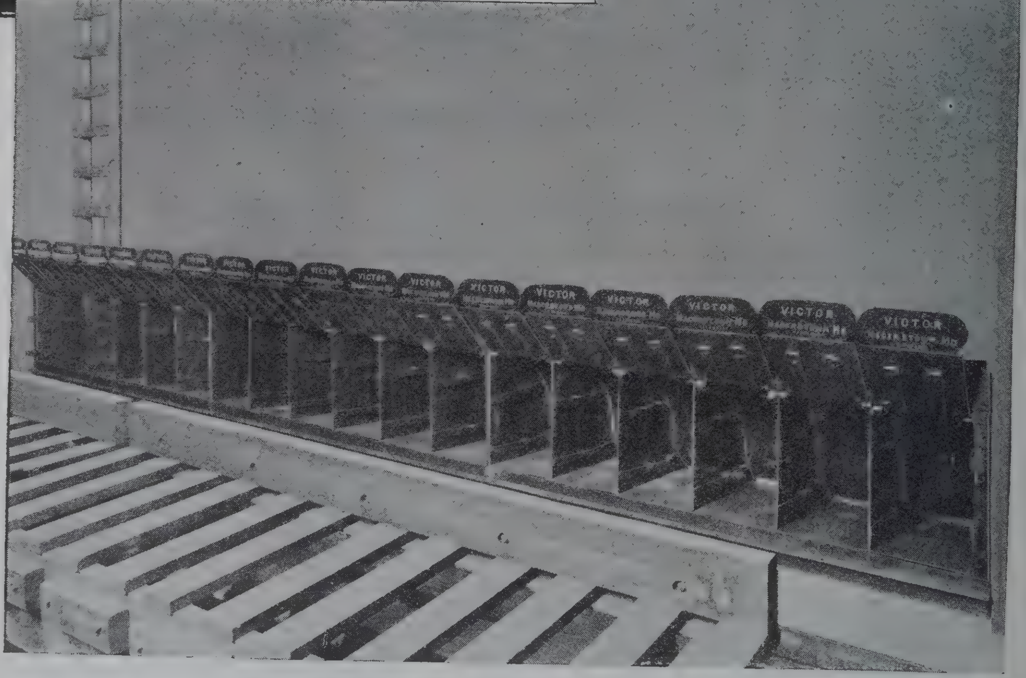
PER J. L. Gilson

Orders vs Claims

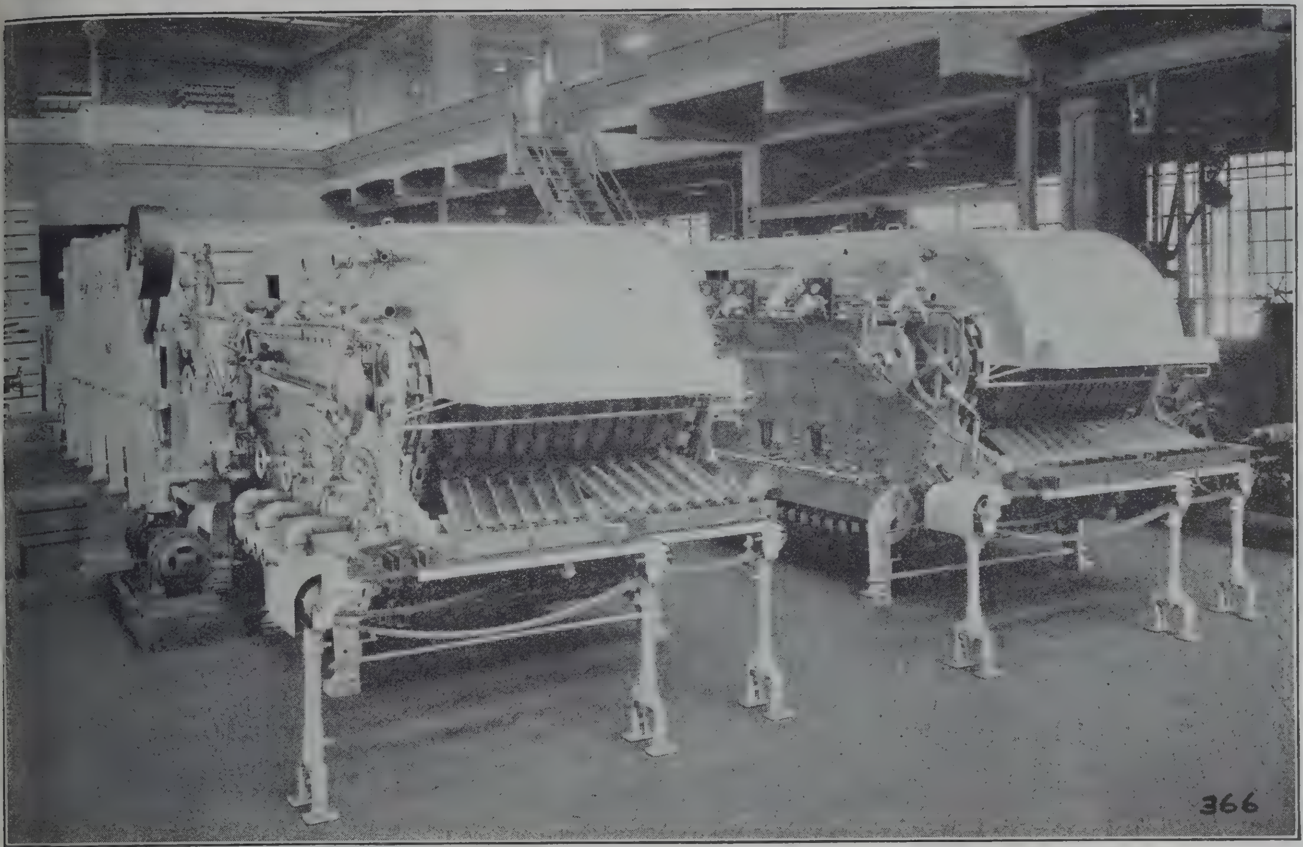
The real merit behind the successful article, whether it be face powder or ice chutes, is best evidenced by how well, and to whom, does it sell? Here is ample evidence of the definite demand for Standard Victor Ice Chutes—an order—from one of the country's leading refrigerating engineers.

A postcard will bring you complete information as to the possibilities of Ice-Conservation in your plant, by the use of Victor Standard Refrigeration Products.

VICTOR COOLER
DOOR CO., INC.
HAGERSTOWN, MD.



The second battery of 18 chutes installed—as covered by the above order.



The "ARISTOCRAT"

OF BOTTLE CLEANERS

APTLY NAMED BECAUSE IT IS IN A CLASS BY ITSELF

Above cut shows TWO large ARISTOCRAT units consisting of independent 5-COMPARTMENT SOAKER connected to our latest hygienic BRUSHLESS WASHER with Sterilizing and 3-Compartment Cooling attachments. Photo was taken on the assembly floor of our large modern factory.

These units are now being installed in that new wonderful plant of SIDNEY WANZER & SONS, INC., CHICAGO, ILL., where the best was the main consideration. Write us for full particulars. Our engineering staff belongs to you. 26 years experience.

Sheffield Farms selects Barry-Wehmiller Bottle Washers, Soakers and Sterilizers for their *new Jamaica*, Long Island Plant. After using 2 Barry-Wehmiller machines for more than 2 years in their New York City Plant, 2 more at the Brooklyn Plant, 2 more at the Harlem Plant, and 2 more at the Bronx Plant, all of 6 to 8 compartments in size, they have for the *fifth time ordered 2 more for their new Jamaica Plant.*

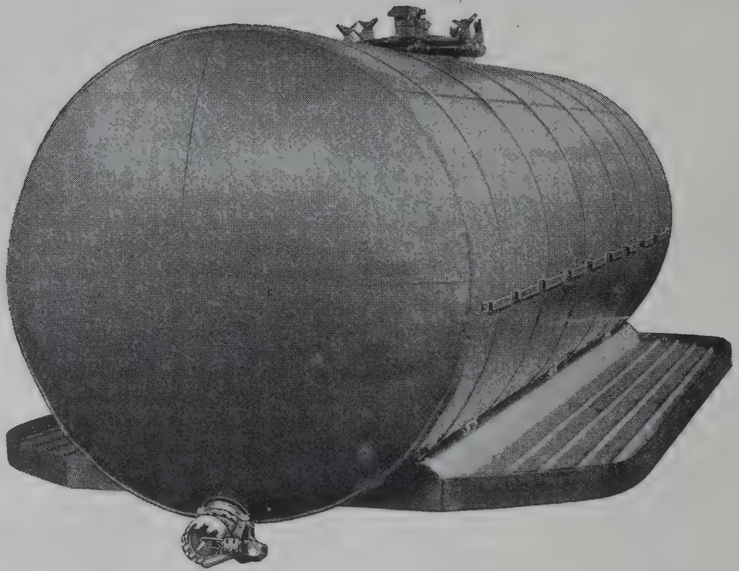
Barry-Wehmiller Machinery Company

Pioneers of Bottle Cleaners and In-the-bottle Pasteurizers

4660 W. Florissant Ave., St. Louis, Mo., U. S. A. **New York Office: 18 West 25th St.**

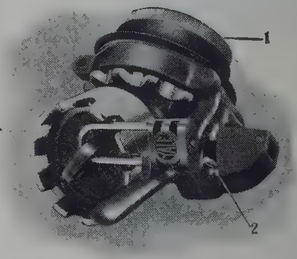
When writing to BARRY-WEHMILLER MACHINERY COMPANY *please mention The Milk Dealer.*

The new 'PFEATHERWATE' TRUCK TANK *will stand the "gaff"!*



The above photo *shows the New Pfeatherwate Truck Tank completely equipped and ready for mounting. Lightness has been achieved by an entirely new construction. The first units built were severely tested before being offered for sale.*

At the right *is the new flush type valve which eliminates the troublesome milk pocket; no freezing of milk in winter and no spoilage in summer. Arrow* ⟦1⟧ *indicates valve seat proper,* ⟦2⟧ *the swivel pin which controls opening and closing of valve seat.*



THE LIGHTEST TRUCK TANK ON THE MARKET THAT MEETS ALL ROAD CONDITIONS AND CAPABLE OF WITHSTANDING 15 POUNDS PRESSURE!

Recent Purchasers

Carnation Milk Products Co.,
Sherman, N. Y.

J. T. Castle Ice Cream Co., Irvington, N. J.

Hillsboro Milk Corp., Hillsboro, Ill.

Tennessee Dairies, Inc., Dallas, Texas

¶ The New Glass-Lined Pfeatherwate Truck Tank is an engineering achievement. It now offers every Dairy Operator the opportunity to use the bulk system of hauling milk regardless of road weight limitations. Built for this specific purpose, **it does so dependably!**

¶ The glass surface is the only surface that is easily cleaned and kept clean with the minimum effort. The steel shell lends genuine durability to a unit which saves you over and over again your original investment. Write for Bulletin 686 and convince yourself!

THE PFAUDLER COMPANY
Transportation Division ROCHESTER, N. Y.

When writing to THE PFAUDLER COMPANY *please mention The Milk Dealer.*

There is No Open Season for Lost Cases with

CLIPPER ALL STEEL CASES

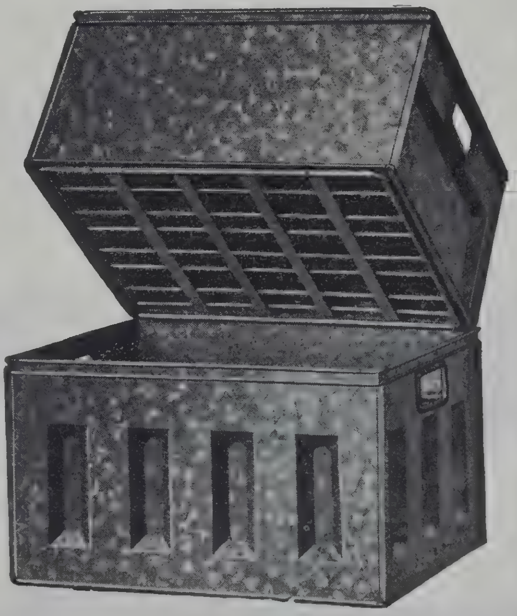
Clipper Cases have so many features possessed by no other bottle case that a thorough trial should prove a great financial saving to you.

Let us tell you how others have gradually changed over to Clipper all steel Bottle Cases.

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION, INC.
ASSOCIATE MEMBER NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS

The Defiance Pressed Steel Co.

DEFIANCE, OHIO



These Jobbers Sell CLIPPER CASES

J. G. Cherry Co	Cedar Rapids, Ia. St. Paul, Minn.
Meyer-Blanke Co	Birmingham, Ala. Dallas, Tex. St. Louis, Mo.
Haines-Carpenter Dairymen's Co.,	St. Louis, Mo.
Miller-Lenfesty Supply Co	Jacksonville, Fla. Miami, Fla. Tampa, Fla.
N. A. Kennedy Supply Co	Kansas City, Mo.
Apothecaries Hall Co	Waterbury, Conn.
Teague Hardware Co	Montgomery, Ala.
Gowing-Dietrich Co., Inc	Syracuse, N. Y.
John W. Ladd Co	Detroit, Mich. Cleveland, Ohio Columbus, Ohio Cincinnati, Ohio
A. L. Davis' Son	Binghamton, N. Y.
Cherry-Bassett Co.	New York, N. Y. Syracuse, N. Y. Baltimore, Md. Philadelphia, Pa. Pittsburgh, Pa.
E. K. Owens Hardware Co	Susquehanna, Pa.
National Dairy Equipment Co	Utica, N. Y.
Hagan's Dairy Supply House	Greensboro, N. C.
Chester Dairy Supply Co	Chester, Pa.
M. G. Newell Co	Greensboro, N. C.
Oakes & Burger Co	Cattaraugus, N. Y.
Ft. Wayne Dairy Equipment Co.	Ft. Wayne, Ind.
Thompson-Bremer & Co.	1750 Carroll Ave., Chicago, Ill.
John Pico	New Orleans, La.

Quality, Volum

New Engine!

MORE POWER—MORE SPEED
FASTER ACCELERATION
MORE ECONOMY—MORE VALUE

This is the finest engine ever used in Graham Brothers Trucks and Commercial Cars . . . Every advanced engineering feature that is proven.

See this new engine! . . . See it today! . . . Compare it with *any* engine *ever* built into *any* truck!

\$670	\$885	\$1245	\$1445
¾-TON	1-TON	1½-TON	2-TON

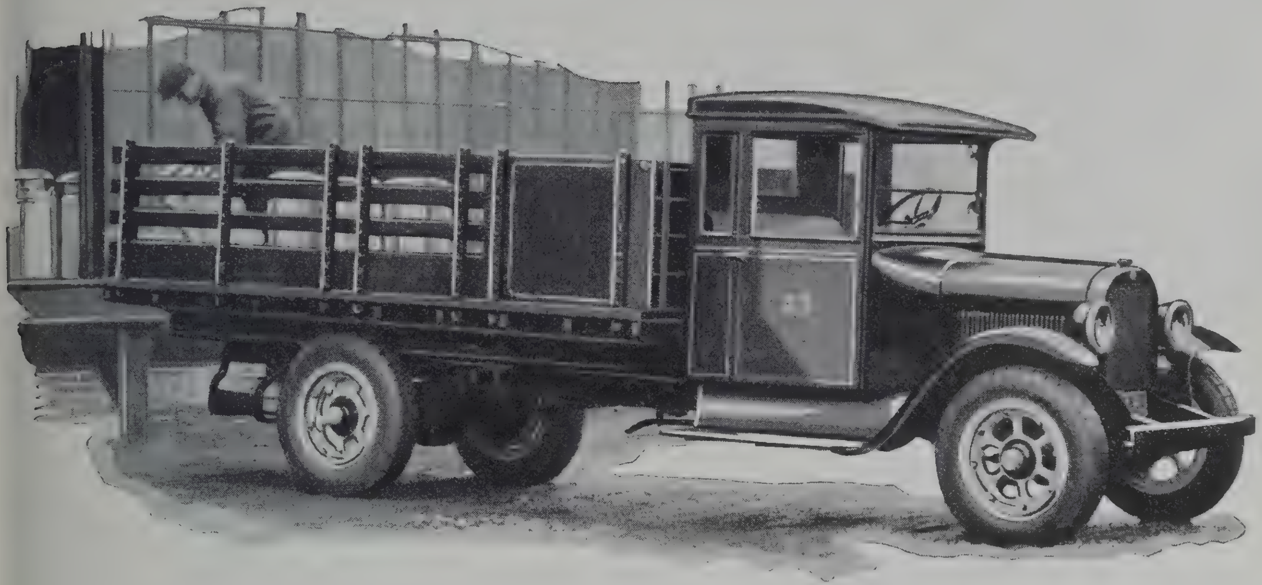
Chassis prices, f. o. b. Detroit

GRAHAM

SOLD BY DODGE BROTHERS
DEALERS EVERYWHERE

When writing to GRAHAM BROTHERS *please mention The Milk Dealer.*

and Low Price



Whatever the need, there is a Graham Brothers Truck or Commercial Car to meet it—speedy, powerful, dependable.

Thousands of them are at work day after day reducing the costs of handling milk and milk products.

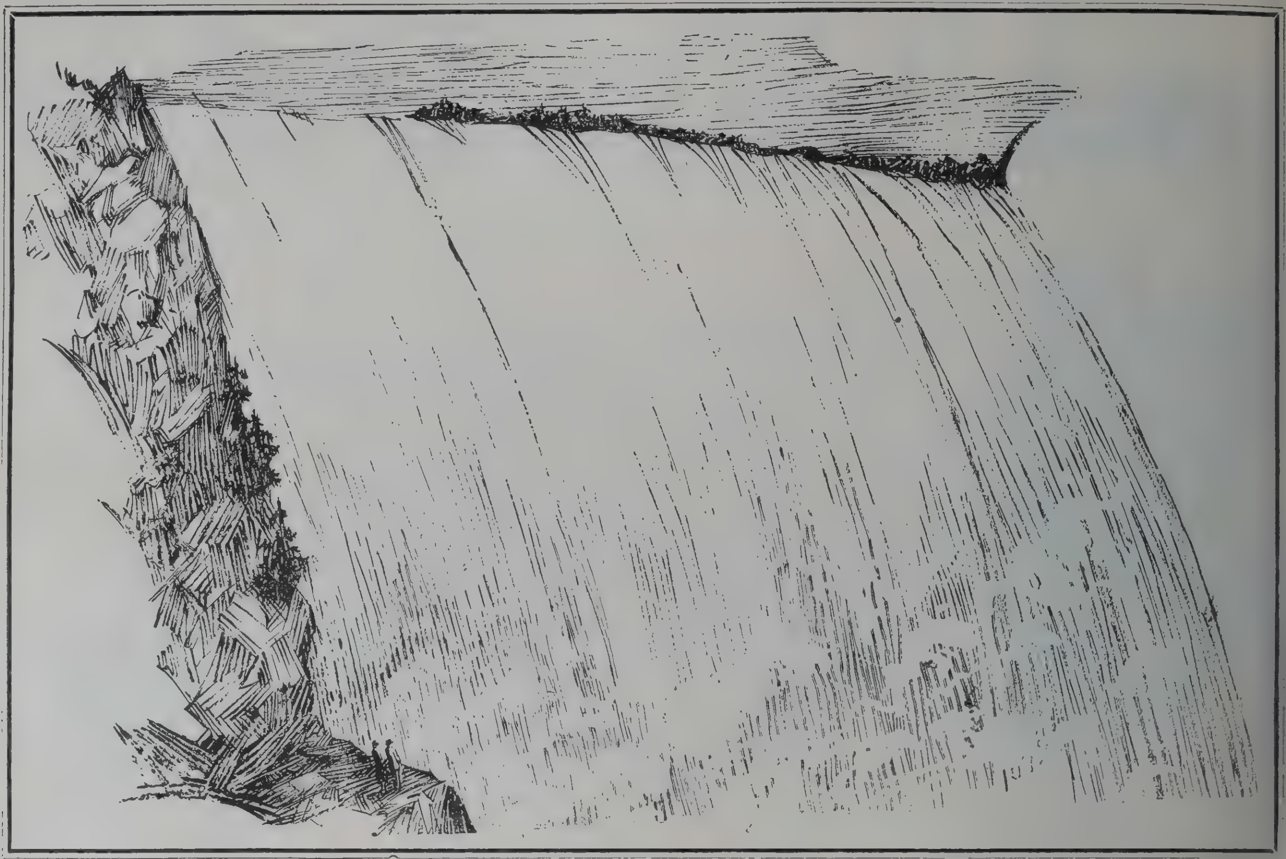
Body styles to fit your business.

Service from Dodge Brothers Dealers everywhere.

GRAHAM BROTHERS
EVANSVILLE – DETROIT – STOCKTON
A DIVISION OF DODGE BROTHERS, INC.
GRAHAM BROTHERS (CANADA) LIMITED, TORONTO, ONTARIO

BROTHERS
TRUCKS

When writing to GRAHAM BROTHERS *please mention The Milk Dealer.*



Niagara Falls—The Source of the Greatest Power Known to Man

The Miller HYDROSTATIC Principle of Sterilizing Bottles is now Standard the World Over!

TWELVE years ago Charles Miller became plant superintendent of the Bainbridge Bottling Company. He soon discovered that the general practice at that time in the beverage industry was to brush the dirt out of a bottle with an ill-smelling bristle brush, which soon became as filthy as the refuse in the bottle could make it, and while leaving the bottle in many instances clean to the eye, left it fairly alive with bacteria of all kinds.

Charles Miller immediately began to devote his entire time to the perfection of a machine that would rid his plant forever of this brush nuisance. Some important form of friction was necessary to remove the dirt. His thoughts at once turned to hydraulic or hydrostatic friction. He had witnessed the terrific action of water under pressure in engineering and mining projects, had seen hillsides torn away, boulders dislodged, everything give way to the tremendous power of torrents of water. He visualized this irresistible force turned loose on the inside and outside of dirty bottles . . . . . obviously, no dirt could resist it.

And so, with this terriffic force as a basic principle, Chas. A. Miller designed a bottle washing machine which has since revolutionized bottle washing in the beverage and brewery industries. And now the Dairy Industry, with its tremendous demand for clean, sterile bottles, is turning to the Miller Hydro, and finding in it a newer, better method of bottle cleaning, free from the mechanical ailments inherent in all brush washing machines.

Write us today for catalogue and full particulars of how the Miller Hydro can be made to pay for itself in your plant long before you make the last payment.

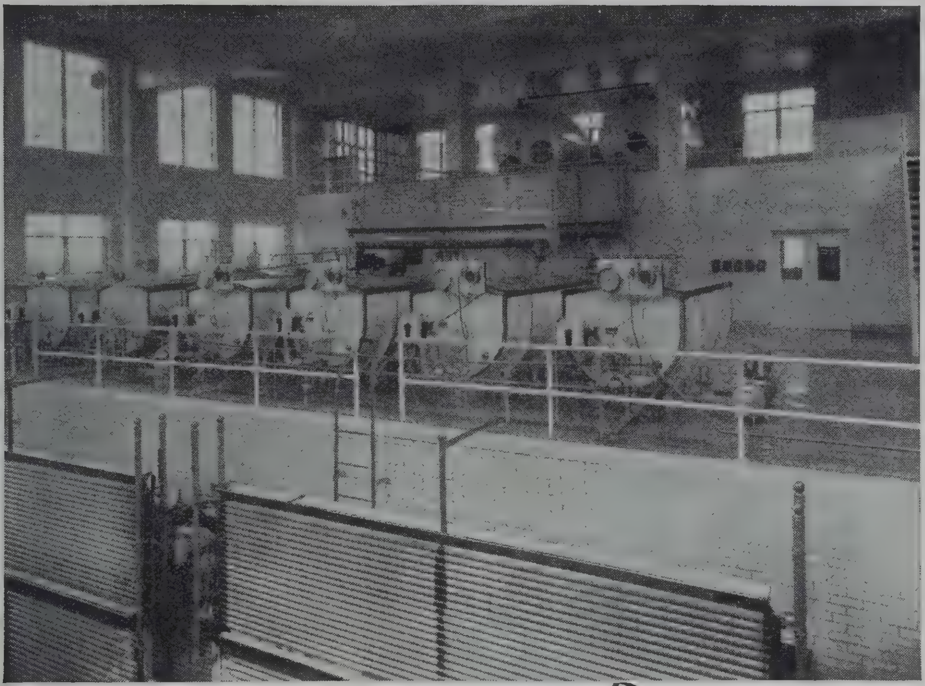
MILLER MANUFACTURING CO., Bainbridge, Ga.
Makers of
The MILLER-HYDRO
Bottle Washer and Sterilizer

Chicago Office:
1305 Monadnock Block

New York Office:
105 West 40th Street

THE LARGEST FACTORY IN THE WORLD DEVOTED EXCLUSIVELY TO THE MANUFACTURE OF BOTTLE WASHING MACHINERY

When writing to THE MILLER MANUFACTURING CO. *please mention The Milk Dealer.*



Another Great Plant Adopts the Cherry Gravity System *of* Pasteurization

For their new $225,000 plant at Highland, Illinois, the Highland Dairy Farms Company of St. Louis has installed the Cherry Gravity System of Pasteurization — including tubular preheaters, four 600 gallon Cherry Twin Coil Class M Pasteurizers with pure nickel coils and linings and equipped with automatic hot water controls, one 600 gallon Cherry Twin Coil Class M Pasteurizer with pure nickel coil and lining, for cream, and two 500 gallon Twin Coil Class M Machines for processing table cream and cream for butter making.

THIS beautiful new plant is setting a record for low bacterial count, deep cream line and fine flavor. Vitrified enamel interior. Located 30 miles out of St. Louis.

. G. Cherry Company, *Cedar Rapids, Iowa*

. Paul, Minn. Tama, Iowa Peoria, Ill.

GLASCOTE

Part of Glascote Equipment used by Dairy Delivery Co., San Fran

Exclusively Glascot

THE most modern plant on the coast is equipped completely with Glascote High Glaze Pasteurizers and Storage Tanks.

The most important points in selecting glass lined equipment are the quality of the lining and the mechanical construction of the tank.

The superiority of Glascote on both points is demonstrated by its use in the largest modern creameries everywhere.

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905 Carleton Bu
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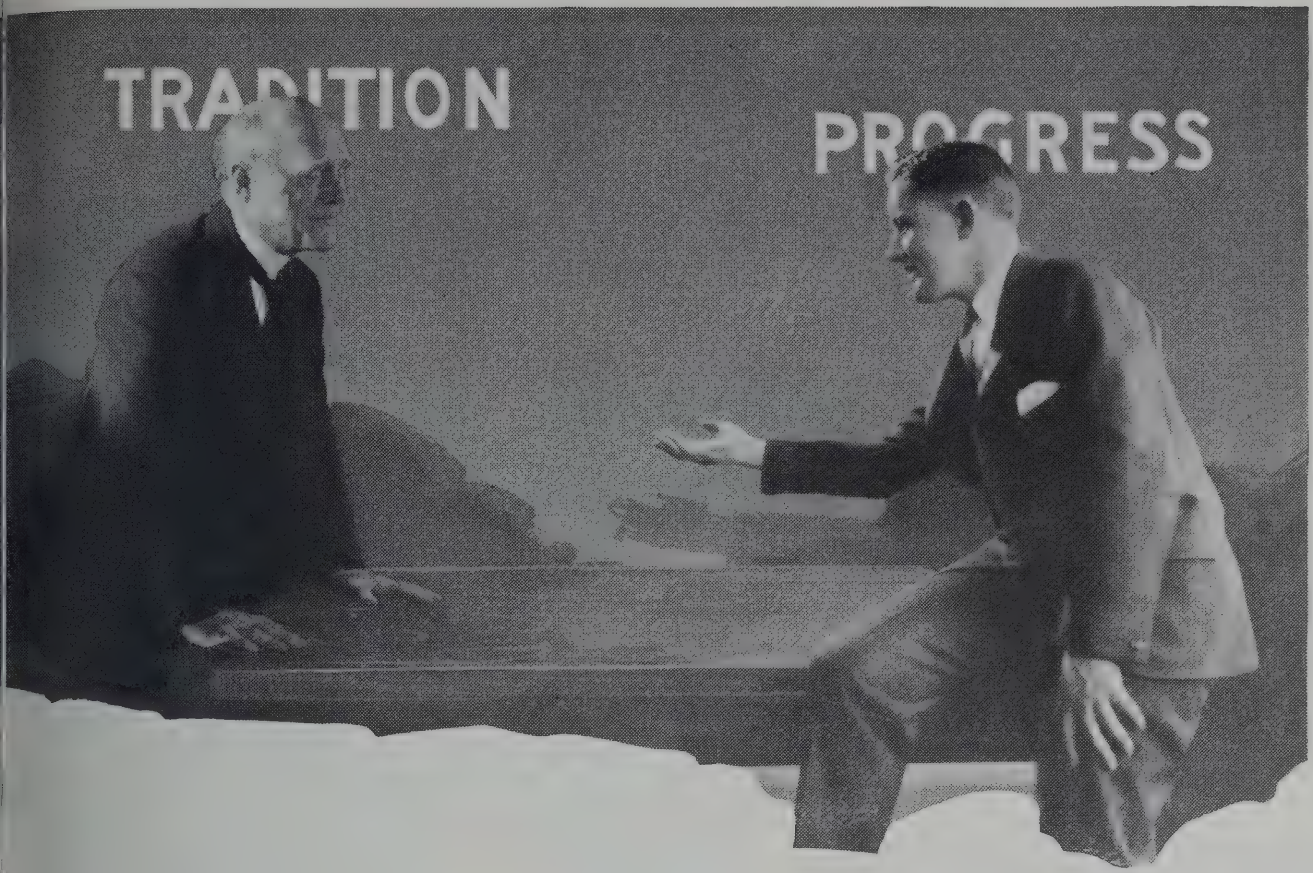
When writing to THE GLASCOTE COMPANY *please mention The Milk Dealer.*

thinks all motors are alike



Listen, Lad—

I was talking with my friend today
out getting some more motors from him.
old him all you've been saying about your
t welded-steel motor but he just smiled and
id that you've been misled by 'talking
ints.' He admitted that all motors are
sically the same."

"Yes, Pop—

and all men are born equal — but it's to their shame if they stay that way.

Specialized endeavor lifts a man out of the standardized class.

And that's just how the "Linc-Weld" motor rose above its class.

Its whole engineering is directed to a single end: Motors.

And this development is sub-specialized into *Motors for specific purposes.*

If you want a pump motor—there's a "Linc-Weld motor for just that.

If you want an elevator motor—there's a distinct "Linc-Weld" motor for just that.

If you want a motor for *any* duty—there is a distinct "Linc-Weld" motor for just that.

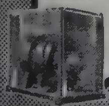
Name your service and you get distinct, specialized, proved experience on that job exclusively.

Your friend's admission that all motors are born equal was over optimistic sales zest. "Linc-Weld'. motors are now in long pants instead of long whiskers'

The Lincoln Electric Co., Dept. No. 25-6, Cleveland, Ohio

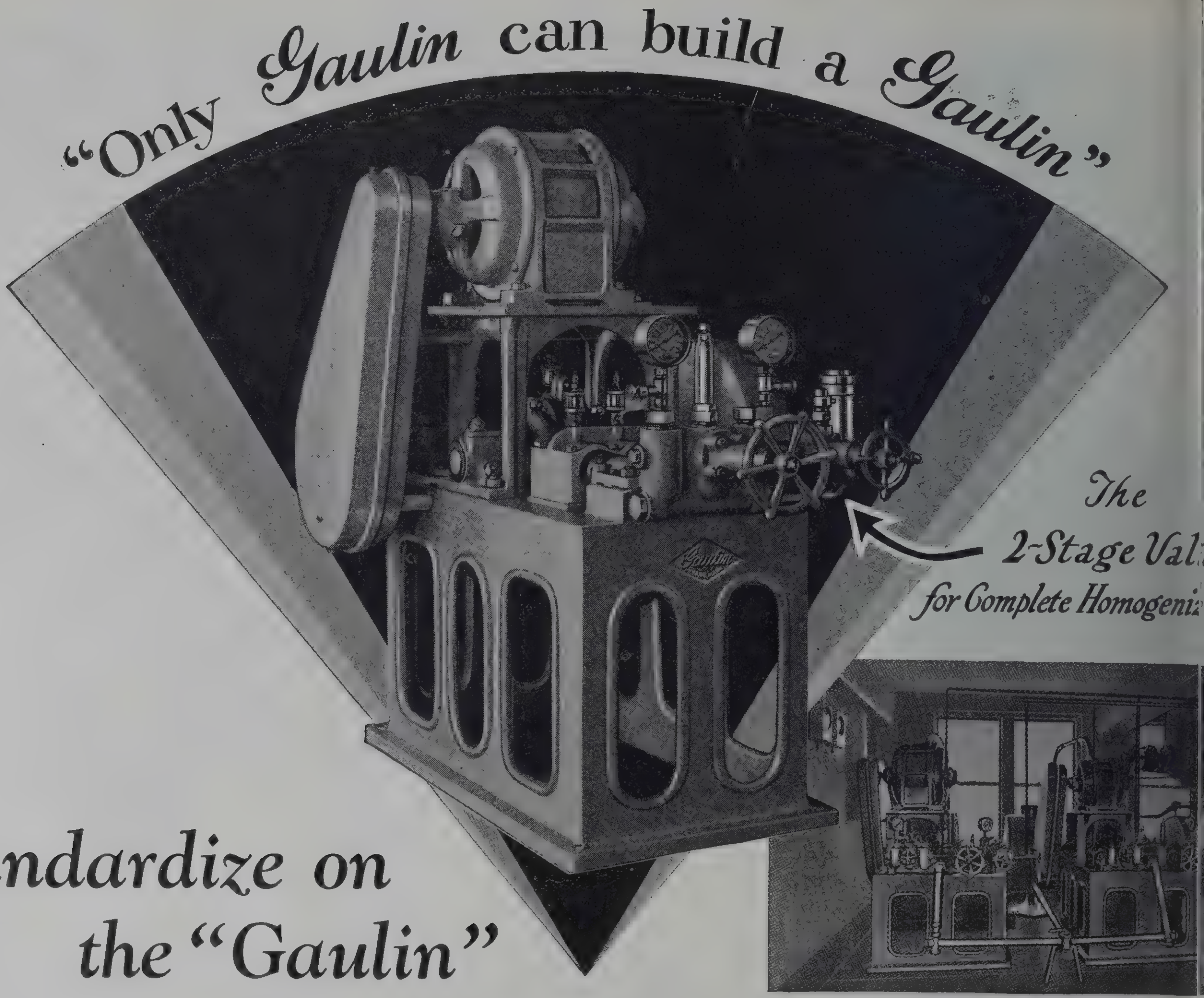
MA-16

"Linc-Weld"



LINCOLN MOTOR

When writing to THE LINCOLN ELECTRIC COMPANY *please mention The Milk Dealer.*



A Typical Gaulin Installation at the Luick Ice Cream Co.

Standardize on the "Gaulin"

ORIGINATOR

of the

Two-Stage Valve

THE 2-Stage Valve, *as originated and developed* by the Manton-Gaulin Manufacturing Company, has met with such favor because of its remarkable gain in efficiency over single valve operation, or other homogenizing devices, that it is today rapidly being adopted as *standard equipment* in the leading ice cream manufacturing plants in America and Europe.

The results obtained have been so enthusiastically received that the Gaulin Homogenizer equipped with the 2-Stage Valve has not only supplemented the homogenizing machinery in many plants, but we are constantly being called upon to equip machines of other makes with this efficient dual valve.

We show, above, a typical Gaulin installation of two 800-gallon Homogenizers in the Luick Ice Cream Company plant at Milwaukee. When this company found it necessary to replace their viscolizing equipment, they unhesitatingly selected "Gaulins" equipped with the 2-Stage Valve.

More Gaulin Homogenizers are being manufactured and sold today than ever before in our history and we attribute this prosperity principally to our development of the 2-Stage Valve.

If you wish to secure *complete homogenization*—be assured of *positive viscosity control*—and guaranteed a *superior quality of finished product,* you will make the 2-Stage Valve, as *originated* by Gaulin, standard equipment in *your* plant.

A catalog describing the 2-Stage Valve in detail will be sent to you, free, upon request.

MANTON-GAULIN MFG. CO. *11 Elkins St.,* BOSTON, MA

When writing to MANTON-GAULIN MFG. CO. *please mention The Milk Dealer.*

KEYSTONE
THE DAIRY
COMPANY

The Keystone Dairy Company
Parnassus, Pa.

Interior View of Milk Cooler.

CRESCENT
CORK
INSULATION

Satisfactory Insulation!

Crescent 100% Pure (Made in U. S. A.) **Corkboard**—

is unequivocally accepted and acknowledged as being the most efficient as well as the most satisfactory insulation obtainable for Cold Storage Rooms. Of the many types of insulation offered, corkboard is the only one that has successfully stood the *"test of time"* in the refrigerating industry.

United's Service—

For 20 years, Owners, Architects and Engineers have relied upon "United's Service," for the complete installation of their Cold Storage Rooms. The proper installation of corkboard is equally as important as the quality of the insulation itself. It must be done correctly if best results are to be secured. ¶ Every "UNITED" contract is executed by experienced mechanics working under the personal supervision of trained engineers. Modern mechanical equipment that facilitates installation, is employed. Only methods of erection are used that have been thoroughly time-tested. Consequently—permanent, economical and satisfactory Cold Storage Rooms, result.

We will gladly have a representative consult with you on your insulation requirements. His suggestions may prove of great value to you. And we know that our estimate on your work will be attractive. Write us.

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Baltimore—801 Whitaker Building
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Chicago—1151 Eddy Street
Cleveland—1200 W. 9th Street
Cincinnati—Cin. Term. W. H. Building
Pittsburgh—624 Bessemer Building
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When writing to UNITED CORK COMPANIES *please mention The Milk Dealer.*

Save a ton in Weight!

Every pound saved in weight of the tank equals two pounds of pay load —

THUS 99% Pure Nickel Milk Tank construction saves you 2000 pounds deadweight and adds 4000 pounds payload.

The reason for this outstanding advantage is that 99% Nickel is inherently stronger than steel and permits us to use much lighter nickel sheets which results in a nickel tank construction that averages one ton less weight than any units, heretofore, used.

Combine this weight advantage with the sanitary advantages of a one-piece seamless nickel construction and you have two excellent reasons why 99% Nickel Milk Tanks are generally preferred throughout the dairy industry.

Let our engineers co-operate with you.

NINETY
NINE %
NICKEL

GENERAL SALES OFFICE
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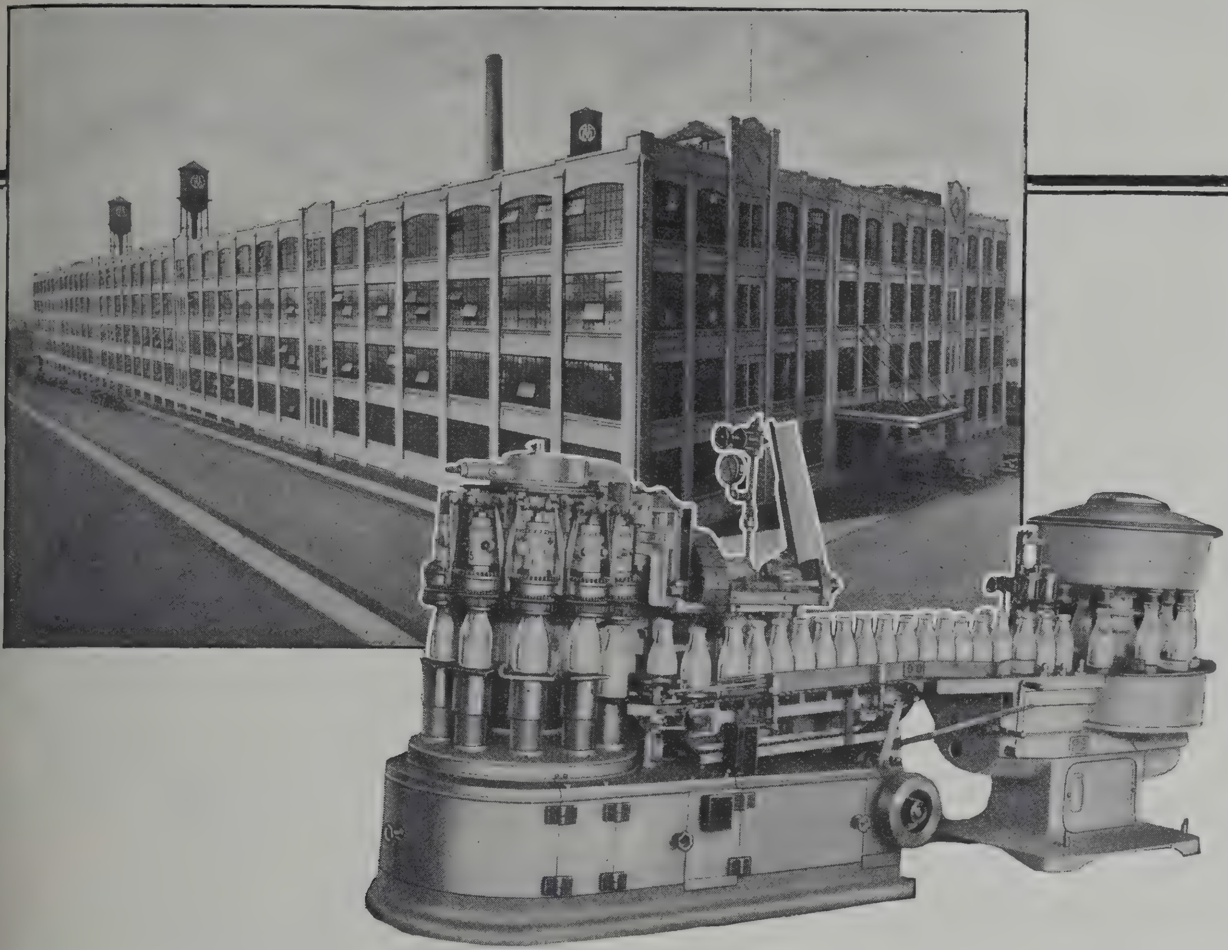
NICKEL FABRICATING CORPORATION
— PHILIPSBURG, PENNA. —



The Plant Behind the Machine

BEHIND the Lakewest Automatic Milk Bottle Sealing Machine is an organization of specialists who have conquered many difficult industrial problems.

If automatic machinery can be rightly termed the "Producing Partners of Industry," then the American Machine & Foundry Company have designed and developed some of the best producing partners that have ever worked with intelligent executives for lower costs.

The Lakewest Sealing Machine deserves to rank high among these achievements. This rank has been conferred by the opinions of many of the leading dairymen of the country.

Here are two factors that deserve consideration: A machine that fills a long-felt need, and an organization of responsible engineers standing back of the machine.

May we send you descriptive bulletins?

AMERICAN MACHINE & FOUNDRY CO.
5502-5524 Second Avenue **Brooklyn, N. Y.**

Sole Manufacturing and Selling Agents

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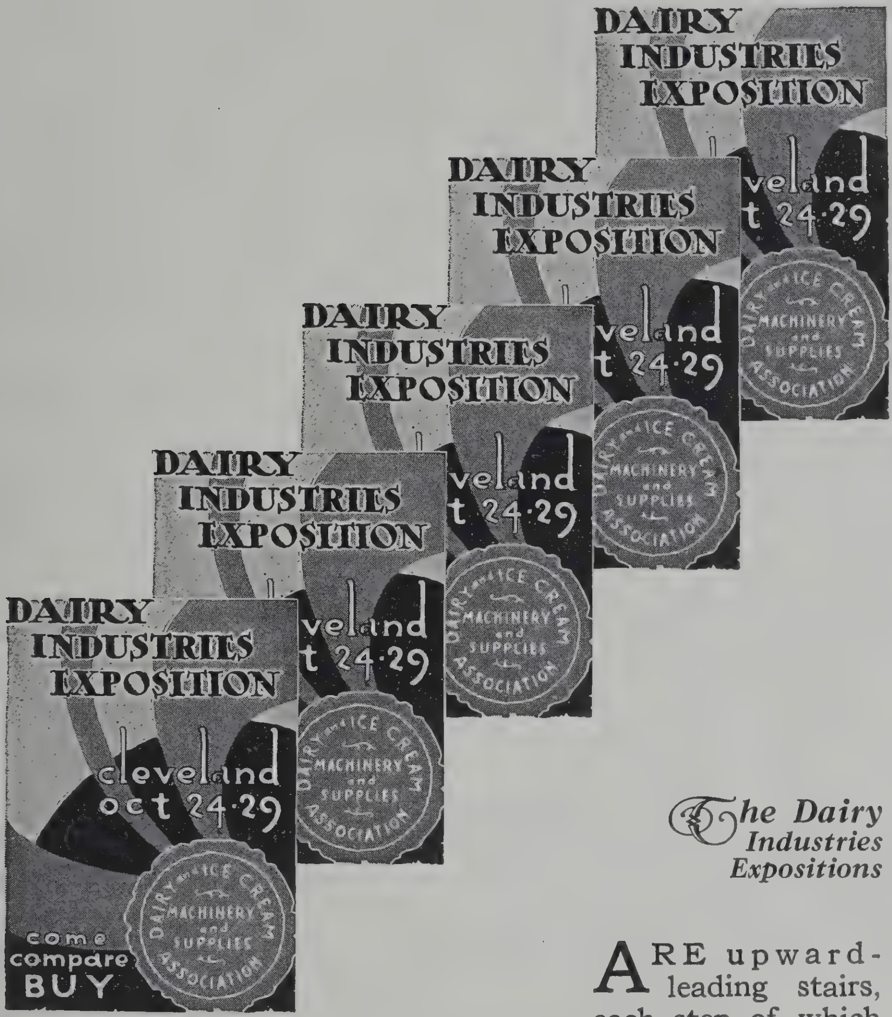
MANITOBA DAIRY MANUFACTURERS ASSOCIATION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cleveland
oct 24·29
DAIRY and ICE CREAM MACHINERY and SUPPLIES ASSOCIATION
come compare BUY

The Dairy Industries Expositions

ARE upward-leading stairs, each step of which reveals the proven dairy products manufacturing tools and technique of all preceding years—discloses new methods and devices for money-saving, money-making application—and leads further to significant, if not yet wholly realized improvements of the months and years to come—to wider markets, to more profitable vistas for manufactured dairy foods.

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION, INC.

Two Twenty Five West Thirty Fourth Street, New York City

The Buyer's
Seal of Safety

THE
MILK DEALER
PUBLISHED THE TWENTIETH OF EACH MONTH BY
THE OLSEN PUBLISHING COMPANY
H. P. OLSEN, President and Manager
LESTER S. OLSEN, Vice-President
E. K. SLATER, Secretary and Editor
Also Publishers of
"BUTTER, CHEESE & EGG JOURNAL" and "THE ICE CREAM REVIEW"

FIFTH AND CHERRY STS. MILWAUKEE, WISCONSIN

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Entered as second-class matter December 1st, 1911, at the Post Office at Milwaukee, Wis., under the act of March 3rd, 1879

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OFFICIAL ORGAN OF
The International Association of Milk Dealers
Dairy Products Association of Kentucky, Inc.

JUNE, 1927

BULLETIN *of* EVENTS

American Dairy Science Association—Annual meeting to be held at the Michigan State College, East Lansing, on June 22, 23 and 24, 1927. Secretary-treasurer, G. C. White, Storrs, Conn.

Dairy Industries Exposition—The second annual exposition of the Dairy and Ice Cream Machinery and Supplies Association will be held at Cleveland, Ohio, on October 24-29, inclusive. Roberts Everett, 225 West 34th St., New York City, secretary and manager.

International Association of Milk Dealers—Twentieth annual convention to be held in Columbus, O., on October 19, 20, 21 and 22, 1927. The Neil House will be convention headquarters. Secretary, R. E. Little, 228 No. La Salle St., Chicago.

Pacific Slope Dairy Show—Seventh annual exposition to be held from November 14 to 19, 1927, at Oakland, Calif. Secretary-manager, Robert E. Jones, 1404 Franklin St., Oakland, Calif.

Ohio Milk Distributors' Association—Annual convention to be held in connection with the convention of the Ohio Association of Ice Cream Manufacturers and the Ohio Association of Creamery Owners and Managers, at Toledo, on January 24 and 25, 1928. Commodore Perry Hotel will be convention headquarters. Secretary, W. A. Wentworth, 5 East Long St., Columbus.

EACH year brings a better understanding of the surplus milk problem. While this vexatious question is still a real bone of contention between dealers and producers in some sections we believe that progress is being made in solving it.

The producer of city milk, of course, hates to sell any milk at a lower figure than the established price. That is always low enough in his opinion. The dealer hates to buy milk at a loss. When he does so in order to placate the producer the business is on an unsound basis.

We don't blame the producer for accepting too much for his surplus milk, but we do blame the dealer who gives it to him. It should not be necessary, and it isn't necessary if the right sort of understanding prevails.

When the matter of surplus milk is properly explained the producer can understand it as well as anybody. He can and will understand that when butterfat in milk is used for making butter it is not worth as much money. Don't blame your producers for wa "something for nothing" if you are doing noth make them understand this surplus problem.

⚜

THE next time you get a "case of the blues" b you owe so much money on that fine bottling and its wonderful equipment, and you grow a few gray hairs trying to figure out how it is all going t just remember that you have lots of company. will make you feel better. Most successful busines are passing through or have passed through wha are experiencing.

"Too much credit nowadays in business," the a ist says, but aggressive, hard headed business m right on using their credit and building their bu institutions. They pay interest on money when judgment tells them that they can make that m earn them a profit above the interest.

But does that justify the borrowing of money up a fine plant when something cheaper will ser purpose? Does it justify the purchase of the mo pensive equipment? Does it justify the spendi borrowed money "just for show," to build and a "model" milk plant?

We believe it does. We believe the expenditu money—even borrowed money—to make everyth and about the milk bottling plant attractive is mor justified. Money thus expended is well investe not only increases the efficiency of the organizati it improves morale. It also gives the consumer tha fidence which results in increased consumption products from that plant.

We believe that the milk dealer who owns modern plant and has an efficient organization, an may owe a lot of money, has no reason to get di aged. He is owing money in a wonderful busine a business where it is unwise to economize in "for show" if you please. We believe he has a ri expect that increased sales will take care of inc interest and other charges.

Our faith in the business, however, is predicat the proposition of following through with the righ of service to the consumer. A fine plant represen the consumer's door by a dingy looking wagon slouchy looking driver will not give the consum sort of impression that builds sales. That fine must be supported by everything else right in ke with it. Some men in the business make that mi

⚜

MILK men who find time or take time to play invest their time when they do so. The ma thinks that he can't be spared from his business enough to get the recreation that his mind and needs makes a serious mistake. He is only fooling self. The real business man—the man of exe vision and ability—is smart enough to know th needs regular play hours to keep fit for his job. sort of doctrine may not meet with the approval man with his "nose on the grindstone" who thin can't get away, but that doesn't prove the do wrong.

IE milk dealers still refuse to recognize the value certified milk in building their regular milk busi- They look upon certified milk as a sort of neces- ompeting evil. They fail to push certified sales, g deliveries only when certified milk is absolutely nded by a customer.

rtified milk is produced to meet a specific need. plies the baby and the invalid with a milk from every form of contamination has been excluded failing adherence to the most rigid production ique. A trip through a certified barn at milking nd a tour through the dairy will instantly explain the general milk supply cannot be similarly pro- , and yet a modern certified milk plant is as effi- y and economically conducted as any factory where ction costs are carefully figured.

steurization is a priceless safeguard of public . As long as a need for it exists every effort d be made to place each hamlet, town and city its protection. The dealer who sells certified milk , as he may think, encouraging a competitor. In y, certified milk is in no way a competitor of pas- ed milk. It fills a specific demand, being produced to meet such requirements as are recognized by al authorities. It is the product supreme which letes the efficiency of the service a dealer can give ade.

en, too, the higher price commanded by certified like every other product of higher price and qual- xerts a stimulating influence on the sale of the low- iced milk. It is more difficult for the consumer to lain about his fifteen-cent-quart of pasteurized milk the youngest member of the family is thriving on ed milk at twenty-five cents a quart, or even high- he standard of any value is realized in terms of arison. When the standard of comparison is high ller benefits, and as long as certified milk sells for h higher price than pasteurized milk the city dis- or should realize he cannot afford to be without it. is real merchandising.

* * *

IERE is no doubt but what our dairy laws have ac- omplished a great deal for the dairy industry, but going to be a long time before legislation will re- human initiative and honest effort in bringing improvements in dairy conditions. Some people to think that if we could just have a state or al law to govern every act that our dreams of per- n might be realized. Every time a new problem sts itself, or an old one comes up, they think of g to the state legislature or to congress and asking law to solve their problem. Some dairy problems been solved by legislation but far more have been l by honest, earnest work on the part of men in the ess. We need more of the same kind of effort today t will do more to promote the best interests of ing than anything else.

THE transportation problem has always been and will continue to be one of the city milk distributor's biggest problems. Getting the milk from the farms to the distributing plant, and then again to the doorstep of the consumer is a very important factor in the dealer's reason for existence. It is an expensive factor and for this reason his profits often are fixed by his transportation costs. No two dealers work under the same conditions. The transportation problem is in a sense a local one, but there are certain fundamentals that are general.

Readers of The Milk Dealer have had set before them a great deal of information on this transportation problem. We have published many articles touching upon all phases of collection and distribution, and there will be more information of the same kind in each issue. The question of transportation cost is a vital one. It makes up a big share of the total cost of operating a milk distributing enterprise. How to get the most for each dollar spent for transportation is an ever present problem.

How to operate a plant efficiently, and that includes transportation costs, and how to sell more milk are the two big problems confronting the milk distributor. These are the two problems we have uppermost in mind all the time when gathering and compiling the information contained in each issue of The Milk Dealer. We shall keep on pounding away on plant efficiency and milk salesmanship, feeling that in doing so we are helping our readers to solve the two big problems before them. In doing so, we rather minimize other important questions but the greatest good for the greatest number is what we are striving for, and we feel that we are accomplishing our purpose best by working along these lines. If we help the reader to operate his plant more economically, and also sell more milk, we are rendering him a greater service than we could render in any other way.

* * *

HOW far can a milk bottle travel? Or, let us put it this way, how far can a milk bottle go away from home and get back again safe and sound?

We shall probably never know the answer, but we know of a milk bottle that traveled all the way from Detroit, Mich., to Fairmont, Minn., and was finally returned to its owner in the Motor City. It happened this way: the writer bought a pint bottle of milk in a neighborhood store in the southern Minnesota town which happened to be our old home town. It carried the cap of a local milk distributing firm, but blown in the bottle were these words, "Detroit Creamery Co., Detroit, Michigan."

We lugged that bottle back to our office and then sent it on to its owner. The Minnesota milk dealer made us pay a nickel for the bottle and now we are wondering where we should collect that nickel without doing anybody an injustice. It was not a "store" bottle so the Detroit folks are clearly entitled to their bottle without charge. The Minnesota firm probably got the bottle in place of one they had sent out so we can't look to them. The question remains, where are we to collect and how did that bottle get that way anyway?

Putting On A Successful Milk Exhibit

Teaching the Hoosiers to Better Appreciate Milk and How to Use it More Freely in the Home. Indiana State Fair Exhibit an Outstanding One

THURMAN B. RICE, A.M., M.D.*

THE state of Indiana believes in its state fair. Each fall sees the entire state represented in some form or another on the grounds at Indianapolis, the state capital. The two state universities—Indiana and Purdue—have special buildings for their separate exhibits. Purdue, being largely an agricultural school, is in its element of course. The exhibit of Indiana University is usually less closely related to the state's basic industry.

The writer was given the responsibility for preparing the exhibit for the medical school of Indiana University, to be shown in September, 1926. After a great deal of deliberation the theme of the exhibit was chosen and the exhibit planned about that theme. It isn't easy to find a subject of universal interest to a state fair crowd. Folks of all ages and stations were among the crowds. Most of the spectators were from farming communities, but there were also a great many from Indianapolis, the largest city in the state.

It was decided that the exhibit should be along the line of public health, since that is the chief interest of the man in charge of the plans. Milk is the most important of foods, and is at the same time one of the most dangerous when it is carelessly handled—as it need not be. It is also a broad point of contact between the country and the city—producer and consumer.

A detailed description of the exhibit may be of interest or of help to others who are planning a si show. In the center of the booth surrounded by a rope was a table, the legs of which were the replic four great milk bottles—each being exactly three the dimensions of a standard quart milk bottle. were turned out of wood and enameled white w generous cream layer of yelow. The table top green and carried a very attractive model of a p little cottage with shrubbery surrounding it. The was made of green sawdust for grass. Children shown playing on the lawn in front of the cottage

The display on the table was made by the depart of occupational therapy of the James Whitcomb Hospital for Children, one of the university hosp and was very well done, indeed. The central idea resented was enunciated in the sentence painted in on the edges of the table top:

"Home and Health Built on Milk."

Next in importance in the exhibit was the ima representing the approved manner of feeding two b —a breast fed baby on the right and a bottle fed on the left. These two babies were represented by attractive by-low dolls, the first being in its mot arms and the other alone. Both babies gave the app ance of bounding health.

Milk for the bottle fed baby was produced in the dairy shown on the wall at the extreme left of the ture. A fine cut-out barn with a red roof and a si

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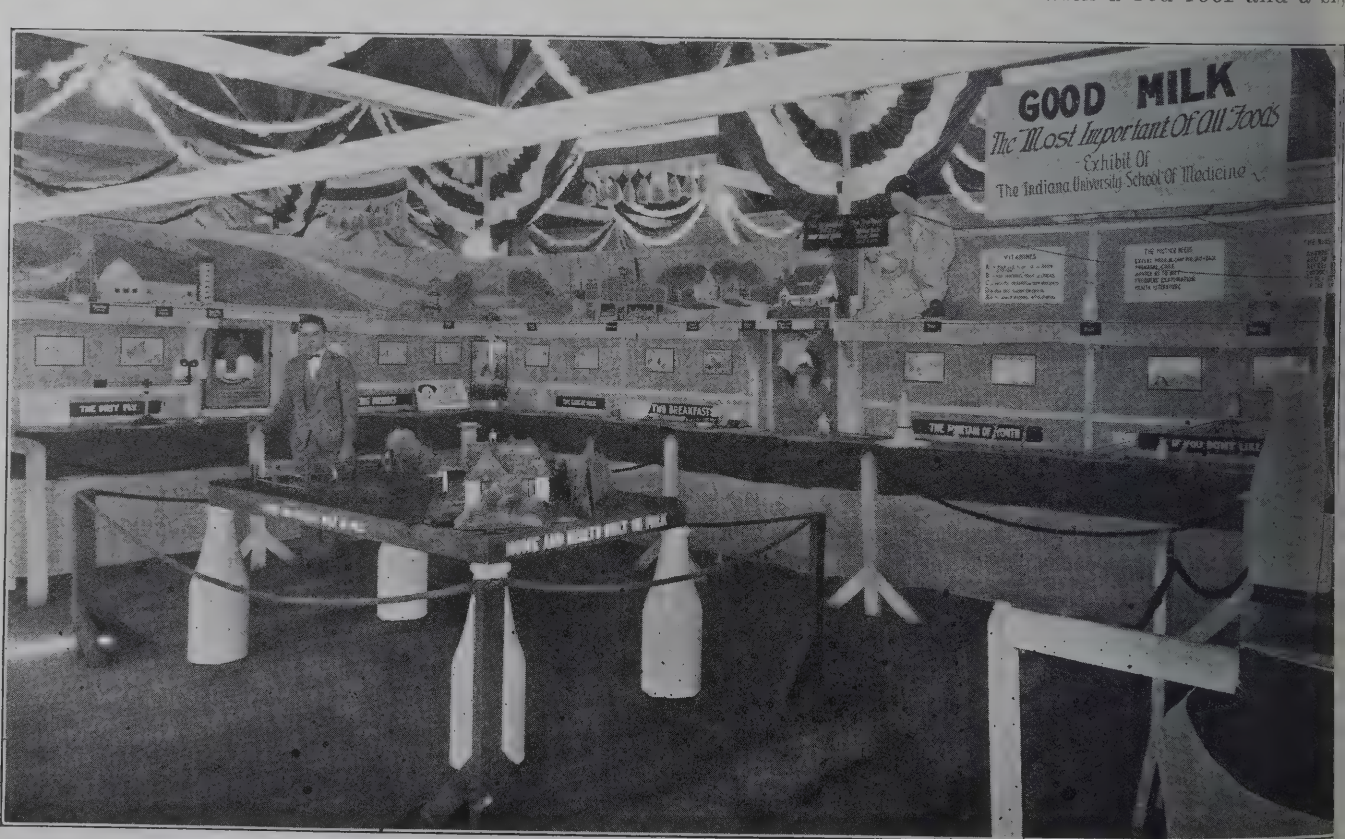
* Assistant Professor of Sanitary Science and Hygiene, Indiana University School of Medicine, Indianapolis, Ind.


GOOD MILK
The Most Important Of All Foods
Exhibit Of
The Indiana University School Of Medicine
TWO BREAKFASTS
HOME AND HEALTH BUILT ON MILK
VITAMINES

This will give some idea of the arrangement of the exhibit, though it does not show the most interesting end of the booth, nor does it give any idea of the very pretty colors used in the placards and other decorations.

mill made of Tinker-toy sticks and a red wheel n by a concealed electric fan, a watering trough, a ing stream, and a country road skillfully painted by ior medical student, Paul Iske, made the scene very stic, very clean looking, and quite attractive, as may een from the photo. "Contented cows" grazed in olling fields in the back ground. Toy trucks were n transporting the milk along country roads to the urization plant in the city. Other trucks hauled it attractive city streets to the home of His Royal ness, the American baby, shown peeping over the of his very pretty suburban home. This is not it to imply that bottle fed babies climb on house but it is a fact that they can be mighty strong, fine s all right.

white cord to represent the flow of milk ran from lairy along the country road, to the pasteurization , to the delivery truck, to a pint bottle of milk on loorstep, thence to a hygienic nursing bottle, and y to the baby's lips. A series of captions in white rs on black card board told the story of clean milk llows: "Healthy cows"—"Clean barn"—"Healthy ers" — Refrigeration" — "Prompt delivery" — an cans"—"Pasteurization"—"Refrigeration in the "—"Clean nursing bottle"—"Physicians' feeding ula."

he nursing baby is shown at its mother's breast. To nother's lips run ribbons of various colors indicat- the kinds of food that she should eat—an orange on to a dish of fruit—green to a basket of vegetables ver to a pitcher of water—and white to a bottle of . Three other ribbons were shown going to placards esenting the nursing mother's needs — vitamines, instruction, rest, etc. All of these exhibits were above the eye level and were best seen while the ors were in the aisle outside of the booth.

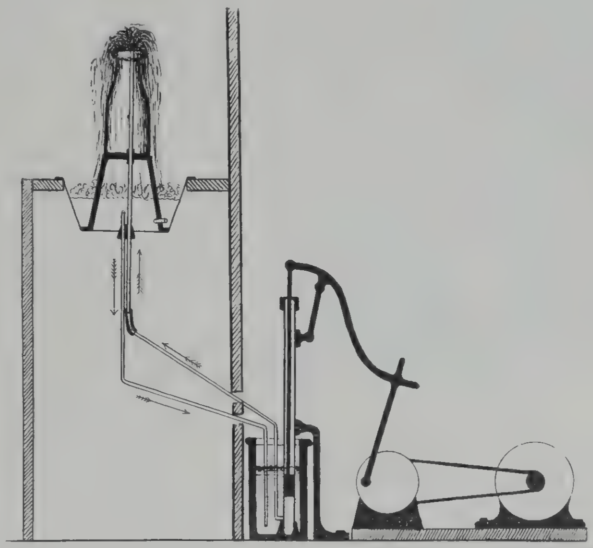
n the table just beneath the nursing mother was n the Fountain of Youth, which could be nothing than a milk bottle perpetually overflowing with . This illusion was most effective and was produced he use of apparatus as shown in the accompanying ram. Around the fountain were six figures making way to the source of Youth and Health—a baby, ool child, a housewife and mother, a worker, an in- l in her chair, and the aged grandfather with his .

had been told that milk could not be made to flow is way, as it would foam and sour, churn into but- separate out and, in fact, do everything that it ld not. But my heart was set on this particular t, so I persisted and made a complete success of it. secrets are as follows: Use a low-speed piston pump, ad of a sigh-speed centrifugal pump which would easily connected up but which would beat the milk a foam. The diagram makes clear the arrangement e pump. Skimmed milk was used so as to prevent churning of butter, and a little formula was added revent souring. The apparatus ran continuously teen hours a day for eight days in very hot weather, but three changes of milk. The milk did not sour eably, did not churn, did not foam more than we ted it to, and was a 100 per cent success.

t another place an old-time breakfast was contrasted a modern breakfast—often called a "hasty" break- —but immeasurably superior for all that. The kfast of our childhood days on the farm consisted of l sausage, pancakes or hot bread of some sort, heavy p, fried potatoes, preserves, and coffee. It was ted out that such food has little or no vitamines, is too concentrated, is too heavy for most digestions, and has too much fried stuff.

The modern breakfast of an orange, hot cereal with milk, toast with butter, cocoa made with milk, and bacon is far better, though it can be prepared in a hurry. Indeed, the very fact that it is easy to get is in its favor, for mothers have enough to do during the long day without baking hot bread and making elaborate preparations for a big "old-fashioned breakfast."

Knowing that there would be many mothers who would say that their children do not like milk we arranged to show ways of enticing the appetite for the most valuable of all foods. A bottle of milk is shown on a shelf with ribbons leading to the various suggestions as follows: "Salt it" with a salt shaker handy; "Sweeten it" with sugar bowl near; "Eat it with soda or graham crackers" with two crackers ready. Other suggestions were to put flavoring extracts with it, to make custard or egg nog, use it in cooking other foods, eat it with fruit and cereal, make cocoa and other chocolate milk drinks, add malted milk powder, or malted grape nuts, eat ice cream, or drink the milk with a straw. Many mothers got out their note books and wrote down the suggestions. They thanked us many times for these suggestions because they said they were in need of just such help.



Realizing that practically all of the danger that is ever associated with the drinking of milk comes from its relation to bacteria we undertook the big job of trying to make the truth about bacteria tangible. The public was shown perfectly harmless bacteria growing on Petri plates, and in culture tubes. The fact that by far the greater number of bacteria are perfectly harmless or even very useful was emphasized. A large plate seeded with the red pigment producing bacteria (bacillus prodigiosus) attracted a considerable amount of attention. After the plate was planted it was partly covered with black paper cut in the shape of the letters I U (Indiana University) and then exposed for two hours to bright sunlight. The light killed the germs except under the letters, so when the plate was incubated it gave red letters on a white background (red and white being the university colors.) This also served to demonstrate the value of sunlight in killing germs.

Another perfectly harmless germ which produces a bright yellow pigment had been planted in such a way as to spell out the wise admonition "go to college." No attempt was made to conceal the well known fact that there are bacteria in milk, but it was emphatically

(Continued on page 139)

The South and Its Milk Supply

Dairying and Diversification Taking Root as Southerners Turn to Advanced Agriculture and Better Merchandising of Dairy Products

How One Dealer Made Quart Customers Out of Pints Buyers

By CRADDOCK GOINS

L. J. FOLSE.

COTTON production and its relation to advanced agriculture was the subject of an interesting article in the May issue of The Milk Dealer by J. L. Holden of The Pfaudler Company. Mr. Holden, writing under the headline "Shall it be Cotton or Milk," brings out some interesting facts regarding the situation in the Southern states.

He shows an interesting insight into the temper of the Southern people as they face agricultural prospects of the future. All of us readily can agree with Mr. Holden that the South is turning largely from the false lure of King Cotton to the safe and sure lines of dairying and diversification; that the cotton situation rapidly is driving more of the farmers of the South back to the progressive lines of agriculture followed in this section long years ago, long before a peculiarly unhappy situation drove the Southerners to one-crop folly, during the dark, drab days of the reconstruction period.

Perhaps Mr. Holden's single error was the statement that cotton production does not destroy the fertility as do some other crops. Cotton production, as a matter of fact, does destroy the productivity of the soil to a greater extent than possibly any other crop grown, adding greatly to the expense of the production, necessitating the copious use of high-priced commercial fertilizers, and year after year wearing away a soil that for natural productivity is not surpassed anywhere else in the world.

There are two important factors to be taken into consideration today in considering the attitude of the Southern people toward dairying development, and one of these Mr. Holden covered in a highly understanding way—the cattle tick.

Flood Scenes on the Lower Mississippi.

The tick is being driven out of the South. Georgia
Alabama attacked this ravenous pest several years
and Georgia now is virtually tick-free. Florida is fol
ing suit. One man who possibly has done more to d
out the tick from the South than any other is L. J. F
general manager of the Mississippi State Board of D
opment, a man who has directed a stupendous camp
toward advanced agriculture, the upbuilding of a da
ing industry, promotion of poultry and livestock.

A statewide stock law enacted in Mississippi a
ago will make it possible for the tick to be driven f
every county in the Magnolia state. This law was pa
after many months of heavy labor by Mr. Folse,
went throughout his state delivering the ultimatum
the tick would have to be attacked upon a state-
plan before it could be completely driven out of
commonwealth. At that time tick-eradication wa
county proposition; a county either went tick-fre
it didn't, regardless of what neighboring counties m
do. As a result one county attempting to become t
free would find that another tick-infested county m
this work impossible. In the northeastern part of
state the counties worked pretty solidly, and after
tick was driven out those counties made consider
strides in dairying, as attested by the fact that the
den Milk Company established a condensery at St
ville several months ago, and later the Carnation
Products Company did likewise at Tupelo, both cities
ing in the heart of a rich agricultural belt that has
waited for the farmers to take advantage of their da
ing possibilities.

In other parts of the state, taking advantage of
opportunity to drive out the tick, various cities are
moting, through Mr. Folse's organization, the establ
ing of cheese factories. F. C. Chitty, enterprising
retary of the Yazoo City Chamber of Commerce, t
the initiative,
with the aid
Mr. Folse and
state board of
velopment, he
established the
ta View Cheese F
tory, so-called fr
the fact that Ya
City is in the
sissippi Delta,
of the greatest
ricultural commu
ties in the world
section that ma
years ago est
lished an agric
tural aristocra
such as the wo
never before h
seen.

Similar underta

re under way now in various sections of Mississippi.
w, for the other great determining factor regard-
e South's agricultural future: The Southern
ippi valley faces a reconstruction period such as
confronted this section since the aftermath of the
War. Just as the weary, war-worn, grief-torn
lerate soldier returned to his land to find ruin
esolation, just so are victims of the Mississippi
flood, herded in refugee camps from Louisiana
ansas, looking forward to the bleak prospect of
ting to grow crops with their implements de-
l, their barns washed away, in many instances
heir homes destroyed or so badly damaged they
of little use. Some 400,000 or 500,000 people are
or less in this predicament, with livestock de-
l, with cows, chickens, hogs either drowned or
the woods.

w, these men will have to do some careful figur-
you readily will agree when you note that the
mules and cattle runs into many, many thousands
ds of stock, and it is estimated that if every
ed animal is immediately replaced, it will require
trains hauling nothing but cattle and mules to
ack the stock lost.

condition facing the farmer of the Southern
ippi Valley now, just as in the reconstruction
of sixty years ago, is the matter of getting some-
into the ground that will sustain him, enable him
off his debts and get on his feet. But, happily,
s not now face the great obstacle that the Civil
econstruction period developed—the obstacle of
ing a crop to represent currency alone. Follow-
Civil War the South had no currency, not a red
Confederate money was entirely worthless, never
ed. Cotton represented the only form of cur-
known, and a merchant could advance credit only
ton, for it was not a perishable crop, and it was
f some monetary return.

w, however, the Southern Mississippi Valley
knows that he not only must raise cotton, but
mething to eat, and there are many reasons to
that the rehabilitation system now underway
nd many farmers growing less cotton and more
nd feed crops. Perhaps not so much food and
they should. Even leaders in this work are un-
d about that. It is undeniably true that even now
will be more cotton grown than should be, but
effort is being made to enable the farmers to grow
f the truck crops.

Crosby, head of the flood relief and reconstruc-
ork in Mississippi, long has been laboring in the
t of building the agriculture of his state. Mr.
, a millionnaire lumberman, with hardly any per-
nterest in agriculture, has given this idea much
t and effort, and he has done much to draw new
and new farmers into Mississippi from the great
states.

Folse long ago recognized in the Mississippi
a natural dairying empire unsurpassed anywhere.
n't stopped with showing the farmers what can
e, he goes further and aids the dairy people in
nerchandising end of the matter, conducting an
e publicity system that exploits the wholesome-
milk and other dairy products, of how much it
to the advancement of the South for the people
more dairy products, butter, cheese, eggs—all of
the interest of public health, which his organiza-
s promoted vigorously, as well as in the interest
uraging the growth of the dairy industry.

Yazoo county, in the Mississippi Delta, in the
where men formerly cocked their heads and said,
n't be done," I visited a number of dairy farms
recently and saw how well it is being done. One man had a farm that three years ago was typically a run-down, worn-out cotton farm, prolific in nothing but cotton and debts and vain regrets. Today that man has restored that wonderful soil, has built up his farm, is making money from milking twenty-five cows and has good hogs, chickens, guineas, turkeys, good crops of tomatoes, lettuce, turnips, cabbage, potatoes, corn, oats, wheat, barley—and no cotton at all.

This man, a Mr. Allgood, talked very enthusiastically to the writer about how he had sown soil-repleting crops in acres formerly run down, how he had watched these acres build up, how much fun he had in building up his pasture, already rich from the beginning with luscious grasses.

"Where did you get this diversified idea," he was asked. "In Wisconsin? In Iowa?"

He shook his head. "In Georgia," he answered. "I farmed there for many years, grew nothing but cotton and debts. I knew better, but it seemed that the more money I lost in cotton, the more I wanted to grow. Something about human beings makes them want to make their prosperity. But not necessarily a lasting farm aristocracy, for nothing founded upon a one-crop system, of course, could be called lasting. The farming success of the Delta people was because of their remarkably fertile land, their good growing conditions, plenty of water and because of an exceptionally high order of citizens, a people of great spirit. Many fortunes were built up out of cotton, but in late years the Delta people have taken big losses in the same crop.

Its wonderful soil, ability to grow virtually every variety of food and feed known, caused Mr. Folse to labor earnestly to bring about interest in dairying in the Delta.

The usual "it-can't-be-done" chorus greeted him everywhere, but he persevered.

"Feedstuff can't be grown in the Delta," many told him with that extraordinary cocksureness that is strangely characteristic of people talking about something they don't know anything about. Maybe some day somebody will explain why it is, but this writer never has been able to understand why there are so many idiots in the world ever ready to speak so positively regarding what can or can't be done in a given section or with a given crop.

Hadn't anybody tried it to any appreciable extent, but yet most of them felt it couldn't be done—and let it go at that. They were sold on a negative thought.

Mr. Folse persevered, however, and today there are many people in the Delta who have showed that it can be done—and is being done—that they can grow as good alfalfa there as any other state in the world, and can get more cuttings that is possible in Minnesota, Wisconsin, Iowa and other states in the cold belt. Further, they are growing worlds of lespedeza, kudzu hay, soy beans, velvet beans, timothy clover, Johnson grass, and many, many varieties of feed crops that dairymen of the East and the West never heard of.

Near the capital city of Mississippi there is a farm operated by a Mr. Bridges, a native farmer, that will compare with the best to be found anywhere, a well terraced farm, with good growing crops, good livestock, well equipped, good barn, a lighting system, a plumbing system, well-kept fences and out houses, good fruit trees.

"Everybody else can do the same thing, down here, but for some reason people seem to think it's against the law to grow anything but cotton," he said. "However, many of my friends are giving up this foolish thought. We are growing out of it. In a few years there will be few of the old one-croppers left, but in the cases of many

(Continued on page 118)

He Asked for A Drink of M

What Will the Men in the Milk Industry Do About It?
Lindbergh Thrilled the World and Then
Asked for Milk to Drink

HE ASKED for a drink of milk—just a drink of milk—nothing more. They eyed him strangely, not understanding, in bewilderment. And when he repeated the request they regarded him with puzzled gaze, muttering to themselves, saying:

"Les Americaines, personne ne comprende y pas—ils sont brunte, n'est ce pas?"

("These Americans; there is no understanding them; they are a peculiar people, aren't they?")

Be that as it may, the fact remains that Lindbergh—"Slim, the Lucky"—spurned the choicest offering of the people of **La Belle Francaise** and let them understand, once and for all time, that he was an American—an AMERICAN—one from the home of the dry and the land of the milk maid.

"Slim" Lindbergh is a name on many tongues today. He successfully carried out an undertaking that many thought of only in terms of The Great Perhaps—which is to say, maybe he would and maybe he wouldn't.

There is a great merchandising lesson behind the exploit of this stripling Lindbergh. He is younger than you and I—much younger.

Lindbergh, the boy whom they called The Lucky, safely navigated an aeroplane over stark, cold, naked space into a city called Paris, mustering up all the stamina and the plain bald courage peculiar to a people of do and dare.

Lloyds offered no odds on the undertaking. That is a circumstance difficult for most of us to understand. Lloyds, however, did no betting, and when we stop to reflect, there are few exploits in which Lloyds will not take a chance.

Some several months ago this publication published a department called "Milk for the Mighty." That is the classification in which this episode of American achievement should be placed.

"Slim," a milk-fed boy, a lad peculiarly American from the earliest possible tradition, decided that he wanted, above all things, to set sail for Paris, taking the air in preference to all other avenues of travel. It was a hazardous expedition, requiring the utmost in skill, in daring, and in nerves.

"Gimme a drink," said the frail lad who dropped out of the sky upon the gay Parisiennes.

So the Parisiennes, kindly souls, accommodating, proceeded to comply; but their drink was that of entirely a different variety from what "Lindy, the Lucky," wanted. He wanted milk. He made it plain that was what he wanted—milk and nothing else.

The Parisiennes, not understanding, blinking and trying to ascertain if their ears heard aright, nodded thoughfully, and then a light broke.

"Ah, mais les Americaines, ne personne pas y comprende—ils sont magnificique, mais abrraitement, n'est ce pas?"

Yes, they are—not so? a magnificent people, but extremely difficult to understand—these Americans.

The first thing offered Lindbergh to drink was something that could not legally be sold in America–
thing tabooed in this fair and favored land for
many years. Lindbergh possibly never saw ins
those places where the drinks, dear to the hearts
Parisiennes, are sold. But the thing that impres
most is this: What are the milk dealers going
about Lindbergh's victory? It is their victory, to
know, for when Lindbergh set forth upon that haz
journey over a wide sea, braving fog and sleet and
and unknown terrors of the night—when he set
say, he traveled and not alone—dairy health tr
with him!

Something less than 36 hours it took him to ma
journey—approximately 33 hours and some odd mi
if memory serves me right. However, they were
gruelling hours, punishing hours, unforgiving hour
demanded their pound of flesh upon every circle
clock. Just anybody couldn't stand a trip like tha
course, we speak of Lindbergh's pluck, and we are
of this nation of ours, a nation that can produce
of pluck and daring such as Lindbergh, but we
not forget that pluck can't be reckoned without c
ering something else — good health. Not just
health, you know, but DAIRY HEALTH. Som
there is a difference, you know.

We'll take, for example, this chap, Lindbergh
was young—possibly twenty-five. Possibly not s
Others say, only twenty-two. It is barely possibl
he told a lie about his age—one of those sweet
white lies so peculiar to youth in matters involvin

At any rate, say twenty-five. That is young-
perately young—a time when the muscles have h
set, when the mind of the boy has hardly taken any
nite turn.

He set forth alone, not wanting any company, a
no one to share these terrors with him—and they
terrors. Of that make no mistake. Picture, if you
a plane high in the heavens, with darkness all aroun
a growling, grumbling, uncomfortable sea underr
and only God overhead.

That was the predicament of Lindbergh, traveli
his plane, accompanied only by a trustworthy baro
and a trustworthy God.

Yet there was one more force in the plane—
health. This rugged boy of the middle West, br
up from infancy on milk, knew when he had finish
gruelling ride that one thing, and one thing only,
restore to him the energy that the cruel hours had
from his system—milk!

It was not exactly Lindbergh speaking when thi
asked for a drink of milk; it was the inner self, the
unseen, never-sleeping spirit that dwells within all
and sometimes speaks for us.

But, we'll get back to the test. Many peopl
going to capitalize upon this Lindbergh exploit.
know that. You have read about how this and
maker of this and that airplane device has advertis

orld that his product was used in the aeroplane ook Lindbergh safely across the Atlantic.

ill the milk dealers advertise this product in con- n with this expediton? I don't think so—frankly, 't.

e milk people are not in the habit of seizing upon timely opportunties. So it is that for many months ead that Guzzem's oil was used in this flight, and mith's motors were the power that carried him to y, and that such and such a company furnished lts, and another the nuts, and still another the bat- —but the real power behind the expedition—milk— ever be exploited?

ho answers—"No."

ay? Because the milk dealers are not organized erchandising, never have given proper appreciation great scheme of selling goods.

is the greatest opportunity since the product of iry cow ever assumed commercial proportions, but for a limited few here and there, nothing will be about it.

ndbergh is a hero. That is generally agreed. All aris girls wanted to kiss him. Some of the Paris lid kiss him, much to his chagrin.

t Lindbergh, frank youth, will admit that the real n the whole transaction is good old Moo Cow, the mother of mankind, the benevolent creature that up for him the rugged dairy health that enabled have the "guts" to stick to his job when it looked verything was against him—to pray for success it seemed that even the God in high heaven was stening—to call upon that last, responding bit of when it seemed there was no more to call upon. at's dairy health, but, up to finishing this article, n't yet heard of a milk dealer that ever sold his on this basis.

e story of Lindbergh has been told many times.

w, who will tell the story of dairy health? Who?

Y INDUSTRIES EXPOSITION SPACE LEASING EXCEEDS EXPECTATION.

day practically all of the area of the 1927 Dairy tries Exposition, which will occur in Cleveland, er 24-29, is under actual leasing contract, accord- the Dairy and Ice Cream Machinery and Supplies iation, which sponsors and manages the great

is year's exposition will utilize, for all its pur- approximately the same amount of area which was ed last year in Detroit for the 1926 exposition—a ng of essential dairy products manufacturing and andising machinery, equipment, supplies, ap- ıs, services, processes, materials, etc., which estab- a world's record.

ost of the space of the exposition has been leased ember houses of the association. Not only have companies selected their booths but sketches of plans, orders for accessory exposition services, eaching the association's offices, according to an ncement by the latter, indicate that most of the ation houses already have begun to prepare the ys which will be installed in the $6,000,000.00 Pub- ditorium in Cleveland and in its new west annex onnecting arcade.

⁂

ccess lies in doing little things well. "Milk ." Want Ads are little things but they carry big ges. Read them regularly.

"WILL DAIRYING BE OVERDONE?" "NO!"

The question, "Will dairying be overdone?" has been answered by K. L. Hatch, assistant director of the agricultural extension service at the University of Wisconsin, Madison, Wis., as follows: "No, not if there is both an increase in quality of products and a greater use of by-products."

Prof. Hatch believes that inefficiency is overdone and poor quality products are flooding the market, and he also believes that orderly marketing, quality products and economical production can not be overdone.

The Wisconsin extension worker is convinced that the influence of the dairy industry is felt throughout our entire economic structure. He sees a score more of industries depending on dairying to use all or a part of their products, and realizes that its collapse would be nothing short of a national calamity.

"Dairy products furnish one-sixth of the total food of the nation," Hatch recently declared. These are becoming increasingly important as science discovers new facts about its food value.

More and more consumers are demanding quality products and Hatch believes that the dairy farmer and factory operator who cater to this demand will be amply repaid. He reports that many factories have increased the returns to their patrons 10 to 35 per cent by raising the quality of their product. "Yet, there is not enough of the high class products to meet the demand."

OHIO ASSOCIATION ANNOUNCES CONVENTION DATES.

The annual convention of the Ohio Dairy Products Association will be held in Toledo on January 24 and 25, 1928, according to recent announcement by W. A. Wentworth, 5 East Long St., Columbus, secretary of the association. Commodore Perry Hotel will be convention headquarters.

The Ohio Dairy Products Assn. is a combination of three distinct organizations, consisting of Ohio Milk Distributors' Assn., Ohio Association of Creamery Owners and Managers, and the Ohio Association of Ice Cream Manufacturers.

The Ohioans have established a reputation for holding well attended conventions with speakers of ability on their programs and it is expected that the 1928 convention will be no exception.

A. H. VERRINDER PASSES.

After a brief illness A. H. Verrinder, advertising manager, The Paterson Parchment Paper Co. of Passaic, New Jersey, died on Tuesday, June 9. Pleurisy and pneumonia followed an attack of the grippe.

Mr. Verrinder was a competent business man and possessed a pleasing personality. He leaves a host of friends to mourn his sudden and untimely death.

GARBED IN MILK.

Note the good looking young lady on our cover page. Every article of clothing the lady wears was made from milk. In short, the artificial silk, buttons, artificial leather and jewelry were made from casein, derived from skim milk.—Acme Photo.

To EUROPE in 1928

DETAILS for World' Dairy Congress Tou Next Year Taking Shape Leviathan --- the World' Best Passenger Liner --- Se lected for the Trip. *ALL ABOARD! -- LET'S GO!*

WE HAVE been anxiously waiting for the time when we could announce definite arrangements for the World's Dairy Congress Tour to Europe next year.

That time has arrived. The S. S. Leviathan, the largest and most luxurious steamship afloat, has been selected for the trip and we are now ready to accept reservations.

The World's Dairy Congress will be held in Great Britain during the latter part of June and the early part of July of next year. Dairymen from all over the world will gather there, and sessions will be held in London, Reading, Edinburgh and Belfast.

The benefits to be derived from such a convention are infinite. Which one of us has not at some time or other longed to discuss the problems which puzzled him, and to hear the other fellow's way of solving it? Who has not longed for a forum in which marketing and advertising plans could be threshed out? All this, and more, the World's Dairy Congress has to offer. You will return home with a gold mine of information, gleaned from all those other men, who, though hailing from all parts of the world, are in the same business as you. You will return home with new schemes, ways and means, and with fresh zest and enthusiasm to make things hum!

But the word "convention" sounds too business-like, for this is not going to be "strictly business." We are planning to combine the congress with a glorious vacation abroad for you, your family and friends. For you have crossed the Atlantic and are in Europe, NOT SEE EUROPE?

Our gala holiday begins on June 9, 1928, wh New York, we board the palatial steamer, the Levia Then follow lazy, dreamy days at sea on our luxu floating palace, and then—Europe! Perhaps you always longed to visit Paris—sophisticated playg of the Continent—now is your chance. But no where you wish to wander, pre-convention and convention tours have been expertly arranged b world-famous travel organization, the American Ex Company, whom we are glad to announce we hav pointed as official transportation agents for this ment. That company is ideally equipped to mak stay abroad one continuous round of pleasure, by t care of those bothersome details, such as reserva trains, etc., which so often take the joy out of trav

On June 9, 1928, the great trans-Atlantic liner, Leviathan, will leave New York for Cherbourg car a happy throng of buttermakers, cheesemakers cream manufacturers, milk plant men, equipment supply manufacturers, families, wives and friends bound for the World's Dairy Congress in London greatest international convention in the history of c ing.

Most all of us have planned to go to Europe time—sometime "when we could afford it," or, " we had the time." But now comes this wonderfu

S. S. Leviathan, the World's Finest Steamship.

ity to take a trip abroad—not alone—but in com- with dozens and dozens of people we know, and undreds of others who will be our friends before yage is over.

one taking this trip can come back without feel- e great, broadening influence of contact with peo- the same industry in other countries. Almost civilized nation on earth will be represented in nvention for the betterment and progress of the industries.

one sense, this World's Dairy Congress Tour is a ss trip for it is being held for the benefit of you our business and the benefit of every dairy prod- anufacturer in the world. It will be good busi- or you to attend this congress because you will back with you information and new ideas of in- able value to you in your business. The new s you make, the new things you learn—all these ore than repay you for going.

t the World's Dairy Congress Tour is also a pleas- ip, for you can bring your wife and family and s along with you. From the moment you leave York, your hours will be filled with pleasant scenes, ations and pastimes.

ery detail of comfort and convenience has been ar- d in advance for you. The S. S. Leviathan is the t and most luxurious ocean liner in the world. It eritable floating palace of elegance and beauty. ng that will contribute to your pleasure has been oked.

ring the passage over, there will be business meet- and entertainment programs. There will be in- l meetings for each division of the dairy indus- each day of the trip across. After business, those wish can participate in games of deck tennis, quoits. bars, deck golf, swimming contests, and other .

r the ladies there will be bridge games with suit- rizes, afternoon teas; and in the evening, concerts ancing in the ballroom.

om the day that you leave New York until you back again, every hour of your time will be packed leasure. Every detail of travel, hotel, reservation, rips, routes, and money exchange, etc., will be easy for you by a travel expert who will be at service throughout the trip.

before mentioned, the S. S. Leviathan will sail New York on June 9, 1928, arriving at Cherbourg, e, on June 15, where a representative of the Amer- Express Company will meet the delegates and con- hem to Paris, to the battle fields, to Belgium, Hol- and across the channel to London in time for the l's Dairy Congress which opens in London on 26.

is permits ten days for touring between landing erbourg and the opening of the congress. Rates is tour, including everything, will be given on ap- ion.

legates who do not desire to take this tour can go Cherbourg to London or take in any side trip that may wish. Special tours of all kinds can be ar- d.

e rates from New York to Cherbourg are as fol- First class (one way) $290.00 and up; second class way) $152.50 and up; tourist (third cabin, round $190.00.

u can stay in Europe as long as you wish, or as as your passport will permit, and if you buy a round trip ticket you can use any of the following ships for your return sailing:

Leviathan from Southampton—July 10.
America from Bremen—July 17.
America from Cherbourg, Southampton—July 18.
Republic from Bremen—July 23.
Republic from Cherbourg, Southampton—July 24.
Pres. Roosevelt from Bremen—July 25.
Pres. Roosevelt from Cherbourg, Southampton—July 26.
George Washington from Bremen—Aug. 1.
George Washington from Cherbourg, Southampton—Aug. 2.
Leviathan from Southampton—July 31.
Pres. Harding from Bremen—Aug. 8.
Pres. Harding from Cherbourg, Southampton—Aug. 9.
Later sailing dates furnished on request.

We are now prepared to give additional information that each delegate may want concerning any side trips that he or she may want to take.

We are also prepared to accept definite reservations and allot accommodations. First come, first served.

Come on, friends, let's make this the greatest dairy event in world history. Let's show the world the "place in the sun" that our industry occupies.

And, don't forget, while we are doing it we will also have a good time.

Write us and tell us your plans. Let us help you figure them out so as to make this trip the most enjoyable one in your lifetime. Address Tour Department, The Olsen Publishing Co., Milwaukee, Wis.

NINTH ANNUAL BROOK HILL DEALERS' PICNIC.

The entertainment committee has met several times behind locked doors and surrounded with the utmost secrecy. Rumors concerning the plans for the big day are circulating freely but no definite word would be given out by any member. Pete Christiansen only volunteered this information: "It's going to be bigger, better and funnier than ever. We expect even a larger crowd than last year."

We have heard, indirectly, that the annual ceremony attendant upon the coronation of the new Lord High Chief Keeper of the Brook Hill Bull will be amplified and the ritual made far more impressive. The Chicago legal lights, who have in past years ruled the meeting so ably, will again hold sway.

The big day is Thursday, July 21st.

A bigger and speedier special train will be run from Chicago to Milwaukee, and thence to the farm. Thus milk dealers coming from central Illinois, and other points south, east and west of Chicago, can come to the Windy City the previous evening and hop on the special train the next morning.

DEFINITION OF CULTURED BUTTERMILK.

The Foods Standards Committee has adopted a definition of cultured buttermilk to be used by officials in enforcing the federal food and drug act, as follows: "Cultured buttermilk is the product obtained by souring pasteurized skimmed or partially skimmed milk by means of a suitable culture of lactic bacteria. It contains not less than eight and five-tenths per cent (8.5 per cent) of milk solids-not-fat."

When To Scrap Delivery Trucks

Also Some Practical Suggestions on "Breaking in" a New Truck, Care of Tires, etc., of Interest to the Milk Plant Manager

THERE is a defininte time for trading in a motor truck. To trade it in before that time is extravagance. To keep it longer is false economy.

How can a milk dealer tell just when that time arrives?

In the first place let us just see what points must be considered when we are wondering whether we ought to scrap a truck. Then we will tell how some of the truck owners who have made a study of the thing are getting the "turn in" problem on a practical scientific basis.

These are the seven keys to the solution:

1. Cost figure charts always show that unit running costs go steadily down until the car reaches a certain age and then begin to climb again.
2. Breakdowns, involving delays and irregular schedules, become sufficiently frequent after a certain point so that the lack of dependability more than balances the investment saving if a new truck is not bought.
3. Accident risks increase as the truck becomes older. The crystallization of aged parts, including such units as steering parts, spindles, wheels, brakes, etc., is the cause of many expensive accidents.
4. The advertising and good will value of a new truck as against an old one is worth something in considering the advisability of the investment.
5. The driver's pride in his vehicle and his interest in his work is likewise worth considering. No one can expect a driver to take pride in an aged, run-down vehicle and a firm cannot attract good drivers to its employ when it asks them to work with antiquated machines.
6. On the other hand the differences in price between the trade-in value of the old truck and the price of a new one must be justified by the elimination of enough undesirable features which would exist if the old truck were kept in service. In other words, it is not enough to say that because a truck is beginning to show wear it should be replaced. A computation of costs is necessary to show that the new purchase is really the most economical thing to do.
7. A new truck, of course, requires breaking-in, as will be pointed out later in this article. This means that a change in usage will be needed so that the new truck will be favored with a reliable driver and less strenuous service for the first thousand miles.

How Age Affects Costs.

In measuring the difference between buying a new truck and using the old one, three factors influence and vary the cost. These are:

1. Age of car—A car will become more expensive as it grows older in use. Replacements are necessary on parts which become worn through age. Age will also affect price of replacements because of changing models.
2. Miles driven—There is a definite increase in maintenance expenditure with an increase in miles run. At certain mileages, overhauls are necessary.
3. Territory covered—City cars cannot be compared with country cars without some adjustments for differences in road conditions and traffic.

All costs considered, the majority of concerns who have made careful studies find that the time for trading in is between three and five years. A survey about two years ago by a truck association show average of four years three months.

However, averages and general recommendation without value in deciding an individual case of kind. So much depends on the quality and size o vehicle, the kind of service it must perform and th ture of the roads and traffic conditions in the terr it serves.

Some definite means of measuring actual cos necessary to reach the answer. Some concerns done this. Systems have been worked out for fixin time when maintenance costs stop going down and l to climb up.

How These Systems Work.

The most satisfactory method is to chart the formance of each truck in service. The figures o chart are easily obtainable from the yearly cost mary. Then we will be able to detect the time trading-in and know what we can expect from ce types of vehicles and from certain specified truc quirements.

Accompanying this article are three charts w show the way in which one concern has figured the for trading-in. These are reproduced because they trate better than any amount of description, the pr way to go about it. In this case the computation been made on a basis of light four-cylinder cars. same principle exactly can be applied to any siz truck. Your own figures inserted where these are will give you a bird's eye picture of your costs an able you to tell when it is wise to scrap a car.

Figure 1 is a summary intended to show what pens to the depreciation and maintenance costs if a t is traded in every year, every two years, every t years or every four years. It has been based on concern's experience with trucks used both on routes and country routes and shows also the figures different monthly mileages.

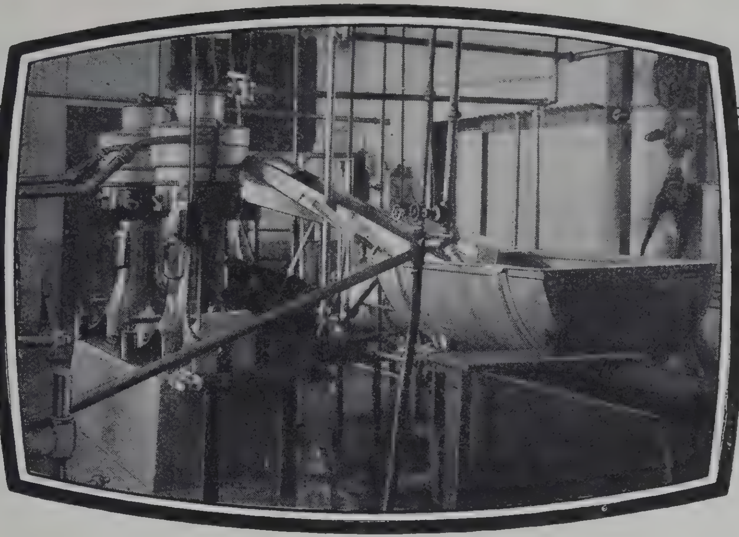
It will be noticed on this chart that costs go d until the truck is three years old and then begi climb again.

In figure 2 a tabulation is given of certain it among the maintenance figures, showing how rap the costs of overhauling and replacements increas the truck rolls up a greater mileage. The figures this chart do not, of course, represent total mainten expense. They include only the charges that are to wearing out of parts and repairs caused by the of the vehicle. This chart is also of help in determi the time to trade in a car.

Figure 3 is similar to figure 2, except that it co the regular maintenance or running expenses. It ena the owner to tell the cost of regular maintenance volved in a truck from one year to another during life. Here, too, it can be seen that there is a gra increase each year, not as noticeable as the items figure 2, yet costs which must be calculated in arri at a decision.

One concern with considerable experience in gaug the proper time to trade in has drawn the following dict from its own cost comparisons:

(Continued on page 124)



Two No. 90 New Series De Lavals at Deerfield Creamery, Deerfield, Wisconsin.

For Gold Medal Butter— a New Series De Laval

DE LAVAL Separators long ago proved their supremacy in producing the high quality cream from which prize winning butter must be made. At each annual convention of the National Creamery Buttermakers Association, with but a single exception, the highest prize, and practically all other prizes as well, has been awarded butter made from De Laval-separated cream.

New Series De Laval Separators had their first chance to score in this event in December, 1926. One of them, a No. 70 in the plant of Siegel Creamery Company, Waverly, Ia., produced the cream with which Mr. Will Behrens was able to make a score of 96, winning the Gold Medal in the fresh butter class.

Not every user of a De Laval Separator can win a Gold Medal. There aren't enough to go around. But it is becoming increasingly evident that unless he is equipped with a De Laval the would-be prize winner hasn't even the proverbial Chinaman's chance—the more so since the advent of the New Series machine.

Better write for full details of this and other *proved* features of the New Series De Laval.

THE DE LAVAL SEPARATOR COMPANY
165 Broadway, New York
600 Jackson Blvd., Chicago
DE LAVAL PACIFIC COMPANY, 61 Beale Street, San Francisco
THE DE LAVAL COMPANY, LIMITED
Montreal Peterborough Winnipeg Vancouver

New Series De Laval Separators

When writing to THE DE LAVAL SEPARATOR COMPANY *please mention The Milk Dealer.*

Prof. Burke's Inquiry -:- Department -:-

This Service is Free to Readers of The Milk Dealer

SUGGESTIONS ON MANUFACTURE OF ACID
ILUS MILK AND HINTS ON TESTING MIL

Connecticut.

Dear Sir:—We are very anxious to get information on the manufacture of acidophilus milk and are writing you hoping you may be able to give us the desired information. We want to know the equipment needed, the method of manufacture and the best place to buy the culture.

We are handling buttermilk quite successfully now, but understand acidophilus milk is difficult to make.

Reply: It is somewhat difficult to make the product, first, because the bacteria are grown at 98 degrees F., at which temperature bacillus coli and many other undesirable germs will incubate most readily. Because of this fact complete sterilization of the milk must be practiced for the manufacture of the mother culture. This is best accomplished by using an autoclave which is a steam pressure sterilizer use in bacteriological work. Since these are rather expensive pieces of apparatus, I believe you can accomplish very efficient results by using a pressure cooker. You can secure one which will hold four quarts of skim milk. The milk can be sterilized by placing the bottles in the pressure cooker and developing a steam pressure of ten pounds, holding for 20 minutes. I believe this will give you a little better results than trying to hold at a higher pressure for a shorter period. Sterilizing the milk in this way will enable you to carry your cultures from day to day without much danger of contamination, providing you are very careful in handling the bottles so as not to contaminate the tops.

The original culture for inoculating into the sterilized milk at a temperature of 98 degrees F. can be obtained by writing to Dr. L. F. Rettger, Yale University. I believe the culture will cost you about $5.00.

The mother culture is carried on daily in sterilized milk in the same manner in which you carry the culture for ordinary buttermilk. In the manufacture of the bulk product it is likewise essential that near sterility of the milk be obtained. Heating to a temperature of 190 degrees for one hour does not sterilize. For this reason the bulk skim milk is usually heated to 190 degrees for one hour, cooled to 98 degrees F. and then held for about four hours. It is then re-heated to 190 degrees and held another hour, being then re-cooled to 98 degrees and inoculated with the acidophilus culture. I believe one-half per cent inoculation would be about sufficient although you may vary it to suit your conditions and to develop the amount of acid most desirable.

The reason for practicing intermittent sterilization of the bulk skim milk is that during the holding period of four hours many undesirable bacteria will have a chance to germinate and then will be killed by the second heating to 190 degrees.

The manufacture of acidophilus milk in a commercial way is in its infancy and from time to time suggestions and better methods will be devised. However, I believe the above will give you satisfactory results. I want to especially caution you on the importance of near sterility as possible in the milk used for culturing acidophilus organisms. We are making the product in small quantities and even with the best of care and bacteriological equipment, it requires very careful technique.

* * *

Pennsylvania.

Dear Sir:—I am a constant reader of your articles in The Milk Dealer. In your letter of January in reply
to one directed to you regarding the use of a vis
for pumping cream to which no pressure is im
that this might be the cause of the breaking asun
fat globules, I am curious to know why this woul
place when no pressure is subjected.

The ready determination of solids not fat in
of different consistency has always been a mat
doubt in my mind, in fact I know of no form
which it can be easily calculated. Therefore, wou
formula always apply of subtracting the per c
cream from 100 and multiply by the assumed skir
solids of 8.9 per cent? Will you explain in deta
this formula can be applied?

In the manufacture of cottage cheese by the
starter and rennet what is your opinion of addin
per cent inoculation of cultured buttermilk? T
done by some operators and I am curious to
whether they seek texture or flavor or rapid
ripening.

Reply: First, regarding the viscolizer for pu
cream. The question to which you refer had t
with failure to get overrun in buttermaking. The
many causes of this, such as the breed of cows,
of year, feed, temperatures of churning, too muc
too vigorous agitation of cream, etc. In the ca
ferred to the cream was pumped twice by a vis
without pressure. When no pressure is applie
factor of viscolization would, of course, be entirel
inated; however, the agitation of running the
through the machine from one vat to another woul
doubtedly, cause some of the fat globules to be b
up. This, of course, varying with the temperat
the cream, distance pumped, etc. Fat particles o
ous sizes would thus pack more readily in the ch
butter and leave less space for moisture. The vis
makes a good pump and this is no criticism o
machine. We were simply trying to eliminate on
number of factors that might have been a contri
cause of low overrun.

Now, as to the determination of solids-not-
cream. Scientifically, you are correct. Jerse
Guernsey milk containing on the average more
not-fat than Holstein or Ayrshire milk, would res
cream containing more solids-not-fat than cream
same richness from the latter breeds of cattle.
solids-not-fat would also vary according to indi
cows within the breed, etc. However, for practica
poses the figure 8.9 per cent is taken to represe
solids-not-fat in skim milk. This is purely an a
figure. The formula can be explained as follows:

First, think of milk as being composed of two
(1) fat which is the pure oil and (2) skim milk co
ing the materials other than fat, such as casein, al
sugar, ash and water. To carry the illustration f
we can think of cream as being simply rich mi
other words, it is made up of just a little more
addition to the same identical materials as are fo
skim milk but in lesser quantities. Now, assum
have 100 pounds of 40 per cent cream. This mean
we have 40 pounds of fat present in the 100, the
ing assumed to contain nothing but the pure oil.
tracting 40 from 100 leaves 60, which is the quant
skim milk present. Since 8.9 per cent of this repr

(Continued on page 108)

HE G-E SINGLE PHASE MOTOR

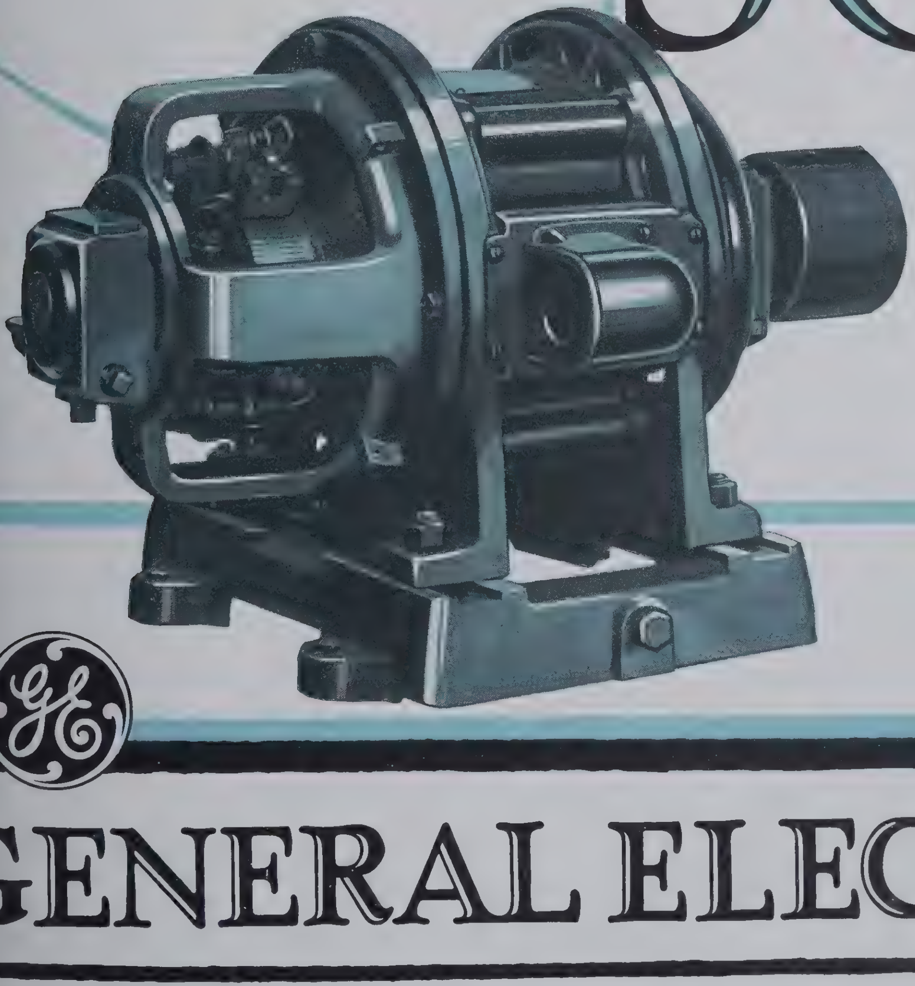
Simplicity
Positive Operation on Low Voltage
Unusual Torque Characteristics
High Power-Factor
Quiet Starting
Cool and Quiet Running
Strong Construction
Close Speed Regulation
High Efficiency
Generous Overload Capacity

make the "SCR" the outstanding single phase motor and assure that satisfaction which accompanies an investment in G-E products.

TYPE

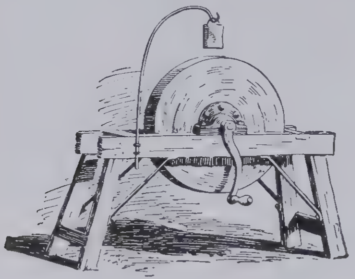
SCR

GENERAL ELECTRIC



Why

"SCR" is the outstanding single phase moto



Speaking of Simplicity!

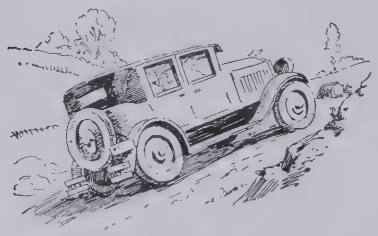
Simplicity—

No internal switches or centrifugal devices—no complicated moving parts.

The hurdle that balks many single phase motors!

Low Voltage—

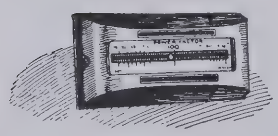
A 110-volt "SCR" will start, accelerate, and carry its load on 75 *volts.*



Good at uphill work!

Torque—

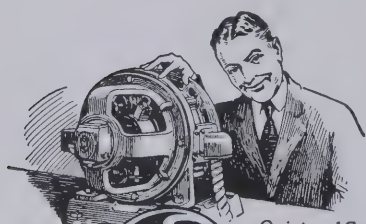
Starting torque 3 times full load torque. Accelerating torque and maximum running torque twice full load torque. Smooth and even acceleration—no dips in the torque curve.



The pointer hovers near 100!

Power-Factor—

High power-factor coupled with low starting current and *high efficiency* results in low operating cost.



Quiet and Cool!

Quiet and Cool—

Through liberal design, the "SCR" is quiet at start and at full load—and is cool running.

"SCR" Motors can be furnished equipped with ball bearings if desired.

Motorized Power
—fitted to every need

204-5

GENERAL ELECTRIC

GENERAL ELECTRIC COMPANY, SCHENECTADY, N. Y., SALES OFFICES IN PRINCIPAL CITIE

A Library of Milk Merchandising

"Knowledge Is Power," Says Jake Morris, "And Sales Knowledge Means Sales Power to the Milk Plant."

[*By Our Special Southern Correspondent*]

HIS man is reducing milk merchandising to a cience, a system of scientific research as it were. He has his own library, Jake Morris has, and his ippi milk plant, as a result, is one of the most ate of any medium-sized town in the South—as ssive, in fact, as any man's town in any section. may be over-emphasizing this library business,'' orris, ''but if so, it's because of the fact that my training came late in the night, and since getting 'book advantages' I have become so thoroughly this business of 'knowledge is power' that I am g it to the limit.''

e Morris, coming up like many men of his years, riod when Southern education was almost wholly d for a period, while the Southern people were g to right the chaos of war, discovered late in life ck of an education is a handicap.

hat time he was trying to make a living peddling rom a small farm with a half dozen cows. Those ut him through the university. It took twelve o complete the course, working as he did, going ol when he had the money and knocking off to nore when it played out.

Morris Dairy has a library. Not just a library, **ibrary**. It has the works of the old masters—and v. For there are new masters, you know, or maybe n't. Morris knows them. They are masters of w order of business logic, business science, the s of this new study of salescraft.

ny of the most worthwhile books of the present rcial age are to be found on his shelves, virtually he best books on merchandising. There are books t management, sanitation, sanitation control, ex- management, and what not.

thermore, there are books of Jake Morris' own , worlds of them. Good books. Valuable books. to study and ponder over in profitable hours. re his, but he didn't write them; he compiled

y are books containing clippings of all the worth- nilk advertisments that Morris' library force can The company subscribes to a large number of pers. Everything pertaining to milk and health . This is used in getting out printed literature irect to the home. Every magazine reaching the at deals with milk and health is filed. Sometimes of the articles are made, if it is of sufficient im- e, and employees are asked to read it.

ly newspapers have their clipping ''morgues'' and the importance of these records; in fact, no large ewspaper would think of letting its local news nent try to get along without this record.

the milk industry has done little in a matter of nd. We are developing a new spirit of business accounting methods, but very few sales depart- of milk plants are equipped with the sort of infor- they should have in working up stories of milk

is useful in many ways, this library,'' according ris. ''I don't know much about ad writing, ex- hat I've learned from reading, particularly from eople's advertising. Sometimes I learn **not** to do a thing as well as how to do another. But I get the best ideas of the other fellow. A man coming into our plant the other day said he was surprised to find so many New York ideas in a small-town plant. I don't know so much about New York, but I am after good ideas on selling milk, regardless of where they come from, or who offers them.''

Another feature of this interesting library is the ''Sales Suggestion Book.'' This book records the ideas of the salesmen of the plant on milk. There is, of course, a sales conference once in awhile. As each man makes a suggestion it is written down in the book, and, after the suggestion has been carefully checked up and followed out, the man is graded according to the worth of the suggestion.

At the end of six months a list of the points is made and the winner is given an appropriate prize.

The book goes further: It gives the sales record—actual sales record, that is—of every man, and if a customer drops off one man's route he is given a red mark; if one cuts down on his milk order he draws a blue mark. If he induces a customer to increase and order he is given a silver mark. An entirely new customer wins a gold mark.

''There may be some men who believe there is genius to merchandising,'' says Morris, ''but I think there is nothing to it; it is system, it is studying out the science of the game, but more than that it is studying out and keeping records of simple events that escape most folks.

''I do believe that more has been gained and lost in this world through taking advantage of or overlooking simple things than through any other cause. Now, I have a number of books here that don't relate to milk in any way, and some of them don't even relate to merchandising, but I get good ideas out of them. It is surprising at how many of the broad, simple truths of life are applicable to the milk business, as well as to other lines of industry.

''I have books here on philosophy, on pedagogy, on social research, on raciology, and I get something out of all of them. Of course, I don't have to study raciology to find out that negroes like buttermilk, and I am frank to say the only way really to study the negro is to live and grow up where they are populated.''

Jake Morris doesn't know whether he is an educated man or not. He frankly says that he thought a degree from a university would settle his claim to an education, but, in his terms, ''since tackling the business of selling milk on a scientific scale. I have come to the conclusion there is a great university of milk merchandising through which any man in this industry must pass before he can really be selling the milk he should. I think if one analyzes the figures, I am making about as much money out of this business, in proportion to investment, as any other milk dealer in the country. Yet I feel that I am a long way from having mastered this study of selling more milk; it is a deep, intricate matter.''

Yet, despite his own statement, one sees the Morris plant conducted in the simplest manner possible, with little or no red tape, with an absence of the passing of the buck, with a directness and straightforwardness that is the full height of simplicity.

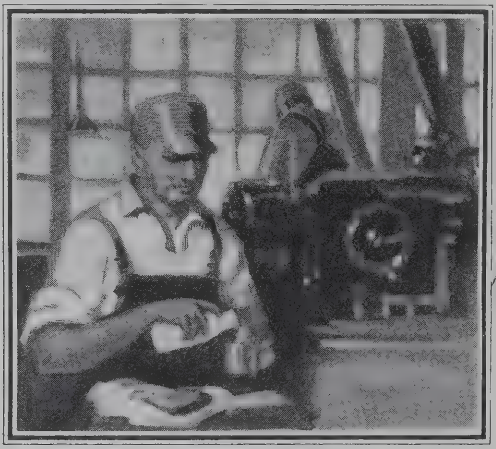
Labor Gets the Milk Habit

A New Idea in Personnel Service that Meets the Workers' Approval While Improving Their Health and Efficiency

By F. R. McINTYRE*

MANUFACTURING and milk production are the two greatest industries in Wisconsin. The smoke stack and the silo are the twin towers of prosperity in this state. In the factory region of eastern Wisconsin are found the greatest fluid milk producing farms of the state, and there is more net profit in selling fluid milk for the farmer than in turning milk into butter and cheese.

The Wisconsin Manufacturers' Association has fostered a successful campaign to install milk service for employees during working hours, and more than one hundred factories are also inserting "milk for health" messages in the pay envelopes at least once a month.



Individually, this new idea in management gives health and strength to the workers and staves off fatigue, thus promoting better morale and sounder working conditions. Collectively, the factories in this alliance are patronizing a branch of the industry which consumes a large share of their varied commodities in the nearby home markets.

Being thus economically sound and diplomatically advisable, the shrewd manager willingly adopted the milk service idea. And now he finds it promotes regularity in duties and decreases idleness, sickness and inefficiency among thousands of his employees.

Started as a manifestation of the slogan, "Farm and factory must prosper together," the milk service campaign has had more than a year's test, with results altogether encouraging and illuminating to even the most skeptical managers.

Two of the largest factories in Wisconsin, the Allis-Chalmers and the Seaman Body Corporation, are absolutely "sold" on the idea and would not return to the milkless era of factory management.

Not only are such factories in the larger cities interested in the adoption of the milk service idea, but the smaller plants located in small towns right next-door-neighbor to the dairy farms have taken it up and find it equally advantageous.

The Van Brunt Company, located at Horicon, arranged at first to supply about 135 pint bottles of fresh milk daily to their crew of about 300 men. Within a few months the milk snack took such a hold upon men that 250 pints were being sold daily, and the milk consumption in the village increased fifty pe as a result of the campaign in this plant alone. company installed an icebox and furnished the ic engaged a school boy to deliver the bottles to th and collect the empties at one-half cent each. Th is paid by the dairyman, who gets five cents a pint

"We hope this plan will be adopted by all emp in the state," says the manager.

The Kimberley-Clark Company reports on the at two of its plants—at Niagara and Kimberley. consumption at the Niagara plant lunch roon jumped from two gallons daily to eleven gallons, Kimberley it has run from 1,800 quarts daily to quarts.

At the Fort Howard Paper Company, Green Ba milk is delivered to the plant at 8:30 every morn pints and half-pints. This milk is carried into th tory and put into a cupboard refrigerator in cha an employee stationed in a central part of the fact

Handling the Milk Service.

The half-pints sell for three cents and the pin five cents each. Tickets are issued by the factory dollar each. The tickets have 25 three-cent punche 25 one-cent punches, which work out for both pint half-pints. They provide a ready means of obta milk without stopping to make change.

Service hours are nine in the forenoon, noon three in the afternoon. Departments close to the s man allow employees to get their supply. Depart further away appoint one man in their division comes about five minutes ahead of the service h get the amount which the men in his section desir

He carries each individual's milk ticket punched, and the milk dealer furnishes metal car trays for taking the bottles to the departments. empty bottle trays are returned on the next trip.

This company has also arranged for service to workers, secured through the watchman who car key to the milk cupboard.

"A product with the food value of milk natural creases the vitality of the men, and this means incr production and better service," says the manager.

Milk Replaces "Soft Drinks."

When the employees of the Glancy Malleable poration, Waukesha, got their daily milk drinks the corner grocery at noon, the consumption was 15 pints daily. In less than three months after service was installed at the factory, their average consumption rose to 250 pints—which is pretty goo a plant employing 258 people.

On extremely warm summer days the plant cons more than 300 pints, and there was no demand fo or fizz beverages while the milk supply lasted. So f has the milk drink habit become established there cool fall weather sees little or no reduction in the s daily average of a pint per capita.

The Janesville branch of the Fisher Body Com s that in four months since the milk stimulation as started, the average daily consumption among ployees has risen from 80 pints to 160 pints.

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* In the May issue of "Management."

result at the Appleton Toy and Furniture Com- lant is even more encouraging. They report an e of 100 per cent milk consumption in one depart- nd about 50 per cent increase in the factory as a "The benefits are far greater than anticipated," e manager.

t an advance of one cent a pint in the cost of milk ed to the employees of the Cutler-Hammer Manu- ng Company resulted in a decrease of 15 per cent pparent demand for fluid milk in the workrooms, statement of the manager of industrial relations

r to the advance in prices by the milk dealers, due to a campaign to test herds for tuberculosis, sumption in this large Milwaukee electric appli- ant had shown steady gains.

Ajax Rubber Company, Racine, had an average onsumption of 477 pints in their plant this last r, while on the hottest days the peak rose to 560

ore the idea went into effect no milk was con- within the walls during labor hours. On the first the service 20 pints were sold, and within one they were using more than 425 pints.

ny more examples could be given to show that actical idea in human welfare can be instituted ttle or no loss of time, and with uniformly good to capital, labor and agriculture.

* * *

THE MILKMAN.

s it plods the lonely street, braves the weather—
and sleet, that we may call our breakfast sweet?
The Milkman.
while we dream of pastures fair, gropes up the
apartment stair with pasture—joys—and leaves
there?
The Milkman.
it, as he goes his way, up two long flights, finds
s that say: "Yes, we don't want no milk today?"
The Milkman.
it must humbly grin, when, at the door, his bill
in? Who hears it said: "Come back again!"
The Milkman.
it that must sleep by day; while others rest, be
is way? Who seldom gets a chance to play?
The Milkman.
it that his own child knows as some strange man
comes and goes? Who is that strange man, you
ose?
The Milkman.
it all the babies know will be there, sunshine,
or snow? Who joys to see the babies grow?
The Milkman.
it strives so hard to be a faithful friend to you
me? Who answers man's first walking plea?
The Milkman.

—Jim O'Hern in the Peoria (Ill.) Journal.

* * *

SIDENT COOLIDGE'S FORMER MILK MAN DEAD.

ob Diemand, aged 75, who for 15 years delivered the Northampton, Mass., home of Calvin Cool- ied at his farm the first part of May.

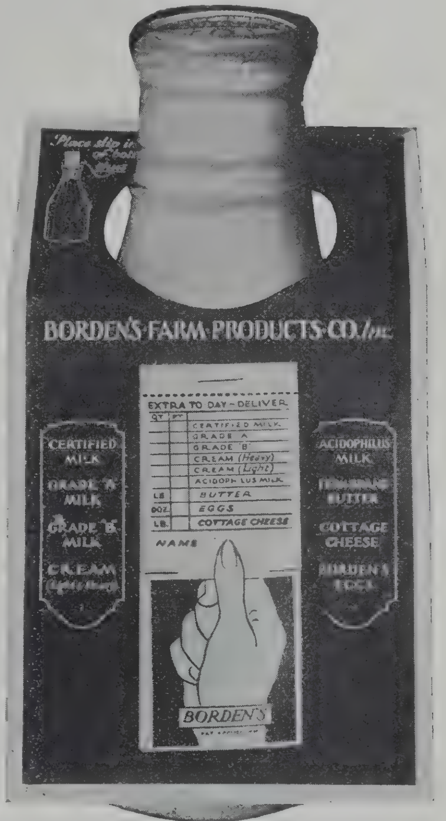
mand always boasted that Mr. Coolidge was one former satisfied customers.

NOVEL ORDER FORM MEETS A REAL NEED.

(Courtesy of Printers' Ink Monthly.)

In some sections of New York City and suburbs recently Mr. Younghusbands in retrieving the morning bottle of milk from the back porch found attached thereto the cardboard form shown in the illustration at the right.

After it had been removed from the head of the bottle it received its due share of attention from both husband and wife—the latter especially, thought it an excellent idea as it would facilitate ordering additional milk or cream. Mr. Younghusband also lent his ecstatic approval. He it was, he ruminated, to whom fell the job every so often of inserting a piece of paper with an order on it into the neck of the milk bottle. He could testify from past experience that at times the slip had fallen into the bottle and he then had tried to retrieve it. . . .



The Borden Company has taken cognizance of the multifarious hardships accruing from this complex system of ordering milk and the illustrated card was the result of a desire to be of assistance.

It also must have been the Borden delivery men who first had objected to the paper slip idea because the new order form materially benefits them, too. The order form is a little pad attached to the big one as shown. It has spaces for ordering various Borden products and is perforated at each side so that the bottom half can be folded to slip into the neck of the milk bottle. When this is done the order projects above the bottle top and readily can be copied by the milkman. The small picture at the upper left of the form shows the housewife how it is to be inserted in the bottle and this illustration automatically prevents the milkman from degenerating into a milk bottle fisherman.

The card also suggests various Borden products, and, since the order form is in somewhat frequent use, brings them constantly to the consumer's attention.

This idea of Borden's is commendable chiefly because it is simple to use and because it fulfils a need on the part of the company's customers. Order slips that they insert themselves are so often lost or misinterpreted that a surer method of having the order filled is certain of a warm welcome.

* * *

BUREAU CONDUCTING STUDY.

In an effort to discover the important causes of sudden increases in bacterial content of bottled milk, the bureau of dairy industry of the Department of Agriculture is conducting a study of more than 100 representative plants throughout the United States.

What the Courts Say:

By LEO T. PARKER. *Attorney at Law, Cincinnati, Ohio*

Facts That the Milk
Dealer Should Know

Parker's Important Higher Court Decisions Rep

IN VIEW of the numerous previously decided cases, the law is well established that the pure food statutes were enacted as a means of protecting the people against the sale of unwholesome food by manufacturers and all vendors.

In a quite recently decided case, the court explained the liability for selling adulterated food, as follows:

"In the first place, the offense created by the statute belongs to that class in which knowledge, or guilty intent, is immaterial, and need not be shown in order to justify a conviction. It falls under the general rule that statutes which declare the doing of a certain thing shall constitute an offense against the public, without reference to whether done without notice, or with guilty knowledge. In such cases it is the act itself, not the intent, that determines the guilt; the actual harm to the public is the same in one case as in the other. The distribution of impure or adulterated food for consumption is an act perilous to human life and health—hence, a dangerous act—and cannot be made innocent and harmless by the want of knowledge or the good faith of the seller."

Therefore, it is quite apparent that manufacturers, wholesale and retail dealers may be liable for the sale of adulterated food irrespective whether or not they are aware that the offense is being done.

For instance, in a quite recently decided case (171 Ind. 547), it was disclosed that a dealer was prosecuted for selling oleomargarine for butter. The facts of this case are that at the time of the sale the store was in charge of a clerk and the act was done without knowledge or authority of the employer.

It is important to observe that the court, in holding the employer liable, said:

"Guilty intent is not an element in the crime, as we have seen; hence, the rule that governs in that large class of offenses, which rests upon criminal intent, has no application here. Cases like this are founded largely upon the principle that he who voluntarily deals in perilous articles must be cautious how he deals. The sale of oleomargarine in an adulterated form, or as a substitute for butter, is a crime against the public health. Whoever, therefore, engages in its sale, or in the sale of any article interdicted by the law, does so at his peril, and impliedly undertakes to conduct it with whatever degree of care is necessary to secure compliance with the law. He may conduct the business himself, or by clerks or agents, but if he chooses the latter, the duty is imposed upon him to sell the article to the public in obeyance of the law in the manner of selling; otherwise, he, as the principal and the responsible proprietor of the business, is liable for the penalty imposed by the statute. We do not believe it was the legislative intent that such proprietor should escape by showing that an unlawful sale made by his clerk was unauthorized."

In another recently decided case it was disclosed that a dairyman delivered milk at a railway station for transmission to the purchaser. While the milk was standing at the station at its destination it was inspected and
found to be adulterated. The evidence disclosed t
dairyman had delivered pure milk to the railw
tion and that the adulteration took place with
knowledge in the transit of the milk at the railw

This court held the dairyman liable, and said:

"There is, as it seems to me, no material dist
between the case of adulteration by a servant
the authority and against the express orders of h
ter, and adulteration by the fraudulent act of a st
The legislation on the subject was intended to be
and the offense was created quite independently
moral character of the act."

In another case where the same point of the l
involved it was disclosed that a servant while
within the scope of his authority in delivering mil
terated it without the knowledge of his employer
also, the court held the employer liable, and said

"I think myself that the master for all purpos
be deemed to be the seller of the milk; that is to s
impossible to say that he is not a seller of the milk
I think, however, that it is not necessary at all t
man who sells the milk, that is to say, the princ
seller, is necessarily to be taken to be cognizant
adulteration, the law making it, I think, an off
adulterated milk is sold in point of fact."

On the other hand, the courts have consistent
that a proprietor is **not** liable where an employ
is without authority to sell goods takes it upon
to sell and deliver adulterated products.

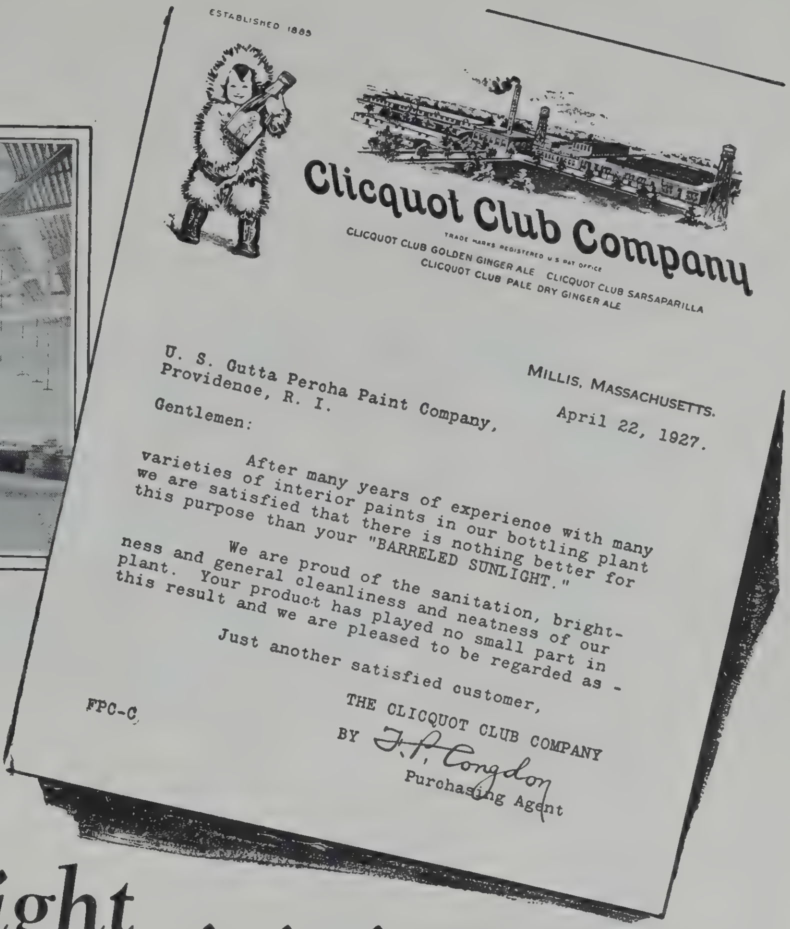
For illustration, in a recent case it was disclos
impure milk was sold by a boy who, although
in the service of his employer, was employed spec
to wash cans and was not authorized to sell mil
never had sold milk at any time previous.

In this case, the court held the employer **not**
and said:

"It is fairly shown that the milk belonged t
sing, (employer), it was sold out of his cans and
his wagon. Diersing says he never authorized
sell any milk; that the boy never did sell milk
boy could not bind Diersing unless Diersing aut
him to sell, and such authority is not shown in
and satisfactory way by showing a simple sale
boy."

In still another case, where a delivery boy was
guilty of having adulterated milk in his possessio
the intention of selling it, the court held the em
not liable and in effect explained that for an em
to be liable where milk is found in the possessio
employee, it is necessary for convincing evidence
introduced to show that the employee had actual
it. However, if the boy had sold any milk, the em
would have been liable.

In another case where a state statute provide
whoever sells milk not of good standard shall b
ished by a fine, it was disclosed that an employe
tentionally delivered milk below the percentag
scribed by the statute. Legal proceedings were



ESTABLISHED 1885

Clicquot Club Company

TRADE MARKS REGISTERED U.S. PAT OFFICE

CLICQUOT CLUB GOLDEN GINGER ALE CLICQUOT CLUB SARSAPARILLA
CLICQUOT CLUB PALE DRY GINGER ALE

MILLIS, MASSACHUSETTS.

U. S. Gutta Percha Paint Company,
Providence, R. I.

April 22, 1927.

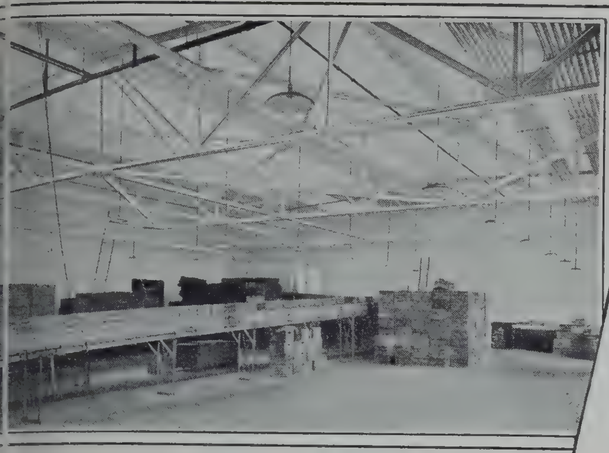
Gentlemen:

After many years of experience with many varieties of interior paints in our bottling plant we are satisfied that there is nothing better for this purpose than your "BARRELED SUNLIGHT."

We are proud of the sanitation, brightness and general cleanliness and neatness of our plant. Your product has played no small part in this result and we are pleased to be regarded as - Just another satisfied customer,

THE CLICQUOT CLUB COMPANY
BY F. P. Congdon
Purchasing Agent

FPC-C



A glimpse into the model plant of the Clicquot Club Company at Millis, Mass.—painted with Barreled Sunlight for lasting cleanliness and better light

ainted with arreled Sunlight . . .

This famous plant is kept light, cheerful and sanitary

THE testimonial letter reproduced above is just one of the many that tell how Barreled Sunlight increases efficiency by improving working conditions. More light and lasting, sanitary cleanliness.

Experience has shown the Clicquot Club Company that to keep ceilings and walls white, lustrous, immaculate—without frequent repainting—nothing takes the place of Barreled Sunlight.

* * *

A pure white finish that reflects light of just the right quality—free from glare.

A surface so smooth it can't hold dirt embedded, and washes like tile.

Guaranteed to remain white longer than any gloss paint or enamel, domestic or foreign, applied under the same conditions.

Will not flake or scale if properly applied.

Yet with all these advantages, Barreled Sunlight costs no more on the finished job than many paints priced less per gallon! It flows so freely and covers so well that *less paint* is required; and is so easy to apply with brush or spray that there is also a big *saving in labor.*

Sold in 55- and 30-gallon churn-equipped steel drums, and in cans. For priming, use Barreled Sunlight Undercoat. See coupon.

U. S. Gutta Percha Paint Co., 9 Dudley Street, Providence, R. I.—New York, 420 Lexington Ave.; Chicago, 659 Washington Blvd.; San Francisco, 156 Eddy Street. Distributors in all principal cities.

Save the surface and you save all—Paint & Varnish

Barreled
Reg. U. S. Pat. Off.
Sunlight

Barreled Sunlight
Reg. U.S. Pat. Off.

THE RICE PROCESS WHITE

U. S. GUTTA PERCHA PAINT CO.
9 Dudley Street, Providence, R. I.

Please send me your booklet "More Light" and a panel painted with Barreled Sunlight.

Name..

Street..

City.............................*State*............

When writing to U. S. GUTTA PERCHA PAINT CO. *please mention The Milk Dealer.*

tuted against the employer and the court held him liable. In this case the court, in effect, explained that no criminal intent on the part of an employer or his employee is necessary in order to render him liable for a sale in violation of a state law. And. further, that an employer is equally as liable where an unintentional sale is made by an employee in the course of his employment, as if the sale is intentionally made with the knowledge of the employer.

In still another case, where the same point of the law was involved, it was shown that an employee unintentionally delivered a pound of imitation butter to a customer, who had ordered creamery butter. In this case, also, the court held the employer liable. This court said:

"The offense was of that class in which it is not necessary to prove any guilty intent. If the defendant engaged in the business of selling imitation butter, whether he conducted it by himself or his agent, he was bound at his peril to see that the provisions required by the law in the management of it were observed."

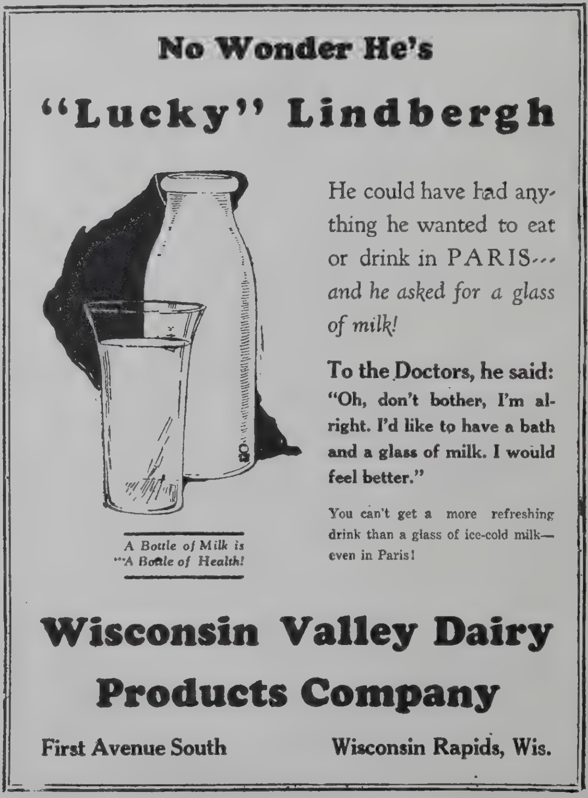
In still another case it appeared that the employer gave the exclusive possession of adulterated milk to an employee. The authorities discovered the milk in the employee's possession and promptly instituted suit against the employer. In holding the employer liable the court said:

"It is the general rule of the law that the possession of a servant is the possession of the master. In the present case, we think that the evidence showed that the milk was still in the possession and under the control of the defendant (employer)."

⁂

THIS IS THE WAY ONE WISCONSIN COMPANY TOOK ADVANTAGE OF AN OPPORTUNITY.

A couple of days after "Lucky" Lindbergh landed in Paris the Wisconsin Valley Dairy Products Company, Wisconsin Rapids, Wis., ran the accompanying advertisement in the local press. It created much favorable comment and was a decided boost for milk in that locality.



No Wonder He's

"Lucky" Lindbergh

He could have had anything he wanted to eat or drink in PARIS— *and he asked for a glass of milk!*

To the Doctors, he said:

"Oh, don't bother, I'm alright. I'd like to have a bath and a glass of milk. I would feel better."

You can't get a more refreshing drink than a glass of ice-cold milk—even in Paris!

A Bottle of Milk is "A Bottle of Health!

Wisconsin Valley Dairy Products Company

First Avenue South **Wisconsin Rapids, Wis.**

MILK CONSUMPTION SHOWS CONTINUE INCREASE.

Continued increase in the per capita consumpt
milk and cream in the United States during th
year is reported by the bureau of agricultural eco
ot the United States Department of Agriculture,
places per capita consumption at 55.3 gallons for
against 54.75 gallons in 1925, and 43 gallons in 1

The figures are based upon a survey of 373 cities
ing a total population of about 39,000,000 people, s
mented by reports from many of the large milk d
utors and from co-operative milk producers' associa
Each of these sources reported increased consum
although a few firms reported a slight decrease.

Total consumption of milk and cream for last
is placed at 56,417,000,000 pounds, against 54,325,7
pounds in 1925. Practically all the large cities
country show increased per capita consumption of
and cream, the large dealers reporting an increa
sales of about 8.5 per cent over sales in 1925.

The report shows the daily per capita consum
of milk and cream on farms was 1.47 pints last yea
in cities the consumption was .967 pints per
Daily per capita consumption of milk and cream in
in 1925 was .951 pints.

Average Daily Milk Consumption Per Capita in Cities Different Sections of the Country for 1925 and 19

	1925, Pints	1926,
11 Atlantic States and D. C.	1.0504	.988
12 Central States	.9388	1.038
14 Southern States	.6184	.611
11 Western States	1.0114	.976
United States	.9510	.967

Annual Per Capita Consumption of Milk and Crea in United States.

	Gallons
1926	55.3
1925	54.75
1924	54.75
1923	53.00
1922	50.00
1921	49.00
1920	43.00

The survey was made in co-operation with mun
boards of health of the cities, state officials, co-ope
associations and the National Dairy Council.

⁂

BOWMAN DAIRY CO. LAYING IN SURPLU SUPPLY OF MILK.

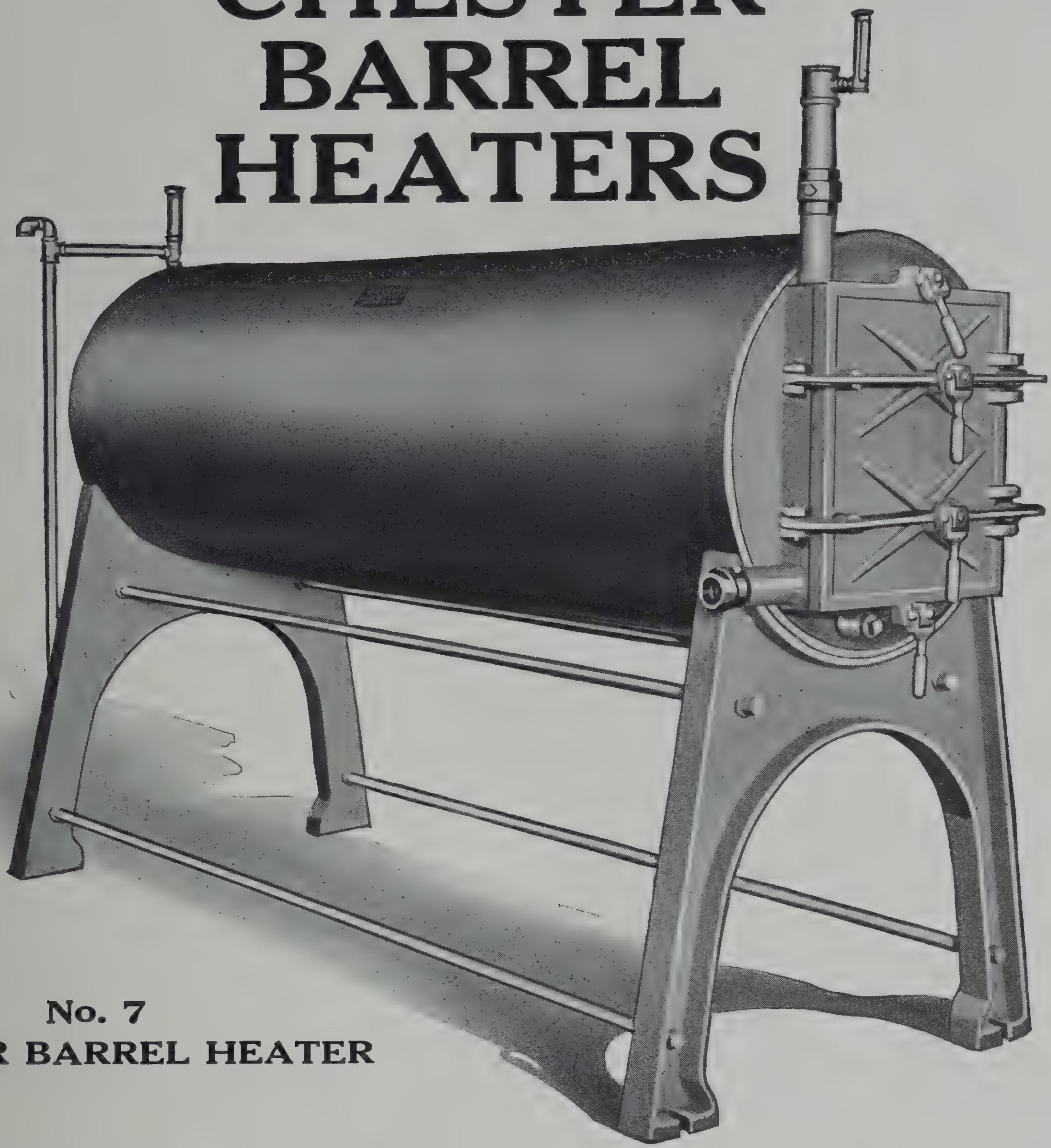
The Bowman Dairy Co. is at the present time
chasing a surplus amount of milk in order that a
cient quantity will be available during August, Se
ber and October, which months are termed the low
of production. Daily receipts at Janesville, Wis.,
excess of 100,000 pounds.

Transportation is now by tank trucks, which the
pany says is rapidly replacing the old method of
porting milk in eight or ten gallon tin cans.

The trucks in use here use a glass lined tank
lated with cork so that when the milk is cooled
degrees or lower, and placed in them, it will ho
temperature to within two to four degrees for 12
hours. Larger tanks of the same type, mounted
press cars, now in use quite regularly in this section
hold milk at about the 40-degree mark for 24 hou
longer, permitting it to be shipped for 300 to 400

"The growth of our milk recipts in Janesvill
last few years has been constant, and many imp
ments in the way of equipment on the farms have
installed enabling the dairymen to more easily pr
milk in a sanitary way," M. J. Metzger, secretary
Bowman Company, says.

CHESTER BARREL HEATERS



No. 7
ESTER BARREL HEATER

20,000 Pounds an Hour

Largest—and best—barrel heater ever made. Barrel 30″ in diameter gives ample water space between 2″ nickel silver tubes. Handles 20,000 pounds of milk per hour from 40° to 145° with perfect ease. Large number installed during last eighteen months.

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION, INC.
ASSOCIATE MEMBER NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS

CHESTER DAIRY SUPPLY CO.
Ninth and Hyatt Streets
CHESTER PA. U. S. A.

The Sign of Service

When writing to CHESTER DAIRY SUPPLY CO. *please mention The Milk Dealer.*

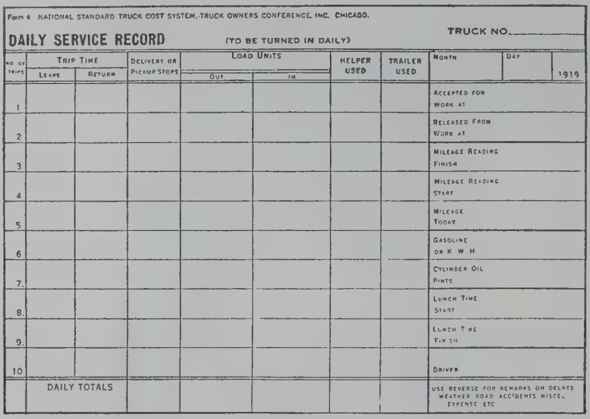
What About Your Delivery Service?

What Are Your Trucks Costing You? Take Away the Scare from that Bug-a-Boo, "Truck Costs."

By PHILLIP L. SNIFFIN*

SAM BROWN, head of the Brown Milk Company, runs a fleet of five delivery trucks in his business. Sam is a keen-minded, alert business man, anxious to save money and improve his business wherever he can. Already he is frank to say that he is considerably "fed up" on this delivery cost subject. At the start his competitors were delivering to small grocery stores at certain prices and he knew that he would have to meet them. Naturally he had to put on trucks to do his work.

Later on, he made some close calculations to find just what this delivery service was costing him and computed his margin to cover it. At once he found that his competitors were charging less than his actual cost prices including his overhead. So Sam had the choice of meeting their prices or losing a lot of business. He chose the former.



Form 4 NATIONAL STANDARD TRUCK COST SYSTEM.-TRUCK OWNERS CONFERENCE, INC. CHICAGO.

DAILY SERVICE RECORD (TO BE TURNED IN DAILY) TRUCK NO.________

No. of Trips	Trip Time		Delivery or Pickup Stops	Load Units		Helper Used	Trailer Used	Month	Day	1919
	Leave	Return		Out	In					
1								Accepted for Work at		
2								Released From Work at		
3								Mileage Reading Finish		
4								Mileage Reading Start		
5								Mileage Today		
6								Gasoline or K W H		
7.								Cylinder Oil Pints		
8.								Lunch Time Start		
9.								Lunch Time Finish		
10								Driver		
	DAILY TOTALS							Use reverse for remarks on delays weather road accidents miscel. expense etc.		

Form 4—Daily Service Record for Drivers. Size 4½x6½.

Now Sam has good reason to feel pretty much upset. He had added, at one lick, several thousands of dollars to overhead with nothing in sight to balance the other side of the ledger.

Somebody is to blame. It looks as though a lot of city milk dealers have tumbled over themselves to get ahead of their competitors, without calculating what this kind of service costs. No wonder Sam and hundreds of other men like him look upon this subject of motor truck deliveries as a bug-a-boo to the industry and begrudge the money they must spend to run their equipment.

The fact that a concern which does not know its costs must soon fail is small consolation to the man who **does** know his costs and who covers them completely in his selling price. The competition is there and it is keenly felt as long as the other firm lasts. And perhaps when one such competitor has "spent his wad" and died out, another will spring up who is just as poor a transportation agent and he, too, will thoughtlessly be making unfair competition as long as his money lasts.

So it is a serious problem to the milk industry, this problem of truck costs. And only when the essential information on costs is brought before the industry time and time again, until each individual milk dealer makes some figures of his own to see what this part of the business is costing him, will the problem be straightened out.

The Way Trouble Starts.

What usually happens is this: A man decides
in for truck transportation. He spends a certain a
of money on equipment and considers this, off-hand
a necessary capital investment as a part of doing
ness along with similar items.

If he is trying to be fair with himself and cov
costs in his selling price, he figures the **running** ex
of his trucks. Gasoline, oil, drivers' wages and p
tires, are obvious costs that he might compute an
into his cost of doing business.

Soon, however, his trucks begin to wear out.
older they become the higher the repair bills w
Before long they will have to be replaced wit
trucks. And where does the money come from?
the business, of course. But, how? And that
problem.

How to Figure Truck Costs.

Now, getting down to the real facts in the case
see just how a concern should go about it to fi
true cost of its transportation. Here is a list which
all the items which must be taken into account in
ing delivery costs:

Fixed Charges—
- Amortization (reserve for depreciation).
- Interest on investment.
- Insurance
  - Fire, transportation and theft, public liabilit
  - property damage, collision.
- Taxes.
- Licenses.

Maintenance Charges—
- Garage
  - Rent, heat, light, power, etc.
- Repairs
  - Materials and labor.
- Tires.
- Painting.
- Overhauling.
- Administration requirements.

Running Costs—
- Gasoline (or electric power).
- Oil.
- Wages of drivers.
- Grease, kerosene and waste.

Among the "fixed charges," a few words of
tion are in order. The total investment of the
ment is figured minus the tires, because these are
care of separately among maintenance charges.
investment is best depreciated on the basis of the
ber of miles traveled in the period, that is, pro
according to the estimated mileage life of the v
which varies according to the size and make of
Tires are depreciated in the same way, but separ
because they have a different figure of mileage

Interest on the investment (one of the fixed ch
is figured at one-half the current rate of interest b
the item of depreciation throughout the truck's se
able life reduces the amount of the investment

---

* Motor Truck Advisory Engineer.

Thus it is considered best practice to equalize this sidering only half of the interest charges.

What Forms Are Necessary?

th the above outline of desired information as the ve, we are now ready to see how this information obtained. Although it will be impossible to give m which will be flexible enough to meet any in- al set of conditions, the following points will be le in indicating what kind of records are neces- In working out a cost-record system, many con- make the mistake of requiring too much of the s' time and expecting too much of his intellectual y. Wherever possible, this work should be done bookkeeping department.

Driver's Daily Report. Some method of record- e driver's work, vehicle expense, mileage, etc., lay to day, is obviously necessary. The driver's report form usually works out very similar to a ok in a bookkeeping system and the items shown re later entered on summary records by the cleri- partment. Many concerns provide each driver pad of printed slips, one of which is turned in day. On this he records purchases of fuel, oil, hich are later checked with garage invoices.

this slip he also gives his performance records day. For example, at the end of a day's run, rts his speedometer reading. At each unloading ds collected or loading of goods to be delivered, rts the number of orders in the proper space n rd. Finally, the number of round trips made in y is often required.

above is all that is really required of the driver as cost keeping is concerned. There are no diffi- to be met in most cases in getting this amount of ation accurately because a daily report form of nd contain nothing which is too much to expect drver. Most attempts to go beyond this to get data are dangerous.

final point worth mentioning about the driver's report is that many concerns find it advisable to space on the card for the driver's report on the on of the vehicle. This is often very helpful in aging drivers to report irregularities of running may be adjusted or repaired in their early stages, ving considerably on later repair bills.

Truck Day Sheet. The dricers' daily reports e turned in to the clerical department and here zed and put together in some systematic manner. uck day sheet answers this purpose. There is one er truck per month. The days of the month are horizontally and the various items which are en- each day are ruled vertically. These items are a recapitulation of the driver's reports. At the of the column, where it is summarized at the end month, provision is made for adding the repair s which have been incurred against that truck the month (See point four below) and any charges directly chargeable against the month, such as tire cost (according to mileage), driver's and helper's wages, garage rent, grease supplies, etc. The result is that the final figure represents what it has cost to operate the vehicle during the month with the exception of the fixed charges and those costs which are rightfully to be distributed over 12 months in the year. These latter costs are taken care of in this way: There may be a space allowed on the sheet set aside from everything else, where large current cost, such as overhaul, painting, fines for traffic violations, etc., are inserted. These together with the fixed charges (depreciation, interest, taxes and license) are usually carried over month to month and finally computed at the end of the year. Or they may be so arraned that the large current costs may be divided by 12 and the fixed charges per month added as they are. Thus, the owner has at least an approximate figure at the end of each month which he may use as his guide and compare with other months, and other vehicles.

3. Monthly Summary of Fleet. This form is a very simple one to understand, it being a recapitulation of the truck day sheets for all trucks in the fleet, made up at the end of each month. This also is computed on the monthly basis and finally recapitulated at the end of the year.

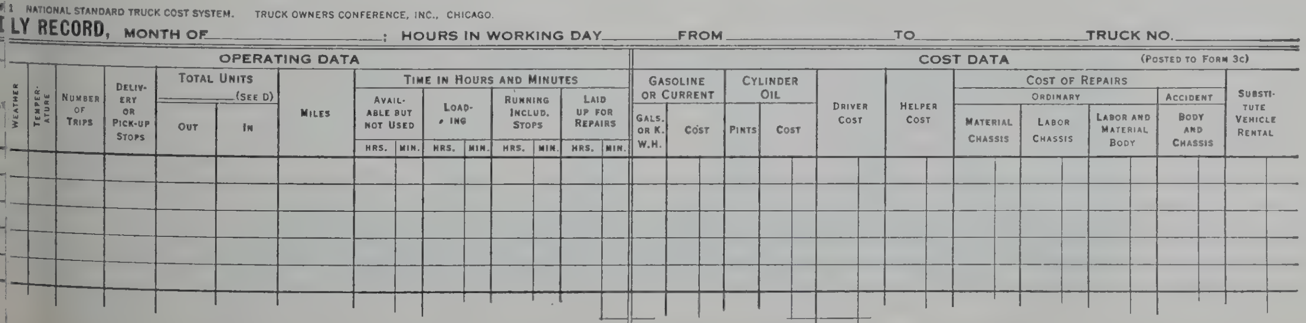
4. Daily Repair, Stock Room and Maintenance Report. In order to keep track of each vehicle's maintenance expense, some form is necessary which will supply the information to be inserted on the truck day sheet for the items of repairs, overhauling, mechanic's time, washer's time, greaser's time, etc.

The way in which this is taken care of varies a great deal from one concern to another simply because every concern has a different method of having this work done. Regardless of whether inspections, adjustments, repairs, washing, greasing and oiling are done by drivers, helpers, employed mechanics or by an outside source, the point to remember is that all time charges, materials, parts or invoices should be charged individually against the vehicle for which the work was done.

When service such as this is done on the outside, it is a simple matter to request that invoices be itemized according to the vehicles and then entered on the truck day sheet. Work done by the driver or helper is often not charged against the vehicle, excepting the materials used, inasmuch as this is included in the item of wages.

The concern that operates its own service and garage facilities will need a separate bookkeeping system for this, which will be very much the same as an accounting system for a business for itself. For our present purpose in this article, there is no need to complicate the subject by attempting to bring in the cost keeping requirements of a private garage and repair shop other than to mention briefly the following essential forms.

a. Mechanics and Helpers' Time Card. This is a simple time sheet daily record, giving the amount of time spent in repair on each vehicle, with materials used. The materials entered here are later checked with the daily stock room report (b), the price computed and charged



1 NATIONAL STANDARD TRUCK COST SYSTEM. TRUCK OWNERS CONFERENCE, INC., CHICAGO.

LY RECORD, MONTH OF__________; HOURS IN WORKING DAY________FROM__________TO__________TRUCK NO.________

OPERATING DATA															COST DATA							(Posted to Form 3c)				
Weather	Temperature	Number of Trips	Delivery or Pick-up Stops	Total Units ____(See D)		Miles	Time in Hours and Minutes								Gasoline or Current		Cylinder Oil		Driver Cost	Helper Cost	Cost of Repairs					Substitute Vehicle Rental
							Available but not Used		Load-ing		Running Includ. Stops		Laid up for Repairs								Ordinary			Accident		
				Out	In		Hrs.	Min.	Hrs.	Min.	Hrs.	Min.	Hrs.	Min.	Gals. or K. W.H.	Cost	Pints	Cost			Material Chassis	Labor Chassis	Labor and Material Body	Body and Chassis		

The Monthly Record Sheet.

in a lump sum with the time taken for the job on the truck day sheet.

b. Daily Stock Room Report. Parts, supplies and materials taken out of the stockroom by workmen are entered on this form. Many concerns carry this as a perpetual inventory by means of which they can know at all times ,how much stock is on hand and when stock needs to be replenished.

c. Job Ticket. Overhauls, lengthy repairs and painting, when done in the company's own garage, are best handled by job tickets. This is usually a manila card about nine by twelve inches, on which are entered all items of time and materials chargeable against a certain job on a vehicle.

d. Maintenance Chart. While this is not a part of the cost keeping system, it is mentioned here while speaking of garage forms because the writer urgently recommends it to any concern that handles its own service work. There is a maintenance chart for each truck under this plan and this may be conveniently placed on the wall of the garage in the vehicle's customary parking position. When oil has been changed in the motor, when parts of the truck have been greased or oiled, inspections made of the chassis, tires, etc., when water has been added to the battery and when carbon has been removed, valves ground, etc., this is marked on the maintenance chart. In this way, neglect of maintenance is avoided and periodical attention to these details is provided for in a systematic way.

5. Tire Record. This is an optional form, not entirely necessary but one which many concerns are finding very valuable. The tire record usually is in the form of a history card, there being one card for each tire in service and it shows the amount of service each tire has given and the cost per mile from the time it is purchased until it is scrapped. In detail, the garage superintendent enters the time it is bought, the different cars on which it was used during its life, the wheel it is used on, and the mileage of each wheel. The cost of the tire is also entered and at the end of its life, the cost per mile, including repairs, is obtained. This record is not only valuable in encouraging drivers to keep tire costs down, but it helps to make the cost system more accurate insofar as this item is concerned. Moreover, it supplies an excellent method of comparing different makes of tires and determining which the concern can use more profitably.

The above suggestions on cost-keeping forms provide what is, in the writer's opinion, the best skeleton outline that can be offered in such a general way, considering the great difference in conditions from one concern to another. An individual study based on this as a guide should be very productive in reaching the ideal system for an individual business.

Cost Keeping Pays Its Way.

Some concerns try to make too hard a job of keeping delivery cost, bringing in many difficult ideas and methods with the hopes of getting additional information. The more we observe some of these systems, the more we are convinced that the most satisfactory system is the one which is, first of all, as simple and as "foolproof" as it can be. That is why the writer has suggested here just the very simplest form of cost keeping which will serve the purpose satisfactorily.

It must not be assumed that the detail necessary to keep records on trucks is just an added curse to the whole delivery idea. Many truck users have told us that they feel this way about it and I have tried to point out to them that the right kind of a record system will pay its own way in the economics it will permit.

The owner who keeps a constant check on his operation will find that this helps reduce cost in ways than one. With itemized records before him day to day, he will find that many leaks will be ered and ways for improvement suggested that occur to him in no other way. As an example let us see briefly how a daily check would work reduce fuel cost.

A truck in good condition will operate under loads and over average roads at, say, ten miles gallon of gas. This will be shown on the daily But a constant inspection of this will disclose that ually or perhaps suddenly only five or six miles ing obtained for each gallon of gas. The record a barometer that gives warning that something is and that an inspection is required at once.

Sometimes dragging brakes may be respo again it may be that the carburetor requires re ment. Whatever the fault is, attention is called the trouble located and rectified, and the gasolin sumption reduced materially.

If this daily check is not made and watched, th ble goes unnoticed until some time later, when usually large operating costs are questioned or t a general overhauling of the truck.

In practically all cases where too much gas is used, there is a corresponding wastage of oil. Wh mixture is too rich, the oil is being diluted and its cating value lost. Where brakes drag more powe should be required is used with the extra consu of oil.

Keeping the gasoline mileage records and wa them will save a truck owner a substantial amou ing the year. Also it will be of value to him in a true picture of what his trucks are costing him erate. It is particularly valuable to owners of fl trucks, as it shows what make of trucks are th economical over a period of service.

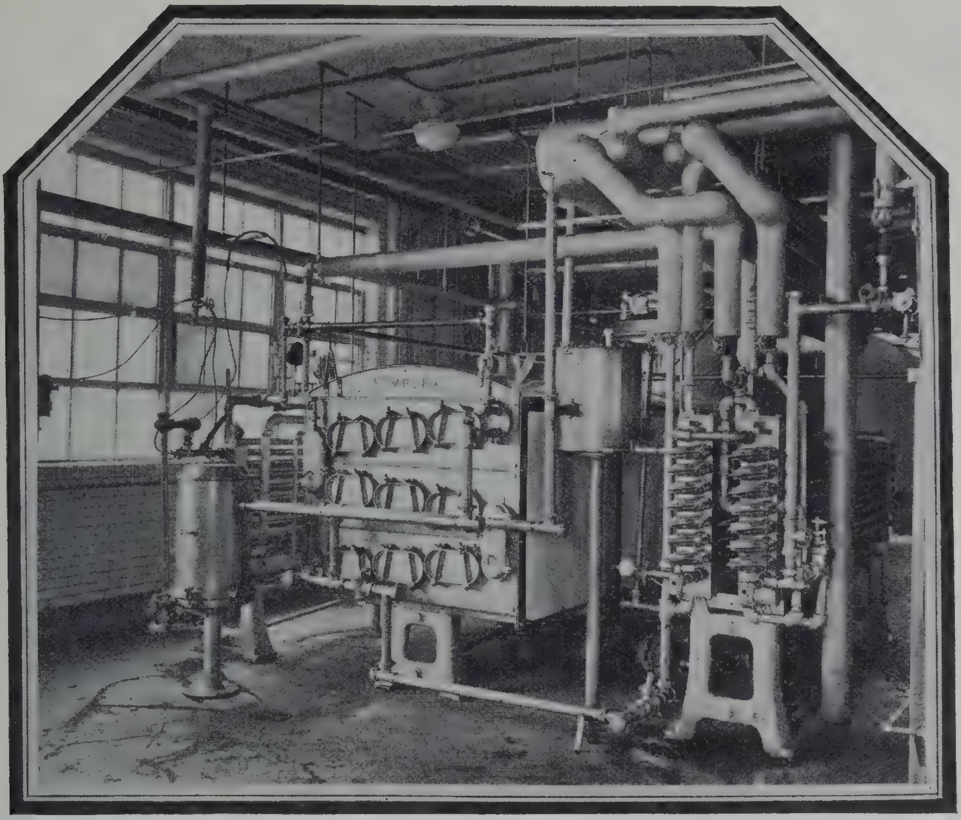
FIRE LOSS CAN BE CUT.

Evidence that well-directed effort can redu losses is forthcoming in an analysis of returns fr cities in the United States participating in the n fire waste contest, made by the insurance departm the chamber of commerce of the United States.

The 303 cities, with an aggregate population 592,095, showed a reduction in property loss for $4,146,282. A more striking reduction in the num persons killed by fire is shown for the same cities average total number of fatalities for the fi period, 1921-1925, 663, was reduced in 1926 to slight reduction in injuries due to fire was l shown.

The per capita property loss for 1926 showe duction of 14.96 per cent from the preceding fi average, in the face of an increase for the countr whole.

Prizes for the winning cities in the four class resented in the contest will be presented at the coming annual meeting of the national chamber grand prize has been awarded to Albany, Georg the second time, and other awards will be made waukee for having the best record in class one which includes those over 100,000 population; to boro, Ky., for the best record in class three cities, ing those having a population between 20,000 a 000; and to Huntington, W. Va., for the best re class two cities, including those having a populat tween 50,000 and 100,000.



Showing the 11-year-old Burrell Long Flow Pasteurizer in the new Mayfair Plant of the Bowman Dairy Co., Chicago, Ill.

After 11 YEARS' SERVICE *it was given* remier Position *in the* new Mayfair Plant

HERE is an 11-year-old Burrell Long Flow Pasteurizer which not only is still in service but is doing such supremely good work that the Bowman Dairy Company of Chicago has moved it into their new Mayfair Plant—one of the finest in the country. And in the new plant this 11-year-old outfit is pasteurizing the Mayfair's most costly product—*cream*. At the age when most pasteurizing outfits are headed for the scrap heap, the Burrell Long Flow is still worthy of premier position in one of the country's foremost milk plants.

Write for illustrated catalog section 322

D. H. BURRELL & CO. INC. **LITTLE FALLS, NEW YORK**

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BURRELL

SIMPLEX

Dairy Creamery Cheesery and Milk Plant Apparatus

When writing to D. H. BURRELL & CO., INC., *please mention The Milk Dealer.*

Meeting the Demand for Cottage Chees

How to Make "Cheese That's Sweet and Good to Eat." Most Folk Like it and are Willing to Pay Well for a Good Product

By BYRON SPENCE*

COTTAGE cheese is as old as the hills. It is so old its origin is buried in generations and generations of history. And its popularity, like its age, increases as the years roll by. Probably there is not a farm in America where cottage cheese has not been made for home use sometime or other.

We like to call the cottage cheese served on the farm, the old fashioned kind. Old fashioned, meaning that it is characterized by a sour or acid flavor, soft and mushy body, and a dead white appearance. Some of us like this cheese—like the snappy sour flavor. But there are others of us, in these days of sweet butter, processed cheese, near beer and no wines, who seem to favor most heartily the foods of milder flavor. And so there has been developed, to meet what the members of the advertising fraternity choose to call "consumer demand," a new type of cheese. Its name, "sweet or rennet curd cottage cheese," suggests its essential characteristic, the use of rennet and the sweet flavor, which distinguishes it from other cottage cheese.

There is a very common way of making a sweet curd. It is to curdle sweet milk with rennet. Junket is a form of rennet, and Junket desserts, served in so many homes, are the best example of sweet milk curds.

The old fashioned cottage cheese is made by holding the milk at a warm temperature until it sours and curdles. The sourness of this curd is due to the free lactic acid formed by the action of certain desirable bacteria on the milk sugar, during this holding period. The following method of making sweet cottage cheese depends on the proper combination of these two methods of coagulating milk for cheesemaking.

Milk Used and Apparatus Required.

It is most desirable to use sweet, clean skim milk which has been pasteurized at 145 degrees F. for 30 minutes. If it has been flash pasteurized at a higher temperature some of the calcium salts may be destroyed and in order to insure the action of the rennet enzyme, it is well to add three to four c.c. of a 25 per cent solution of calcium chloride. No calcium is necessary if pasteurizing temperatures do not run over 145 degrees F.

An ordinary jacketed cheese vat, horizontal and vertical curd knives (preferably wire so you can vary the size of the curd particles) and a stirring rake are about all the apparatus one needs. Steam for heating the water in the jacket of the vat, and a goodly supply of cold water for cooling the curd are quite essential.

Adding the Starter, Rennet and Color.

The optimum temperature for the flavor producing organisms in a starter for cottage cheese is from 68 to 72 degrees F. The pasteurized milk should be adjusted to this temperature. Having adjusted the milk to the correct temperature, add from one-half of one per cent to one per cent of a good starter, such as is used to ripen cream for butter, milk for cheddar cheese, or to make cultured buttermilk. Any dairy supply house can furnish lactic ferment cultures for making starter. The milk should be well stirred so the starter will be thoroughly distributed.

The appearance of a food product has consid
to do with its sale, and for this reason it is very
able to add enough cheese color to give the fi
cheese a rich creamy appearance. It may be nec
to try two or three times to determine just the a
of cheese color required to give the desired shade.
by adding very small amounts, 2 c.c. to each
pounds of milk. Always dilute the cheese colo
water and stir the milk until the color is uniform
tributed. A good plan is to count the number of s
with the rake required to insure thorough mixin
then you know about how much stirring will be re
to mix the rennet into the milk. Never mix chees
with rennet, but always add the cheese color aft
starter has been added and before the rennet.

A seemingly insignificant amount of cheese
plays a very important part in making this chees
small is the amount of rennet required that th
almost a certain tendency, sooner or later, to u
much. In the words of a friend of the writer, "
like whiskey, can be used too freely." From 1 to
per 1,000 pounds of milk are usually sufficient.
the rennet with about 40 times its own volume of
before adding to the milk. It is always well
adding rennet, cheese color and starter, to walk
the vat, pouring it in as you walk, so that the liqu
be distributed the entire length of the vat rathe
dumped all in one spot.

About 12 to 14 hours will be required to obta
desired coagulation, so the best time to set the
usually late in the afternoon, and the curd will be
to cut early in the morning. When the curd i
enough to cut, it shows a "clean break." This
termined by inserting the finger in the curd obli
and slowly raising it to see if the curd breaks
over the finger.

Cutting the Curd.

The acidity of the whey at the time of cuttin
range from 0.5 to 0.6 of one per cent. The curd
just like a cheddar curd, first with the horizontal
lengthwise of the vat, and then crosswise or leng
with the vertical knife, to form cubes of the cur
ways insert the knife so it will cut its way int
not break up the curd. It is extremely importa
the curd particles all be of the same size, as a
curd particle will cook more rapidly than a larg
While the curd cannot be cooked so rapidly in
particles as in small ones, the appearance of the f
cheese will be the best if the curd is cut into cu
to 1 inch in size. As the curd particles shrink
erably when the whey is expelled by cooking, t
ished cheese will have curd particles much s
than ¾ inch in size.

How to Cook the Curd.

No part of the manufacturing process is mo
portant than cooking. The curd is heated very
and stirred only occasionally. Heat the curd wi
water in the jacket of the vat, never with live
Stir by hand just frequently enough to insure ev
tribution of the heat and do not cook so rapidly

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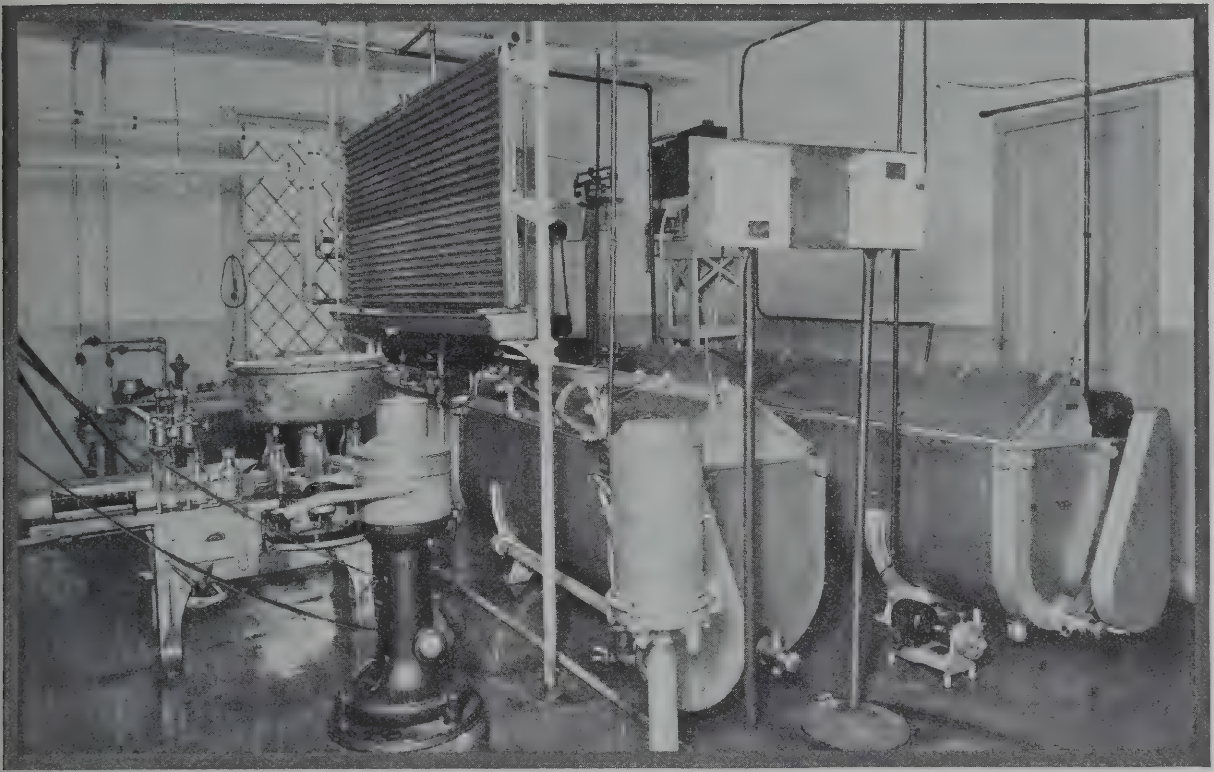
* Chr. Hansen's Laboratories, Inc., Little Falls, N. Y.

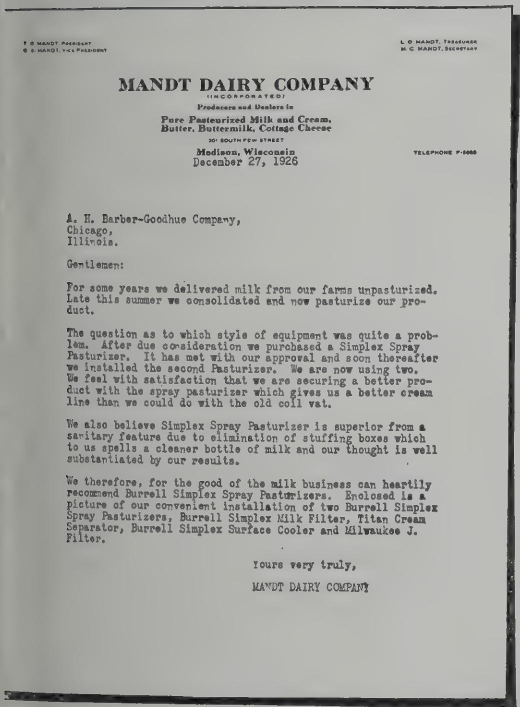
Barber Goodhue

Everything for the Dairy Industry

ON DAIRY PRODUCTS ALL THRIVE



Two Burrell Simplex Spray Pasteurizers, Burrell Simplex Milk Filter, Titan Cream Separator, Burrell Simplex Surface Cooler, Milwaukee "J" Model Filter, No-Fome Pump and Bristol recording thermometers—Mandt Dairy Company, Madison, Wis.



T. O. MANDT, PRESIDENT
O. B. MANDT, VICE PRESIDENT

L. O. MANDT, TREASURER
M. C. MANDT, SECRETARY

MANDT DAIRY COMPANY
(INCORPORATED)
Producers and Dealers in
Pure Pasteurized Milk and Cream,
Butter, Buttermilk, Cottage Cheese
Madison, Wisconsin

December 27, 1926

A. H. Barber-Goodhue Company,
Chicago,
Illinois.

Gentlemen:

For some years we delivered milk from our farms unpasturized. Late this summer we consolidated and now pasturize our product.

The question as to which style of equipment was quite a problem. After due consideration we purchased a Simplex Spray Pasturizer. It has met with our approval and soon thereafter we installed the second Pasturizer. We are now using two. We feel with satisfaction that we are securing a better product with the spray pasturizer which gives us a better cream line than we could do with the old coil vat.

We also believe Simplex Spray Pasturizer is superior from a sanitary feature due to elimination of stuffing boxes which to us spells a cleaner bottle of milk and our thought is well substantiated by our results.

We therefore, for the good of the milk business can heartily recommend Burrell Simplex Spray Pasturizers. Enclosed is a picture of our convenient installation of two Burrell Simplex Spray Pasturizers, Burrell Simplex Milk Filter, Titan Cream Separator, Burrell Simplex Surface Cooler and Milwaukee J. Filter.

Yours very truly,

MANDT DAIRY COMPANY

Better Results With Complete Barber-Goodhue Equipment

High speed, greater volume production — better quality products—limited floor space—that's one of the many, varied dairy plant problems submitted to our engineering department. How efficiently — how satisfactorily it was solved for one of our customers is best expressed in the view of the compact installation of complete Barber-Goodhue equipment, and the reproduction of Mandt Dairy Co.'s letter shown on this page.

You too may place utmost confidence in Barber-Goodhue service and equipment. If your plant is not operating as economically, as efficiently as it should — if you believe the quality of your products should be improved, if you need equipment or supplies—large or small—you'll do well to entrust your requirements to us.

Right now is the best time to ask for complete information and prices on your needs.

A.H.Barber-Goodhue Company

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CHICAGO

216 South
Pennsylvania St.
INDIANAPOLIS

When writing to A. H. BARBER-GOODHUE COMPANY *please mention The Milk Dealer.*

tough, cooked film surrounds each curd particle, making it impossible for whey to escape from the center of the curd. Do not be disappointed if it requires as long as two hours to warm the curd from the setting temperature to 100 degrees.

As the curd particles become more and more firm, due to the whey being expelled, they can be stirred more rapidly, stirred harder, and the rate of cooking increased. You now lighten your labors by stirring with the rake.

How to Tell When the Curd is Sufficiently Cooked.

Find a ten-letter word meaning "skill or practice gained by personal knowledge" and you have the answer. That word is experience, and experience only, can tell the cheesemaker when to quit cooking—when sufficient whey has been expelled from the curd, and when the curd is firm enough. No two curds are exactly alike—sometimes a cooking temperature of 110 degrees F. and then a temperature as high as 140 degrees F. may be necessary.

If we have accomplished our purpose, the whey should be removed from the curd, and when we break open a curd particle it should break clean, leaving a smooth glossy surface with no whey in the center of the particle. Likewise if the whey is gone from the curd, the curd should be heavier than the whey it displaces and sink to the bottom of the vat. From the appearance of the vat of curd we can, therefore, tell something about how near finished the cooking process is. Press a particle of curd with the thumb. If the dent remains for a minute it indicates that the whey is out of the center of the curd.

Gather up a handful of curd, cool it in a pail of cold water, and observe how much it shrinks. Press the cooled curd together in the hand. When released the curd particles should spring apart, retaining their original shape. If, on the other hand, they mash up like ordinary cottage cheese, they are not done. The curd should be cooked dry enough so a yield of 13 to 15 pounds of curd per 100 pounds of milk will be obtained. Having cooked the curd, push it toward the back end of the vat, make a channel through the middle and drain exactly as in draining a vat of cheddar cheese curd.

How the Curd is Washed.

Unlike many methods of washing and draining, the process here recommended is very simple. No draining racks need be provided, the curd can be drained and washed right in the bottom of the vat. After the whey is off, wash with two or three batches of cold water. Wash until every last trace of whey is removed and, for the last wash water, the cooler the better. Place the curd in a cooler and allow it to chill overnight.

Finishing the Job.

When it is cold, add salt at the approximate rate of one ounce to each ten pounds of curd. If desired, add a rich, heavy cream in such proportion as to give a fat content in the cheese of about two per cent. If the cheese is too dry for the trade, stir in a little cold water at the same time the cream and salt are mixed with the curd.

These methods are intended, not as an array of infallible rules to be followed to the letter, but as a guide to a method of making the most popular and appetizing cottage cheese that is manufactured in America.

* * *

Do you need a good superintendent, buttermaker or buttermilk man? We can find him for you, through a "Milk Dealer" Want Ad.

CHEMICALLY, AVERAGE MAN'S BODY WORTH 98 CENTS.

A report has recently been made to the N
Dairy Council, an organization promoting heal
child welfare, that, chemically, the average ma
feet ten inches high, and weighing about 150
is worth about 98 cents.

It is interesting to see how a man's market
divided. This is what the chemists say the huma
if made of:

Enough fat to make seven bars of soap.
Enough iron to make a nail of medium size
Enough sugar to fill a shaker.
Enough lime to whitewash a chicken-coop.
Enough phosphorus to make 2,200 match tips.
Enough magnesium for a dose of magnesia.
Enough potassium to explode a toy cannon.
Together with a little sulphur.

"There is no single food, except milk, which c
all of the chemical elements mentioned," says M
L. Lockhart of the National Dairy Council, in co
ing on the 98-cent chemical value of the huma
"As Dr. E. V. McCollum, world food authority
out, milk is rich in both calcium and phosphorus.
there are but two classes of foods that are relativ
in calcium, the principal element in lime and the
ant constituent of the substance of bone. These a
and the leafy vegetables."

According to Dr. Henry C. Sherman, note
chemist of Columbia University, milk contains c
magnesium, potassium, sodium, phosphrous, chlor
phur and iron.

Since the proportions which the chemists have
of the various elements show that there is more
the body than any of the other chemical constitu
is particularly important to realize that milk is th
source of supply for lime or calcium.

* * *

CONTRACT WITH DRIVER HELD VAL

Recently a decision was handed down in the
of Marion county, Indiana, with reference to co
existing between milk companies and their
which, in our opinion, should be very helpful
industry.

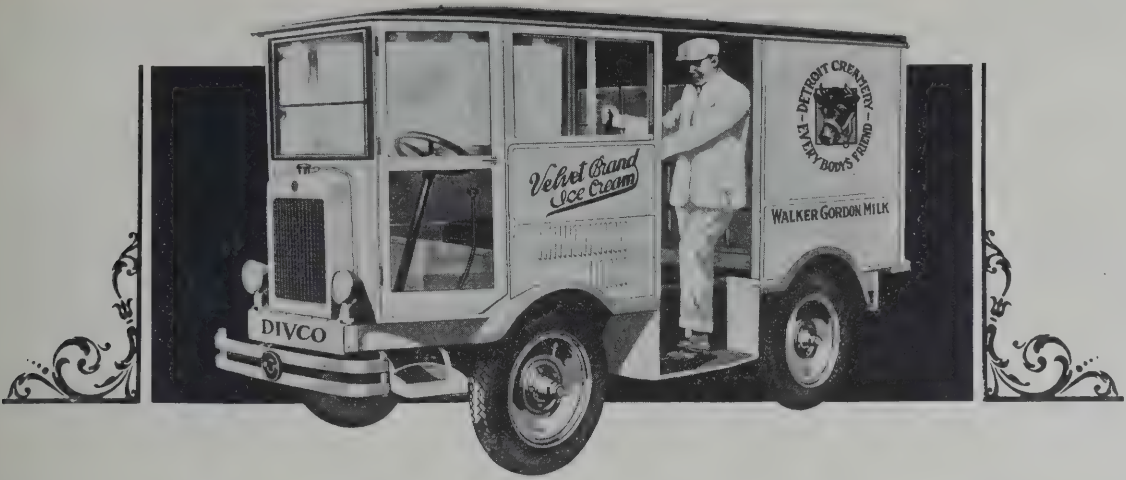
A driver employed by the Capitol Dairies, In
who had signed a contract containing a provisi
after he had left the employment of said comp
would not solicit business on his old route for a
of nine months, violated the contract. Immediat
on leaving the said company he started to solicit
old route. The company then brought suit for
junction enjoining the driver from covering his ol
as provided in the contract. The court found t
company was entitled to an injunction and th
ordered.

* * *

30,000,000 GLASS BOTTLES ARE FILLED D WITH MILK FOR AMERICAN CONSUME

Approximately 30,000,000 glass bottles are fille
with milk for the American consumer.

As the average bottle makes only about 20 t
fore it is lost or broken, the nation's annual milk
bill is more than $30,000,000. At least $12,000,000
loss consists of breakage in the milk plants. H
loss could be prevented by increased care.



How Can Milk be Delivered Quicker and Cheaper?

Here's the Answer: a Truck Designed by Creamery Men for Themselves

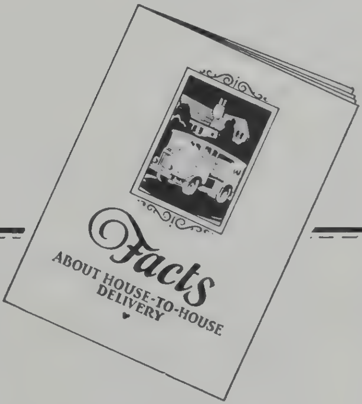
DIVCO was designed ***for the milk business.*** To cover any route more easily, ore quickly, more economically than ever fore. But the creamery men whose ideas ere built into it never dreamed of as great saving as ***2 to 3 hours per trip***—combining routes into 2, and often 2 into 1!

t's get the proof into your hands! Not our tements, but facts backed by ***actual experices*** of prominent, progressive creameries. his coupon will bring these facts—and you urself can verify them!

DIVCO DETROIT CORPORATION
2435 Merrick at Sixteenth - - DETROIT

DIVCO
MOTOR TRUCKS

Study the picture above. It's the new Divco body—FOUR CASES WIDE. 60 cases easily to a trip allowing you to combine routes or carry a few cases of wholesale when practical! Notice the driver on the step. He can drive from either side as well as the front seat. How many steps—how many HOURS and DOLLARS—will that save? This book shows you what other creameries have PROVEN.



DiVco Detroit Coporation,
2435 Merrick at Sixteenth, Detroit
Gentlemen:

Please send without obligation the new illustrated DiVco catalog.

Name____________________

Firm____________________

Address____________________

City____________________

When writing to DIVCO-DETROIT CORPORATION *please mention The Milk Dealer.*

Trailer Equipment in Milk Hauling

Reduces Hauling Cost $.0102 Per Case Over Trucks. Total Saving is $31,132.00 a Year

Survey Made by A. C. Nielsen Company*

A FLEET of seven 10-ton Fruehauf semi-trailers, with two 5-ton tractors are used by the Gabel Creamery Company in the distribution of cases of bottled milk from its main plant at Detoit to four branches. When the first branch was started two years ago this type of hauling equipment was decided upon as promising the greatest economy.

In general, the advantages of trailers and tractors, as compared with trucks, are that each powered unit hauls a greater number of larger loads than are possible with a truck and the tractor is in operation a maximum, not being tied up during loading and unloading.

This Type Trailer is Proving Practical for the Gabel Creamery Company.

For this particular application the use of trailers eliminates the necessity for installing refrigerating plants at the branches, permits unlimited expansion at each branch by the purchase of additional trailers, and by eliminating handling of cases saves labor, and reduces bottle breakage.

Fruehauf Equipment.

The original purchase was of one tractor, two semi-trailers and one dolly. At present the branches handle 50 per cent of the company's business and are served with eight semi-trailers. One more is now on order.

In addition to the units handling cases, the company operates two tank units making daily trips from Washington and Romeo to Detriot, 30 and 35 miles distant. Each consists of a 5-ton truck with 1,300-gallon glass-lined cork-insulated tank and a 4-wheel Fruehauf trailer with 1,000-gallon tank. From Flint, milk is brought in by a trolley car carrying a 6,200-gallon tank. In rush periods this car draws a trailer carring 5,400 gallons. Regular daily trips are made. All tank units are unloaded by means of compressed air.

Routing and Loading.

For a typical day's work in delivering milk to branches a tractor will leave the garage at 7:00 A. M., pick up a trailer of empty cases at each of two stations, and will reach the main plant at 10:30. At noon it leaves for a third station with two loaded trailers, drops them there, picks up two loads of empties, returns to the plant, takes out two more loaded trailers to tions first mentioned, and then returns to the gar

The tractor has covered 41 miles on its two c trips, and each trailer 15 miles.

At the main plant the trailers are loaded by box men. At the branches the cases are loaded from the standing trailer to the wagons, by the of the wagon.

Capacity.

The trailers are equipped with large enclosed 18 feet long, 8 feet wide and 7 feet high, outsid walls, roof and floor are made up of two thickn wood sheathing with a layer of cork between, with sheet steel on the outside.

The capacity of the body is 360 cases, each 12 quarts. The average load is 300 cases. A full bottles weighs 65 pounds and when em pounds, making an average load of 19,500 pour summer, 2,000 pounds of ice is thrown on top cases.

Trailer-Tractor Costs.

Table A shows operating and unit costs for plete hauling unit of tractor, dolly, and two The total cost of the tractor including fixed driver, gasoline, oil, repairs and tires amounts t per day, or $.367 per mile.

The cost of the trailer is made up almost ent fixed expenses, tire and repair expense being l repairs practically negligible. The total cost semi-trailers and one dolly is $4.53 per day, or $ mile. Per case of milk, the total hauling cost is

Truck Cost.

Trucks have never been used for this work figures are available to show the cost with truck ment. However, in Table B, comparative haulin have been calculated assuming that a 7½ -ton tru a 14-foot body could haul 280 cases per trip. truck could make the two trips per day now ma the tractor but would have no reserve capacity of time lost in waiting for loading and unloadi

One of the Fleet of Trailers Which is Effecting a Real for the Detroit Creamery.

On this basis the cost per day for a truck wo

(Continued on page 59)

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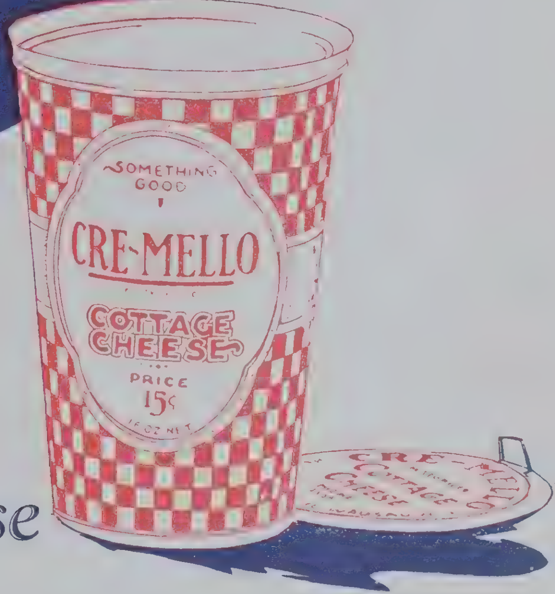
* Engineers in collaboration with and approved by Herman Koelz, president, Gabel Creamery Company, Detroit, Mich.

TULIP NESTRITE CONTAINERS


SOMETHING GOOD
CRE-MELLO
COTTAGE CHEESE
PRICE 15¢
CRE-MELLO
COTTAGE CHEESE

The perfect container for packaging cottage cheese

A Few of the Reasons why You Should use Tulip "NESTRITES":

- Most practical method of packaging.
- Low cost.
- More sanitary.
- Bright attractive finish.
- Permits of individuality and originality in package.
- Keeps contents in perfect condition.
- Any style or type of printing in any combination of colors.
- Patented wire pull lid.
- Pleasing shape.
- Made in all sizes from 2 oz. to 32 oz.

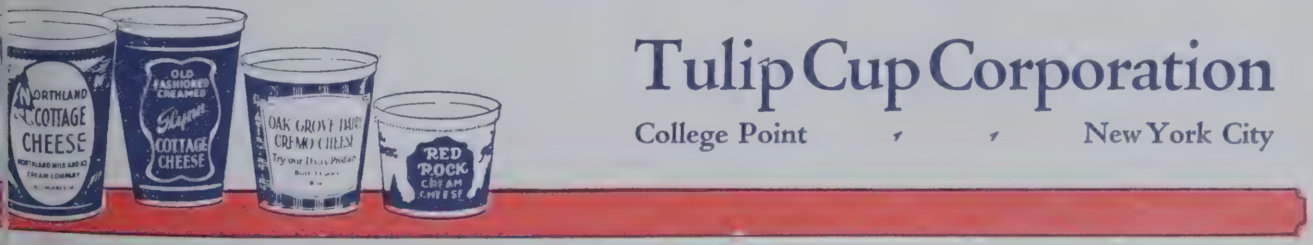
MODERNIZE the packaging of your cottage cheese, by using Tulip "Nestrite" Containers! It is the proven, practical method of packaging and its cost is slight.

A "Nestrite" packaged cottage cheese gains immediate consumer acceptance because it is sanitary, clean, attractive in shape, bright in finish, and permits the manufacturer to give originality and individuality to his package. Any style or type of printing can be furnished and in any combination of colors.

The bright gloss finish, an exclusive feature of "Nestrite" containers, not only makes a more attractive and pleasing package, but it likewise keeps the contents in perfect condition.

Tulip "Nestrite" Container lids are press fit, and have our exclusive and patented wire pull feature, making them the most convenient, easy, simple and positive yet devised.

Tulip "Nestrite" Containers are made in all sizes from 2 oz. to the 32 oz. Let us quote you on your container requirements. Write for samples and prices. No obligation involved.

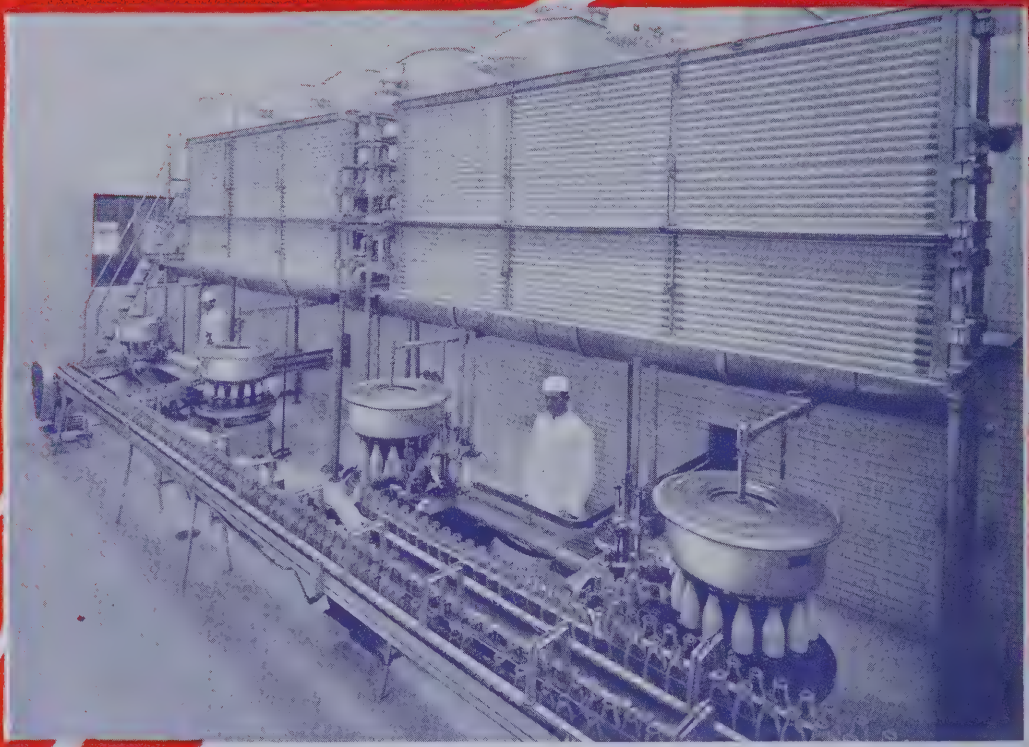

NORTHLAND COTTAGE CHEESE
OLD FASHIONED CREAMED
COTTAGE CHEESE
OAK GROVE DAIRY CREMO CHEESE
RED ROCK CREAM CHEESE

Tulip Cup Corporation

College Point , , New York City

When writing to TULIP CUP CORPORATION *please mention The Milk Dealer.*

MILWAUKEE FILLERS and CAPPERS



Chestnut Farms Dairy, Washington, D. C.

4 Type "L" Fillers

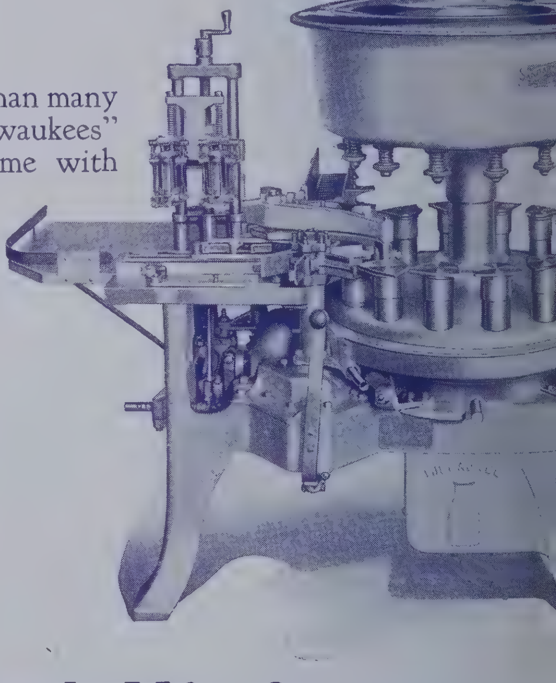
200 to 240 per minute

A Big Story, simply told.

This photograph tells more convincingly than many "wordy claims," how effectually "Milwaukees" have solved the problems of large volume with labor reduced to practically nothing.

Strong
Compact
Simple
Precise
Sanitary

The Type "L"
14 Valves
2 Cappers
Capacity 50 Qts. to 60 Pts.
per minute.
Tank Capacity 26 Gallons.



Sold by Best Dairy Supply Houses
Everywhere—Ask Them.

Milwaukee Dairy Supply Mfg. Co., Milwaukee,

When writing to MILWAUKEE DAIRY SUPPLY MFG. CO. *please mention The Milk Dealer.*

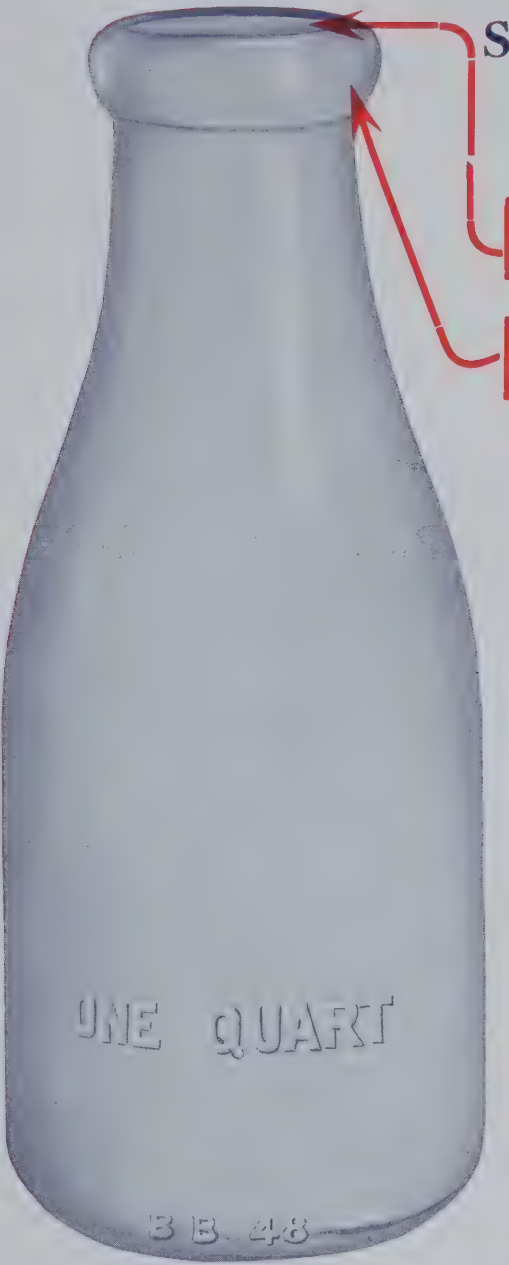
Automatically Processed
Milk Bottles of Quality

Our Motto:

Quality

Economy

Dependability



Six Little Details All Big

1. Round cap seats that hold the cap
2. Well formed heads designed to obviate chipping
3. Accuracy in capacity uniformly maintained
4. Glass clear in color
5. Scientifically annealed (tempered) giving maximum strength
6. Grace in design, making a pleasing package

You Want Quality
Let Us Serve You

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MICHIGAN and OHIO Representative: Lock Box 56, Redford, Mich.
NEW YORK, N. Y., Hudson Terminal Bldg., 50 Church St.
BOSTON, MASS., 170 Summer St.
PHILADELPHIA, PA., Abbott Bldg., Broad and Race Sts.

When writing to BERNEY-BOND GLASS COMPANY *please mention The Milk Dealer.*

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6525 PROCTOR
MILK & CREAM
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PERFECTLY
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145 DEGREES
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HEAVY
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The Toledo-Baltin

TOLEDO, OHIO

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We advertise your business for you

When writing to THE TOLEDO-BALTIMORE BOTTLE CAP COMPANY *please mention The Milk Dealer.*

ECTED DAILY
35% B.F.
Riecks
XXX
Cream
NTEED PURE

TYSON'S DAIRY
PURE
JERSEY
MILK
PHONE 66

PURE RAW MILK
B.F.
3.5
BUSWELL DAIRY

BROWNING GREINER
DAIRY CO.
FAT 3.8%
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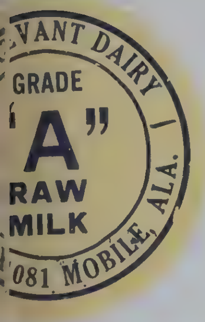
VANT DAIRY
GRADE
"A"
RAW
MILK
081 MOBILE, ALA.

PEGUES DAIRY
BUTTER MILK
PHONE 959 W

MAUMEE DAIRY
PHONE 30365
INSPECTED
NOT LESS THAN
3.5% B. F.
ELYRIA, O.

A. KELLER & SON
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CREAM
GUARANTEED
18% B. FAT
PHONE CO.
43F12
COLUMBUS, O.

tle Cap Company

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tle Caps''

ood

Makers of Bottle Caps
for Progressive Dealers

RAN SMITH DAIRY
A
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ALL
T. B. TESTED COWS

STANDARD
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PASTEURIZED
CREAM
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PURE
Milk and
Cream
NORTH PLATTE, NEBR.

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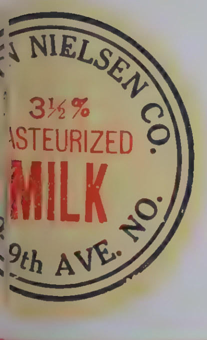
NIELSEN CO.
3½%
ASTEURIZED
MILK
9th AVE. NO.

A.R. PARKER CO.
DAIRY
MILK
EAST BRIDGEWATER, MASS.

L. C. PETERSON
3% B. F.
OR MORE
TUBERCULIN TESTED
WHOLE MILK
PHONE 798
GENEVA, O.

G. MARKS
SUPERIOR
DAIRY
PRODUCTS
FARMINGDALE, L.I.

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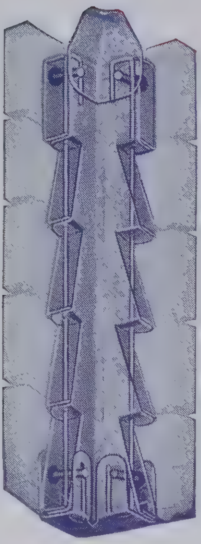
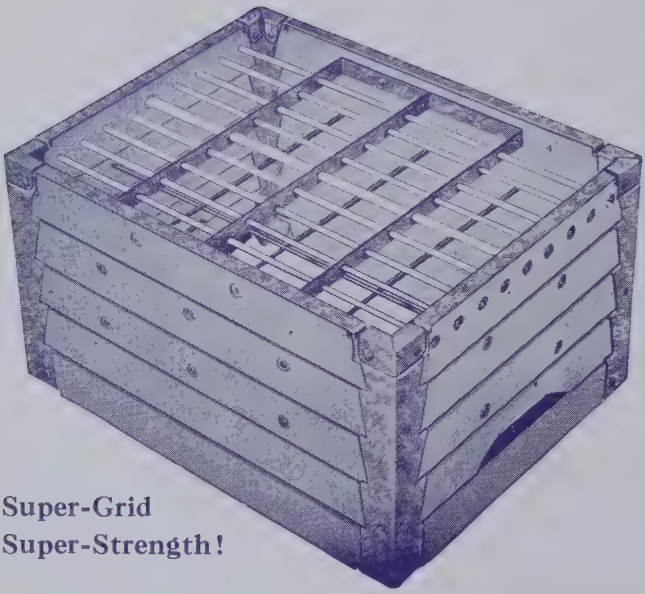
Actual Usag
Worth • •



“WOOLSEY
Wire Laced
Bottle Crates



Super-Grid
Super-Strength!

Used by all who appreciate conservation of profits.

Made in all standard styles and sizes.

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION INC.
ASSOCIATE MEMBER NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS

The Northwestern Collapsible Carrier

Ask These Jobbers:

A. H. Barber-Goodhue Co.,
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Ohio Creamery Sup
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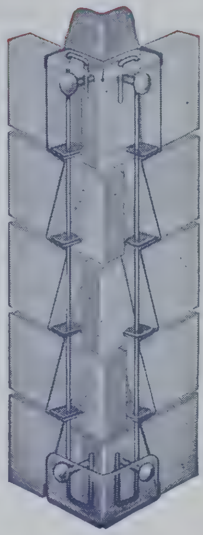
Proves Their



THE WOOLSEY wire laced corner is not a pet theory or just something different to have something to talk about and make a bottle crate seem different.

℄ The Woolsey wire laced corner is a definitely—tried
proven principle of construction—that through actual usage for
has demonstrated its worth in giving longer life to bottle crates.

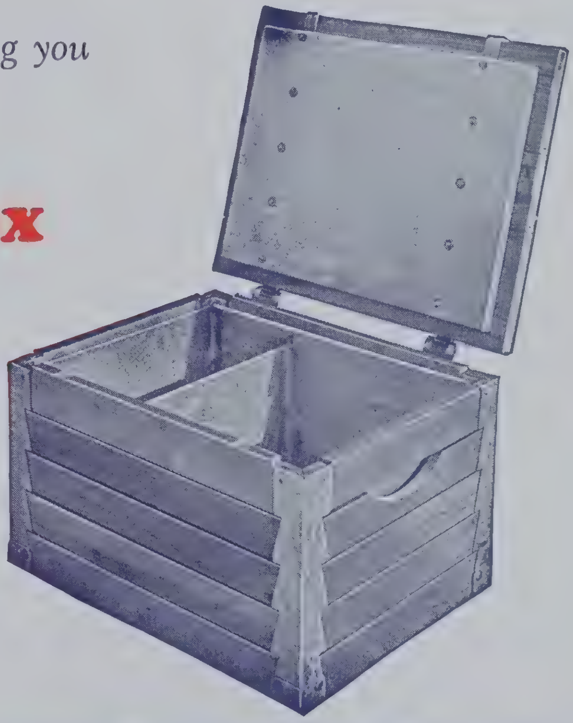
VHY? Because the Woolsey wire laced corner is designed to,
does, take up the severe jolt that soon makes short shrift of so
bottles and ordinary bottle crates.

'he Woolsey Corner "gives".

snaps the crate back into shape—to preserve perfect stacking
e the protecting corner shoe prevents corners from being
wed" out.

A trial will convince you besides saving you a lot of future profits.

ıe Woolsey Butter Box



Have You One on Every Wagon?

summer season necessitates special handling of
r, cottage cheese, etc. You will find a Wool-
utter Box a great convenience. It has a sani-
removable metal lining with separate ice com-
ıent. Cover is insulated. Stacks with standard
crates to con-
wagon space.

Try Them Now!

Talmadge Ave., S. E.,
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1821 Callowhill Street,
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y & Equipment Co., Pittsburgh, Pa.
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The BEST BULWARK
CLEARNESS
ACCURACY
STRENGTH

ATLANTIC
Milk
Bottles

CLEARNESS

—that the customer may see the quality of milk you are distributing.

ACCURACY

—that the customer may get the amount that he or she buys.

STRENGTH

—that the bottle may last the dealer as long as possible. Bottle loss is one of the milk distributor's problems. Less breakage, less cost.

ATLANTIC BOTTLE CO.

FACTORY: BRACKENRIDGE, PA.

90 W. Broadway, New York

327 S. La Salle St., Chicag

When writing to ATLANTIC BOTTLE CO. *please mention The Milk Dealer.*

AILER EQUIPMENT IN MILK HAULING.

(Continued from page 50)

ate $16.97, and the hauling cost per case would 03.

Saving Over Trucks.

actual present hauling cost with Fruehauf equip- s only $.0201, resulting in a saving of $.0102 on ase—a reduction of one-third and an annual sav- $8,446 on a single unit consisting of one tractor, lly and two trailers.

other important economy is effected through the the trailers as refrigerators from the time they at a branch in the afternoon until they are un into delivery wagons next morning. Without mple means of storage it would be necessary to an ice machine and ice boxes at each branch.

preciation on a 15-year life and average interest per cent on an added investment of $15,000 per would amount to $5,920 annually. No estimates own for operating expenses on the assumption ich costs are offset by the ice now used to keep the ool overnight. Besides obviating the necessity installation of ice equipment at the branches, the s permit a flexibility that can meet increased busi- ith the purchase only of additional units.

e use of trailers for night storage reduces han- by one-third and undoubtedly reduces handling ge by a like amount. If trailers were not used, would be required at each station to handle cases. ould mean $40 a week at each branch, or $8,320 for four branches.

e total net savings, including reduction n handling fixed charges on ice equipment, and eliminated ng amounts to $31,132 annually and represents rn of 134 per cent on the investment in two trac- wo dollies and eight trailers. These savings are d in Table C.

Tank Hauling Costs.

truck and trailer units with tank bodies repre- he most economical means of transporting milk k for long distances, with the exception of rail ort in large tanks. The use of the 4-wheel trailer by a truck practically doubles the load per trip, y little extra cost, using to best advantage its hauling power.

ble D shows a cost of $.0097 per gallon, based on leveloped in the same way as for the semi-trailers.

Reliability.

ce milk must be delivered every day in the year, y equipment must be able to withstand continu- vere service. The trailer units have seen constant since their purchase and the two semi-trailers actors, now two years old, have not yet lost a day. the Fruehauf units have performed well. They ply built, of rugged construction and, because of hort wheel base, manipulate easily in traffic or in alleys.

te following tabulations of costs and savings:

TABLE A.

Operating Costs of Trailer-Tractor Equipment.

ons:	Tractor	Two Trailers
ity in tons	5	10
trips (365 days)	2	1
hours	10	10
per hour	41	15
per trip—		
ers per tractor		2
s per load		300
ht per load—(in) 12,000 lbs.		(out) 19,500

(Continued on page 60)

BORDEN'S
QUALITY SERVICE
MILK

GUEDELHOEFER
SILENT WAGONS

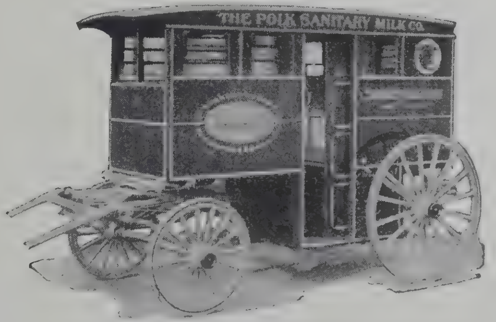
Timken Bearings
Make Running Easy

Rubber Tires
Take up the Jolts

These wagons have large loading capacities and they are of exceptionally light draft.

Let us tell you what users say of these Wagons and how reasonable they are in cost.

JOHN GUEDELHOEFER
WAGON CO., Inc.
Makers of Wagons and Trucks for the Dairy Industry for 47 Years
202-220 Kentucky Ave. Indianapolis, Indiana



REGULAR STYLE

Investment:		
First cost tractor	$4,200.00	
First cost two trailers and one dolly		$7,375.00
Less tires	454.70	890.40
Less trade-in value	800.00	
Net	$2,945.30	$6,484.60
Depreciation, based on life of	5 yrs.	10 yrs.
Operating Costs:		
Depreciation	$ 589.06	$ 648.46
*Average interest @ 6%	106.03	213.99
License and insurance	278.68	400.00
Garage and painting	280.00	120.00
Total fixed expense	$1,253.77	$1,382.45
Driver @ $40 per week	2,080.00	
Gas—15 gals. @ $.20, 365 days	1,095.00	
Oil—1 qt. a day @ $.40 a gal	36.50	
Repair and maintenance (allowance)	300.00	50.00
Tires—$454.70÷2 years	227.35	
$890.40÷4 years		222.60
Total annual costs	$5,492.62	$1,655.05
Unit Costs:		
Per day (365 days)	$ 15.05	$ 4.53
Per mile	0.367	0.151
Per day for complete hauling unit of tractor, 4 trailers and 2 dollies	24.11	
Per case—$24.11÷1,200 cases	.0201	

*Allowing for interest earned by depreciation reserve.

TABLE B.

Estimated Costs of Handling Trailer-Tractor Service With 7½-Ton Trucks.

Assumed Conditions:
Two daily trips with loads of 280 cases.
Average load of 18,500 pounds.
Daily mileage—41—for 350 days a year.

Investment:			
First cost of truck	$6,700.00		
Less tires	521.00		
		$6,179.00	
Less trade-in value		1,340.00	
			$4,839.00
Operating Costs of Truck:			
Depreciation over 5-year life			$ 967.00
*Average interest @ 6%			174.20
Interest on trade-in value @ 6%			80.00
License and insurance (est.)			400.00
Garage and painting			300.00
Total fixed expense			$1,922.40
Driver @ $40.00 a week			2,080.00
Gas and oil			1,131.50
Repair and maintenance allowance			800.00
Tires—$521.00÷2-year life			260.50
Total annual cost			$6,194.40
Unit Hauling Costs:			
Per day—365 days			16.97
Per case—$16.97÷560 cases			0.303

*Allowing for interest earned by depreciation reserve.

TABLE C.

Savings Effected by Trailer-Tractor Fleet.

In Hauling Cost:	
Cost per case with trucks (Table B)	$ .0303
Cost with trailers and tractors (Table A)	.0201
Saving per case	$ .0102
Savings per year on present volume 2,000 cases daily×365 days×$.0102×2 units	$16,892.00
In Handling Labor on Cases:	
One man @ $40.00 a week × 52 weeks × 4 branches	8,320.00
In Fixed Costs on Four Refrigerating Plants:	
At each of four branches—	
Depreciation—$60,000.00÷15-year life	4,000.00
*Average interest @ 6%—16/15×$60,000.00×.06/2	1,920.00
Total Saving:	
Per year	$31,132.00
Net annual return on investment in 2 tractors, 8 trailers and 2 dollies	134%

*Allowing for interest earned by depreciation reserve.

TABLE D.

Cost of Hauling Milk by Truck and Trailer in Insula Glass-Lined Tanks.

Conditions—(approximate):
One round trip a day, averaging 65 miles; 1,300-gal. tank on truck—1,000-gal tank on trailer.

Approximate truck cost per day	$ 20
Trailer Operating Costs:	
Depreciation — ($2,850.00—$314.00)÷10-year	$253
*Average interest @ 6%—11/10×$2,536.00×.06/2	83
License and insurance	200
Painting	60
Allowance for repairs and maintenance	50
Tires—$314.00÷2-year life	157
Total annual cost	$804
Unit Hauling Costs:	
Per day for trailer—$804.29÷365 days	$ 2
Per day for truck—assumed	20
Total daily cost	$ 22
Per gallon—$22.20÷2,300	$

*Allowing for interest earned by depreciation reserve.

Summary.

Creamery uses Fruehauf equipment to distr cases of bottled milk to branches.

Seven 10-ton semi-trailers and two tractors in Oldest have not lost one day in two years.

Daily tractor route covers 41 miles. Average t load is 18,500 pounds—300 cases. Daily hauling cost is $24.11 for tractor, four trailers and two d Cost per case is $.0201.

Five-ton truck could carry 280 cases and make deliveries, but in longer time, at cost of $.0303 per

Trailers reduce hauling cost over $.01 per case, ing $16,892.00 a year. Reduce handling labor cost, inate need for refrigeration at branches. Total a saving is $31,132.00. Returning 134% on invest annually.

* * *

"DRINK BUTTERMILK FOR HEALTH."

"Drink Buttermilk for Health" is the sloga which George Aug, Cincinnati, O., has built a large ness from very meager beginnings. Thirty years Aug entered the buttermilk business with a one- wagon and a hand butter churn. Now he is doing ness in a new two-story concrete plant at 234 E. C Avenue.

Eight trucks are delivering 4,000 quarts of b milk a day. His business has outgrown his qua three times in seven years.

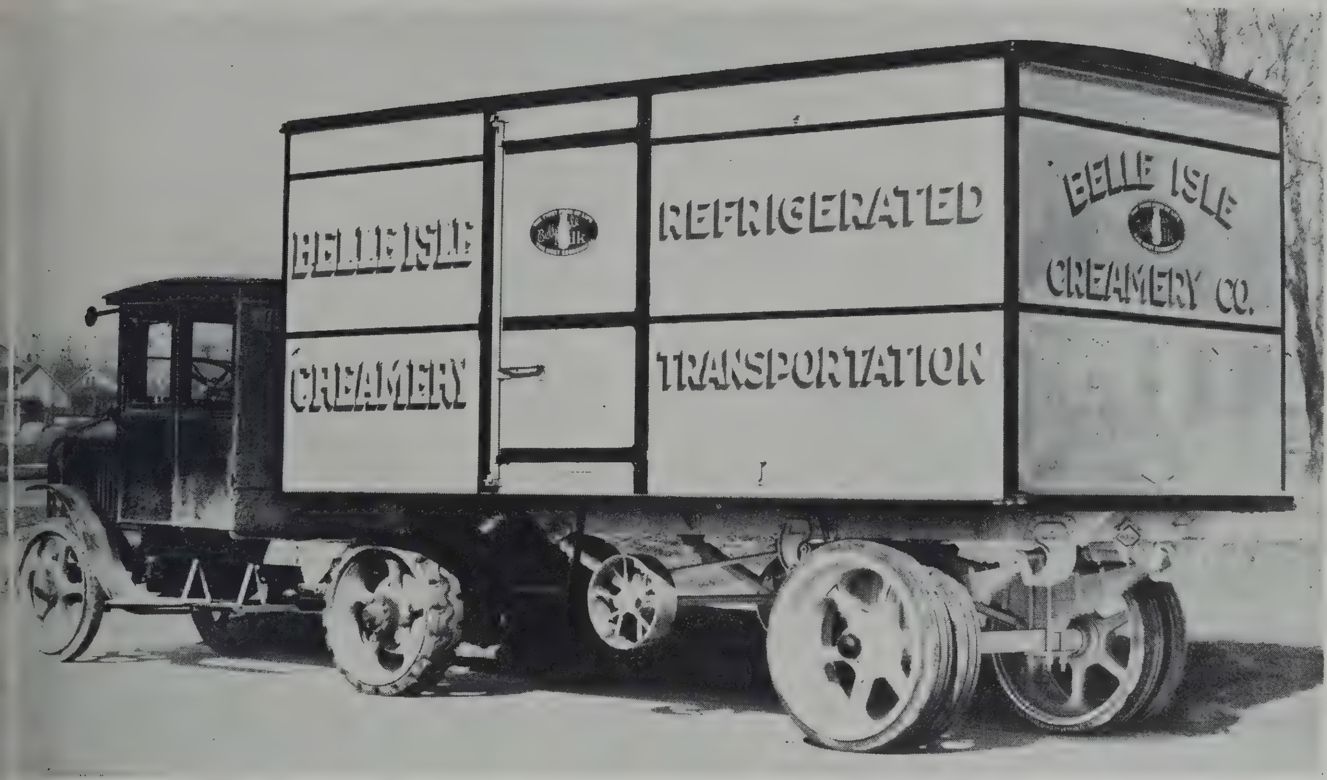
"The influence of newspaper advertising in bui a business is tremendous," Aug said. "Of course, cess always is an up-hill fight. But it is easier you're selling buttermilk than some luxury.

"A large part of the increase in our business i to buttermilk diets being prescribed by doctors."

* * *

LORD CARNEGIE TAKES PERSONAL PART MANAGEMENT OF HIS DAIRY.

Lord Carnegie, the eldest son of the Earl Sou and husband of Princess Maud, has established at Farm, Kincardineshire, Scotland, a herd of ped Ayrshire cows, all of which have passed the tuberc test. Lord Carnegie is taking an active personal in the management of the herd and experiments a ing carried out to ascertain the rations that will economically give the heaviest yield of top quality



T s Refrigerator Trailer is one unit of a fleet of 9 Fruehauf Trailers operated by the Belle Isle Creamery Company of Detroit

WHY BUILD BRANCHES?

WELL-KNOWN Milk Dealers all over America are using Fruehauf Refrigerator Trailers in place of costly branch buildings. Their experiences are guide posts that point the way to huge savings for you.

Practical and Profitable

Branches maintained at various points throughout your territory mean heavy investment in modern refrigerator equipment—and substantial costs for handling and supervision.

Fruehauf Refrigerator Trailers are storage-plants-on-wheels. They can be "spotted" each night in your branch locations. Then, early in the morning, the neighborhood delivery wagons can be loaded directly from the Trailers—saving extra handling and the investment required for permanent plants. Trailer haulage costs, too, will show a great decrease in costs as compared with motor truck transportation.

Do You Want Figures?

Are you ready to consider figures that support the above statements? Impartial surveys by a neutral engineering firm are now available—giving detailed facts about the low-cost haulage performance of Fruehauf Refrigerator Trailers and Tank Trailers. We'll place these figures before you without obligating you in any way. Write us.

FRUEHAUF TRAILERS

Oldest and Largest Manufacturers of Trailers! - *Semi-Trailers, Four-Wheel Trailers and Adjustable Pole Trailers*

FRUEHAUF TRAILER COMPANY

BRANCHES AND DISTRIBUTORS IN ALL PRINCIPAL CITIES

4 Harper Avenue Detroit, Michigan

When writing to FRUEHAUF TRAILER COMPANY *please mention The Milk Dealer.*

The City of Birmingham's Milk Supply

What Has Been Accomplished in the Alabama Metropolis in a Very Few Years. Adulteration of Milk Has Been Eliminated and Typhoid Death Rate Greatly Reduced

By L. C. BULMER, B. S.*

THE history of Birmingham's milk supply is probably unique among cities of this country, in that within a span of little more than five years this city has revolutionized its milk supply from what was generally regarded as the worst in America to what is now accepted, at least from a public health standpoint, to be one of the best regulated supplies.

Birmingham was allowed to grow to a population of 200,000 before any definite attempt was made to solve its milk problems. The city, even as late as 1920, was dependent upon the village type of supply. At that time about two hundred more or less backyard dairymen converged upon the city daily and peddled milk in its raw state, while two small concerns attempted to produce pasteurized milk, which product rapidly grew into disrepute, due to inexperience on the part of the persons engaged in the enterprise and lack of official control by the department of health.

In 1921 Birmingham gained considerable noteriety from the fact that official investigation revealed that, in comparison with its population, this city consumed less milk than any city of which statistics were available. Theconsumption of milk was less than one-fifth of a pint per capita.

Evidence at that time pointed clealy to the fact that the public were wholesomely afraid to drink milk. This was scarcely to be wondered at in the face of milk-borne epidemics, one of which it was estimated caused over seven hundred cases of typhoid fever and more than one hundred deaths as a result of an infected raw milk supply from one dairy. Birmingham had the highest death rate in America, both for typhoid fever and colitis of children under two years of age who depend on milk for sustenance. Available statistics show that 53 per cent of the city milk supply was adulterated to the extent of approximately 10 per cent added water; the average bacterial count of all samples analyzed for three years prior to 1921 exceeded 780,000 per cubic centimeter; while those who recall the conditions at that time will testify that it was almost impossible to buy a bottle of milk that had no visible signs of sediment, and that the average milk would not keep twelve hours with ordinary care after it reached the hands of the consumer.

It was such facts that the health officer, Dr. J. D. Dowling, presented to the city government in 1921, when the present milk code was adopted and an appropriation of over $30,000 a year for milk control was sought. He pointed out that the citizens of Birmingham were spending approximately $94,000 a year on water added to their milk supply and with an appropriation of one-third that amount for milk control purposes he pledged the elimination of adulteration, in addition to insuring clean milk. The appropriation was approved, both as a public health measure and as a sound business proposition.

Today the division of food and dairy inspection of the department of health comprises a personnel of seventeen persons. All dairy inspectors on the staff are required to be graduates of recognized agricultural colleges and specalists in dairy husbandry or manufa The policy of the department of health in dealin its milk problem has been along educational lines than following the rigid system of enforcement o requirements. Education has been extended to th lic and to the dairymen. An endeavor has been to carefully mould public opinion on the milk qu and to aid dairymen by advice on both milk hygie dairy husbandry. It is recognized that unless th business is on a profitable basis reform cannot be for. The department of health, therefore, has exp much time on education talks, furnishing service preparation of plans for sanitary dairy building ing advice on all matters pertaining to dairy husb and affording free laboratory service to determi creased efficiency. Frequently as many as one hu samples a day are submitted to the department of laboratories for complete bacterial and chemical a for which a commercial laboratory would charge $4 to $6 per sample.

Such a policy, while exceeding that of the a department of health, has proven highly fertile following facts show: During the past five years has been 30 per cent increase in population, while the same period there has been over 100 per cent in in milk consumption and slightly more than 100 pe increase in cow population from sources of supply have actually decreased largely in numbers due t sons withdrawing from business who are unprepa comply with proper sanitary requirements. The ty death rate has decreased from 65 to less than eight the death rate from colitis of children under two of age has decreased from 182 to 33. The averag terial count of market milk has decreased from o ceeding 780,000 to one well below 50,000 per cubic meter. Adulteration has been practically elimi The consumption of pasteurized milk has increased almost nil to over 45 per cent.

It is true that Birmingham consumes only two- the milk consumption per capita of the average ci the use of pasteurized milk is relatively small. fact is, that it is impossible to rectify condition night which have existed for half a century. (definite program, education and patience will do together with co-operation and enterprise on th of the dairy interests.

The department of health, however, has blaz trail in no unmistakable manner. It behooves the interests who, heretofore, have depended almost on the department of health, to become more active coming to Birmingham of Southern Dairies and it struction of one of the most modern plants in the under competent management, is a great asset i respect. The recent introduction and re-organizat other plants, and the better spirit of co-operation fested between all milk interests, is also notew and lends promise to greater progress.

In all, it is felt that progress from now on w pend largely on commercial enterprise. With the growth of this city much of the burden will be

---

*Director, Division of Food and Dairy Inspection, Birmingham Department of Health, in The Silver Cow.

HADLEY 1288 M. C. OLDHAM, MGR.

THE PHENIX DAIRY
PASTEURIZED MILK
WHIPPING CREAM, PLAIN CREAM,
BUTTERMILK
POLK & SMITH STS.
HOUSTON, TEXAS

February 2, 1927.

on Engineering Co.,
Cleveland, Ohio

ntlemen:

Regarding the Bestoval
tle Washer we purchased
m you and installed in
new plant on November
,1926, wish to say that
s machine is performing
y satisfactorily in fact
er a few minor adjust-
nts when installed we have
no trouble with it.

The bottles discharged
m it are sparkling and
ear and we would heartily
commend this type machine
anyone in the market for
large size bottle washer.

Yours very truly,

:K THE PHENIX DAIRY.

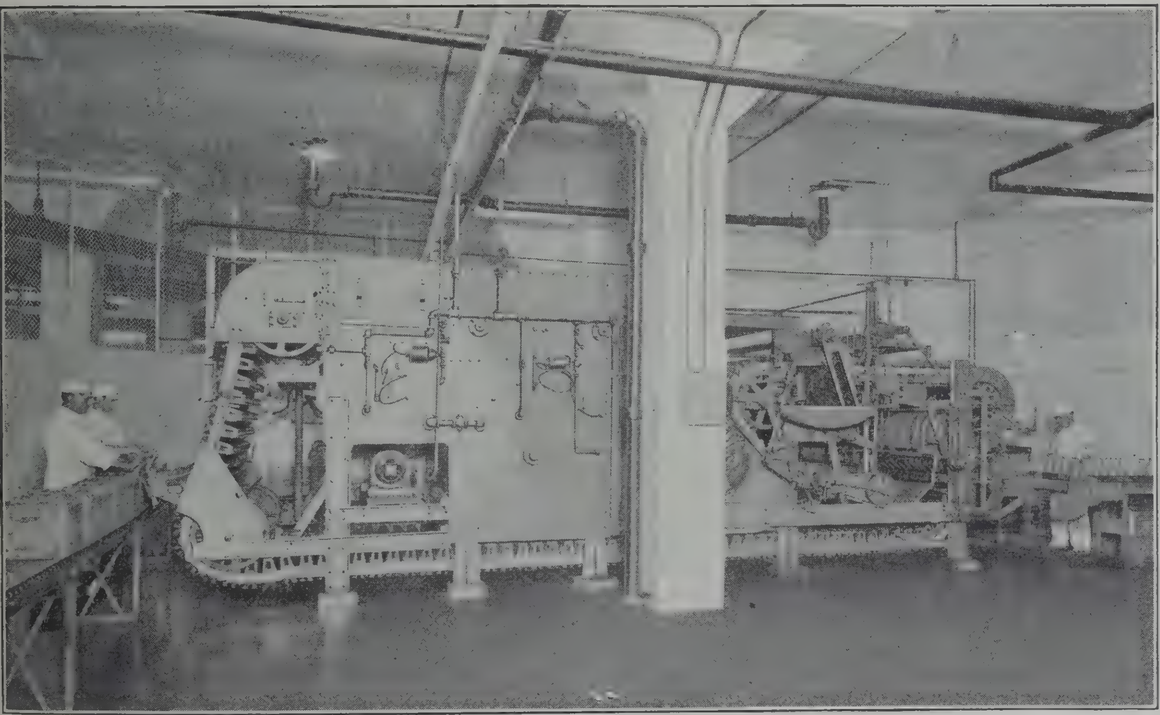
MORE PROOF!

of the SUPERIORITY of the

CLEVELAND BOTTLE WASHER

MR. OLDHAM of the Phenix Dairy, Houston, Texas, after having carefully studied all makes of bottle washers for more than three years, decided on the **CLEVELAND** for his new plant, which is one of the largest and most up-to-date in the South.

He was thoroughly convinced that the **Cleveland Method of Pressure and Dormant Soaking in Conjunction with Clean and Sterile Brushes** would give him the cleanest and most sterile bottles to match his unexcelled product. Furthermore he knew that the Cleveland Bottle Washer was the machine for service due to its rugged construction and simplified design and this has been conclusively proven by the fact that **The Phenix Dairy erected and put their bottle washer into operation themselves without the assistance of any representative of the Union Engineering Co.**



No. 120—CLEVELAND BEST-OV-AL in The Phenix Dairy, Houston, Texas

Guaranteed Cleaning Efficiency 99⁹/₁₀%

Clean and Sanitary Soaking Solutions with from 30 to 50% Less Alkali.

Clean and Sterile Brushes.

HE UNION ENGINEERING CO.

CLEVELAND, OHIO

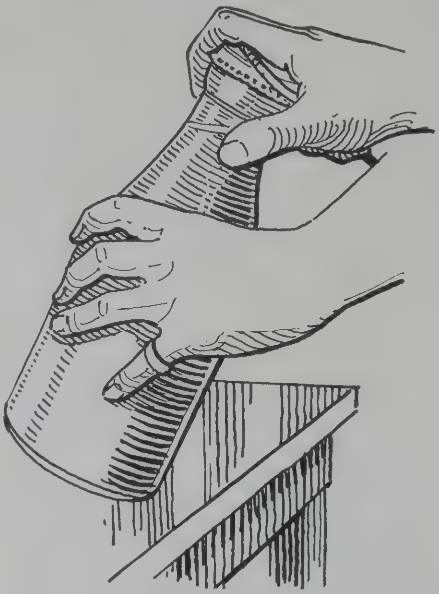
LIST OF AGENTS

ico Dairy Supply Company...........Cincinnati, Ohio
re & Company....................Indianapolis, Indiana
y-Bassett Company........Philadelphia, Pennsylvania
is Creamery Supply Company..........Chicago, Illinois
Jensen Creamery & Supply Company....Oakland, California
Meyer-Blanke Company..................St. Louis, Missouri
Wright-Ziegler Company.............Boston, Massachusetts
Hughes Sales Company...................Seattle, Washington

When writing to THE UNION ENGINEERING CO. *please mention The Milk Dealer.*

THE
DACRO
METAL CAP

Here at last is the perfect package of Milk or Cream, pure and sweet pasteurized IN the bottle! Made possible by a mechanically perfect closure.



Pure, sweet MILK—delivered under hermetic seal to the home. Handy openers supplied at small cost.

The Dacro Metal Crown—This remarkable cap is made on exactly the same principle as the famous Crown Cork which revolutionized the bottled beverage industry. The Dacro Crown is a hermetic seal. It automatically locks under the glass rim of the bottle. It is scientifically a perfect closure. Sealed with the Dacro Crown, Milk or Cream can be pasteurized in the bottle, an exclusive advantage of this seal. The Dacro Crown covers and protects the pouring lip. It KEEPS clean milk clean! No danger of contamination or tampering with pure contents. And the Dacro Crown can be replaced for temporary covering and seal after opening bottle.

PASTEURIZE YOUR MILK
IN-THE-BOTTLE

THE
Crown Cork & Seal Co.
BALTIMORE, U. S. A.

Inventors and originators of the famous "Crown Cork"

sarily assumed by individual interests. Milk distri
and plants will be obliged to assume more careful c
of their sources of supply by way of systematic i
tion, to inaugurate laboratory control of their pr
and instigate education helpful to dairymen and e
ening to the public. We have arrived at a stage
the dairy interests, not only in Birmingham but th
out the entire country, are confronted, from a bu
standpoint, with the necessity of inaugurating
careful control of their products in the interest o
lic health and by way of stabilizing the industry

In all, Birmingham has reason to feel proud
progress which has been made toward the solution
milk problem and the horizon glitters with bright
pects for the future.

⁂

RAPID INCREASE IN BUSINESS IN TWO YI

Two years ago M. L. Spicer, Celina, O., star
the dairy business. His business increased to s
point that better facilities for the handling of
products became a necessity, recognized by the
Mountain Creamery Company, for which Mr. Spi
distributor. The present modern refrigeration an
tributing plant resulted.

This plant, constructed by refrigerating engi
stands at East Wayne street, a building twelve by
ty-five feet. The main storage room, where 700 g
of bottled milk may be kept, has walls insulated
four inches of cork, with a ceiling and floor of s
construction. In this room a constant temperatu
35 degrees is maintained. Another room, with six i
of cork insulation, provides storage space for ice
handled by Schmidt & Heckler. Here the temperat
held constantly at zero.

Milk collected from farms in the Celina distr
pasteurized and sold to Celina customers by Mr. S
It is distributed in sanitary condition, with the
Mountain seal of approval and guarantee of purit
sweetness.

White Mountain Creamery products were the
branded dairy products sold in Northwestern Ohi

⁂

"A LA VITAMINES."

The scientific buffet luncheon recently placed b
delegates at the American Dairy Federation, Was
ton, D. C., was prepared in the bureau's labora
Each article went through the latest developing pr
before it was served "a la vitamines."

The bread used for Swiss cheese sandwiches
made with four per cent skim milk powder under a
cess developed to insure proper texture and vo
The clarification and pure-culture method was ad
for the cheese itself.

Butter was of the latest sweet cream variety, a b
formula for which is used in the manufacturing of
ter for the navy.

Concentrated sour skim milk was used in the co
cheese, waffles and cake, while the milk and ice c
came from the experimental farm at Beltsville,
which the delegates inspected. Even the coffee
scientifically treated, the special coffee cream prod
on the farm being sterilized and bottled in the labora

⁂

Need a good man for that new department of yo
You can get in touch with a lot of them through "
Milk Dealer" Want Ad Department.

Tycos Recorders on Storage Tanks

Here are twelve *Tycos* mercury actuated temperature recorders installed on the storage tanks of a large Eastern manufacturing company.

They keep faithful record of every fluctuation in the temperature of the stored milk. After long periods of use they check accurately with test thermometers when they are inspected. They are rendering the *Tycos* service which we built into them and which by experience milk dealers and superintendents have grown to depend on.

If you plan additions to your temperature equipment, be sure to send for *Tycos* Catalog Part 500-A for milk plants. In it you will find a *Tycos* or Taylor temperature instrument for every milk plant need.

Taylor Instrument Companies
ROCHESTER, N. Y., U. S. A.

CANADIAN PLANT
TYCOS BUILDING
TORONTO

MANUFACTURING DISTRIBUTORS
IN GREAT BRITAIN
SHORT & MASON, LTD., LONDON

Tycos Temperature Instruments
INDICATING - RECORDING - CONTROLLING

When writing to TAYLOR INSTRUMENT COMPANIES *please mention The Milk Dealer.*

Use of Motor Driven Vehicles Milk Deliveri

BORDEN'S
BOTTLED
MILK & CREAM

By F. A. WEBB*

THE milk industry has looked upon the problem of distribution only in the light of transportation of our products from receiving stations in the country to pasteurizing plants and to branch distributing points, and has worked out economical means of transportation by the use of tank cars, tank trucks and trailers. The economies effected have been due to the increase of volume, one large tank for many cans, one unit for many.

The same principle has been applied in the use of trailers, increasing the quantity of goods handled.

Another application of the same principle was made when the gas car was used to increase the radius of operation on account of the limitations of the horse. Adding new territory and business, thereby increasing the volume of the plant.

In the natural course of events, the milkman (like Savonoralla traveling the universe in search of diamonds, finds them in his own back yard) at last has attacked the problem nearest to him—the final step in the distribution of his goods to the consumer.

The horse has been the only motive power used in this last step of distribution, and rightly so because the work as planned on account of distances traveled, rest periods, and his intelligence is found to be at his most efficient basis of work.

The problem presented is to find something that will enable us to distribute more goods with better satisfaction at lower cost. This is certainly a worthy undertaking. With that end in view, the Borden's Farm Products Company of Illinois undertook to study the problem. We found the electric truck people ready to present their claim as having the substitute for the horse that would accomplish these objectives.

Enough cannot be said of the company and the salesman who assisted in making the surveys and preparation of reports. It is the type of salesmanship that is ever alert to get at the facts and assist in making the correct application of them. This was done at heavy expense to the company, and is greatly appreciated.

A small branch was selected which we thought, on account of its location and the exclusiveness of its people, electric transportation would work out economically and appeal to them from the standpoint of appearance and noiselessness, etc.

The first step was to find out what we were doing with horses. We collected this information on each route. In making the time study, we found the driving time from distributing station to the first customer was 31 minutes; serving time on the route, 4 hours, 40 minutes; driving time from last customer to station, 34 minutes; mileage to first customer, 2.7 miles; from last stop to distributing station, 3.1 miles; mileage from firs tomer to last customer, 4.9. Total mileage—10.7 Total stops of vehicle, 77.6, together with a mass formation not pertinent to this discussion.

After completing this survey, the electric truck p demonstrated they could make the deliveries and 30 minutes on actual serving time and approxim 30 minutes in time going to and from route. We found by taking advantage of the time saved in se we could eliminate five routes which increased the age per route, 25 points per day, giving the salesma benefit of time saved going to and from the route.

The question of the kind of body to be used h be settled. A careful analysis of the work to be compelled us to overrule custom and the idea of s ardization and adopt the drop frame.

Having agreed on the advantages of electrifyin the type of body, we still had to make a decision the type of battery. Electric truck people, if you ha had the experience, are inclined to leave the sele of batteries up to the purchaser. So we set out t the battery best adapted to our use, and strange t all the different battery concerns have staunch sup ers. I suppose it's the same old story that each c had to justify his purchase. After carefully wei the information, we disposed of the battery questio

You will note I have refrained from mentioning n of concerns. This is done in the spirit of fairne truck manufacturers and battery people.

As stated before, our problem is to distribute goods with better satisfaction at less cost. Acco to our survey, the mileage on routes was 4.9 mil 25,872 feet. There were 77 stops of the vehicle average distance between stops was 336 feet. N casual observation of a street car will show quickly and easily it gets under way, compared w horse. An electric truck will be traveling at the of 10 miles an hour in covering a distance of twic length. In some cases the route men will use som the time saved in going to and from the route, so if the time is saved, the salesman can make even deliveries.

Another help in saving of time is the drop frame this survey, the salesman left and returned to the ve 77 times. With the drop frame, he saved 154 climbing up and down, which is enough time and en to climb to the top of a 10-story building. Of co this doesn't mean much, but the few seconds here there count. Therefore, because you can save time, t by increasing the unit volume, the electric shoul place the horse.

Herbert Hoover says an increased standard of li for the whole nation depends upon the maximum vidual production within the proper limits of the hu

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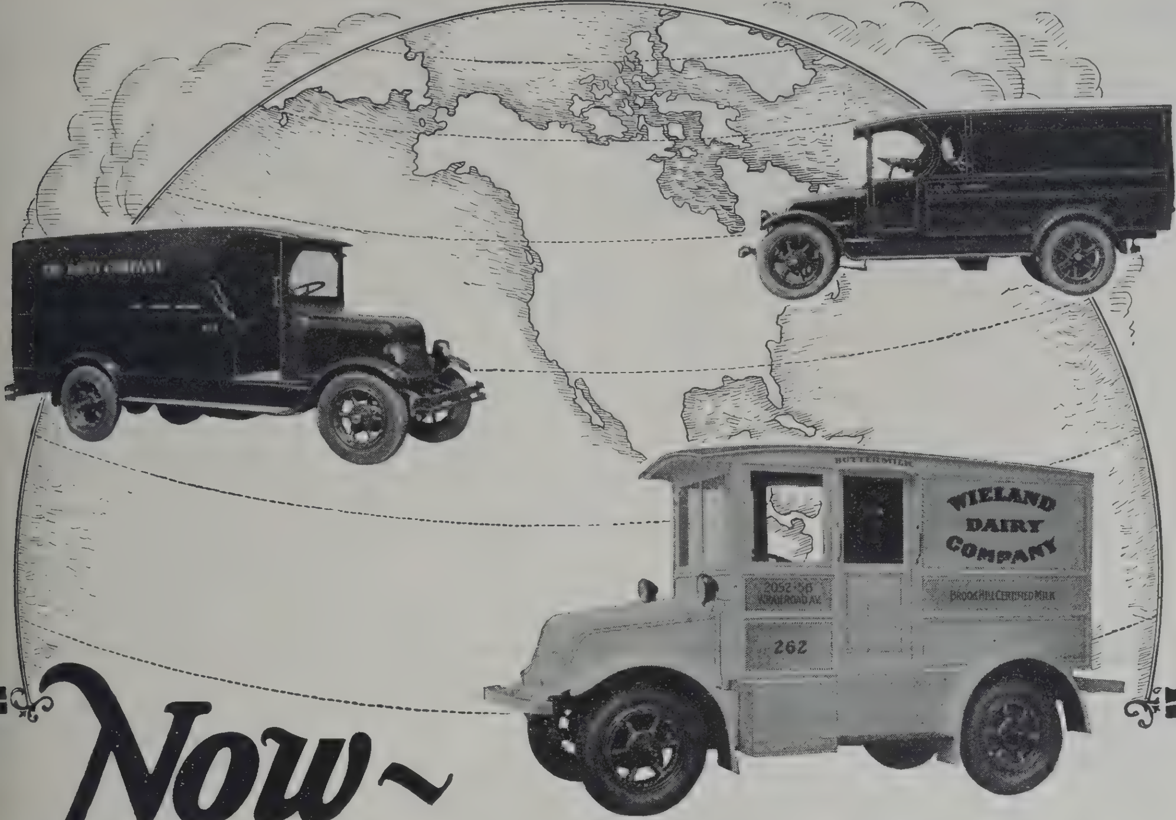
* Borden's Farm Products Co., Chicago, at Detroit convention of International Association of Milk Dealers.



Now~ A Longer-Cruising Radius Light Delivery Electric!

Every business man with a light delivery problem has needed it. Excessive costs of horse or gas delivery on light delivery routes demanded it. Walker Model 10 electric truck supplies it. The Model 10 *handles its load more economically than any other truck.* Your competitors may already have taken advantage of this more economical and longer cruising truck.

Write today for the new Model 10 folder

WALKER VEHICLE COMPANY
87th AND STATE STREETS, CHICAGO

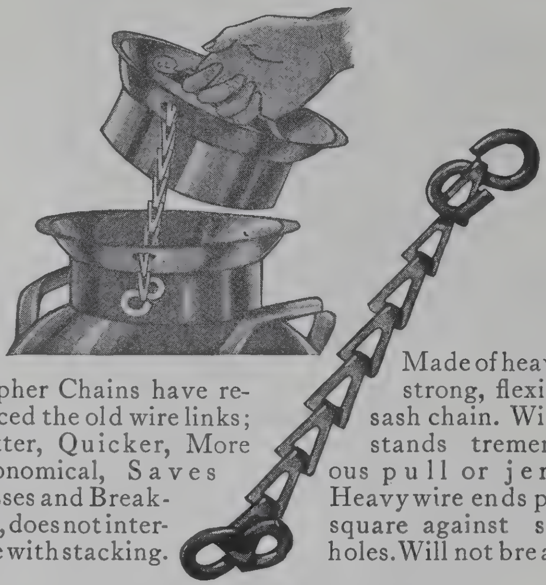
WALKER ELECTRIC TRUCKS
LOWEST TRUCKING COST ON CITY ROUTES

When writing to WALKER VEHICLE COMPANY *please mention The Milk Dealer.*

Speedy Handling with Gopher Cover Links

Put Them On
Your Patrons' Cans

"Guarantees Return of Right Cover"



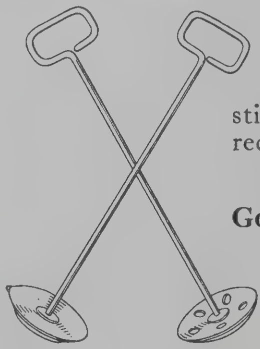
Gopher Chains have replaced the old wire links; Better, Quicker, More Economical, Saves Losses and Breakage, does not interfere with stacking.

Made of heavy, strong, flexible sash chain. Withstands tremendous pull or jerk. Heavy wire ends pull square against seal holes. Will not break.

Hot Sherardized Rust-Proof Finish

Insist that Patrons Use Gopher Stirrers

"WILL INCREASE BOTH YOUR AND THEIR PROFITS"

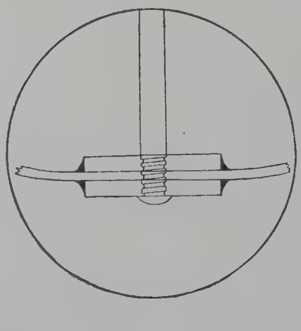


Many shippers overlook the fact that stirring cream with properly constructed stirring rods hastens cooling and reduces development of bacteria.

A Distribution of Gopher Stirrers Will Improve Your Quality!

CONSTRUCTION

The Bowl is made of 18 gauge heavy milk can steel, reinforced by electrically welding two 10 gauge washers in the center. The Rod is screwed through this 3/8 inch thickness and riveted. WILL NOT LOOSEN. Complete Stirring Rod is tinned after assembling. NO RUST.



Superior Metal Products Co.
311 Chestnut Street
ST. PAUL :: :: MINNESOTA

machine. Is it not imperative in this industry to
the most efficient kind of equipment so that the sa
can do his maximum amount of work? I belie
demonstrates we can do more work with an
truck than horse and wagon.

Better satisfaction; I believe even you gen
would rather have milk delivered to your own hom
an electric truck than horse and wagon, but in o
cover the points, let's enumerate them. So much
about the intelligence of the horse. Don't forg
when the horse is assisting in the service by st
in front of each customer's door, that he does
ways stop at the right point, and at the right tim
if he did, an extra order from a customer may
an extra number of steps because the horse has
ahead. Also, that in moving along, he may hoo
an automobile parked along the street or stop
off the shrub or tree most highly prized by a cus
and incidentally tread on the lawn while doing s
sides, he litters up the streets and private drive
and oftentimes, when left alone on the street, caus
ious accidents to children sitting along the curb o
ing in the street, and occasionally runs away, c
serious injury to pedestrians and damage to pr
Then again, with nearly all deliveries being ma
motor vehicles, the horse is in the way, slowing up
to such an extent that in the congested territo
some cities he has been legislated off the street.

Compare the noiseless electric with the clat
horses' feet and rattle of the wagon.

With greater volume, a route salesman wou
more satisfied in that his earnings are increased.
satisfied, it will decrease turnover.

It is much cleaner work, therefore, it makes
salesmen out of the old force and attracts a highe
of man to the work. From the standpoint of sani
there can be no question since you eliminate the
tionable odors of the horse and the association
product with the thought of a stable, and being
and sanitary, it is an incentive to salesmen to im
their personal appearance. It also affords an idea
ing billboard for advertising purposes. It also dec
fire hazards.

We had an interesting experience, last wint
the close of the season when an unusual snow
starting with rain, turned to snow. There was a
about 6 inches on the level. It was so damp th
wheels when the car was stopped, settled, maki
oval indentation following the line of the wheel, s
all four wheels were in a rut and all traction surf
smooth as ice. And only one chain on a wheel. S
of our rigs were stuck, using up current by the spi
around of the wheels. However, an experienced
tor would move the truck out of the rut and sta
man on his way.

One man had gotten within a few blocks of the b
walked in and advised the superintendent of his
He was told to go back and most likely the battery
come back sufficiently for him to drive in. He did s
had no difficulty in returning. All cars were gi
full charge the next day, and only three men had t
and this under worse road conditions than the da
fore.

Our conclusions were that most of our troubl
due to the lack of experience of our men in not kn
how to handle the equipment under those condi
The same day, one of our electrics pulled out a g
that was stuck in the snow.

On another occasion, when the streets were co
with ice, we had horses down all over the city and
trics came in with no difficulty whatsoever. Whi
average mileage was 10.7 miles, we had two routes

[*The use of gelatine in buttermilk will build more sales for you*]

Gelatine in Buttermilk

Is Approved by Dairy Industry Experts

BECAUSE:

1. It checks "wheying off"
2. Improves taste and texture
3. Retards development of acidity
4. Increases food value and digestibility
5. Is successful in both natural churn and commercial buttermilk
6. Costs less than 1 cent per gallon
7. Does not change the manufacturing process

[*Directions for the use of gelatine in buttermilk,—samples, prices, etc., may be obtained by writing to any of the following—members of the Edible Gelatin Manufacturers' Research Society of America*]

Atlantic Gelatine Company,
Woburn, Mass.

Crystal Gelatine Company,
121 Beverly Street,
Boston, Mass.

Essex Gelatine Company,
40 North Market St.,
Boston, Mass.

Kind & Knox Gelatin Company,
Camden, N. J.

Milligan & Higgins Gelatine Co.
222 Front Street,
New York, N. Y.

Swift & Company,
Union Stock Yards,
Chicago, Ill.

United Chemical & Organic Products Co.,
4200 South Marshfield Ave.,
Chicago, Ill.

United States Gelatine Company
Milwaukee, Wis.

The J. O. Whitten Company,
Cross Street,
Winchester, Mass.

EDIBLE GELATIN MANUFACTURERS'
RESEARCH SOCIETY OF AMERICA, *Inc.*
1457 BROADWAY " " " NEW YORK

[*The use of gelatine in buttermilk will build more sales for you*]

n writing to Edible Gelatin Manufacturers' Research Society of America, Inc., *please mention The Milk Dealer.*

total mileage was over 30 miles, and they came in with no trouble, which is further evidence that the electrics should have been able to make the rounds without difficulty.

Now, I believe we have established the fact that more goods can be delivered and with better satisfaction.

We have been operating these trucks about a year. The question of cost cannot be definitely determined at this time, as certain fixed charges such as depreciation on batteries and trucks have been based on the experiences of users in other lines of industry. We expect to get longer life from batteries because of the variation of current consumption required on different routes. When a battery can no longer handle a twenty mile route, it can be placed on a 15, 10 or 5 mile route. In this way, we will be able to get the maximum life of the battery.

Batteries are depreciated at the rate of 25 per cent, and trucks at 10 per cent per year. We expect trucks to be in service longer than 10 years. In fact, our investigation made at the beginning of the study, disclosed the fact that it was not uncommon to find trucks that had been 12 to 14 years in service with no appearance of wear, and no thought on the part of the owner to discard them.

We found that the fixed charges over a nine month period for 1926, when electric trucks were used, showed an increase over corresponding periods when horses were used, but the savings effected in the controllable expense more than made up for the increase in the cost of fixed charges, and showed a distinct saving on the whole.

Then again, if we had taken advantage of the consolidation of 2 or more branches disposing of those properties and relocated in a garage type building, we could have materially decreased the cost of fixed charges and controllable expense and had the advantages that accrue to increased volume.

While this discussion has been confined to a comparison of horse cost with electric truck cost, statistics prove that gas truck costs are higher than electric truck costs, and should not be used on frequent stop work. It is probable that gas trucks can be used to further extend your territory even beyond the possibilities of an electric truck, but for frequent stop work, the electric is more economical than a gas car.

Consider the number of movements saved by a driver of an electric over the period of a year. It is estimated it would be over 100,000. This means energy conserved and energy is the measure of results obtained. Then again, frequent starting and stopping of a gas motor adds to wear and tear and shortens the life; at the same time, if the motor is running, it is consuming oil and gas. On frequent stop work, gas and oil consumption is increased 3 or 4 times. Not so, with an electric. Several milkmen have recently purchased electric trucks for milk distribution, and are experimenting with them.

Ice cream companies years ago, went into electric transportation quite extensively.

Mr. Robert E. M. Cowie, President of the American Railway Express Company, addressing the National Electric Light Association at Atlantic City in 1924, on the subject, "WHY THE AMERICAN RAILWAY EXPRESS COMPANY USES IN EXCESS OF 1800 ELECTRIC VEHICLES," gave the following 15 reasons:

1. Reduce cost.
2. Fastest trucks there are on short haul or frequent stop work.
3. Its simplicity makes it easy to run and easy to repair.
4. Rugged, reliable, seldom breaks down on the road; disabled more infrequently than any other type of truck.
5. Electric trucks last longer than gas truc
6. Electric trucks are clean.
7. Electric trucks are quiet.
8. Electric trucks are odorless.
9. It can be stored at loading platforms, garage space.
10. It uses power with minimum waste.
11. Speed that is consistent with prudence running and power economy.
12. Employers' control of speed is inheren truck.
13. Its tractive power is greatest in proportic horse power used.
14. Its hazard of fire, accidents and theft is
15. It costs less to run and maintain.

The American Express Company's business is cent transportation. They sell service. Each is zoned or routed the same as in the milk busin packages of all sizes and dimensions called for livered in that zone.

We know that many of the best known bus stitutions of the country use electric trucks, such Wanamaker, Ward Baking Company, American Express Company, Tiffany and Company, H Hardart, Marshall Field and Company, and man This equipment having been in service over a years, such eminent authorities as Thomas A. Ed the late Charles P. Steinmetz declare the electri are superior for ordinary deliveries where sh and frequent stop work is involved.

In the September issue of "The Power Frank H. Williams of the Los Angeles Creame pany, says that they have been operating electri since 1911; his reasons for their use are—first costs one-third less per year per car to operate tric truck on short hauls and frequent stops tha to use gas trucks.

2. It is much easier for the driver to handl trucks on such routes than gas cars.

3. Easier to break in "green" men on elect gas trucks, because of simpler operation.

4. Slow speed of the electric cuts down the of wrecks.

5. The drivers on their short hauls and stop routes prefer electrics to gas cars because the constant pedal manipulation necessary on g no cranking, etc.

6. Lack of complaints from customers wher trucks are used for night deliveries on accour lack of noise.

7. Smooth running, which means less shakin the milk and cream and other products delivere truck.

In summing up, we have demonstrated tha deliver more goods with greater satisfaction to and our customers and for the short period months, at less cost, and it is the statement of ma concerns who have operated electrics over long on short hauls and frequent stop work, that th less than with horses and wagons or gas trucks

We believe we have been justified in recom to our company the investment of capital nec make the installation of electric trucks possible

Ascertaining Motor Vehicle Delivery Exp

Following Mr. Webb's presentation, R. H. controller for the Borden Co., read the followin

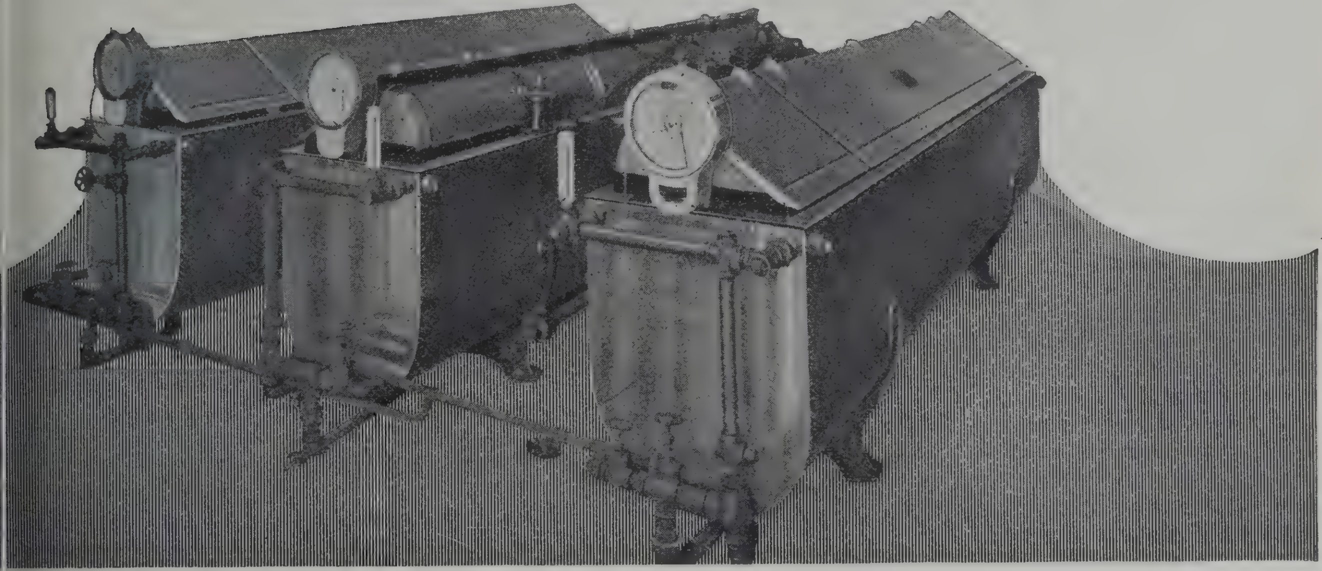
Of all the important subjects before the mi for dècision today, one of the most vital and y say elusive, is that of the substitution of electr for the horse-drawn vehicles. It is an elusiv because of the fact that the average milk de

Another user of Pure

DRINK HUTTS' MILK for HEALTH

Nickel
DAIRY EQUIPMENT

View in Hutts' Dairy showing 300 gal. Burrell-Simplex Nickel-lined spray pasteurizers, manufactured by D. H. BURRELL & CO. INC., Little Falls, N. Y.



Best we have had"—this user writes

IN recent years, dairies in all parts of the country have tested Pure Nickel equipment in day-to-day service. Without exception, they have found that this attractive, silvery metal furnishes advantages that can be secured in no other material.

They have found, for instance, that Pure Nickel equipment helps to lower the bacteria count—that it facilitates the production of better, cleaner milk. They have also found that it is more economical because of its greater strength and toughness. It stands up for years in the hardest service.

The opinion of Hutts' Dairy is typical of that expressed by dairy owners everywhere. Mr. H. R. Hutt writes: "....... we are operating a milk distributing plant and find our Burrell Nickel Spray Vat pasteurizers the best we have had. The Nickel is easy to keep clean and always looks bright."

If you have any doubts concerning the advisability of using Pure Nickel equipment, we suggest that you consult your regular manufacturer. Additional information about Pure Nickel may also be secured direct from us.

SEND FOR "LIST B" OF NICKEL & MONEL METAL LITERATURE

INCO NICKEL TRADE MARK **Nickel** INCO NICKEL TRADE MARK

HE INTERNATIONAL NICKEL COMPANY (INC.), 67 WALL STREET, NEW YORK CITY

When writing to THE INTERNATIONAL NICKEL COMPANY *please mention The Milk Dealer.*

not make the change, because of the question—will it pay?

Distributors in other lines have made the change, possibly not to the extent of 100 per cent, and contend they do not regret having done so.

There is only one way to find out if it will pay and that is by the actual operation of electric trucks, the expenses of operation being carefully classified and properly accounted for, and comparison made with expenses of operating with the horse-drawn vehicles.

The subject assigned to me for discussion is "Ascertaining Motor Vehicle Delivery Expenses." However, the problem before us is "The Accounting Procedure to be followed in ascertaining the Expenses of Operating Electric Trucks and in comparing them with the Expenses incident to the Operation of Horse-Drawn Vehicles."

This comparison is not made between electric trucks and gasoline trucks for the reason that the electric truck will in most instances replace the horse-drawn vehicle rather than the gasoline truck.

My address will therefore deal with the accounting procedure to be followed in ascertaining the expenses in operating electric trucks and with the comparison of these expenses with the expense of operating horse-drawn vehicles.

While the accounting procedure takes in not only a correct classification of accounts, but also covers the flow of business transactions over the books of record, in order not to take up your time with a subject with which you are all more or less familiar, by this I mean the details of accounting procedure, I will confine my paper to the classification of accounts which I believe to be the most important.

Amongst the larger companies where there are a number of distributing branches, and individual route costs are not maintained, the ideal method would be a complete installation at any one distributing branch, where certain results of operating electrics could be compared with the previous results of operating with horse-drawn vehicles. With the smaller companies, meaning those companies who maintain but one distributing branch, this would not be feasible, but in the latter instance, individual route costs would be necessary. These could be kept very handily, charging each route with its direct charges and spreading overhead items on a basis of routes or points sold.

In setting up a series of accounts, I have grouped them under three classifications, namely:

Controllable Expenses
Fixed Charges
General Expenses

Under the Controllable Expense classification are those expenses which are more or less controllable, and in which an increase or decrease might occur by reason of the installation of electric trucks.

Fixed Charges are non-controllable expenses, which also might increase or decrease through the installation of electrics.

General Expenses are the controllable or non-controllable expenses, whose increase or decrease would not be affected through the installation of electric trucks.

While these classifications are set primarily for the use of the larger dealer, the same type of classifications could be used by the smaller dealer; in fact, the smaller dealer could go into greater detail.

CONTROLLABLE EXPENSES:

Electric truck would compare with **Horse-drawn**

Salaries and wages:	Salaries and wages
Milk room and platform men	Milk room and pl men
Garagemen	Stablemen and ba
Senior and junior foremen	Senior and junio men
Route salesmen	Route salesmen
Commissions	Commissions
Watchmen, etc.	Watchmen, etc.
Repairs and supplies	Repairs and supplie
Charging batteries	Feed and bedding
Water	Horse shoeing
Ice used	Veterinarian
	Water
	Ice used

In a comparison of controllable expenses, the e truck in early years would probably show a co able saving, which would be due principally to t creased wages of foremen and route salesmen— creased wages is meant rather the elimination of —on the theory that a greater volume could be h via the electric as compared with the horse-dra hicle, and the elimination of the expense of maint the horses which, according to our experience, i than double the cost of current used in ch electrics.

In view of the fact that management looks u sults as a guide to help him in deciding future p extreme care should be exercised by the account submitting figures of this nature, that facts, not re in his figures, are brought out. For instance: electrics have only been in use for a period of les a year, the repair and upkeep charges may be co tively small, where on the other hand, the repa keep and painting charges on the horse-drawn may be extremely heavy in the period under co son, and unless this fact was brought to the att of management, he would have a distorted pict what has happened. For purposes of comparison tail analysis of expenses in both periods should be and a complete picture submitted, taking into cons tion increase in sales, changes in wage scale, etc.

FIXED CHARGES:

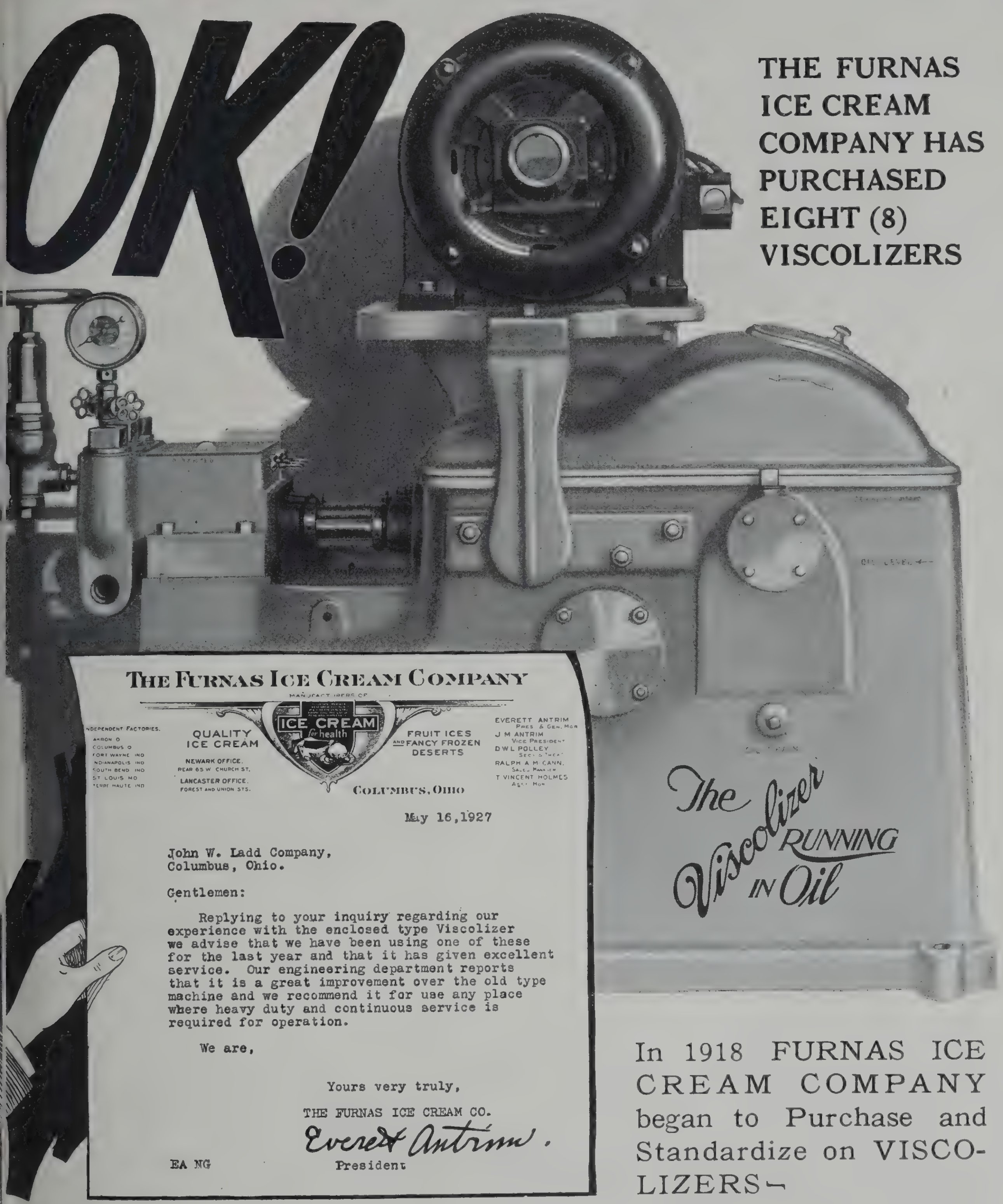
Electric truck would compare with **horse-drawn**

Taxes	Taxes
Licenses	Licenses
Insurance	Insurance
Depreciation:	Depreciation:
Buildings (office, garage, etc.)	Buildings (office, stables, etc.)
Equipment	Equipment
Electric trucks (body and chassis)	Horse vehicles
Batteries	Horses
Tires	Harness
Reserve for accidents	Reserve for accident

The result of an analysis of expenses under charges would without doubt reflect to the cre horse-drawn vehicles, because of the depreciation o trics as compared to the depreciation of the hor the horse-drawn vehicle. The investment in an e truck would be considerably greater than the inves in the horse and wagon, depending on the type of ment, and the depreciation charge relatively grea

There should be a saving in the insurance e because of the reduced fire hazard, due principa the elimination of the necessity of carrying ha horse bedding on the premises, as well as the t

THE FURNAS ICE CREAM COMPANY HAS PURCHASED EIGHT (8) VISCOLIZERS



THE FURNAS ICE CREAM COMPANY
MANUFACTURERS OF
ICE CREAM for health

NDEPENDENT FACTORIES.
AKRON O
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FORT WAYNE IND
NDIANAPOLIS IND
SOUTH BEND IND
ST LOUIS MO
TERRE HAUTE IND

QUALITY ICE CREAM

NEWARK OFFICE.
REAR 65 W. CHURCH ST.

LANCASTER OFFICE.
FOREST AND UNION STS.

FRUIT ICES AND FANCY FROZEN DESERTS

EVERETT ANTRIM
Pres. & Gen. Mgr
J M ANTRIM
Vice President
D W L POLLEY
Sec'y & Treas
RALPH A M CANN.
Sales Manager
T VINCENT HOLMES
Ass't Mgr

COLUMBUS, OHIO

May 16,1927

John W. Ladd Company,
Columbus, Ohio.

Gentlemen:

Replying to your inquiry regarding our experience with the enclosed type Viscolizer we advise that we have been using one of these for the last year and that it has given excellent service. Our engineering department reports that it is a great improvement over the old type machine and we recommend it for use any place where heavy duty and continuous service is required for operation.

We are,

Yours very truly,
THE FURNAS ICE CREAM CO.
Everett Antrim.
President

EA NG

In 1918 FURNAS ICE CREAM COMPANY began to Purchase and Standardize on VISCOLIZERS—

In 1926 an Homogenizer was bought for Columbus.

In 1927 two running in oil VISCOLIZERS were bought for Columbus and Akron—

DISTRIBUTION DIRECTED BY

JOHN W. LADD CO. **CHERRY-BASSETT CO.**

AND SOLD BY LEADING DAIRY SUPPLY HOUSES EVERYWHERE

When writing to JOHN W. LADD CO. *or* CHERRY-BASSETT CO. *please mention The Milk Dealer.*

building, if one is built with the idea of using electrics instead of the horse-drawn vehicle. By the type of building, I refer to the wooden construction necessary in stables, etc., as compared to the fire-proof construction of buildings of the garage type.

Depreciation is a very big factor in the elements of cost of operating with electrics. While from the experience of actual users, the life of the electric truck has been found to be considerably in excess of ten years, some as high as fifteen years, and the trucks still running, we should be very careful to correctly set up what in our opinion would be the life of the electric truck, based upon the conditions under which we must operate them, since the users of electrics in other industries usually are carriers of dry merchandise, and while their trucks may be put to as much use as those in our particular line, they are not carrying the same commodities. Therefore, until we learn from actual experience, the ten-year period would be a conservative estimate.

There are various opinions as to how depreciation should be applied, the simpler way is, of course, the fixed rate which is used more or less by the larger companies, but possibly for the smaller companies depreciation on a declining value may work out more satisfactorily. For instance: on the theory that as the truck becomes older, it will require heavier expenditures for repairs and upkeep, there could be put in use a graduated rate of depreciation, starting with a higher rate and working downward, or depreciating at a fixed rate on the depreciated value, which would mean that when the repairs are higher, the depreciation would be lower. This would also leave some value to the truck against which the salvage or turn-in value could be applied.

The type of batteries being used in our service are guaranteed by the manufacturer to give a life of 40 months, and although the experience of actual users of similar type batteries has been as high as 60 months, we believe a conservative estimate to be about 48 months, and in depreciating batteries, we do so on the replacement value, which is considerably less than the list price, due to the salvage allowance on the old battery. This estimate of 48 months of course should be changed to what actual experience teaches us is a more correct life.

General Expenses:

Under the classification of general expenses would go such branch expense items as:

Salaries and wages:
  Superintendents
  Office employees
Lighting
Stationery, postage and telephone
Hauling
Fuel
Building repairs
Reserve for bad debts
Miscellaneous expenses

The installation of electric trucks having no bearing on the increase or decrease of these expenses, no consideration need be given to such increase or decrease in the comparison of expenses.

Naturally, one of the most important problems in the installation of electric trucks is the question of invested capital. While it is true that the conversion of a distributing branch from horse-drawn equipment to that of electric truck equipment is an undertaking that any company might well hesitate to make, if it were a question of the building of a new branch, the decreased investment in the construction of a garage, as compared to barns, stables, etc., would tend to offset part, if not all, of the increase in investment, due to the installation of electric trucks as compared to horse-drawn equipment.

Gentlemen: In my introduction I have raised the question—Would it pay to substitute the electric tr
the horse-drawn vehicle?

We, as milk dealers, have operated few electr
a period of two years, and have had one bran
pletely electrified for one year, the operating re
which would warrant our answering this questio
affirmative.

We are, of course, not in a position to state f
own experience what the operating figures wi
over a period of years. However, there are m
liable fleet users of electric trucks in other lines
ness whose experience seemingly justify the use

Mr. Webb, in his paper, has pointed out to y
through the installation of the electric truck, v
accomplished the following:

1. We can handle a larger load.
2. We can save time and render our servi
   greater efficiency.
3. There will be a savings in wages paid rou
   men.
4. We can operate them at less cost.

Also, he has pointed out to you that they a
sanitary, that they can be operated with less n
they enable us to render a more satisfactory serv
the standpoint of our customers and ourselves.

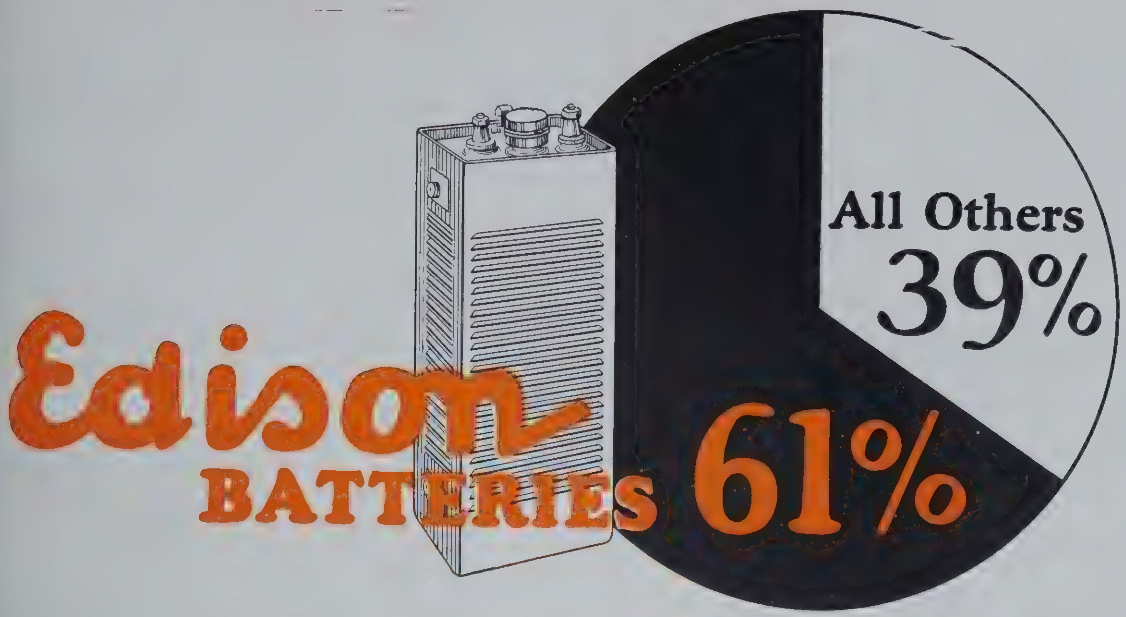
In my paper, I have pointed out to you:

1. The fixed charges for electric trucks
   heavier than for horse-drawn vehicles be
   the greater charge for depreciation, due
   larger investment.
2. The controllable expenses for electric tru
   be less than for horse-drawn vehicles.
3. Changes in general expenses need not
   sidered.
4. (a) In the earlier stages of the installa
   electrics, the capital investment will b
   greater than that necessary with hors
   vehicles.
   (b) However, in the later stages of the
   tion of electric trucks, when the conversi
   horse-drawn vehicles to electrics has beer
   completed, the decreased investment, be
   the nature of buildings required, will in
   not fully, offset the increased capital inv
   electric trucks as compared to horse-dr
   hicles. Bear in mind, however, that thi
   only capital invested, and would not of
   additional depreciation on the electrics.

RENKEN DAIRY ONE OF LEADING MILK CERNS SERVING BROOKLYN, N. Y.

The new distributing station at 1663-168
second street of the M. H. Renken Dairy Compa
the most modern equipment to insure sanitatio
tribution of milk and milk products. The pl
every facility for economical distribution of i
ucts. Martin H. Renken founded the business i

The Renken company is one of the leading m
cerns serving Brooklyn, N. Y., much of Long
operating many retail routes, retail stores a
creameries, with distributing stations at Bellaire
wood and Bay Ridge. The pasteurizing equip
located at the main plant of the business at My
Classon avenues, and is equipped with ice hou
chinery, stables, warehouses, garage and the e
offices. Mr. Renken remains the active high
head of the institution he has been since the
was conceived almost forty years ago.



EDISON serves the users of more than 61 per cent (nearly two-thirds) of all motive power battery equipment—industrial trucks, street trucks and mine locomotives—because Edison serves best at the lowest cost.

No less potent reason could have brought about this unquestioned leadership in the relatively short period of nineteen years since Mr. Edison first placed the Edison nickel-iron-alkaline Battery on the market.

The Edison Battery is *not an adaptation* of old principles to new uses, but *a new battery,* operating on a new electro-chemical principle, made of new materials, differing in construction and designed specifically for motive power service. The Edison Storage Battery is today specified by the majority of large users of industrial batteries because engineering surveys and comparative operating cost records invariably prove that Edisons haul more for less cost.

EDISON STORAGE BATTERY COMPANY, ORANGE, N. J.

Built like a
Watch—
Rugged as
a battleship
Thos a Edison

Edison

STEEL-ALKALINE

TRUCK BATTERIES

Thomas A. Edison is the World's largest manufacturer of storage batteries for motive power purposes (industrial trucks and tractors, street trucks and mine locomotives) although the Edison Storage Battery Company has been in this business less than nineteen years.

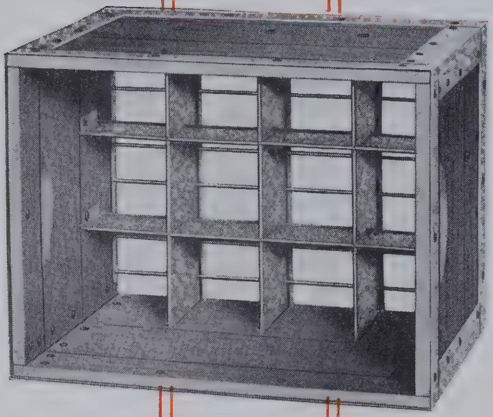
ATLANTA BOSTON BUFFALO CHICAGO CLEVELAND DETROIT HUNTINGTON LOS ANGELES
NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH SAN FRANCISCO SEATTLE ST. LOUIS WASHINGTON

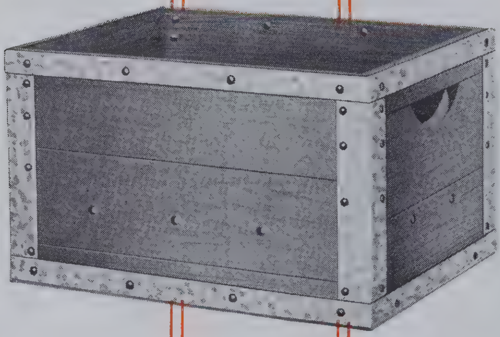
Export: 26 West Broadway, New York *Canadian Distributors: International Equipment Co., Montreal, Quebec*

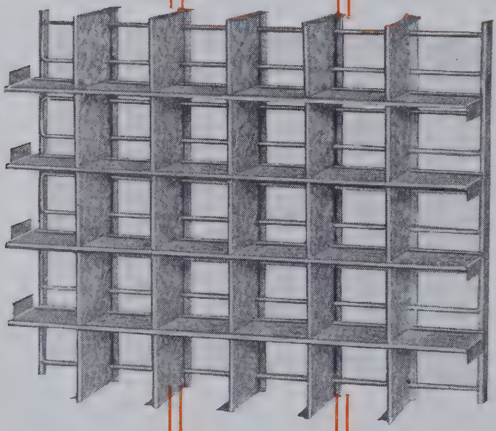
HAUL MORE FOR LESS MONEY

When writing to EDISON STORAGE BATTERY COMPANY *please mention The Milk Dealer.*

DEFIANCE







SEMI-STEEL
MILK BOTTLE
CASES

NOT one weak spot in the whole DEFIANCE CASE—not one place where jars, and jolts, and the hard bumps of everyday usage can start their destructive work. Every detail of construction is practically wear-proof, and break-proof.

DEFIANCE SEMI-STEEL CASES will out-last two ordinary cases, yet they cost no more.

The tops and bottoms, corners and ends are heavily re-inforced with strong galvanized steel bands securely riveted into place; and the partitions are virtually indestructible.

A two hundred pound man can jump on either side of them without bending any part of the metal. All partitions and wires are made into one unit and heavily galvanized after assembly.

WRITE FOR QUANTITY PRICES
AND SPECIFICATIONS

Thompson-Bremer & Co.
1750 Carroll Avenue
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When writing to THOMPSON-BREMER & Co. *please mention The Milk Dealer.*

The Truth about Chocolated Milk

WE started it in the South at the Army Camps during the World War and it has now spread over the entire country and is a growing success where the Milk Dealers are using

CHOC-O-LISHUS

[TRADE MARK REG. U. S. PATENT OFFICE]

There is no reason for using imitations.
The original Choc-O-Lishus is just as cheap and it goes further.

It has the true Chocolate Flavor.
It is the best by test.
It deserves your support.

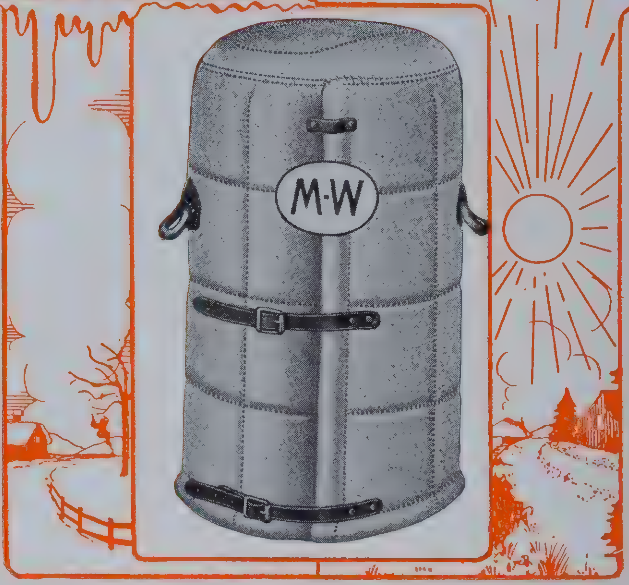
The manufacturers of Choc-O-Lishus are the oldest and largest manufacturers of Chocolate Syrup in the world.

THE CHOC-O-LISHUS CO.
NORFOLK, VIRGINIA

sidiary of H. B. HUNTER CO., INC.

M-W MILK CAN JACKETS
PROTECT AGAINST EXTREMES OF TEMPERATURE

Increase your sales by reaching new territory and add to your profits by eliminating adjustments caused by shipments spoiling.



Milk, Sweet Cream or Ice Cream Mix shipped in "M-W" Jackets arrive in good condition.

Made by the manufacturers of the original "M-W" ICELESS DELIVERY JACKETS
The Jacket that Defies Heat
MONTGOMERY-WASHBURN CO. - Saugerties, N. Y.

BUILT BY THE
HESSE MFG.CO
LEAVENWORTH, KAN.

Write for full information and prices
THE HESSE MANUFACTURING CO.
LEAVENWORTH, KANSAS
WAGON BUILDERS FOR 70 YEARS

The Only Part o
Your Business - -

that the housewife is acquainted with is your deliver
equipment.

If it is modern—attractive—quiet and inviting she instinctively will buy you milk.

The Hesse Aut Wagon offers the latest in wagon design and construction, an investment that brings large returns in new business and good will.

World's Dairy Congress Official Liner—S. S. Leviathan

World's Dairy Congress Tour

to Europe in 1928

A VACATION abroad with the wife and family on the greatest ocean liner of the seven seas! Now your dream can be realized; for next year in June, Dairy Products Manufacturers from every part of the United States and Canada are going to Europe to attend the World's Dairy Congress in London.

At this monster convention, the biggest of its kind in the history of Dairying, there will be delegates and representatives from the Dairy Products Industries of practically every civilized nation in the world. And after the convention, there lies before you the wonderful vista of quaint European cities and towns, travels and sights that will live forever in your memory.

The S. S. Leviathan, the largest and most luxurious steamship afloat, has been selected for this memorable trip. From stem to stern it measures 950.7 feet—width 100 ft. 6 inches—59956.65 tons.

Staterooms, social halls, dressing rooms, smoking rooms, libraries, music rooms, dining rooms, tea rooms, gymnasiums, swimming pool, and baths all represent a supreme triumph in ship building and ship decoration.

Forego your vacation this year, if necessary, to take in this great European Trip. Write for reservation blank which gives full information to **THE OLSEN PUBLISHING COMPANY, 501-515 Cherry Street, Milwaukee, Wis.**

A Vacation and Business Trip for Dairymen, Their Families and Friends That Will Never Be Forgotten. Are You Going?

UNITED STATES LINES

Watch the Belting!

Can Be a Source of Great Expense, Inconvenience and Losses if Proper Precautions are Not Taken and Care Exercised in Buying

IT HAS been said that "anybody's job is nobody's job." Perhaps there is nothing in the creamery in which this is more applicable than the belting used to drive the various machinery and equipment. For, while it is true that belting plays a very important part in the operation of a butter plant and is, undoubtedly, a considerable expense, it is a peculiar fact that very little attention is paid to the upkeep and selection of belting in the majority of plants.

To the average creamery operator, a belt is nothing more or less than something to drive his machinery and equipment. If it wears out (which it does at frequent intervals when so little care is paid to it) there is but one thing to do and that is to order another one. Usually, when they are ordered they are selected without giving a great deal of thought to it and in the most haphazard manner.

Still the average creameryman knows that belting is of tremendous importance to him, from the standpoint that it can cause him serious inconvenience and in some cases loss of time, labor and material. Too often a belt will break or because of excess slipping a churn of half-churned cream will have to rest until the slack is taken up or the belt repaired. Again it frequently happens that the same thing occurs on a vat of cream being pasteurized. In some cases it is excusable, of course, but in a great number this difficulty could be overcome by the proper care and selection of the belting.

Not only is there a great possibility of loss from these sources, but there is in very many cases a loss of horsepower due to excess slippage of the belt. This is particularly true in the case of the larger machines, such as refrigerating machines, churns, pumps, etc. Of course it will be pointed out by some that this is almost a negligible factor, but when it is considered that this loss is incurred month after month it can run into a considerable figure.

Selection is Important.

Of course, the first consideration of importance is the selection of the belt. It is quite well known that it often takes an experienced beltman to select belting of the best quality, and that the inexperienced man has nothing in the form of rules on which to base his selection. This is undeniably true, but there are some considerations which should be taken into account in the purchase of belting. Among other conditions accounting for the difference in belting are the hides from which they are made. It is a known fact that belting selected from the hides taken off the animal during the summer are the best suited, due entirely to the fact that the animals are in the best condition and cleanest during this season. Of course, it is to be admitted that the creameryman can hardly be in a position to know when the animal was killed when he is selecting the belting, but he can at least specify that he wants the belting selected from summer hides.

Perhaps the surest way of obtaining a high grade belt is to pay the price. Belting, like any other article, has certain definable grades, and in order to secure the highest quality it is necessary to pay for quality. This rule applies to belting as well as to the cream he buys.
Unfortunately, it is too often the case that a be
belt to most creamery operators, and price does not
into their selection. If they would but consult
records and add up their belting expenditures
would, undoubtedly, see the folly of buying o
basis. Belt manufacturers are no different fro
others in the commercial world. For, they wil
the buyer exactly what he wants for the money t
pays.

Use of Piping Test.

Aside from the price factor there are some
that can be followed out in the selection of the
grades of belting. One test that is most generally
and has limited qualities is known as the "piping"
It simply consists of taking a piece of belting and
ling it up, grain side in. If the wrinkles, or pipin
pearing on the grain side of the leather are lar
course, the leather is not of high quality. Better
ity of belting shows delicate wrinkles which are f
texture and indicate firm, sound leather.

Another thing that is very important in the
tion is the detection of mixed qualities of leather
might be used in the finished belt. Generally, it
possible for anyone but one knowing belts very w
detect this, but, in general, coarse, parallel wri
denote shoulder strips whether running lengthwi
across the end of the belting strip. If running le
wise the wrinkles denote that shoulder strips have
used. If the wrinkles running crosswise are dee
pronounced, belting strips which are too long have
used which necessitated cutting into the shoulder.

Of particular importance to the creameryman
secure a belt that is waterproof. Necessarily, be
of the extreme moist condition found in butter n
facturing plants it is to the manufacturer's intere
secure a belt that will resist moisture. The reaso
this is totally unnecessary to explain, for it is a
known fact that belting that is not waterproof wil
in a very short time, or will show excess sag and
page. Waterproof belts can be secured, for they
and have been on the market for some time.

Buy On Thickness Standard.

Belting is purchased on many different stand
but perhaps the most commonly used are the stand
of weight and thickness. Many manufacturers
that the best policy is to buy on thickness, inasmuc
some belting is known to be "weighted," and for
reason the thickness basis is the most satisfactory.

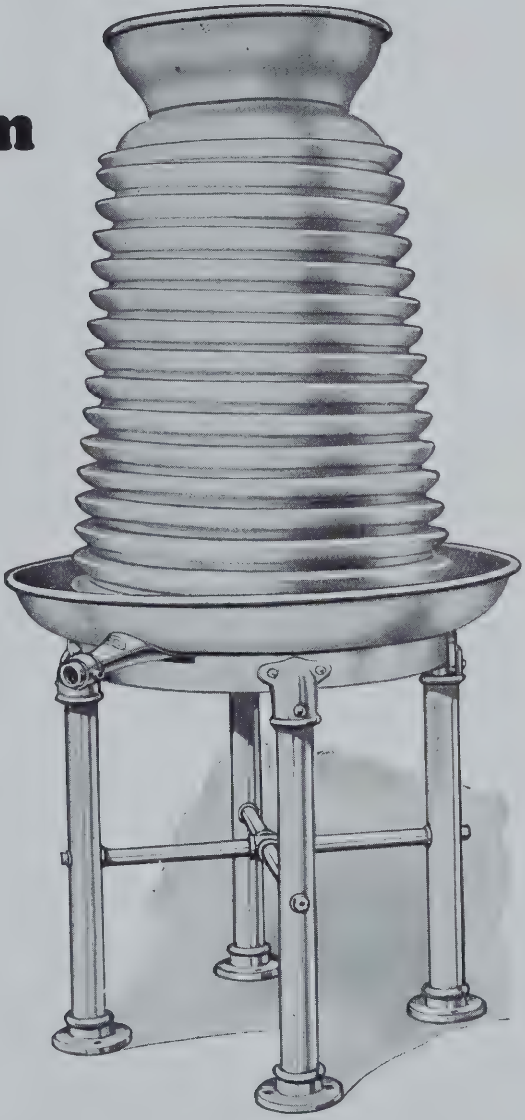
Those creameries buying a considerable amoun
belting at one time should also buy on the basis of
sile strength. All belting should have a minimum te
strength of 3,000 pounds per square inch and an ave
of approximately 3,750 pounds per square inch. Bel
should be selected at random using five test speci
when making the test.

It is a well known fact that different belts ha
greater or less tendency to slippage, and this is a
important factor in the proper selection of belting.
ally a highly polished belt, that is hard rolled, sho
low coefficient of friction and, therefore, will slip
readily and will be a poor transmitter of power, w
a soft finished and pliable belt usually possesses a

THE
H·H·MILLER INDUSTRIES CO.
CANTON, OHIO.

Chilly King Milk and Cream Coolers

Unexcelled for the cooling of Fluid Milk, Heavy Cream and Pasteurized or Homogenized Ice Cream Mix.



Made in sizes 1,000 to 10,000 lbs. per hour.

Also manufacturers of MILLER BRINE ICE CREAM FREEZERS, MILLER PASTEURIZERS, AUTOMATIC MILK HOLDING MACHINES, VATS, TANKS, M&M BOTTLE WASHERS, ETC.

Please Ask for Bulletin and Prices

When writing to THE H. H. MILLER INDUSTRIES CO. *please mention The Milk Dealer.*

IT'S HIGH TIM

A Message to The Dairy Indus

FOR months past reports have been drifting in f
our friends in the dairy industry that certain run
were afloat about Rice and Adams—unpleasant
of gossip that were totally unsupported by f
Apparently the death of Mr. Chas. Adams and his
and the subsequent reorganization which was required,
sented a choice opportunity to attack a strong competito

At first, because Rice and Adams has always operated o
basis of clean competition, these reports were greatly
counted. It seemed inconceivable that anyone would st
to tactics so unethical and we supposed that the fabricati
soon would die a natural death.

Now, however, the day has come to assert ourselves. It's h
time the truth were told, and the following statements will
at rest any doubts which may have assailed you:

Rice and Adams was never in a stronger position than i
today. The death of the senior Mr. Adams and his son na
rally required readjustments of personnel and stock, but th
ideal of service and quality are permanent possessions wh
will always be found reflected in every R & A machine.

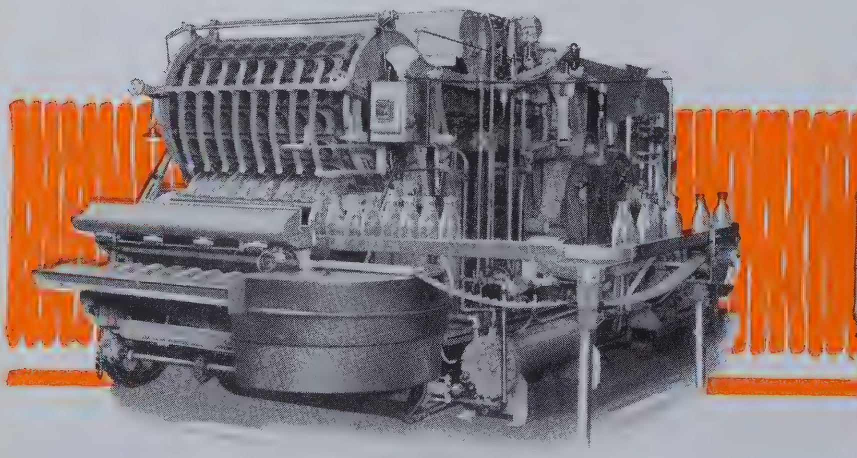
SINCE 1895—AMERICA'S FINEST DAIRY EQUIPMEN

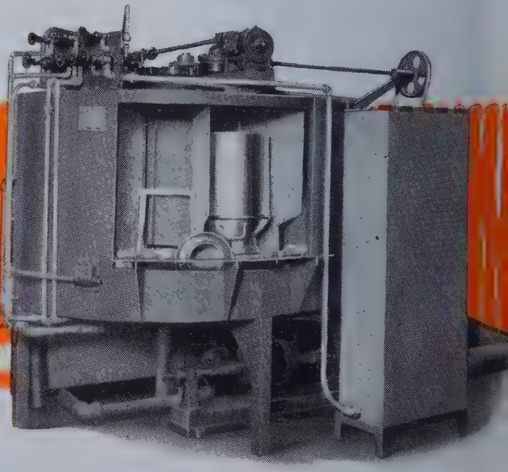
The R & A Threeway

Utilizes a highly efficient combination of Soaking, Hydro and Brush methods of washing. Also furnished without brushes if desired. Built in all standard capacities.

The R & A Rotary Can Wash

Three different models, 1 hand feed, 2 power
Capacities 2—8 cans per minute. Ask for literature.





When writing to RICE & ADAMS CORP. *please mention The Milk Dealer.*

TRUTH WERE TOLD

J. P. McKinley, President, Rice & Adams Corp.

new officers, all of them old R & A men, following the
ates of their own experience made several changes in or-
zation, management and production methods. These
iges were made to increase the efficiency of the organiza-
and to make the R & A plan of service even more in-
ate, if possible.

thirty years the name R & A has stood for dependable
y equipment. It is our plan that thirty years hence R & A
piece of machinery will still have the same significance,
the only way to accomplish that happy result is to build
hinery in an R & A plant, by R & A trained workmen,
cted by R & A officials with R & A ideals.

ou have been a victim of the gossip-mongers, and wish to
w exactly the truth—come and go thru our plant—see the
hines under construction—chat with our men—look at our
r books—talk with our bankers, and when you have
that you will agree with the famous author who said:
'ssip is a sort of smoke that comes from the dirty tobacco-
s of those who diffuse it; it proves nothing but the bad taste
e smoker.''

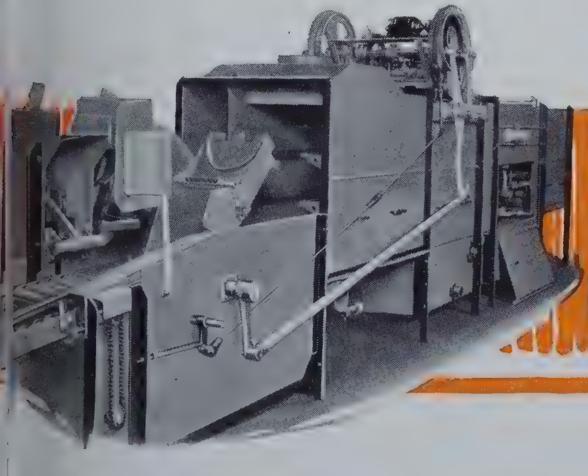
E & ADAMS CORPORATION, Buffalo, N. Y.

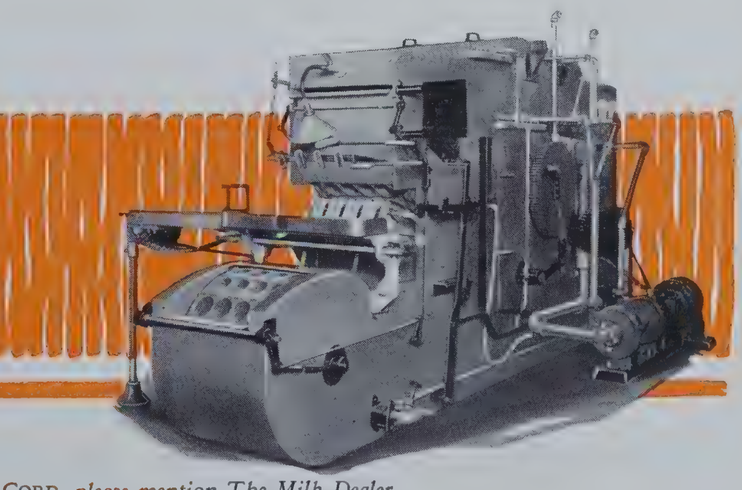
& A Champion Can Washer

&A Straightaway Can Washers absolutely have no
ual in strength, efficiency, completeness and fair
ice. Made in three sizes—capacities 3—12 cans per
inute. Equipped with the R & A Cover-placer if
sired.

R & A Little Soaker—Hydro

A small edition of the R & A Three-way for large and small dairies. Soaking-hydro principle. 3 capacities: 32, 48 and 64 bottles per minute. All R & A Bottle Washers can be equipped with hot water sterilizers and coolers, if required.





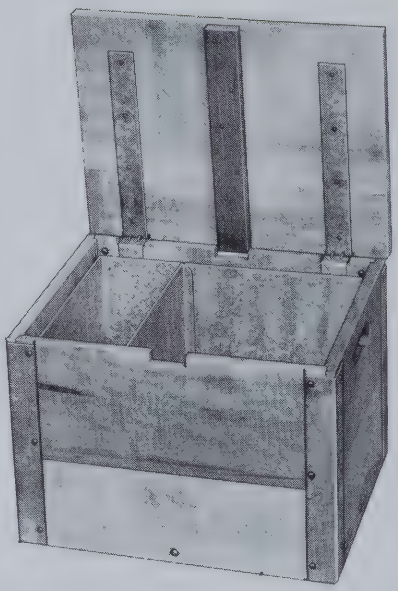
When writing to RICE & ADAMS CORP. *please mention The Milk Dealer.*

WILDBERG

Model "W" WAGON BUTTER BOXE

Built to withstand the HARDEST KNOCKS

FULLY GUARANTEED



No Nails

No Screws

No Lacing Wires

Construction: —Made with our one piece indestructible "W" Corner, two long galvanized hinges that are riveted to the top and back of the box, special top cleat construction to prevent the lid from breaking, substantial galvanized pan with ice compartment, wire bottom, sturdily braced.

Sanitary: —Galvanized pan removable and by inverting may be washed in the box in any standard size case washer. All metal parts heavily galvanized and guaranteed not to rust.

Standard Size: —Will stack on any Standard Bottle Case or may be used for driver's seat.

Materials: —Only the best obtainable. Northern Hard Maple frame, Poplar top and sixteen gauge galvanized steel corners.

Sizes: —Made to hold 30, 40 or 50 pound prints —special sizes may be had on request.

Write for prices and any further information to

THE WILDBERG BOX COMPANY
CINCINNATI, OHIO

Dairy and Ice Cream Machinery and Supplies Association Inc.

"World's Largest Manufacturers of Milk Bottle Crates"

Uhlmann-Kinsey Co.
Incorporated
PHILADELPHIA, PENNA.

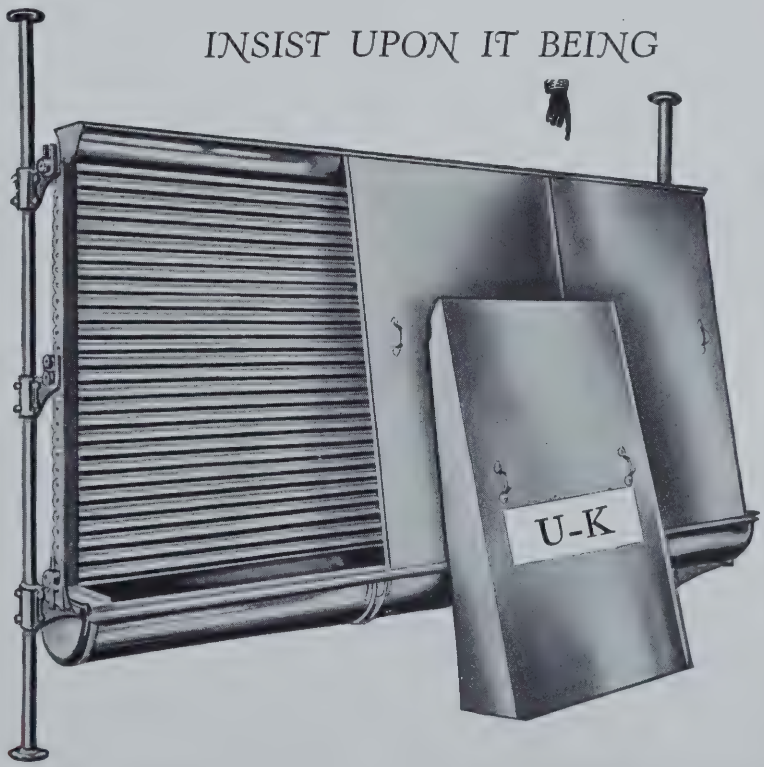
Milk COOLERS

U-K Direct Expansion Sections utilize the Ammonia Gas direct from the refrigerating machine. They require no brine, brine-tank, or pump. This saves installation and maintenance expense of a pump and brine-tank.

U-K Coolers cool the milk faster and prevent any further growth of bacteria in the milk after the pasteurization process.

A nickel silver tube drawn over the two inch steel tube reduces frost to a minimum, eliminates rust and wear entirely, and makes the U-K Direct Expansion Coolers last indefinitely. The U-shaped ends and center supporting yokes are heavy brass castings. All joints are so welded and guaranteed against leakage.

Economical
Fast-Cooling
Durable



Uhlmann-Kinsey Co.
INCORPORATED
25-27-29 South 20th Street
Philadelphia,
Penna.

Manufacturers of Equipment for Dairy and Ice Cream Industry.

When writing to UHLMANN-KINSEY CO., INC., *please mention The Milk Dealer.*

coefficient of friction. Again, a belt that is well worn shows a higher coefficient of friction than a new one, or in other words the efficiency of the belt increases with age, providing, of course, that it is not too aged so that there is excessive breakage. It is unquestionably best in purchasing belting that a soft, pliable belt should be selected, for a stiff belt will not transmit the maximum amount of power and will crack quite readily.

Belting of the better quality is usually pliable and although it will show some stretch, it is usually elastic enough to avoid breaking the fibers of the leather and destroying the life of the belt.

There are some who place much stress on the straightness of the belts to gauge their possibility of running straight on the pulleys. In the case of double belts, this is, perhaps, a good rule to follow; for by the nature of their construction a double belt, if properly made, will lay straight on the floor. However, this is not the case with single belts, for a well made single belt will have a gradual sweeping curve to it when laid on the floor, but will, nevertheless, run straight on the pulley.

Types of Drives.

Because of the machines used in the butter industry, there are, of necessity, many different types of drives used. In general it can be said that the ideal drive is the horizontal drive with the slack of the belt on top, but, inasmuch as this drive cannot be adapted to all conditions in the creamery, its use is not always possible. In those cases where it becomes necessary to have the slack of the belt on the bottom it is advisable to use a belt at least 10 per cent wider than would be used in case of where the slack is on the top. Another form of drive that is frequently used is the cross-belt drive. Usually, it is inadvisable to use this type of drive or belt greater than 10 inches in width.

In many plants a fixed binder is employed on the drive. Usually, it is found on such machines as ice machines and other heavy machinery. According to the best authorities the fixed binder should not be used whenever it is possible to eliminate it, inasmuch as it imposes hardship on the belt and is of no particular value, other than when used as a device to clear beams or other obstructions.

In installing the belt it is quite a safe rule to install the belt at a tension which will carry the load easily without straining. In other words, they should be just as slack as possible without incurring slipping. Belts should never be absolutely tight, and if it is found that this becomes necessary in order to pull the load it is an almost sure indication that there is something amiss with the drive. Single belts should be put on to run with the grain side next to the pulley, and in such a manner that the point of the laps will run against the pulleys in order to minimize the possibility of the laps on the outside of the belt coming apart. Double belts should be put on so that the point of the laps will run with the pulley. It has been found that the grain side of the belting possesses greater driving qualities than the flesh side of the leather. This is not a factor that should be overlooked or taken lightly, for tests show that when the grain side of the leather is toward the pulley it has the power of pulling a load from 20 to 40 per cent greater than the flesh side, which shows a great tendency to slip under a load. It is true that when the smooth side is run against the pulleys that the belt is broken in easier and it pulls fairly well as soon as it is placed on the drive. However, after the grain side has been broken in it shows far greater efficiency than when the flesh side is toward the pulleys, and while the grain side improves in transmitting quantities with flesh side does the reverse.

Have a Beltman.

Unquestionably, the wisest policy is to have in the creamery look after the belts. For, to repea body's job is nobody's job," and if no one is d assigned to the task of caring for the belts it safe to assume that they will receive very little a Belts should receive regular periodic inspection inspecting the belts the following points should sidered: dryness, too oily or too heavily dressed, belts too slack or too tight, whether the belts ning true on the pulleys, and the general cond the belt and drive. It is far easier to correct these points in their beginning, than it is to ma eral repairs when a belt has been allowed to bec far gone. At the same time, it is safe to say tha siderable saving will be effected if regular atte paid to the belts, which will eliminate the possi frequent purchases of belts.

If a belt on inspection shows signs of openi certainly an unwise policy to try to repair the by driving a hand full of tacks, rivets or othe shifts into the leather. For, the leather will break within a short time, whereas, if it was p cared for the life would be materially lengthen

Another point of major consideration is the of a belt. When it is found that the belt is be dry, and shows a sign of cracking, it is an ind that the natural oil of the belt has been exhaust such cases, the belt should be carefully cleaned face dirt with a coarse piece of cloth. Kerosene used to wash the belt if it is necessary, and oft necessary to scrape the belt of such dirt. This accomplished by using a wooden block. In apply dressing to the belt it is always the best policy t little on the pulley side and more on the outside belt, but it should also be remembered that too dressing is as bad as a dry belt. In other word enough should be applied which will be readily ab by the belt and pulley side of the belt should greasy when the application is completed. This should be done when the belt is idle and there opportunity for it to remain so for several ho order to allow the dressing to soak in.

Not only is a dry belt a bad condition, but of importance is a greasy and oily belt. Grease a are very injurious to leather, and when a belt b soaked it is quite subject to rot. Oil and grease removed by applying gasoline to it from time t or, if the condition is not too serious, it is often p to remove the oil by packing it in dry materia as sawdust.

Often times the creamery operator is lost to what causes the many belting troubles which he ences. In general, the most frequent troubles ar ping, excessive stretch, running to one side of the weaving, cracking grain, and peeling grain.

Slip is usually caused by overloads, oily, oily surface, too much dressing or a dry belt surface cessive stretch is usually caused by overload, poo ing or damp conditions. Running to one side pulley is due to the pulley not being in alig Weaving is due to underload most generally, but also be due to overload. Cracking grain is caus overload, dry belt surface or excessive slipping. P grain can be caused by excessive slippage or the sticky surface dressings.

The List of Users is Growing

Since the introduction of this space saving, labor saving, perfect pasteurizer—a steady substantial list of users have developed who can give you full assurance that the

MORTENSEN Positive Automatic All Nickel Holder

delivers full satisfaction for all claims made.

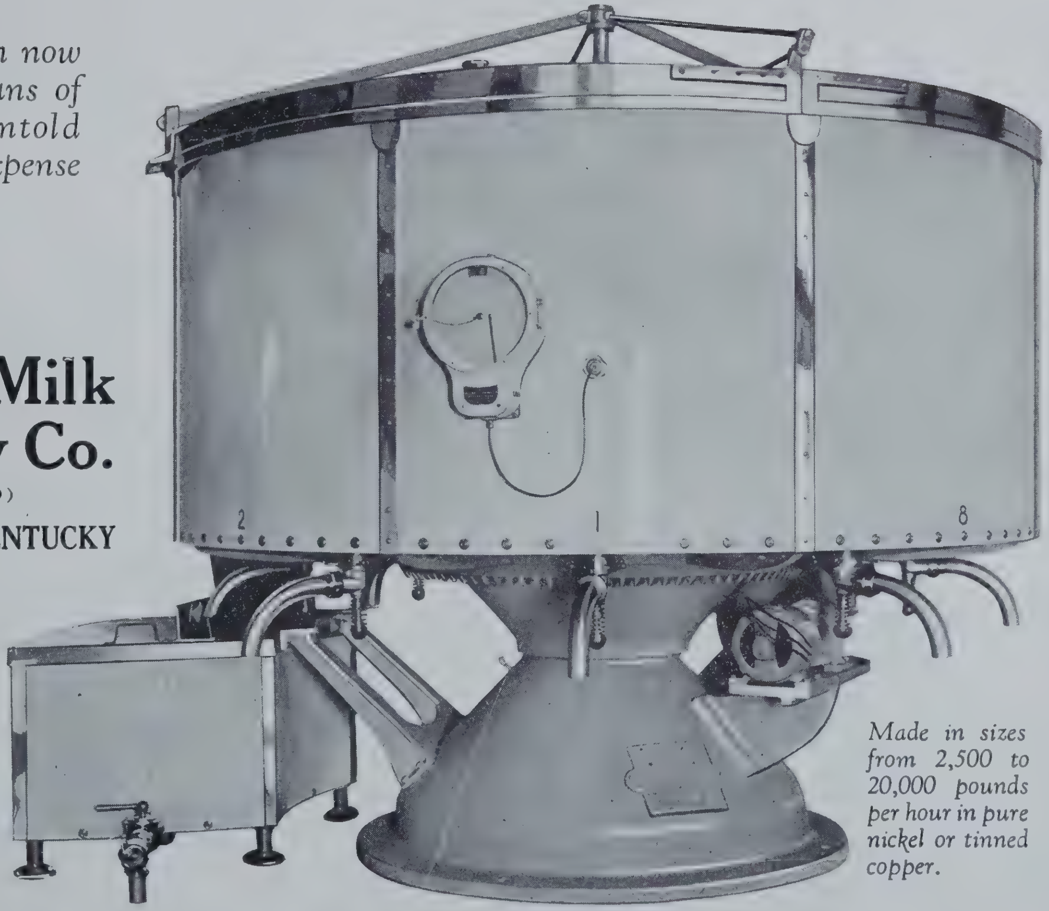
Let us send you the name of plant installation nearest you together with full operating and construction details.

An investigation now may be the means of saving you untold trouble and expense later on.

tandard Milk
lachinery Co.
(INCORPORATED)
OUISVILLE - KENTUCKY

ur Milk Plant Engi-eering Services are ways under my per-nal supervision.

C. Mortensen



Made in sizes from 2,500 to 20,000 pounds per hour in pure nickel or tinned copper.

When writing to STANDARD MILK MACHINERY CO. *please mention The Milk Dealer.*

The

Faultless

Positive
Automatic
Valveless
HOLDER

Its Thoroughness is App
ciated by Doctors, Hea
Authorities and the Pub

pasteurizer satisfies every doubt of thoroug
Its fully automatic features, correct holding p
and valveless foolproof operation—assures
product at all times—with a good cream li
free from cooked taste.

If you are interested in more thorough pasteurization for safer milk—then you will want the full details of the Faultless Pasteurizer. Send now for illustrated folder.

Self Contained Units

Capacities:
1,000 pounds to 50,000 pounds per hour.

E. A. KAESTNE
516-24 North Calvert St.
BALTIMORE - - MARYLAN

Pure Nickel is used in constructing the Faultless Holder, giving utmost sanitary protection and longer life to the

When writing to E. A. KAESTNER *please mention The Milk Dealer.*

Over 500 Dairies are using

KOKO-MALT

It's
Making
a
Big
Hit
!

for their

Chocolate Malted Milk Drinks

HERE is a new product which is blended from a special Dutch-processed, double milled cocoa and pure barley malt extract with special flavoring to intensify the full chocolate flavor and absorb the bitterness of cocoa.

DAIRIES bottling chocolate milk should be interested in this new preparation. It means a great saving in your syrup purchases. The cost of one gallon of delicious chocolate malted syrup made from KoKo-Malt, which is sufficient to flavor 10 gallons of milk, is 75 cents.

We will be glad to send a sample of KoKo-Malt sufficient to make one gallon of syrup to those interested in this new hit.

THE DAIGGER CORPORATION

Manufacturers

WASHBURN'S PRODUCTS

413-415 Beethoven Place CHICAGO

A new milk drink
the invigorating t
coffee; zippy and re
ing; wholesome and
by everybody.

BIGGER EVERY MONTH—
COFFEE-MIL

Every day will bring you dozens of new customers for COFFEE-MILK in offices, shops, stores and homes.

EVERY month Coffee-Milk sales are increasing. And now with the summer season coming on, Coffee-Milk will make a bigger hit than ever. A sure-fire seller at refreshment stands and outing places. Coffee-Milk will help you get more of this business and win new friends for you.

Made from full flavored, fresh roasted coffee, highly concentrated in syrup form. Easy to mix with milk; no equipment necessary. Never settles at bottom of bottle; no sediment. Write for prices and sample.

D. ABELSEN & SON, - - Providence, R. I.
Central States Representative: M. C. DRESHFIELD, 405 East Main St., Kalamazoo, Mich.
To insure prompt reply when writing for samples or information, address direct to factory.

ARABIAN BRAND
COFFEE SYRUP

Sold in 12 oz. and 16 oz. bottles for home use and in one gallon and ten gallon jugs for milk dealers.

When writing to D. ABELSEN & SON *please mention The Milk Dealer.*

LITHIC MAN FIRST TO DISCOVER USE OF MILK IN HUMAN DIET.

Neolithic man, the man of the Stone Age, realized there was a property in milk which caused those drank it to become large and strong, but it re- ed for modern science to discover just what that rty is," said Sam H. Greene, secretary-manager of ornia Dairy Council, in speaking of the use of in the new dietary plan to fight pernicious anemia, by Dr. Karl Koessler of the University of Chicago. Neolithic man was the world's first herdsman, and vered the use of cow's milk in the human diet."

Centuries following the Stone Age," continued ne, "there lived in Egypt a great Pharoah, Men- ep, whose young queen, Aashait, was frail in health. her death he wanted to show his subjects that he aken good care of her, and had carved on the walls r tomb a cow being milked by one attendant and nilk being handed in a bowl to the queen by an- ."

Scientists have today proved, beyond the shadow doubt, that the fat soluble vitamines found in milk ote growth, form new blood, and prolong life. Dr. sler's experiments in treating pernicious anemia by se of milk, butter, cream, egg yolks, and tomatoes, rms the teaching of council nutrition specialists, advocate the use of at least four glasses of milk day."—California Dairy Council.

AIRYING OLDEST INDUSTRY IN CANADA.

airying is one of the oldest and one of the most rtant industries in Canada. It owes its modern de- ment and expansion to the introduction of the fac- system for the making of cheese and butter, to the tion of the centrifugal cream separator and to the ties afforded by improved methods of cold storage. first Canadian cheese factory was established in rio in 1864, and the first Canadian creamery for rmaking in Quebec in 1873. The first centrifugal n separator was imported from Denmark in 1882, he governmental organization of cold storage dates 1895.

he value of all dairy products in Canada in 1925 is ated at $241,069,320, distributed as follows: Cream- utter, 169,494,967 pounds, value, $63,008,907; dairy r (estimated) 100,000,000 pounds, value, $32,128,- factory cheese, 177,139,113 pounds, value, $36,571,- home-made cheese (estimated) 533,016 pounds, , $95,073; miscellaneous factory products, $16,882,- and milk consumed fresh or otherwise used (esti- d) 384,945,413 gallons, value, $92,383,048. The per a consumption of butter in Canada in 1925 has estimated at 27.36 pounds and the consumption of e at 3.26 pounds.

NSUMPTION OF MILK IN SAN FRANCISCO SHOWS BIG INCREASE.

he percentage of increase in the per capita con- tion of milk in San Francisco during March this is 50 per cent over that of the same month in 1922, ding to figures received by Sam H. Greene, secre- manager of California Dairy Council, from the u of dairy control and San Francisco department alth, co-operating.

he statistics show that during 1922 the people of Francisco consumed a daily average per capita of ints, while this year the daily average is .72 pints. San Francisco increase is twice as much as the rate in for the state, the report showing that the people lifornia drank 23 per cent more milk last year than did five years ago.

Nutting

Milk Case Truck

the QUICK, easy way to move
and "place" stacks of cases any-
where about the plant. Ask
your jobber or write us.

NUTTING TRUCK CO.
1290 Division St. Faribault, Minn.

Floor Truck Leadership Since 1891

A Profitable Milk Grading Program

California Authority Gives Results of Ten Year Program. Great Advancement Made in Grading Milk and Working for Quality

By DR. M. E. McDONALD*

THE question of whether or not the grading of milk pays is still being debated in some quarters. In California this subject is no longer a question, inasmuch as the answer has been definitely and accurately determined to be in the affirmative, and the answer is based upon results of a ten year program, since the uniform grading of milk in this state was provided for in the Pure Milk Law in 1916.

The grading of a product is of necessity based upon definite standards. The standards adopted for the various grades of milk in California are outlined as follows:

Certified Milk is milk produced and handled in accordance with the rules of the American Association of Medical Milk Commissions and certified by a milk commission of a county medical society, the principal requirements of which are:

Cows shall be free from disease as determined by a physical examination once a month, and a tuberculin test every six months. There shall be not more than ten thousand bacteria per milliliter when delivered to the consumer. It shall contain an average of four per cent milk fat with a minimum of three and five-tenths per cent. To be cooled immediately and maintained at forty-five degrees F. Milk is to be bottled and sealed on the farm where it is produced.

Guaranteed Raw Milk is milk of a higher standard than that required for grade A raw. To be sold only on written approval of an inspecting department. The usual minimum requirements are as follows:

A physical examination of dairy cattle once every three months. Tuberculin test annually except where reactors are found, in which case it is repeated in six months. Dairy farm score of 85 per cent. Bacteria standard of 10,000 or 15,000 bacteria per milliliter when delivered to the consumer. Minimum butterfat content of three and eight-tenths per cent or four per cent. Cooled immediately to 45 degrees F. and so maintained. Bottled on the ranch where produced. The pouring lip of the bottle to be protected by a covering.

Provision has been made in the law for a guaranteed pasteurized milk, but as yet there is none on the market.

Grade A Raw is of a quality which requires a physical examination of cows every six months and a tuberculin test annually, where reactors are found the test is repeated in six months. Dairy farm score of not less than seventy per cent. Not more than 100,000 bacteria per milliliter when delivered to the consumer. When distributed twice daily it should be cooled to at least 60 degrees F. and so maintained; when not distributed twice daily it should be cooled to 55 degrees F. and held below 60 degrees until delivered to the consumer.

Grade A Pasteurized. Physical examination of dairy cows required every six months. Dairy farm score of not less than sixty per cent. The bacteria content before pasteurization shall not be more than 200,000; after pasteurization the bacteria content shall not be more than 15,000. Milk should be cooled immediately after pasteurization to 50 degrees F. and so maintained.

A standard has been provided for grade B pasteurized milk with the following requirements as a minimum: It must be obtained from cows in no wa
for the production of milk for use by man as dete
by a physical examination at least once in six
Before pasteurization shall contain not more than
000 bacteria per milliliter, and after pasteurizatio
contain not more than 50,000 bacteria per mi
There has been no milk of this grade on the Ca
market sold as retail milk for several years.

The grading of milk is permitted by law only
produced and distributed under the supervisio
local milk inspecting department operating as a
the local health department, which shall includ
organization at least one regularly licensed ph
and shall provide for field inspections of dairi
milk plants, veterinary inspection of all dairy cat
chemical and bacterial examination of the produc
local departments may grade their milk only af
proval of the state department of agriculture ha
obtained, and in order to secure this approval it is
sary that the local departments not only provide
service outlined above, but each branch of the wor
be conducted in such a manner as will meet w
state standard of efficiency, thus insuring unif
throughout the state.

The regulations under which an approved lo
partment operate are as follows:

Rule 1. Milk Inspecting Departments.

1. Every city, county, or city and county, d
approval of a milk inspecting department, shal
application for approval in writing to the depa
of agriculture of the state of California. Upon
of said application, the said department of agri
shall determine if such city, county, or city and
is entitled to approval. If such approval is giv
said department of agriculture shall issue a certifi
approval to the milk inspecting department, pr
such approval may be withdrawn should the m
specting department later become inefficient;
upon, the certificate of approval shall be forfeited.

2. To secure and hold such approval, a m
specting department must:

(a) Provide a sufficient force of qualified ins
and sufficient laboratory facilities to enfo
ficiently the "Pure Milk Law" and othe
and regulations relating to the grading o
and cream. In the absence of a laborato
rangements may be made with a person
approved by the department of agricult
the state of California to do bacteriologic
other laboratory work.

(b) Provide for the physical examination, by a
fied veterinarian, of all cattle producing
be sold within its jurisdiction at least once
six months. A clinical examination is not
sary; however, general physical examinati
manifest evidence of diseases such as en
glands, mastitis, pyometra, tuberculosis,
sores, ulcerated teeth, abscesses, etc., sh
conducted.

(c) Maintain the standards for the various gra

---

* Assistant Chief, Bureau of Dairy Control, California Department of Agriculture.

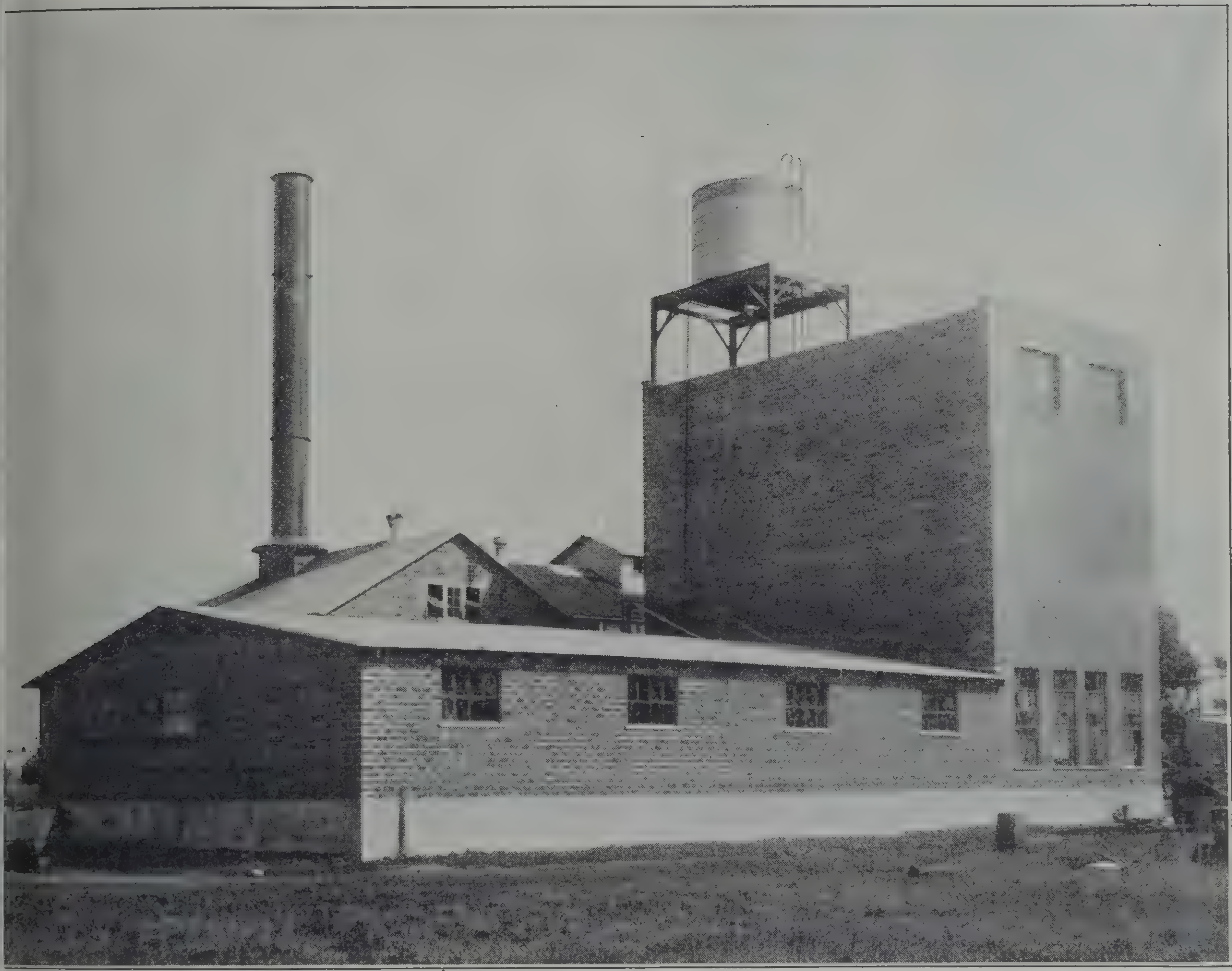
UTHITT MILK POWDER PLANT

GRAY-JENSEN SPRAY PROCESS

Designed and Built by

DOUTHITT ENGINEERING COMPANY

100 WEST MONROE STREET, CHICAGO



Sheffield Farms Company's plant at Lisbon, N. Y.

Add to your creamery profits by manufacturing your skim milk, buttermilk, or whey into powder on the Gray-Jensen Spray Process Milk Powder Plant.

The highly developed efficiency of the Gray-Jensen process results in recovery of milk powder actually equivalent to the solids in the milk, with lower labor, fuel and power costs than are possible with any other type of milk powder plant. These savings alone pay for one of our plants in from one to three years. Operating records prove this.

We can furnish an assured market for all skim milk and buttermilk powder made on our plants.

These plants are built in sizes to handle from 10,000 to 120,000 pounds of normal liquid milk or milk products daily.

Write today for booklet describing the Gray-Jensen Spray Process Milk Powder Plant

When writing to DOUTHITT ENGINEERING COMPANY *please mention The Milk Dealer.*

Friendly Talks on the Important Subject of Sterilization

Conducted by
J. W. YATES
formerly Dairy & Food Commissioner, Health Dept., Kansas City, Mo.

Talk No. 8

Sterilizing large surfaces to which milk is exposed by spraying with B-K

The problem of treating large surfaces in milk plants, such as open coolers, storage tanks, pasteurizing vats, is being successfully solved by applying B-K dilutions through the medium of a spraying machine. It is effectively and easily used at the logical time, **just before the equipment makes contact with the milk.**

We have under observation several plants that have satisfactorily sterilized and pasteurized equipment at an extremely low cost, using the B-K method with a spray as the only sterilizing agent. The success of this procedure is due to the uniform and dependable strength of the B-K solution, plus its effectiveness as a germ destroying agent, plus the ease of application, plus the sound principles that are behind its activity as a germicide.

The use of the spraying system relieves the necessity for making up batches of solutions of sufficient amounts to cover large surfaces, such as storage tanks, holding vats, tubular coolers, weigh tanks, dump vats, etc.

The great variety of pasteurizing equipment makes it impossible for us to prescribe here definite treatments for them. But we will be glad to give you definite and particular information regarding this method of using B-K in your plant, if you will

Write me:

your personal problems. Every plant or factory has its own particular sanitary problems. Send me a list of your equipment, stating present method of use. I will then be able to give you the benefit of my years of experience.

Will also be glad to mail our plan for promoting better care of milk by farmers.

J. W. Yates.

Consultant in Sanitation.

GENERAL LABORATORIES
Dept. 13F MADISON, WIS.

B-K
Bacili-Kil

milk as established by the "Pure Milk La
the rules and regulations hereby establis

(d) Co-operate in the holding of official surp
scoring contests whenever requested to
a duly authorized representative of the
ment of agriculture of the state of Calif

(e) Comply with the rules and regulation
set forth.

Rule 2. Inspectors.

1. No dairy inspector appointed under the p
of the "Pure Milk Law" shall accept any compe
directly or indirectly, for any advice rendered
dairyman, nor shall any such inspector be th
for, or be interested in, any firm or corporation
or handling, any supplies used by dairymen, cr
or other factories of dairy products.

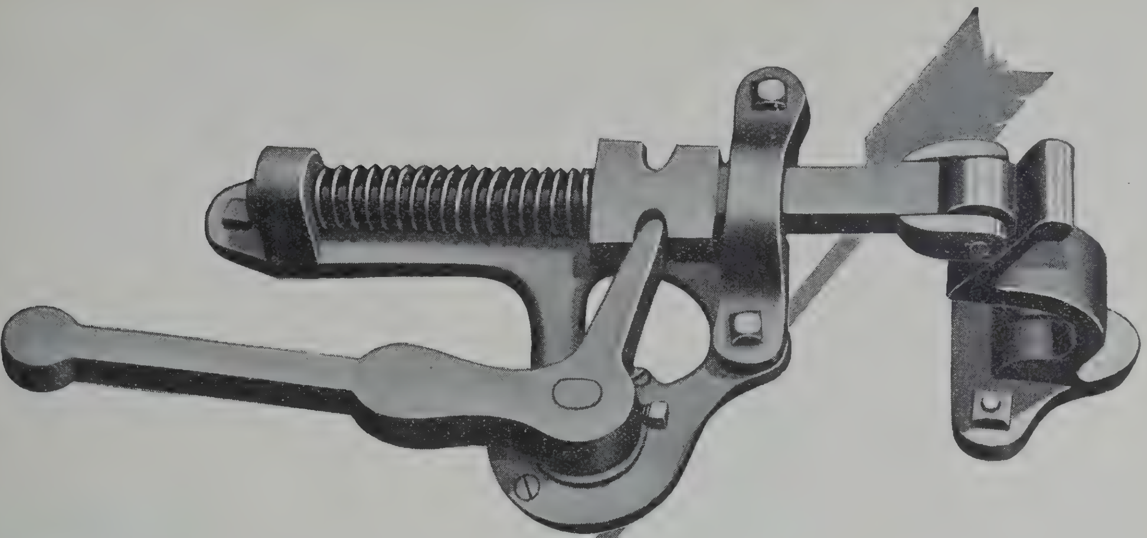
2. The inspectors whose duty it will be to
pate in the enforcement of the "Pure Milk La
other laws pertaining to the grading of milk an
shall have passed a civil service examination give
by the civil service commission of the city or c
which the milk inspecting department is situate
the state civil service commission. Such examin
given by a city, county, or city and county sha
equal or higher standard than that given by t
civil service commission for the position of d
spector. In the event that the inspector has n
the civil service examination at the time of his
ment, the qualifications of such an inspector sha
termined by an examination conducted by the
of dairy control of the department of agricultur
state of California.

Rule 3. Inspection.

1. Inspection shall consist of laboratory e
tions of the products and adequate supervision
equipment and methods of the various produc
distributors.

2. Samples of retail milk for bacteriologi
chemical examination shall be taken in original
ers direct from delivery wagons, dairies, milk
or other places of business at least once every tw
at irregular intervals and without previous notic
producer or distributor. Additional samples of
tailed at stores, etc., shall be taken as frequently
ditions will permit. Samples shall be taken fro
in all cases where complaint is made regarding
dition of same. Special attention shall be dire
the temperature at which store samples ar
Samples of wholesale milk for bacteriological e
tion shall be taken at time of arrival at the mi
at least once a month. The term "wholesale m
construed to mean milk from a producer who s
product to a distributor and shall not be const
include the wholesaler of the finished product
taurants, stores, bakeries, etc. All milk samples
kept at a temperature below 50 degrees F. until
Laboratory technique shall be in accordance w
"Standard Method of the American Public Healt
ciation for Milk Analysis." The direct mic
count of bacteria (Breed method) is recognize
standard of official technique where used for
the quality of unpasteurized milk.

3. Dairy farms shall be inspected at least si
a year, pasteurizing plants shall be inspected
once every two weeks. Plants of producer-dist
of raw milk shall be inspected at least once each
Scores on the methods and equipment of dairy f
products plants shall be made at least twice eac
Visits of inspectors shall be unannounced and
regular intervals. Pasteurizing equipment shall b



nother big reason . . why *Jamison* Doors are well worth the little more that they cost . . .

Jamison Doors
JAMISON COLD STORAGE DOOR CO

Your request for our new Catalog No. 13 brings you —quickly—complete information on Jamison Cooler and Freezer Doors and Automatic Ice Chutes. Send for it now and HAVE it when you need it.

THERE is no art in knowing how to make a cheap product. We *could* lower Jamison Prices by lowering Jamison quality—and no doubt the Doors still would sell. But our gain in selling such Doors would be just as short-lasting as your "economy" in buying them. There are several reasons why Jamison Cooler and Freezer Doors cost a little more and are well worth it. One of them is the *Jamison Patent Self-Tightening Fastener* shown above.

Constructed with massive, sturdy simplicity—with tough drop steel forgings for its moving parts—the Jamison Fastener continues to "hold its own" through a lifetime of hard knocks. The harder you slam it the tighter it grips. No slips, no rebounds, no slackening after it takes hold. And how it *does* take hold! With automatic bull-dog grip it *continues* to exert a constant inward pressure on the door, against its seals. The door cannot be jarred, pushed, bumped or blown open accidentally or carelessly. The handle must first be turned—and that so easily that a child can do it.

Yes, you *can* get *less* Door and less Protection for a little less (first) Cost than a Jamison. In fact, only Jamison's big volume of production keeps our prices as low as they are. But the same factor that makes our volume possible also proves that Jamison superiorities are well worth the difference: *Jamison* Cooler and Freezer Doors outsell all other makes *combined*. That's food for thought—and action!

Jamison Doors

Jamison Cold Storage Door Company
Hagerstown, Maryland, U. S. A.

When writing to JAMISON COLD STORAGE DOOR COMPANY *please mention The Milk Dealer.*

special attention and recording thermometers tested for accuracy at least once every two weeks.

4. All persons engaged in handling milk, either before or after pasteurization, shall be required to exercise scrupulous cleanliness and must not harbor the germs of typhoid fever, tuberculosis, diphtheria, or other communicable diseases liable to be conveyed through the milk. Absence of such communicable disease may be determined by cultures and physical examination to the satisfaction of the local health officer or milk inspecting department.

5. Each dairy or distributor of milk and cream shall be kept informed of the results of the laboratory examinations and scoring of their individual products and equipment. On the basis of these determinations the inspecting departments shall issue written authorization to each person or concern who desires to sell milk under its jurisdiction; provided, that authorization shall be revoked in every case when the product or equipment of any person or concern does not consistently meet the requirements of the "Pure Milk Law" or of the rules and regulations for its enforcement.

6. In case an official plate count exceeding the legal standard is obtained, the milk inspecting department shall make at least three recounts within a period of two weeks in addition to the routine milk examination whereupon, if the count is persistently high and the average count obtained during the two weeks period exceeds that established by the "Pure Milk Law" such milk may be degraded, or, at the option of the milk inspecting department, excluded from the local market. Whenever the product has been degraded by this procedure, such product shall not be re-established at its previous standing for a period of at least four weeks during which time it must have met the requirements of the "Pure Milk Law" as determined by official count. All recounts are considered as official samples in computing final milk scores.

7. All publications or public statements relating to the quality of milk or cream, or the condition of dairies or milk plants, shall be expressed in terms of percentage, one hundred being considered perfect. In rating milk or cream this percentage shall be based on an average of results obtained by the examination of at least four samples taken at intervals of at least a week. In no case shall publication of numbers of bacteria be made. The method used for computing milk scores for publication shall be approved by the department of agriculture of the state of California.

Rule 4. Standards.

1. The standards for the various grades of milk shall be those established by the "Pure Milk Law" and in addition the following requirements with respect to cooling.

(a) Grade "A" raw milk, when distributed twice a day by the producer, must be cooled to a temperature of 60 degrees F. or below, immediately after being drawn from the cow, and so maintained until delivery to consumers.

(b) Grade "A" raw milk, when distributed once a day by the producer, must be cooled to a temperature of 55 degrees F. or below immediately after being drawn from the cow, and thereafter maintained at a temperature not exceeding 60 degrees F. until delivery to the consumer.

(c) Grade "A" raw milk bottled at a distributing plant must be cooled to a temperature of 55 degrees F. or below, immediately after being drawn from the cow, and thereafter maintained at a temperature not exceeding 60 degrees F. until delivered to the consumer.

(d) Grade "A" milk for pasteurization r
cooled immediately after being drawn f
cow to as low a temperature as practica
maintained until delivery to the plant.
pasteurization, milk must be cooled to a
ature of 50 degrees F. or below, and s
tained until delivery to the consumer.

Rule 5. Labeling.

1. Graded market milk must be labeled to
following information:

(a) Name of product, using one of the fo
legal terms to correctly define the grade
Certified Milk
Guaranteed Raw Milk
Guaranteed Pasteurized Milk
Grade "A" Raw Milk
Grade "A" Pasteurized Milk
Grade "B" Pasteurized Milk

(b) Name of producer or distributor.

(c) Address of producer or distributor.

2. Special designating words such as "In
Milk," "Extra Quality Milk," "Purity Guara
"Special Baby Milk," etc., must not be used.

In connection with each of the grades of m
average quality found on the market is far supe
the actual requirements. While 100,000 bacte
milliliter are permitted for grade A raw, the
bacterial count for that grade is less than 15,00
distributor of grade A raw milk having placed
market milk with an average bacterial count of
a period of over one year. Many producer-distr
are regularly supplying a milk with a cou
1,000 or less.

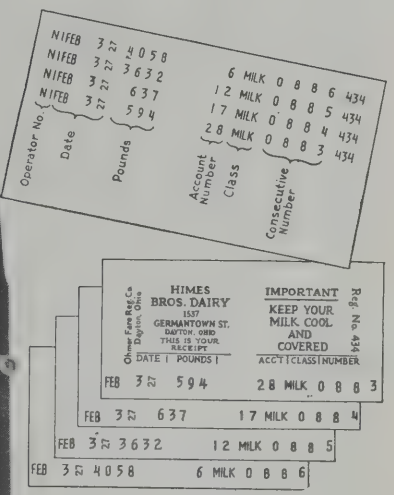
While fifteen thousand bacteria per milliliter
lowed for grade A pasteurized milk, the average
state is less than five thousand per milliliter
majority of the distributors of that grade of mil
on the market a product with an average bacteria
of less than two thousand throughout the entir
It is quite apparent therefore that a revision of th
grading standards is in order. A revision that wil
the standards more nearly representing the actua
ity of the product is indicated, and is now unde
sideration by the legislature.

Previous to the adoption of the pure milk
1916, providing for milk grading on a statewide
a few of the larger cities maintained a local insp
service with independent standards which were n
form. However, most of the local departments
tioning effectively at that time adopted the state g
standards and applied for state approval, so th
program was inaugurated with fifteen local depar
for the most part operating in the larger centers of
lation.

It might be of interest to note that up to thi
and for several years following, inspection was
lished only upon the solicitation of the public and
authorities, the primary object being the protect
the public from unwholesome milk. The recognit
the benefits to the dealer of inspection service
later development.

The original fifteen departments continued to
ate along approved lines but there was not much ac
in extending the work until 1923, at about which
the value of an adequate milk control service b
apparent to the producer and dealer to such an e
through strict enforcement of the standards, that
cations for this type of service upon the part of t
dustry occurred with increasing frequency. In so
stances the desire for the protection offered th
local inspection on the part of the industry exc

rints RECEIPT *and makes* JPLICATE Record for .ch Lot of Milk or 'eam Received


NIFEB 3 27 4058
NIFEB 3 27 3632
NIFEB 3 27 637
NIFEB 3 27 594
6 MILK 0 8 8 6 434
12 MILK 0 8 8 5 434
17 MILK 0 8 8 4 434
28 MILK 0 8 8 3 434
Operator No.
Date
Pounds
Account Number
Class
Consecutive Number
Ohmer Fare Reg. Co. Dayton, Ohio
HIMES BROS. DAIRY
1537 GERMANTOWN ST.
DAYTON, OHIO
THIS IS YOUR RECEIPT
DATE | POUNDS |
IMPORTANT
KEEP YOUR MILK COOL AND COVERED
ACCT | CLASS | NUMBER
Reg. No. 434
FEB 3 27 594 28 MILK 0 8 8 3
FEB 3 27 637 17 MILK 0 8 8 4
FEB 3 27 3632 12 MILK 0 8 8 5
FEB 3 27 4058 6 MILK 0 8 8 6

The printed record inside the Register is shown at the top. Below are the tickets. Note how the figures on the tape and on the tickets agree.

the Regis-
e receiving
out of the
yet con-
'or instant

No more mistakes and disputes in connection with receiving milk or cream if you have the Ohmer Ticket-Printing Register. You don't need to depend on uncertain, unreadable hand-written figures. In less time than it takes to write, a receipt is *printed* and a duplicate record is also *printed* by the Ohmer Register.

Saves Time, Simplifies Accounting

eceiving clerk sets the levers, turns a
nd the printed receipt is issued. At
ne time — from the same type — a
e of the data is printed on a tape
in the register. The receipt and the
how the date, the number of pounds,
ount number, and the consecutive
of the transaction—all by an opera-
t takes only a moment.

ve or mail the receipt to the producer.
an't be any misunderstanding due to
written, blurred, or transposed figures.
an't be any erasures.

e duplicate in the register is accessible
the official entrusted with the key.
ord can't be altered. There's no loose
ndum to be misplaced or to fall on
r and be soaked with water. There
errors on account of illegibility. And
facts come to the bookkeeping depart-
n clear, compact, concise, simplified

Truly Revolutionary Method

rs of dairies, creameries, and ice cream
ctories are amazed when they see what
mer Ticket-Printing Register does.
an hardly believe that a machine so
t, so portable, so simple, actually
nd records transactions in such detail
quickly.

Ohmer is designed and built to do it.
s more than a quarter of a century's experience built into the Ohmer Register. Its adaptation to the cream and milk business has been made to meet a real need and insistent demand.

Think what the Ohmer will mean in your establishment. Think of the time saved in the receiving and accounting departments. Think of the relief from annoyances. Think of the good-will effect on producers. Think of the absolutely reliable records. Think of the losses it will stop and the misunderstandings it will prevent.

Get Complete Information Now

You can't spend a few minutes to better advantage than to write now for detailed information about the Ohmer Ticket-Printing Register. Learn all about it, so you will know how admirably it is fitted for your business. This is a very small matter from an investment standpoint, but it is a matter of the greatest importance in view of the service that the Ohmer Register will render you. When you understand how much time the Register will save, how it will improve and clarify your accounting system, how it will prevent losses and eliminate disputes, you will quickly decide that it is something you can't afford to do without. You will welcome the opportunity to get this convenient, successful, economical device for the remarkable advantages it affords. So ask for descriptive literature. Write or wire today.

THE OHMER FARE REGISTER CO.
DEPT. A DAYTON, OHIO

OHMER

REG. U.S. PAT. OFF.

Ticket-Printing Register

the appreciation of the local governing bodies for that work. In some cases where local governing organizations refused to provide funds for the milk control service the dealers involved desired a program to such an extent that they voluntarily supported placing the work on a self-supporting basis through levying a registration fee based on the amount of milk distributed by each.

At the present time there are eighteen departments in the state supported entirely, or in part, in this manner, the fees ranging from two-tenths of a cent a gallon to one cent a gallon. In no case has there been an increase in the price of the milk to the consumer as a result of such fee. Intelligently conducted inspection will more than pay its own way, and the benefits derived by the producer and distributor have more than paid for the cost of this service to them. While the consumer receives protection from the possibility of obtaining an unwholesome or adulterated product at all times, the milk dealer receives protection from illegitimate competition, that is, the competitor who has no regard for public health nor honest business, which in many cases has proven to be the most distressing feature of the milk business.

The milk business is much more scientific than is generally recognized, being based on the laws of chemistry, physics, bacteriology and the principles of sanitation. The producer and dealer are, therefore, frequently confronted with trade problems which they do not have the facilities to solve. The solution of these trade problems is a service offered by an efficient inspecting department, and has in many cases proved to be an important factor in the economy of the production and distribution.

Public appreciation of a commodity is shown through increased purchases. This is especially true of milk and dairy products. There has been an average increase in the sale of milk amounting to at least twenty per cent in all communities after the adoption of a milk inspection program. In addition to whatever milk demand is due to new population, a market has been created solely through increased per capita consumption, amounting to an annual increase in the business of the milk distributors of California of over ten million dollars. This has been brought about through improvement in the quality of the product and resultant increase in confidence of the public in the milk supply.

In 1923 five new -departments were approved, in 1924 ten departments were added to our list, in 1925 seven more were approved, in 1926 four departments were approved, and four departments have been approved so far in 1927, bringing the total to forty-five. A number of these departments extend over entire counties and several to groups of cities, altogether extending the benefits of a graded milk supply to two hundred and forty cities and towns in California, the population of which consumes over ninety per cent of all of the market milk sold in this state.

Since the state department of agriculture is charged with the responsibility for the work of all approved local departments it was necessary that a program of supervision over those departments be inaugurated. This work was placed in charge of a market milk specialist at the time the work was limited to the original fifteen departments. During the past five years the program has become so popular to the public and the industry, being responsible for a rapid expansion of the work, it required the services of two full time market milk specialists to maintain the supervision of the forty-five local departments now in existence and to render assistance in organization work in other communities desiring this service.

Prior to 1923 the United States Department o culture through their market milk specialist con surprise milk scoring contests in some of the Cal cities where inspection was maintained. These c were conducted largely from an educational star and upon the option of the local department. sults obtained by the milk scoring were so imp that the California Department of Agriculture a the surprise contest as a fundamental part of th gram of supervision maintained over the local ap departments.

A fact generally accepted by milk control offi that a single examination of the product may representative. Therefore, the more samples th be included in arriving at the final rating, the m liable the results will be. We, therefore, include final rating in addition to the results obtained time of the contest, the average results secured local laboratory for a preceding period amount approximately four months. A reliable rating also take into consideration all factors affecti quality of the product, which is accomplished by t of the United States official milk score card, al thirty-five per cent for bacterial analysis, fifteen pe for flavor and odor, ten per cent for sediment, fifte cent for butterfat content, fifteen per cent for soli fat, five per cent for acidity, and five per cent for and cap, making a total of one hundred per cent.

In addition to supplying us with definite in tion as to the quality of the milk itself, we ar through the milk contests to obtain information in days time relative to the field and laboratory m employed by the local department that would ta weeks to obtain in any other manner.

The milk scoring carried out in our program i fornia through holding surprise contests at freque regular intervals throughout the year in each app local inspecting department, together with publishi results by the local press, has proven to be very ben in improving the quality of milk sold in Californi fact, such contests furnish the necessary commerc centive to constantly maintain a uniform high q milk. In times past the dairymen or distributors agree in a general way to the fundamental necess maintaining a high standard of quality, but in practice, with rare exceptions, expediency, prevaile the quality sucered. The surprise milk scoring co and the subsequent publicity has removed the q quetion from the position of remote fundamental has placed it in the class of immediate expediency a the forefront of eminent business necessity.

The published results of these contests draw th tention of a sufficient number of consumers to ca material loss in trade for those dairies at the bott the list and a corresponding gain for those at the t

Through our milk scoring program and the eff services rendered by each of the local approved de ments, together with the splendid co-operation o milk dealers themselves the average quality o graded milk in California has improved from proximately ninety per cent in 1923, computed o basis of the United States official milk scoring card weighted average of over ninety-five per cent, wh now being maintained in each of the two hundre forty cities and towns included under this progra

* * *

Why keep your money tied up in second-hand e ment which you have no further use for in your pr plant? Turn it into cash through a "Milk De Want Ad.

⊣ERE IT IS--*At Last*

Just What You Have
Been Waiting For—

AN Extensive and Authoritative Experiment with Children to Prove the Wonder-
ful Value of Milk

Up to the present time, practically all ex-
eriments to prove the value of milk have been
nducted on animals, and it has been necessary
try to persuade the housewife that if milk
ade animals grow then it would make children
ow. Now, however, information is available
owing what milk actually does for **children**.

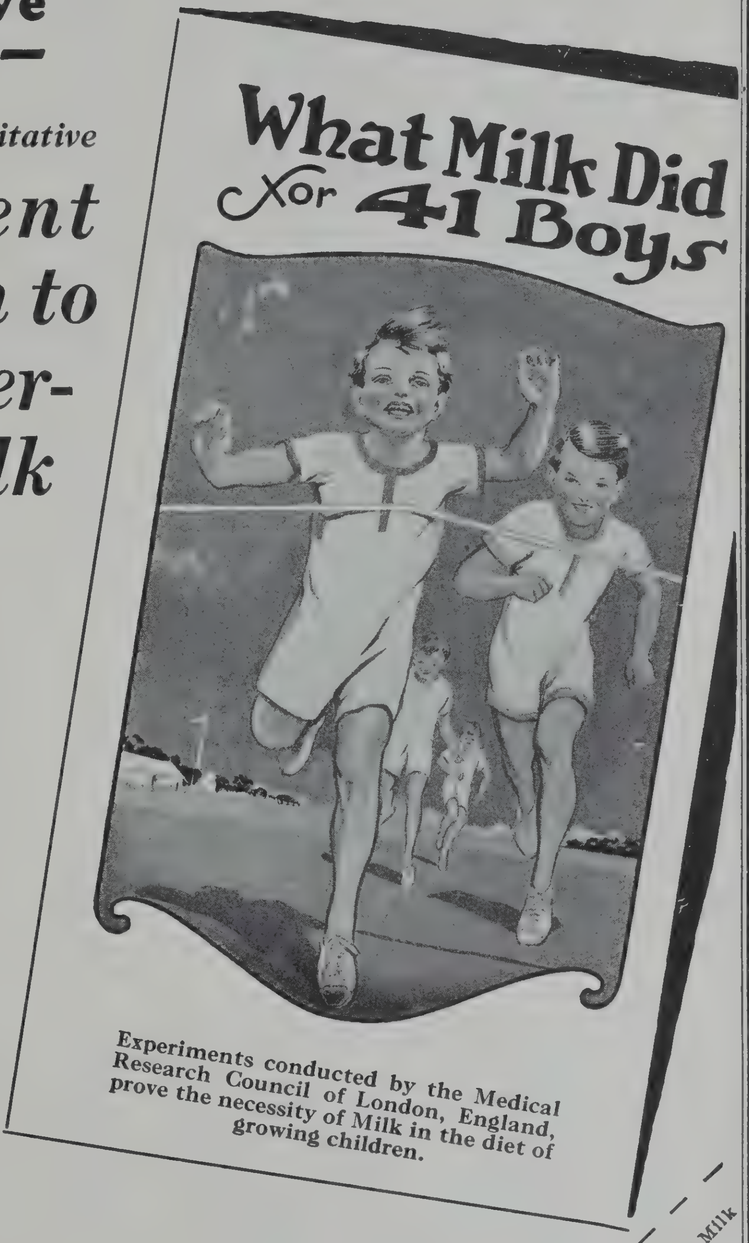
The Medical Research Council of London,
nducted an experiment on 220 boys. Their
ndings are given in a popular way in this little
page folder—actual size shown here.

You can now secure these folders for your
n use in any quantities desired. Your name
n be imprinted on the back page if you wish
a slight additional cost ($1.50 per M; 10,000
more $1.25 per M).

These valuable circulars suitable for enclos-
g with your monthly statements, for distribu-
n through your driver-salesmen, and of great
rth in many other ways, will cost only—

$5.00 per M for 1,000 to 10,000
4.50 per M for 10,000 or more

Your order will be filled promptly.



What Milk Did For 41 Boys

Experiments conducted by the Medical Research Council of London, England, prove the necessity of Milk in the diet of growing children.

Don't overlook this opportunity. Every customer and prospective customer should know of this wonderful experiment on children.

TEAR OFF HERE AND MAIL

Please send me............copies of "What Milk Did for 41 Boys."

Imprint on the back..

Signed..

Address..

ational Dairy Council

0 So. Michigan Ave. Chicago, Illinois

When writing to NATIONAL DAIRY COUNCIL *please mention The Milk Dealer.*

Fluid Milk Market Report for United States for May,

By Bureau of Agricultural Economics, Market News Service, United States Department of Agricult

Table I—Producers' Prices for Standard Grade Milk Testing 3.5% Butterfat, Delivered F. O. B. Local S Point or Country Plant.

Prices which appear in this report are secured through the co-operation of milk distributors, producers' as and municipal officers. Dealers' buying prices unless otherwise indicated, represent prices applying to all milk by producers. For cities where a "surplus plan" is in effect, the prices reported in table III are for "basic" q All per cwt. buying prices have been converted to a 3.5% butterfat basis for comparative purposes.

Sections	Range of May Prices		Prices Compared for Same Markets			
	Number Local Markets	Prices per Hundredweight	Number Local Markets	1927 Average for May	1926 Average for April	A fo
New England	9	$2.73–$3.95	9	$3.33	$3.32	$
Middle Atlantic	16	2.20– 3.02	15	2.78	2.80	
E. North Central	22	1.75– 3.00	20	2.51	2.57	
W. North Central	19	1.49– 3.10	19	2.17	2.29	
South Atlantic	14	2.55– 5.00	13	3.50	3.68	
E. South Central	5	1.87– 3.39	5	2.32	2.44	
W. South Central	6	1.75– 2.70	5	2.31	2.31	
Mountain	4	1.79– 3.20	4	2.43	2.41	
Pacific	8	1.50– 3.13	8	2.52	2.59	
United States	103	1.49– 5.00	98	2.67	2.71	

Above prices include "basic" prices where a surplus plan or cooling plan is in effect. Cities where prices upon current butter quotations not included.

Table II—Prices for Special Grades of Milk and Certain Milk Products.

The following table shows the wholesale and retail prices reported for "special" and "certified" milk and cert products delivered at wholesale buyers' places of business and at the home of retail customers.

Cities	Special Milk	Certified Milk	Cultured Buttermilk		Cottage Cheese		Light Cre 18-25% B	
	Retail Price per Quart	Retail Price per Quart	Wholesale Price per Gal.	Retail Price per Quart	Wholesale Price per Lb.	Retail Price per Lb.	Wholesale Price per Gal.	P
	Cts	Cts	Cts	Cts	Cts	Cts	Cts	
Akron	15–18	20	20	6–8	8	7–10	1.30–1.70	
Albany	18	..	28	10	..	..	1.60	
Albuquerque	..	..	..	..	18	25*	1.75	
Allentown	18	..	36	13	9–12	14	2.00	
Altoona	15	22	25	8–10	..	..	1.35–1.45	
Asheville	19	25	..	..	15	..	2.00	
Baltimore	..	30	44	14	10	15*	1.70	
Birmingham	..	25	23	9	18	25	1.50	
Boston	18½	26	..	10	..	..	1.17–1.79	
Buffalo	14	26	24	9–10	12	15	1.44–2.00	
Chicago	17	25	..	10–20	..	15*	1.30–1.80	
Cleveland	19–20	25	..	12–13	12–14	15	1.26–1.87	
Colorado Springs	17	..	15	6	..	..	1.25	
Columbus	17	..	..	7–12	..	..	1.45–1.92	
Dallas	24	..	20	8	..	..	1.50	
Denver	14	..	20	8	8*	10*	1.30	
Des Moines	14–25	..	20	9–11	10	14	1.45–1.55	
Detroit	25	25	..	25–35	12	..	1.60	
Duluth	14	25	13	8	..	..	1.45	
El Paso	17	..	20–25	10	15*–18*	20*	1.35	
Erie	16	30	28	10	12½	15	1.60	
Harrisburg	..	..	36	12	..	..	1.50	
Hartford	20–25	25–35	..	..	..	..	1.40	
Indianapolis	16	..	25–30	8–12	12	15*	1.10–1.20	
Jacksonville	25	..	30–35	10–11	20	30	1.60–2.25	
Kansas City	15	25	25	10	14	20*	1.60–1.80	
Lincoln	13	15	15	9	12	15	1.10	
Long Beach	15–20	28	25–45	10–15	10	..	1.60–1.80	
Los Angeles	15–17	28	25	10	..	..	1.60	
Louisville	16	24	..	13	15*	17*	1.08–1.63	
Memphis	..	30	15–20	6–7	15	20	1.10–1.40	
Miami	25–30	28–32	45	15–20	20–30	30	2.00–2.25	
Milwaukee	14–18	25	16–18	5–6	7	9–10	1.30–1.65	
Minneapolis	..	22	..	13	10*	12*	1.32–1.40	
Nashville	18	..	20	10	17	20	1.40	
New Orleans	18	31	40	14	..	..	1.20	
New York	30	28	..	..	..	..	..	
Omaha	15	15	15–20	10	10	15	1.25–1.30	
Philadelphia	15–16	30	..	9–13	..	..	1.56	
Pittsburgh	..	25	20–25	10	10	..	1.20–1.90	
Portland	14	..	35	12	10	15	1.50	
Richmond	16–18	..	25	8	..	..	1.20–1.30	
Rockford	..	18	..	..	..	14	1.40	
San Diego	20	30	20	9	12	15	1.80	
San Francisco	..	25	..	14	..	20	2.50	
Scranton	18	25	20–32	8–10	..	..	1.40	
Seattle	25	20	..	7	14	20	1.30	
Sioux City	..	25	15	6	10	10*	1.25	
St. Louis	18	25	20	10–18	13	15	1.26–1.75	
Trenton	17	30	38	13	..	..	1.76	
Trinidad	15	20	25	10	..	..	1.25–1.60	
Washington	18–23	30	60	15	15–20	15–20	1.80–2.00	
Wilmington	20	..	..	10	..	13*	..	
Wheeling	17	..	30	10	..	..	1.40	

* 12 oz. package

Clean Equipment Lasts Longer

It is a well known fact that things kept clean will last longer and wear better. This is especially true with all equipment in the milk business. Here, cleanliness is an absolute necessity irrespective of the cost.

And when Solvay Super Cleanser is used the cleansing is perfectly done while the cost is extremely low.

SOLVAY
SUPER CLEANSER

Trade Mark Reg. U. S. Pat. Off.

the ideal cleaner and cleanser, is produced and sold direct to the trade by the largest producer of alkali products in the United States.

You receive the benefit of the large scale operations and enjoy an exceptional product at a most reasonable cost.

Place your special cleaning problem in the hands of our Technical Service Department. Their experts will help you. No charge of course.

You can quickly demonstrate the efficiency of Super Cleanser—send today for a testing sample and a copy of the Super Cleanser booklet.

Ask for booklet No. SC-2

olvay Sales Corporation

Alkalies and Chemical Products
Manufactured by the Solvay Process Company

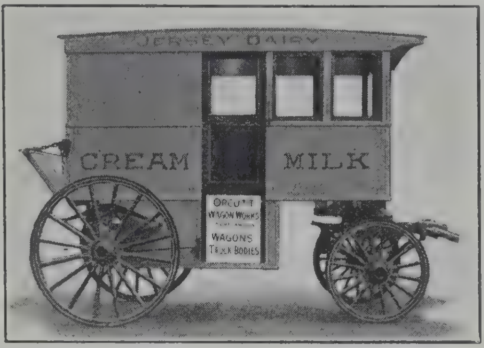
40 Rector Street, New York

on Syracuse Chicago Indianapolis Cleveland Cincinnati
burgh Detroit Philadelphia Kansas City St. Louis Atlanta

Three Practical Models

Each With Advantageous Features for Certain Fields

"You Know They're Good By the Looks"

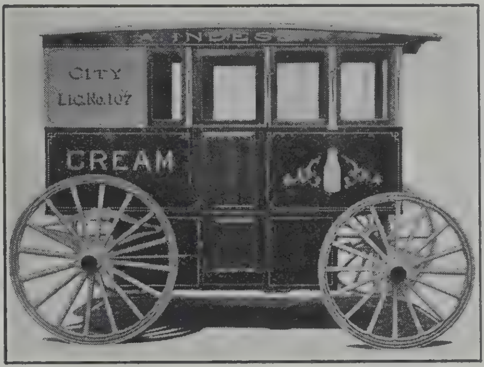


"It's the most efficient milk wagon I ever saw."

City Efficiency Cart No. 2701

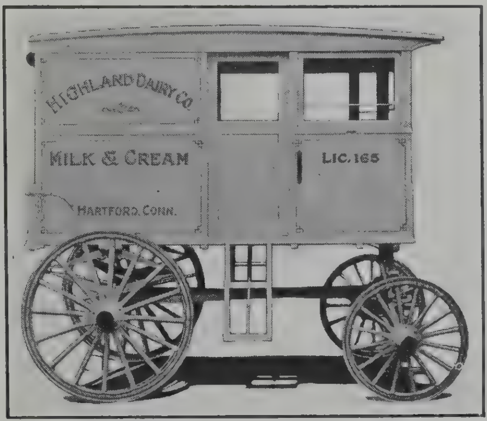
Shortest turn possible; one step in or out; open rear end with tailgate; 6 cases per tier front and rear decks; 4 tiers high limit. Only 8 ft. 9 ins. long outside sills. Closed rear end optional.

Compact and Convenient.



Drop-Center Wagon No. 2104

Long bottom deck. High front wheels. This model made in 3 sizes, 15 to 30 cases capacity.



Cut-Under Straight Sill Wagon No. 2201

Reach gear. Open rear end with tailgate. Either one or two steps. 25 to 30 cases.

Roller or Plain Axles. Steel or Rubber Tires.

Orcutt Wagon Works

32-36 Masonic Street
NORTHAMPTON, MASS.

Table III—May Cost and Selling Prices

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices			
			Wholesale Trade		Retail Trade	
			Per Gal. in Lots of 5–20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled
	$	Cts.	Cts.	Cts.	Cts.	Cts.
ALABAMA—						
Birmingham	3.42–3.91	Varies	45	12	17	11–12
Mobile	....	..	35–50	12–15	15–18	16–18
ARIZONA—						
Phoenix	....	..	30	8–12	10–15	10–15
CALIFORNIA—						
Fresno	Butter Market Basis		35	11	13	12–13
Long Beach	3.15*–3.33*	9–9.5	43.3	13	15	15
Los Angeles	3.15*	9	43.3	13	15	..
Oakland	2.92	2.9+	35	9	13	11
San Diego	....	..	41.66	13	15	15
San Francisco	3.11–3.21	2.9+	41.33	12	14	13–14
COLORADO—						
Colorado Springs	2.45*	6	30	9	11	10–12
Denver	2.01–2.10	5.75–6	..	..	12	..
Trinidad	....	..	35–45	8–10	8–11	10–13
CONNECTICUT—						
Bridgeport	4.22*	4	48	14	16	..
Hartford	4.22*	4	46–48	11½–14	16	14–16
New Haven	4.22*	4	50	14	16	16
DELAWARE—						
Wilmington	....	..	44	13	13	14–15
DIST. OF COLUMBIA—						
Washington	3.50*–3.72*	6–7	46–48	12–13	15	13–15
FLORIDA—						
Jacksonville	3.37*	10 to 4.2%	50–55	15–16	18–20	17–18
Miami	5.02*–5.80*	Varies	70	18–20	22	18–22
Tampa	4.67*–4.77*	Varies	50–60	15–18	18–21	18–21
ILLINOIS—						
Chicago	See Table II		32–38	13	14	14
Peoria	2.67*	5	33–36	11	13	12–13
Quincy	2.50*	5	30	8	10	10
Rockford	2.55	6	28	9	11	11
Springfield	2.00–2.20	4	33	11	12½	12–14
INDIANA—						
Elkhart	....	..	30	7½	10–12	10–12
Fort Wayne	....	..	40	11	13	12–13
Indianapolis	2.10	6	28–30	9–10	12	11–12
South Bend	2.43	4	32	10	12	11–12
IOWA—						
Burlington	2.55	4	30	8	10	10
Cedar Rapids	2.63	7.5	35	10	12	12
Davenport	2.35*	5	28	8–9	10–11	9–11
Des Moines	2.55–2.65*	5	32	9	11–12	9–11
Fort Dodge	2.30*	5	36	9½	11	11
Ottumwa	2.25*	5	35	10	12	12
Sioux City	2.10	5	30	8	10	10
KANSAS—						
Kansas City	....	..	35	8	10	10
Topeka	2.00–2.10	4	30–35	8	10	10–11
Wichita	2.00–2.25	3	30–35	10	12	12
KENTUCKY—						
Lexington	2.04	5	35	12	14	12–14
Louisville	2.13	4	28	10	12	12
LOUISIANA—						
New Orleans	2.81*	4	35	12	14	14
MARYLAND—						
Baltimore	3.55*	5.8	44	14	14	15–16
Cumberland	3.65*	7 to 4%	35	11	13	13
MASSACHUSETTS—						
Boston	3.63*	B. M. Basis	39	11½	14	12
Easthampton	....	..	46	12	14	14
Fall River	....	..	..	12	14	13–14
Lawrence	3.72	Flat	44	12	14	12–14
Lynn	3.95	Flat	..	11½	14	..
Springfield	3.25	Flat	40	..	15	10–15
MICHIGAN—						
Battle Creek	2.80*	4	36–40	10	12	12
Detroit	3.00*	5	40	12	14	13
Grand Rapids	2.48*	4	30	8–9	9–12	9–12
Kalamazoo	3.00*–3.20*	4 to 4%	38	11	13	13

* Basic prices for fluid milk.

Page's
COTTAGE CHEESE
THE PAGE DAIRY CO.
TOLEDO — OHIO

NAPACANS
FOR
COTTAGE CHEESE

MANUFACTURED BY
W.C.RITCHIE & COMPANY
831 W. VAN BUREN ST.
CHICAGO, ILL.

NEW
Nicollet Hotel
MINNEAPOLIS
The Northwest's Leading Hotel
Home of W. C. C. O. Studios

Six Hundred First Class Rooms at Very Moderate Rates!

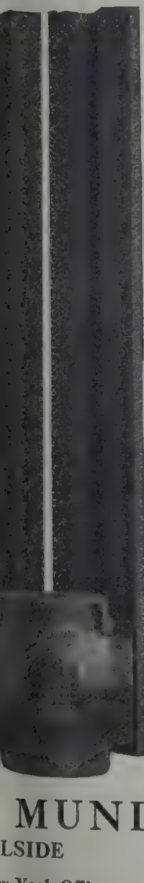
HEADQUARTERS
.... of the ....
DAIRY INDUSTRY
W. B. CLARK, *Manager*

Table III—May Cost and Selling Prices

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices			
			Wholesale Trade		Retail Trade	
			Per Gal. in Lots of 5–20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled
	$	Cts.	Cts.	Cts.	Cts.	Cts.
MINNESOTA—						
Duluth	....	..	30	10	12	11–12
Minneapolis	2.70*	5	32–34	9½	11	10–11
Northfield	2.37	5	32	8½	10	10
St. Paul	2.70*	5	..	..	11	..
Winona	3.10	Flat	35	9.58	11	11
MISSOURI—						
Kansas City	2.38	3.5	35–40	9–11	13	9–13
St. Louis	2.20	4	35	11	13	13
MONTANA—						
Butte	2.60	10	30	11	13	13
Lewistown	....	..	30	10	12½	12½
NEBRASKA—						
Lincoln	1.84	5.25	24	7½	9	9
Omaha	2.10	5	25–28	8	10	10
NEW HAMPSHIRE—						
Concord	2.73*	5	37½	11–12	11–14	11–14
Portsmouth	....	..	42	10½	13	13
NEW JERSEY—						
Atlantic City	....	..	48	..	..	15
Camden	....	..	38	..	13	..
Hoboken	....	..	34	11	15	15
Trenton	3.41*	4	38	11	13	14
NEW MEXICO—						
Albuquerque	3.20	5.8	40	12–12½	15	15
NEW YORK—						
Albany	3.02*	4	38	15	15–17	16–19
Buffalo	2.90*	4	36–40	10–11½	13	11½–13
New York	See Table II		40	14	15	15
Rochester	2.85	4	40	11	12½	..
Utica	3.02*	4	36	10	12	12
NO. CAROLINA—						
Asheville	3.80*	4	48	14	17	17
Greensboro	3.70*	6	50	14	17	17–20
Winston-Salem	3.30	4	50	12½	16.15–17	17–18
NO. DAKOTA—						
Mandan	2.50	4	..	..	12	10
OHIO—						
Akron	3.20*	5	38	10	12	12
Cincinnati	Not Determined		38	12½	14	12
Cleveland	3.24*	5	40–44	11–12	13–15	12
Columbus	....	..	38	11	12	12–13
Toledo	....	..	36	10½	..	..
OKLAHOMA—						
Oklahoma City	1.75–2.10	5–6	35	10	10–16.6	10–14
Tulsa	2.27–2.45	6.5–7	40	8–11	15–20	12–20
OREGON—						
Portland	....	..	35	9	12	..
Salem	1.75–1.85	5	32	9½	12	12
PENNSYLVANIA—						
Allentown	3.16*	4	36	11	13	13
Altoona	3.16*	4	38–42	11	13	13
Erie	3.02*	5	38	10½	12	12
Harrisburg	2.45	4	36	11	12	12
Philadelphia	3.49*–3.52*	4	38–40	12	13	..
Pittsburgh	3.45*–3.50*	5	33–40	13½	14	15–16
Scranton	3.02	4	38	12	12	12
RHODE ISLAND—						
Newport	....	..	..	13	15	15
Providence	3.63*	B. M. Basis	42	11½	14½	..
TENNESSEE—						
Chattanooga	2.27	6.5	40	12	20	18
Memphis	2.58*–2.73*	4.5	32–40	10–11	15	12–14
Nashville	Butter Market Basis		35	12	14	15
TEXAS—						
Dallas	2.60*	4	35	11	13	11–13
El Paso	2.85–3.00*	5	35	11	14	13–14
Houston	2.80*	8	..	..	15	..
VERMONT—						
Burlington	....	..	36	10	12	11–12

* Basic prices for fluid milk.

l cold pipe lines in the New ss Building, San Francisco, e efficiently insulated with



At the left is an unretouched photograph of two half sections of Mundet Jointite Cork Pipe Covering, and a Mundet Jointite Cork Fitting Cover.

Mundet Jointite TRADE MARK **Cork Pipe Covering**

Thirty-seven stories high, this tallest building on the Pacific coast is also one of the most modern in the world.

You can drive your car right into the building, which is provided with a 400-car garage for tenants' use. No more parking troubles. Entrance on two main traffic streets. Then go directly to the office by express elevator. That's just ONE of the modernizations.

In the building are thousands of feet of ice water pipe lines. It is important from the standpoint of economy, year after year, that all such lines be PROPERLY insulated.

MUNDET JOINTITE CORK PIPE COVERING was chosen for this purpose. Our own contract department applied the covering.

Our Practical Refrigerating Engineers cover the entire United States. Our service is complete—we manufacture, consult, sell, and install.

MUNDET & SON, Inc.

LSIDE *Established 1865* NEW JERSEY

w York Office:
Eighth Avenue,
w York City

Manufacturers of Jointite Pure Cork for all cold insulating purposes

Let *both* talk QUALITY!

YOU want your product to talk quality—to *look* clean and wholesome, because such an appearance helps sales. Yet what a handicap it must overcome when carried in delivery units that tell a different story. For people *do* form an opinion of your product and plant from the appearance of your trucks and wagons.

Let your delivery units talk quality, too! Let their appearance attract favorable attention. Clean them regularly with Oakite. Free them of all road dirt, tar, oil and grease, and *keep* them looking clean—it pays.

Every phase of dairy cleaning is included in our booklet "Oakite in Dairies." A copy is yours for the asking.

OAKITE IS MANUFACTURED ONLY BY
OAKITE PRODUCTS, INC., 30B Thames St., NEW YORK
(Formerly OAKLEY CHEMICAL CO.)

Oakite Service Men, cleaning specialists, are located at

Albany, Allentown, Pa., Altoona, Pa., *Atlanta, Ga., Baltimore, *Birmingham, Ala., *Boston, Bridgeport, *Brooklyn, Buffalo, *Camden, Charlotte, N. C., Chattanooga, Tenn., *Chicago, *Cincinnati, *Cleveland, *Columbus, O., *Dallas, *Davenport, *Dayton, Decatur, Ill., *Denver, *Des Moines, *Detroit, Erie, Pa., Flint, Mich., Fresno, Cal., *Grand Rapids, Harrisburg, Hartford, *Indianapolis, *Jacksonville, Fla., *Kansas City, *Los Angeles, Louisville, Ky., *Memphis, Tenn., *Milwaukee, *Minneapolis, *Montreal, Newark, Newburgh, N. Y., New Haven, *New York, *Oakland, Cal., *Omaha, Neb., *Philadelphia, *Pittsburgh, Portland, Me., *Portland, Ore., Providence, Reading, *Rochester, *Rockford, Rock Island, *San Francisco, *Seattle, *St. Louis, South Bend, Ind., Syracuse, *Toledo, *Toronto, Trenton, N. J., *Tulsa, Okla., Utica, *Vancouver, B. C., Williamsport, Pa., Worcester.

*Stocks of Oakite materials are carried in these cities.

OAKITE

TRADE MARK REG. U. S. PAT. OFF.

Industrial Cleaning Materials and Methods

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	$	Cts.	Cts.	Cts.	Cts.	Cts.
VIRGINIA—						
Newport News	4.20	5	50	15	17	18
Richmond	3.93*–4.05*	5	44	13	14	..
WASHINGTON—						
Everett	....	..	30	8	10	10
Seattle	2.56*–2.61	Varies	32–33	9–9½	12	11–12
Tacoma	2.25*	5	32	8	10	9–10
WEST VIRGINIA—						
Clarksburg	2.55*	5	32	12	14	15
Wheeling	3.26*	5	40	12	14	14
WISCONSIN—						
Beloit	2.40*	5	30	8	10	10
Kenosha	3.00	4	40	11	12	12–13
Madison	Butter Market Basis		36	9	10	10
Milwaukee	2.90*	4	30	9½–10	11	10–11
Oshkosh	Butter & Cheese Market Basis		..	9	10	10
Racine	2.50	4	38	10	11	11
Superior	2.76–2.83	5	32	10	12	12
Wausau	2.00	3	..	8½	10	10

* Basic prices for fluid milk.

Table IV—May Cost Prices of "Standard Grade Milk" 3.5% B. F. for Cities Where Part of the Supp Purchased Through Country Stations.

Cities	Prices Paid Producers per cwt. raw Milk (Flat prices of 3.5% B.F. basis)		Freight Zones to Which Country Sta Prices Apply
	F. O. B. City	At Country Stations	
New Haven, Conn.	$4.22*	$3.70*	28c rate.
Washington, D. C.	3.50*–3.72*	2.91*	35c 10-gal. can.
Chicago, Ill.	Unavailable	2.40	All.
Baltimore, Md.	3.55*	2.97*	35c rate.
Boston, Mass.	3.63*	2.87*	181-200 mile zone.
St. Louis, Mo.	2.20	1.70	34c rate.
Trenton, N. J.	3.41*	2.85*	41-50 mile zone.
Buffalo, N. Y.	2.90*	2.62*	28c rate.
New York, N. Y.	Unavailable	2.95*–3.00*	201-210 mile zone (53c rate).
Cleveland, O.	3.24*	2.86*–2.93*	All.
Philadelphia, Pa.	3.49*–3.52*	2.91*–2.95*	51-60 mile zone.
Pittsburgh, Pa.	3.45*–3.50*	2.70*–2.75*	All.
Scranton, Pa.	3.02	2.72	30c rate.
Dallas, Tex.	2.60*	1.90*–2.10*	All.

* Basic prices for fluid milk.
NOTE: At all places in the above tables where prices are not shown, the information was either not reported available.

GARDEN SPOTS OF INDUSTRY.

An analysis of manufacturing statistics by the department of manufacture of the chamber of commerce of the United States shows that there is no particular section of the United States which might be regarded as the garden spot of industry. Industry is growing in various sections. As expressed in the number of wage earners per 1,000 of population, the country as a whole shows an increase of 5.4 per cent for the past 15 years, the age of the chamber. For the North Atlantic Seaboard the number of wage earners engaged in manufacturing has not kept up with the rate of growth of the population generally. On the other hand, Michigan shows a 30 per cent growth; Indiana and California a 25 per cent growth, and the other Pacific Coast states—Washington a 33 per cent growth, and Oregon a 60 per cent growth.

Contrary to some statements, the departm that the growth in manufacturing in the Sou states has been less than for the country as a the basis of comparison with population. Th for North Carolina is 3.8 per cent; South Car per cent, and Georgia, 3.0 per cent.

When it comes to density of manufacturing, England States, of course, still maintain a long other sections of the country. In Rhode Island ample, there are over 200 wage earners per 1,0 lation, and for the New England States as a wh 150. The density in Illinois is 93 wage earners population, in Indiana 88, and in Michigan 116

On the West Coast the density of manufact California is 67 wage earners per 1,000 popula Oregon 69, and in Washington 79. In the United a whole there are 78 wage earners per 1,000 po

BESTOV FILTERS
Dominate the East—

Here are a *few* of the plants where you will find them:

NEW YORK

BORDEN'S	New York City (18)
ADIRONDACK DAIRY CORPORATION	Glenns Falls
HOSLER ICE CREAM CO	Albany
MACEDON CREAMERY CORP	Macedon
ONONDAGO MILK PROD. ASSN	Syracuse
J. SCHRAUTH'S SONS	Poughkeepsie

PENNSYLVANIA

RIECK-McJUNKIN DAIRY	Pittsburgh
YORK SANITARY MILK CO	York
WARREN CO. DAIRY ASSOCIATION	Warren
LAKE SHORE ICE CREAM CO	Erie
F. R. McMAHON EST	Altoona
JAMES H. LAHER	Bedford
GREENVILLE DAIRY CO	Greenville
TURNER & WESTCOTT	Philadelphia
MOYER DAIRY CO	Easton
GROVE CITY CREAMERY	Grove City
NINTH STREET DAIRY	New Kensington
NORTH END DAIRY	Scranton
BURSCHELL DAIRY CO	Scranton
FRIES ICE CREAM COMPANY	Reading
BENSON BROTHERS	Huntingdon
PEARCE MILK CO	State College

NEW JERSEY

KEYPORT DAIRY FARMS	Red Bank
ORANGE DAIRY CO	Orange
SISCO DAIRY	Athenia
W. W. DUGAN	Pitman
GEORGE N. CLARK	White House
RAIL & HARBOR M. & C. CO	Elizabeth
DAIRY MADE I. C. CO	Paterson

NORTH CAROLINA

MOORESVILLE I. C. CO	Mooresville
CAROLINA CREAMERY CO	Asheville
BUTTERCUP I. C. CO	Hamlet
VANCO DAIRY CO	Wilmington

SOUTH CAROLINA

WEST END DAIRY	Charleston (3)
PONDER BOTTLING & ICE CREAM CO	Greer

MARYLAND

MITCHELL I. C. CO	Elkton
H. E. KOONTZ	Westminster
R. H. JOHNSON	Silver Springs
UNIVERSITY OF MARYLAND	College Park

DELAWARE

CLOVER DAIRY CO	Wilmington

VIRGINIA

FARMERS CREAMERY	Fredericksburg
CLOVER CREAMERY CO	Roanoke

Ask for Bestov Filter Bulletin

Cherry-Bassett Company

Phila., Pittsburgh, Baltimore, N. Y. City, Syracuse

When writing to CHERRY-BASSETT COMPANY *please mention The Milk Dealer.*

PROF. BURKE'S INQUIRY DEPARTMENT.

(Continued from page 32)

the average per cent of solids present (the rest being water) we have 60 × .089 = 5.34 pounds of solids-not-fat. Thus we have 40 pounds of fat + 5.34 pounds of solids-not-fat present and the balance, or 54.66 pounds, is water.

Now, for your third question. The addition of .4 per cent inoculation of buttermilk to milk for cottage cheese is for the purpose of developing flavor and rapidity of ripening rather than texture. Cottage cheese to be palatable must contain some acid, otherwise it would taste flat. The proper texture is developed chiefly by handling the curd in the correct way after the product is properly ripened.

* * *

Kansas.

Dear Sir:—At the present time we are buying approximately 50,000 pounds of milk a day. Securing an accurate test as a basis of paying our customer has become quite a problem. At the present time we are taking from three to four tests of milk for each customer during a pay of fifteen days, and averaging these tests to determine an approximate test of his milk for that pay.

If possible, we would like for you to furnish us with whatever information you have in regard to the accuracy of this method as checking against the 100 per cent correct method of testing the milk each day.

Please give us the per cent of accuracy for one test during the fifteen day period, for two tests, and so on up to fourteen tests during the fifteen days.

Reply: Some years ago Hunziker reported in the Purdue experiment station 27th annual report, some very interesting figures on the accuracy of samples of milk which were tested every two, three, four and five days, and compared with composites and daily samples. These tests were found to check very closely with tests made daily, as reported in the following table:

	% Fat	Lbs. Fat
Daily samples	4.90	31.94
Composite samples aliquot portions.......	4.865	31.72
Composite samples equal portions........	4.870	31.75
Daily samples every second day.........	4.914	32.04
Daily samples every third day...........	4.905	31.98
Daily samples every fourth day..........	4.903	31.97
Daily samples every fifth day............	4.893	31.90

In the Journal of Dairy Science for 1921, page 351, Judkins ran some comparative tests. In this work, milk brought to the plant by twelve patrons was tested according to the following method:

1. A complete sample taken with a milk thief and tested twice monthly.
2. A composite sample taken with a dipper and tested twice monthly.
3. A test on the 15th and 30th of the month, added and divided by two,
4. A test on the 15th and 30th of the month, used in figuring the true average test by finding the pounds of fat and dividing by the pounds of milk.
5. A test made on the 10th, 20th and 30th of the month, added and divided by three.
6. A test on the 10th, 20th and 30th of the month, used in figuring the true average test by finding the pounds of fat and dividing by the pounds of milk.

Method	No. times difference is .2% or more	Smallest difference	Largest difference	Average difference
Tube+or—daily test..	1	+.012	+.209	+.031
Dipper+or--daily test	1	—.007	+.250	+.057
Dipper+or—tube test.	0	—.000	+.186	+.026
Sum of 2 tests÷2+or ---daily test	6	+.009	+.415	+.136
True ave. test 2 tests+ or—daily test	5	+.007	+.404	—.098
True ave. test 3 tests+ or—daily tests.....	1	—.015	+.204	—.022
Sum of 3 tests÷3+or —daily test	1	—.003	—.204	+.092

He states, "Since considerable figuring is n
to calculate the true average test of a large nu
patrons when samples are taken three times a
is very interesting to note that the last meth
tioned in the table, namely, adding up the three t
dividing by three comes so near the results obta
daily testing, and even nearer those obtained
posite sampling, that the method is worthy of
mendation."

Your attention is called to the fact that meth
above, where two monthly tests were added and
by two, and also method four, where the two
tests were used in figuring the true average te
both less accurate than the other methods. The
of using three monthly tests, adding these and
by three gives very accurate and satisfactory re
believe if you were to follow this practice of
three tests during a fifteen day period you wou
an average test very close to one where the te
made daily.

* * *

Oklah

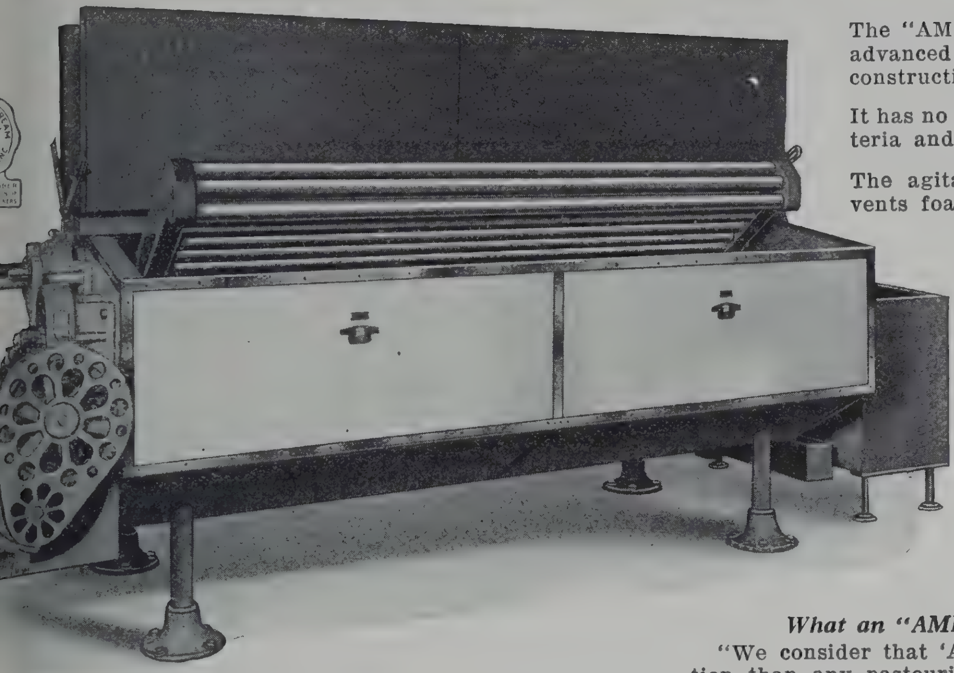
Dear Sir:—Will you please send us all the i
tion you can on cooling and caring for milk?
the lowest bacteria count you know of and wha
missible? We milk in covered buckets throu
thicknesses of cheese cloth, strain into cans
four thicknesses and then through cotton and into
through two more layers of cheese cloth. We
cans in a tank of ice water that comes up to the
can. All strainer cloths are washed and boile
daily. We wash our bottles, using Wyandotte
and rinse in water which has B-K. Put bottles i
izer, give them 180 degrees.

Our cows are clean and yet they claim a pa
does none of these things has a count of 3100 b
and we 7000. We cannot account for it, and if
tell us anything to do to make our milk better
appreciate same.

Reply: You certainly appear to be handling t
properly. There are, of course, several causes
terial contamination of milk. One is the dust a
which falls into the milk and the other is throu
teria in the udder of the cow. As a rule the milk
from the cow's udder seldom contains a thousa
teria per cubic centimeter, which is very low,
stances are on record where milk has been obta
a sterile condition. The count which you are ob
of seven thousand, is certainly very low and I do
lieve I would worry about the bacteria count if
not run any higher than this. The law specifies n
100,000 bacteria per cubic centimeter, so you see
basis you are well within the law. There may b
reasons why the party to whom you refer is putt
milk with a count of 3100. May be in your he
cow is secreting milk with a much higher bacteria
than the others.

I note you mention the straining of milk. St
does not remove bacteria. Bacteria are so minu
they readily pass through the pores of cheese clo
thin cotton disc. The idea in every instance sho
to keep any dirt particles, however small, from
into the milk, as they usually harbor many thousa
bacteria. Of course, once the dirt falls in the on
to remove it is by straining, which should be pra
I suggest that you try boiling your utensils in wa
five minutes after they are thoroughly washed an
rinse them with the water containing hypochlorit
tion.

AMERICO" THE PASTEURIZER WITH A PURPOSE



The "AMERICO" embodies the most advanced principles in design and construction.

It has no stuffing boxes to gather bacteria and contaminate the batch.

The agitation is gentle. This prevents foaming, churning and breaking of fat globules.

Heating is done with water below 160° F. There is no burning on the coils nor scorching of the product.

The flush type outlet valve is standard on all vats.

Thorough cleaning of all parts is accomplished with ease as the coils can be raised out of the vat.

What an "AMERICO" User Says:
"We consider that 'AMERICO' is nearer perfection than any pasteurizer we have ever used."

new "AMERICO" with improved coil control

RICAN COPPER & BRASS WORKS
Manufacturers of Dairy Equipment

610-616 E. FRONT STREET
CINCINNATI, OHIO

QUALITY ABOVE EVERYTHING

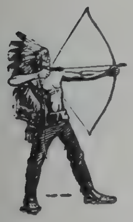
The fact remains that while quality production is more or less influenced by the use of modern equipent, quality production will always be determined by the care with which milk products are handled d processed.

This care is so greatly influenced by the distinctive, sweet, sanitary cleanliness which the use of

Wyandotte
Dairyman's
Cleaner and Cleanser

provides with the least labor, time, and expense that thousands of dairymen, creamerymen, and cheesemakers will use nothing else for their cleaning operations.

Ask your supply man for "WYANDOTTE"



Are you using Wyandotte C. A. S. [cream acidity standardizer] for standardizing the acidity of your cream?

he J. B. Ford Company *Sole Manufacturers* Wyandotte, Mich.

"Highland—The Better Milk"

New St. Louis Plant "The Last Word" in Appointment and Efficiency. Company Officials Insist That Their Best Advertisements Are Their Products

SUCH is the significant slogan of the Highland Dairy Farms Company, an organization of over 600 farmers, who entered the milk business six years ago, and are now one of the dominating factors in the St. Louis market, with a beautiful new pasteurizing and bottling plant in Highland, Ill., and distributing plants in St. Louis, Mo., and East St. Louis, Ill. This new country plant is one of the most beautiful in the country, erected and equipped at a cost of over $225,000.

Progressive Spirit Aids Growth.

The wonderful, progressive spirit of every man in the organization has made possible this remarkable record of achievement. Established on April 1, 1921, and starting from "scratch," the company is actually putting onto the market every day over 140,000 pounds of milk in the form of various dairy products.

Exterior of the Highland Dairy Farms Company's new plant located at Highland, Ill., 35 miles east of St. Louis, where the product is marketed. The building was erected and equipped at a cost of $225,000.

Credit for this achievement is due to the quality of the products marketed; the enthusiastic co-operation of the entire organization; and to the careful management of the board of directors, who are directly represented in the affairs of the business by Julius Reinhart, president; August Weder, vice-president; B. F. Tschannen, secretary, treasurer and general manager. The energy and good business judgment of Mr. Tschannen, the general manager, is in a great measure responsible for the growth to a larger and more profitable business through each year.

The first few years were not entirely free from struggle, however, after the crisis period was passed, the growth became steady and determined. The company is free from debt, and in 1926 had a gross volume of well over $2,000,000.

New Country Bottling Plant.

The new country plant is as fine as any in existence today, as the illustrations clearly show. It is 103 feet in length, 83 feet in width, and three stories high. A concrete driveway runs entirely around the building; the incoming milk being received on one side and the bottled milk being trucked away to market from another side, so that the two lines of vehicles do not interfere, one with the other. The outside walls are of rough matt brick and stone trim. The inside walls are of glazed
white brick, the ceilings and columns are of gl
white "Sarryonyx," and the floors are all of "T
Thus, the whole is rendered fire-proof and is c
a real investment in beautiful and sanitary app

On entering, visitors step into a glazed whi
bule and ascend a decorative wrought iron s
to the business office on the second floor. From t
ness office, or from the directors' room (show
of the illustrations), the visitors view one of t
beautiful pasteurizing rooms in the country. Mi
by gravity, effecting real savings in plant op
Words cannot tell the overwhelming impressio
first view of this gleaming white sanctuary er
process a product destined to build and pe
health.

The trucks, bringing the fresh whole milk f
dairy farms, drive up on the right side of the
as illu
The farm
for the
of their
the plan
cans a
veyed fr
doorwa
pure n
1,000 - g
dump ta
pended
scale.
are taken
ous to d
which is
task wh
considers
1,152 pa
were se
their milk
very acti
cern on t
of April.

The
carefully graded and, if sweet, is dumped and w
All cans are immediately conveyed to and thr
can washer and delivered at once in a clean and
condition to the awaiting drivers.

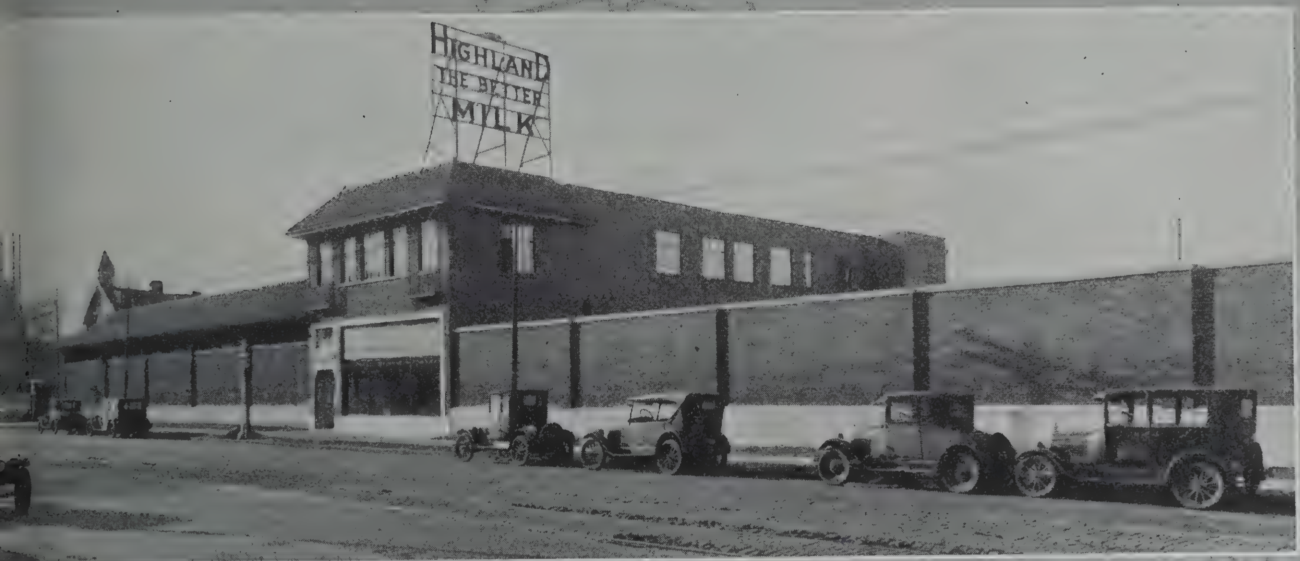
The milk is next pumped up through an i
tube cooler (20 tubes—14-foot—2-inch) and is de
to the two huge 2,000-gallon insulated storage t
the third deck or floor of the pasteurizing roo
temperature of 42 degrees F. This storage of a
mately 35,000 pounds of milk assures ample in
of continued operation throughout the run.

All further movement of the milk is by gravi

From storage the milk flows for pre-heati
aeration over a primary tubular pre-heater (16
14-foot—3-inch) and is heated to about 90 deg
for clarification or separation.

That part to be sold as bottled milk, butter
cultured whole milk is diverted through clari
this point, and that part to be used in the ma

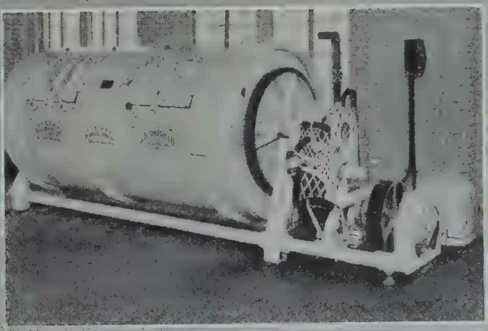
The Highland Dairy Has Perfected Every Detail of Production, Management and Distribution



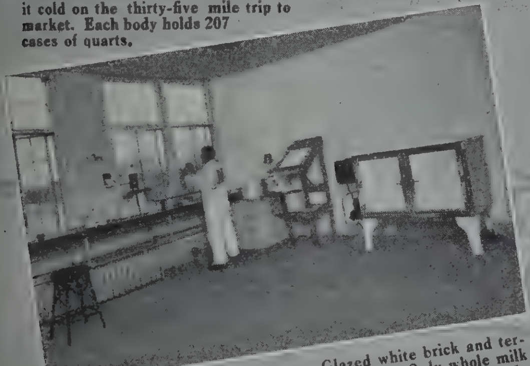
The St. Louis distributing plant, erected two years ago to handle the increasing business. Here the milk is delivered from the country plant and redistributed to the wagons and motor trucks which handle the 80 routes in St. Louis.

THE MILKY WAY
HIGHLAND
DAIRY FARMS CO.

One of ten tractors and bodies for hauling the bottled milk to the distributing plants in St. Louis, Mo. and East St. Louis, Ill. The bodies are insulated and the milk is iced, thus keeping it cold on the thirty-five mile trip to market. Each body holds 207 cases of quarts.



Interior of the Churning Room showing motor-driven, gear type No. 18 Cherry Dreadnaught Churn which turned out over 37,000 pounds of butter in March.



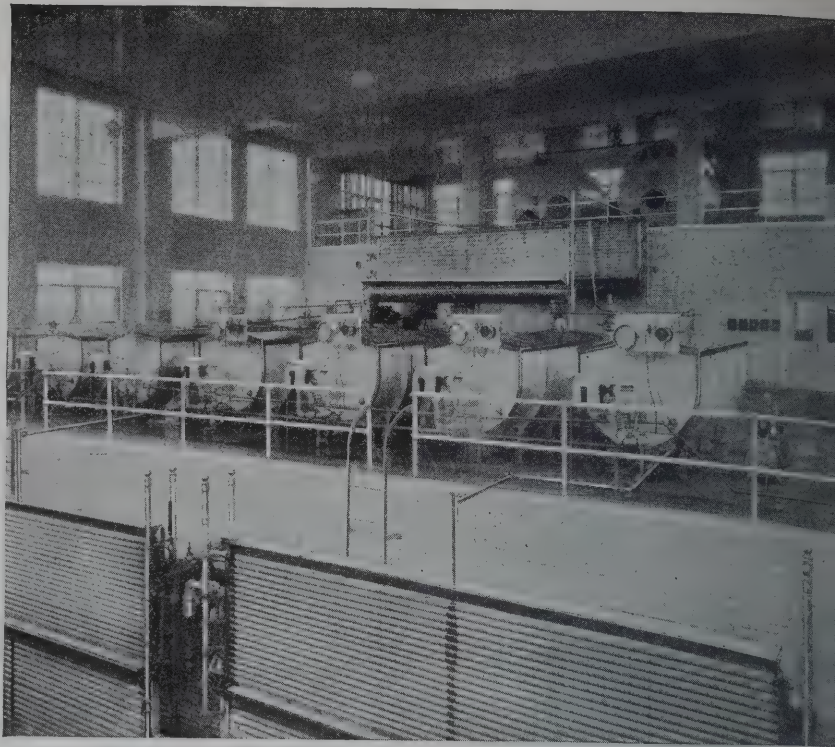
The laboratory and testing-room. Glazed white brick and terrazo floors here, just as in the whole building. Only whole milk is purchased from the 1,200 producers supplying milk for "Highland" products.

The unique directors' room in this new plant. The pasteurizing room can be seen through the plate glass partition which makes up one entire wall. The business office at the other end of the building is similarly arranged.

butter or for bottled table cream is put through the separator.

The milk, after clarification, flows over the secondary tubular preheater (12 tubes—14-foot—3-inch) and is further aerated while heating to about 138 to 140 degrees F. before being discharged into four 600-gallon twin coil pasteurizers. made of pure nickel, direct-connected, motor-driven, fitted with valves and equipped with automatic air-operated temperature controllers which automatically shut off the flow of the water when the milk has reached the pasteurizing temperature absolutely for the 30-minute holding period.

These pasteurizers heat and hold every particle of the milk at a uniform and positive temperature, and cannot overheat a batch of milk. This insures a maximum cream line and makes it absolutely impossible to impart a scorched or cooked flavor to the milk.

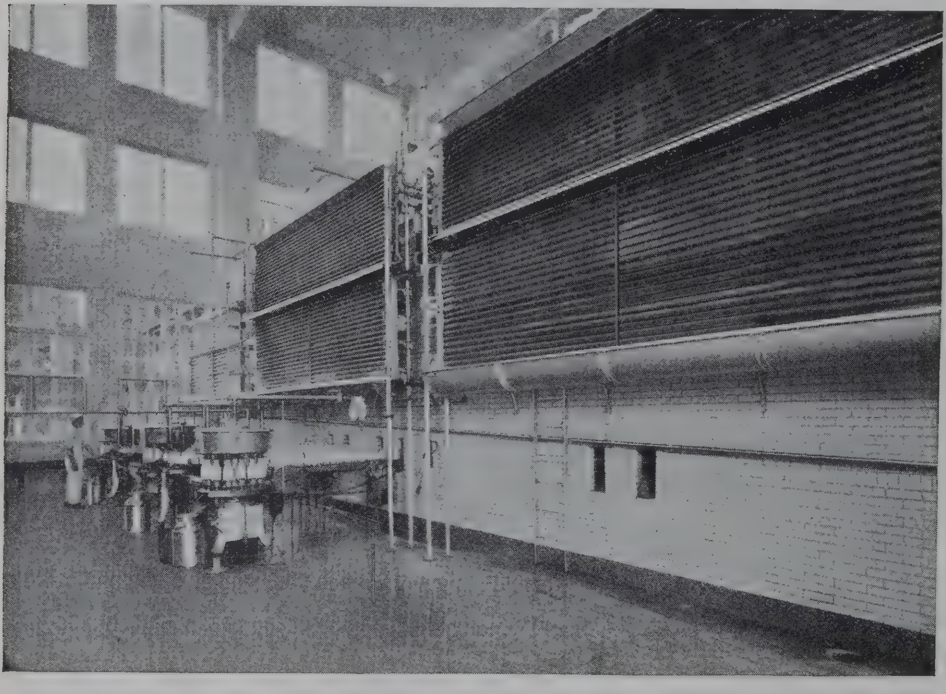


The beautiful pasteurizing room showing seven twin coil pasteurizers, five
lon machines of pure nickel and two 500-gallon glass-lined, all with pure wh
ous enameled outside bodies. All machines are equipped with the latest flus
The four pasteurizers used for milk are automatically controlled (by air pres
it is absolutely impossible to overheat a batch of milk. Note the primary and s
tubular pre-heaters. The first pre-heats to separation and clarification temp
the latter to about 136 to 138 degrees F.

The hot water is pumped from a hot water heater or master supply tank in which the water is controlled to a low temperature, which will have no injurious effect on the milk and yet is hot enough to pasteurize the milk rapidly. With this type installation, which controls the temperature of the water and also controls the flow of the water, it is absolutely impossible to ruin the creaming ability by overheating, or to impart a cooked flavor to the product.

After heating and holding so accurately and positively, the milk flows (still by gravity) over two tubular surface coolers (20 tubes water—20 tubes direct expansion) where it is cooled to 32 degrees F. for bottling by two fillers and cappers.

The tubular cooler on the left of the illustration showing the coolers (12 tubes water—12 tubes
expansion) is for cooling table cream, culture
milk and buttermilk. These products are also
to 32 degrees F. and bottled by the third fil
capper.



Two 40-tube tubular coolers for milk, 20 tinned copper tubes for water and 20 nickel tubes for direct expansion. Also one 24-tube cooler for cream and buttermilk, 12 tubes for water and 12 tubes for direct expansion. All cooling is to 32 degrees F. before filling and capping on three fillers and cappers. Note provision for additional battery of fillers. A chart is kept on a recording thermometer of each day's cooling. Redistribution troughs keep the milk flow in an even film.

Handling of By-products.

The three twin coil pasteurizers shown on
of the line of coil machines are for pasteurizing
One 600-gallon pure nickel machine is for table
Two 500-gallon, glass-lined m
are for handling cream for
making. On the same floor,
the rear of the above machi
two 500-gallon horizontal
(moved from the old plant)
the making of 1,000 gallons
tured buttermilk marketed
Two small starter cans are
this floor, one for making "H
a cultured whole milk, and
preparing culture for the butt
ing department.

The churn room is on th
level as the pasteurizing roo
is at present equipped with a
Dreadnaught churn, motor
Provision has been made for
ing an additional churn wh
demand for "Highland"
makes it necessary. The out
March was over 37,000 pounds
cating that this is an importa
product from a sales standpo

The plant is now bottling
37,000 "quarts" of milk daily
bottled cream, buttermilk, cu
"Hylac," whole milk and pint
the total to between 55,00

Roomful of Catalogs
One Volume

HERE is one of the most helpful and important works ever undertaken in the Dairy Products Industries. Now, when you need buying information, you don't have to rummage through files looking for catalogs and literature that has been faultily filed or, more likely, lost. Just look up the product or service in Olsen's Dairy Industries Condensed Catalogs. You can buy directly from this book because it contains detailed data and information, specifications, tables of weights and sizes, illustrations and descriptions of the more important products and services used in all branches of the Dairy Products Industries.

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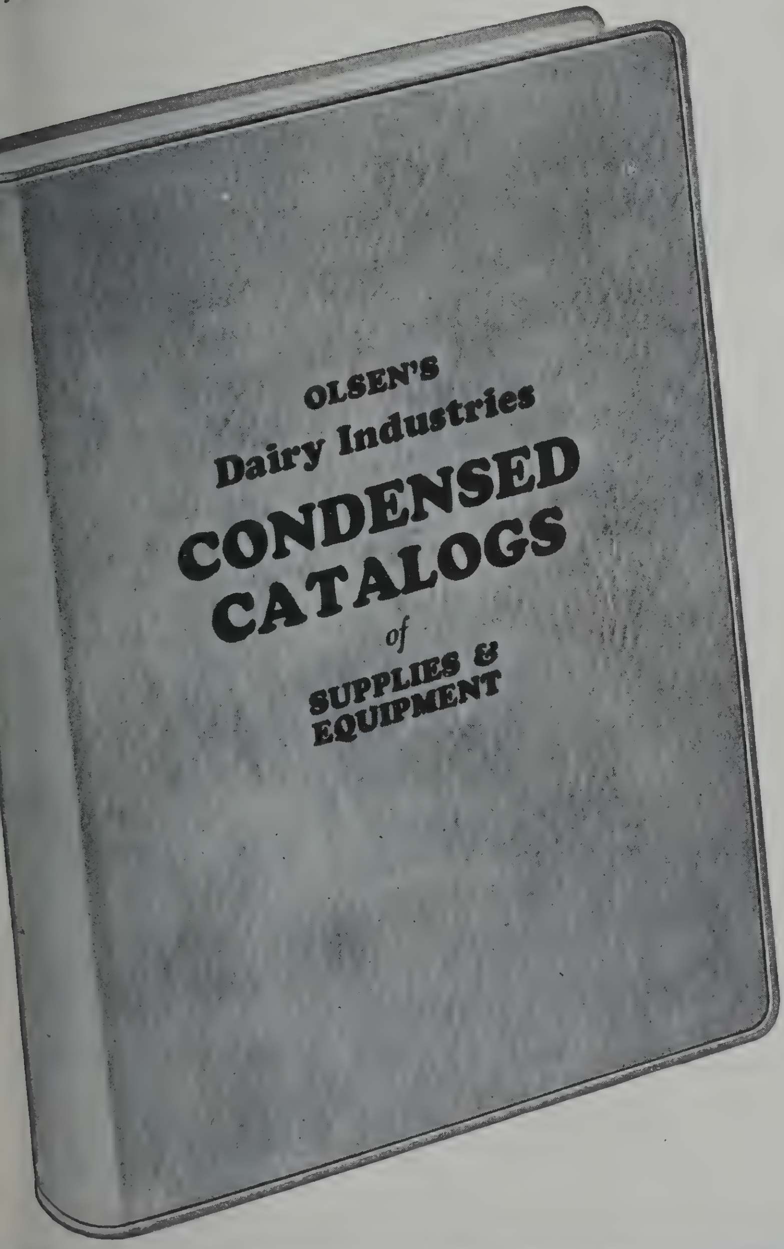

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Olsen's Dairy Industries Catalogs will be ready for distribution within a short time. To get your copy early, please send in your request now.

Here is what two of the Country's Largest Dairy Products Concerns say:—

"We understand you are getting up a dairy industry reference catalog, giving specifications and data, on various types of dairy equipment. Please be advised that we are most anxious to have you send us one of these as soon as they are ready for distribution. We think this would be a most useful catalog to have in a dairy plant."

"I think your idea of publishing the consolidated catalog for the Dairy Products Industries will prove to be one of the best helps I know of for the buyer. It is a thing that I have been looking for for a long time and I am sure that it will prove an invaluable help. There are many times I want to obtain references for some article which we use around the plant and it is sometimes a week or two before I am able to locate anyone handling it. If there is anything we can do to further assist you in your plan, kindly call on us."

◆

ATTENTION EQUIPMENT AND SUPPLY CONCERNS

This is not an advertising medium, in fact, no display advertising is accepted.

It is the standard Buyers' Reference Book made up only of Condensed Catalogs.

◆

CATALOG DIVISION

The Olsen Publishing Company

501-515 Cherry St. Milwaukee, Wisconsin

PUNCH THRU CORNER
REMOVES DIRT
SOFTENS WATER
KILLS GERMS
for
KLEN-O-CIDE
BOTTLES
CANS
VATS
CHURNS
COOLERS
PASTEURIZERS
"A Little Does a Lot."
Net Wt.
12 Oz.

FREE—ACTUAL SIZE PACKAGE

Just fill in and send us the coupon below. You will receive this *free* sample package which makes 25 gallons of Cleaning and Sterilizing solution.

KLEN-O-CIDE completely removes that film of grease and *kills all germs.* Use KLEN-O-CIDE *every time* you clean and you'll have sterile cans and equipment. You need never fear of mold growths when KLEN-O-CIDE is used daily. Why use an ordinary cleanser when KLEN-O-CIDE will kill all bacteria—wash all equipment super-clean and destroy unpleasant odors. It is economical because, "A little does a lot."

KLEN-O-CIDE

the original chlorine cleanser does all this with less harm to your equipment than common cleansers and ordinary chlorine products. A recent test in a New York laboratory *proved* that KLEN-O-CIDE is LESS harmful to all dairy equipment metals than any other products tested.

In some of the largest dairy products plants KLEN-O-CIDE is maintaining their equipment clean and free from bacteria. Then why not yours? Accept this free and easy way of learning how KLEN-O-CIDE will sterilize your equipment. Send the coupon *now.*

THE KLEN-O-CIDE CO.,
1044 N. Latrobe Ave., Chicago, Ill.
Name ....
Address ....
....
Your Jobber ....
Also, tell us how we can get your chlorine testing apparatus without charge.

60,000 bottles each day, the total fluctuating w demand.

The cold bottled milk is cased in the room d beneath the pasteurizing floor, is iced and imme packed into one of the huge vans which carry th to the distributing plants in St. Louis and East St By using this system it is possible to have ver milk storage space in the country plant. Eacl holds 207 cases of "quarts." Ten tractors are con on the road and one extra body is retained for l The trip to St. Louis and return is slightly mor 70 miles and takes about 7 hours.

It is not uncommon to have some of the mi teurized, bottled, capped, iced and on its way Louis less than two hours after it is unloaded fr trucks bringing the raw milk from the dairy far

Dirty Bottles Washed at Country Plant.

Three bottle washers of the 8-row type and case washers handle the returning bottles and unloaded from the vans coming in from the city bottle and case washing room is a model from the saving angle, as conveyors are used at every p point.

Even with all of the handling of the bottles plant, on the road and in the distributing poi Brownlaw, plant superintendent, stated that seve per bottle is a good average, running much les this except on holidays, which brings the losses

The old plant is now being remodeled so a r milk drying machine can be installed for dryi skim milk, buttermilk or whole milk, depending the market and the surplus of the product to be The company has its own heating and power pla manufactures its own refrigeration, totaling 13

Dressing and locker rooms with shower bat provided for the employees.

Model Distributing Plant.

Two years ago the St. Louis distributing plan trated, was erected. It is a face brick structu houses the retail store, the general offices and t tribution department for St. Louis proper. The milk from the country is unloaded into storage later loaded for the 80 routes serving St. Louis. T routes are now operating in East St. Louis, I these are served by a separate distributing plant city. Of these 100 or more routes approximately horse-drawn and 30 some odd are motor-drawn.

In the rear of the St. Louis plant are the s blacksmith shop, wagon shop, paint shop and g

The stable is a two-story face brick building, s that the second and third floors can be later us horses by installing inclines. All wagons and bodies are built, painted and lettered in the com own shops. Select lumber from the neighborh Highland has been cut, kiln dried and is now bein in the vehicle construction. The garage is large e to handle the storage of all the trucks and in ad houses the shop which handles the repairs and f new bodies to the new trucks as added.

Ample space is available for further expansi wagon storage and motor vehicle storage as well a tional milk storage, should the building have to larged. Observation would indicate that expan inevitable, due to the quality of the product pl aggressiveness of the entire organization.

Highland Dairy Advertising.

The management insists that their best adv ments are their products. However, general ad ing is carried on in leaflets, bottle cap openers, et

MORE POSITIVE PROOF

A leading Agricultural Experiment Station just issued a bulletin which conclusively oves these facts:—

The Methylene Blue Reductase Test is more CCURATE than the official Agar Plate thod for determining milk quality of the W supply.

It is more RAPID, CHEAPER AND SIER to use than the Agar Plate Method.

It RELIABLY indicates the quality of lk.

he Contamo Tester

(Patented July, 1925)

he PIONEER AMERICAN OUTFIT using s test.

Send for illustrated circular which gives complete information.

ACTEAL ANALYTICAL LABORATORIES Inc.

176 Franklin St.
Buffalo, N.Y.

"THE ROGERS WAY *MAKES YOUR SURPLUS MILK PAY"*

Rogers SPRAY PROCESS MILK POWDER PLANT

is the only process that—

Produces a uniformly high grade Milk Powder.

Guarantees complete recovery of solids.

Produces milk powder completely soluble even in ice water.

Gives you greater capacity at lower costs.

Guarantees uniformly low moisture content.

Eliminates all possibility of second grade powder.

That's why there is more milk powder produced by Rogers Spray Process Milk Powder Plants than by any other process.

That's why Rogers Spray Process Milk Powder is always in demand.

Rogers Vacuum Pans

Rogers Vacuum Pans are the most efficient means of removing water from milk. They double the capacity of your drying unit, besides putting you in position to take advantage of the Condensed Milk market, as well as the Milk Powder market.

Rogers Vacuum Pans, as well as Rogers Drying Equipment, can be operated efficiently on exhaust steam.

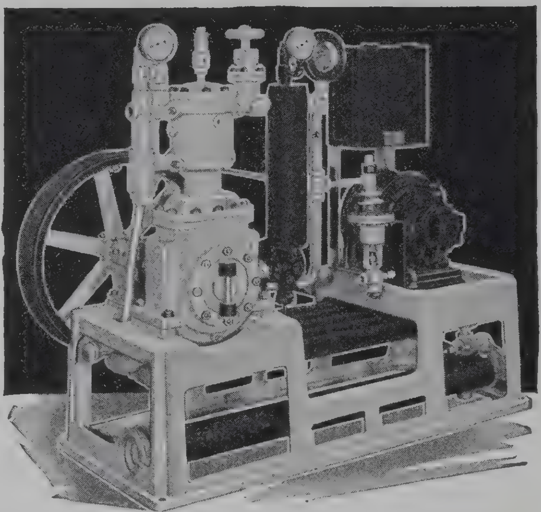
C. E. ROGERS CO.
Detroit, Michigan

C. E. ROGERS CO.,
8731 WITT STREET,
DETROIT, MICHIGAN.

Show us how the "Rogers Way" will turn our surplus milk into real profits.

Firm ....
By ....
Street ....
Town .... State ....

ROME
FULL AUTOMATIC REFRIGERATION



Installed Easily and Economically

A wise old Milk Dealer once said, "You can't beat our milk, BUT you CAN whip our cream."

Without doubt the above remark was made because the Milk Dealer had already installed a Mechanical Refrigerating Machine.

The ROME FULL AUTOMATIC is quickly, easily and economically installed and on such reasonable terms that no Milk Dealer need be without a Rome. Fill in your name and address below and mail today for the complete facts.

Rome Manufacturing Company
Refrigeration Dept. • Rome N. Y., U. S. A.

ROME MFG. CO.
Gentlemen:—
The undersigned would like to learn the facts about Rome Full Automatic Refrigerating Machine.
Name________________________
____

tributed by the drivers. The large electric sig roof of the city distributing plant is also an a when illuminated at night can be seen for man by approaching motorists. Every wagon and kept spick and span by the washing departm rendering each of the more than 100 vehicles a tive moving advertisement.

A recent publicity stunt is the conducting o to the country plant. Two de luxe busses are c each day, and take from 50 to 60 housewives fr ous clubs on a day's outing. An hour's ride bri to the plant in Highland, Ill. A tour of the made under the direction of the publicity man great deal is said about the milk; however, the are explained very carefully. After the visi plant, they are conducted to the cafe and chicken dinner, with the compliments of the and then return to St. Louis. Here they are sh city distributing plant, quench their thirst wit of cold milk, and then embark for their homes that there is much truth in the slogan, "Highlan Milk."

Neal C. Davis, St. Louis architect, planned plant and the Meyer-Blanke Co., St. Louis, pla layout of the equipment and supervised its ins —The Cherry Circle.

UNITED STATES PRODUCED 52,000,000 LON OF MILK IN 1926.

In an address given by W. D. James of For son, Wis., at a convention of Northwestern sal the James Manufacturing Co., Mr. James sai country's milk production in 1926 amounted t 000 long tons." Mr. James stated further, as fo

"That's twice the weight of the pig iron p in the United States. To transport it would re the ships of the merchant marine of the Unite United Kingdom, France, Japan, Italy, Holl Sweden. In money it represents a value of $2, 000. The United States is the greatest gold p country in the world, but it would take our o the yellow metal for 55 years to pay for last yea production.

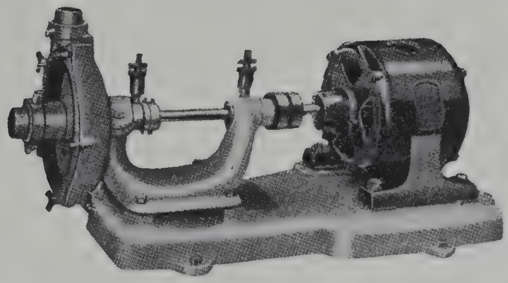
"We could pay off the entire public deb United States with interest, $20,500,000,000, in eight years, from farmers' milk and cream chec represent one-fourth of all the farm income in t try and supply one-fifth of the family food budg

CONNECTICUT MILK SHIPPED TO PROVI R. I., VIA TRUCK.

Because the amount of milk shipped to t Windham and New London counties has decreas 100,000 quarts daily to 25,000 quarts, dairy fa towns in eastern Connecticut are gradually aba railroads as a means of sending milk to Providen and Boston, Mass.

Figuring the freight at eight cents per 10-q to Providence and Boston, the trucks have ga equivalent of $800 per day in freight business.

Large trucks providing this service deliver chasers in Providence and bring back empty farmers, and during the summer do it at hou more agreeable to the farmers than those prov by the railroads when daylight saving time is i



Answer to a Vexing Pumping Problem —

Class "B" Sanitary MILK PUMPS!

**Enormous Capacity---A Really Sanitary Pump--- Simple in Construction---
Easily and Quickly Cleaned.**

Operates with minimum power. Thoroughly cleaned by simply removing two parts.

No opportunity for worn metal particles to combine with the liquid, thereby causing metallic flavors; there are no wearing parts.

The "Class B" is a long life pump and some have operated 20 hours a day for sixteen years.

All contact liquid parts made of BRONZE heavily tinned.

Write for Bulletin No. 21-B.

Jensen Creamery Machinery Company

LOOMFIELD, N. J. :: :: OAKLAND, CALIFORNIA

SANS, Meaning *Without!*

Without

Extra Advertising
Extra Salesmen
Extra Manufacturing Expense
Extra Packaging Expense
Or Better Milk

You can secure a 50 per cent increase in your cottage cheese sales. Learn our method of making *flaky, creamy, low-in-acid* cottage cheese.

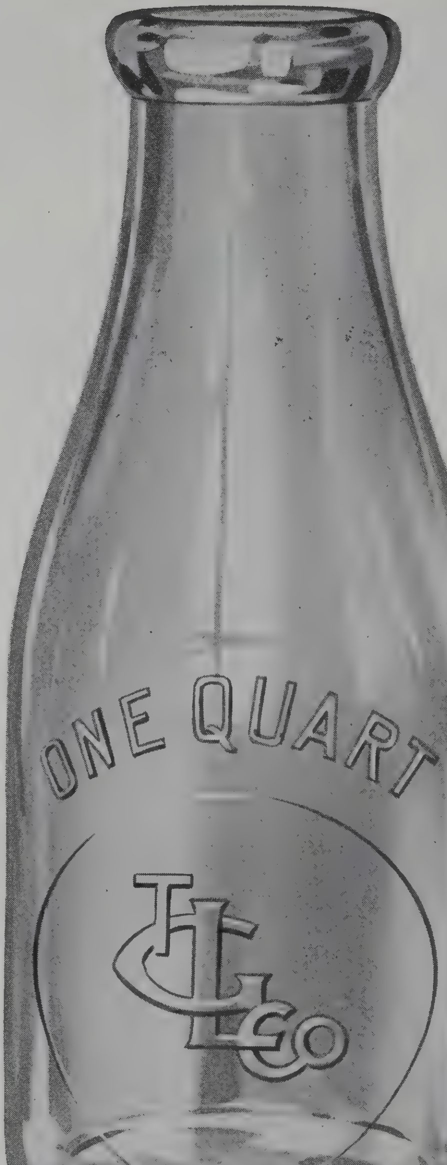
The largest and best dairy companies report a 50 per cent increase after learning our method.

Without obligation to you, we will be glad to send full details.

Write us about it TODAY!

Flake Cream Cottage Cheese Co.

400 SO. CLINTON ST. CHICAGO, ILLS.



SUPER MILK BOTTLE

Speaks for itself, and is recognized by all as the achievement of **The Lamb Glass Co.,** who specializes in its manufacture—**independently.**

The Lamb Glass Co.

Factories and General Offices:

Chicago Mt. Vernon, Ohio New York

THE SOUTH AND ITS MILK SUPPLY

(Continued from page 25)

it will be necessary to wait until they have die
there are some of our old boys who have follo
one-crop plan so long they hate to change, hat
thing differently. That's human nature. Hab
strongly upon some people. The cotton habit h
of a hold when it does grip a guy. Thank
doesn't grip me."

The dairying advance in the Mississip
brought out some interesting milk merchandisi
One dairyman was sorely perplexed by the la
ber of pint customers. The evil of the "pint
afflicts dairymen in all parts of the country,
man had the courage to inaugurate a system
minished his troubles. He finally told all pint c
that they would have to buy a quart at a tim
cash, as he couldn't afford to carry such small p
on the books, not even for a week at a time.

He didn't lose a single customer. Almost
buyers increased their orders, evidently think
would get a quart one day and none the next.
of course, soon saw the unwisdom of drinking a
when they could buy it fresh every morning, a
began ordering quart bottles regularly every da
who stuck to the pints paid cash and then that
was more profitable.

But the greatest hope for the future of S
dairying is—education. This is meant in mo
than one. Southern people, of old America
naturally are of the type that consume dairy
more readily, under normal conditions, than
people. Their per capita consumption of milk is
necessarily because they don't like milk, but
they want good milk. Driving out the tick wi
the people of Mississippi to be sure of getting
milk as can be found elsewhere, and this applie
Louisiana. For seeing the good work Mr. Folse
for Mississippi, the people of the adjoining st
asked him to aid them in the passage of a tick
tion law, and it is thought sure this law will b
at the next session of the Louisiana legislature.

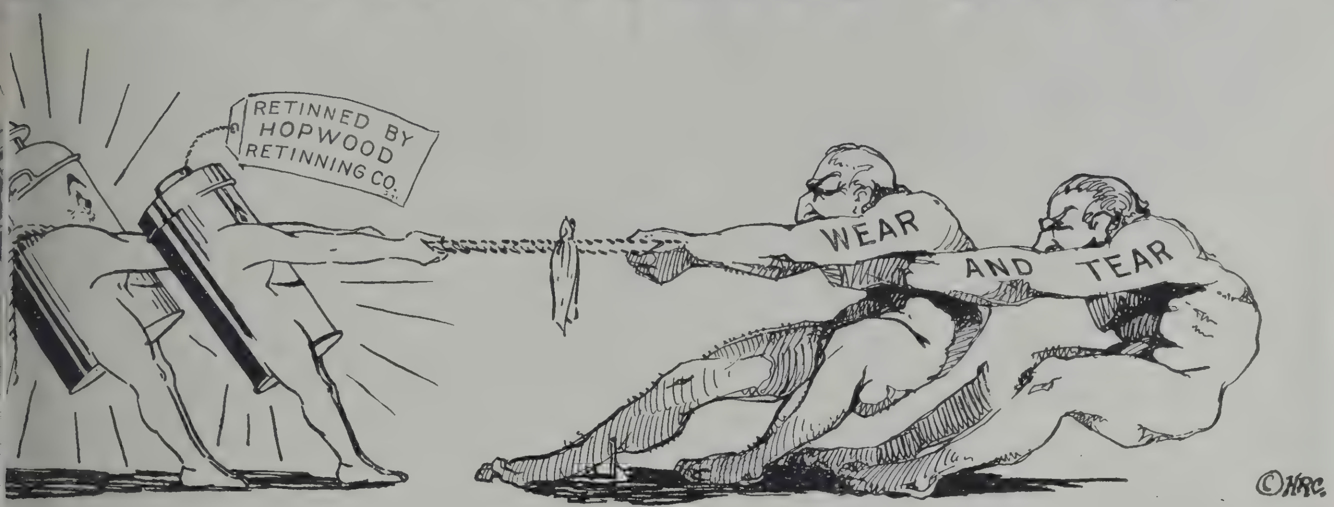
But the poignant fact remains that the tro
the South, agriculturally, will largely be solved
coming of another generation of lads better
than their daddies. You have only to make a li
sonal investigation to see this point. The writer
recently in one of the rural sections of the state.
party of men were gathered. It was astonish
many of these men were old men—away up in
sixty, sixty-five—some perhaps seventy-five y
and still actively in charge of run-down farms.
was a veritable sea of gray heads.

Now it is not to speak disrespectfully of tha
of men to point how poorly educated they are.
their fault. They grew up in a day that was d
drab for their Southland, in a day when the
houses mostly had been burned, when even if th
been school houses they couldn't have gone, as t
to carry on a fight such as no other race of peop
the world ever faced, a fight that required day a
wrestling with wasted farm lands, with lack o
ments, with lack of horses and mules, with
wagons.

But the hope of the Southern agricultural sch
in the hands of the sons of these men—the boys
at schools, at their state agricultural colleges, o
high school, where they learn advanced thou
break away from that fearful old order of
suicide.

Of course, many of these boys will not retur
farms, but many will, and they will follow new

OLDING THEIR OWN


RETINNED BY HOPWOOD RETINNING CO.
WEAR
AND
TEAR
©HRC

hip your rusty or leaky cans to us for re-tinning. We are a Reliable, Experienced Concern.

High Quality, Quick Service at Right Prices.

We have been connected with the manufacture and re-manufacture of Milk Cans and Ice Cream Cans since **1898**

HOPWOOD RETINNING CO., Inc.

fice 56 Commercial Street Brooklyn, N. Y.

E 64

The Unique Simplicity of

PERFECTION ROTARY PUMPS

PERFECTION MFG.CO.

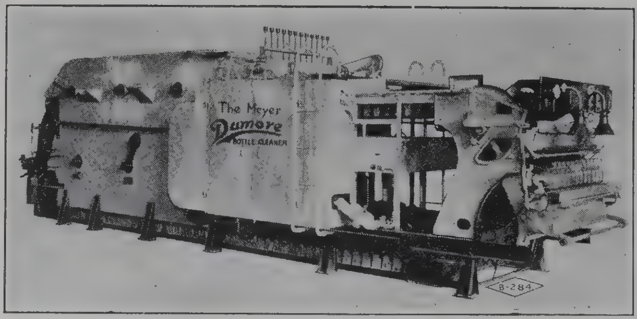
Sanitary Pump mounted on pedestal for individual motor drive.

THERE are only two moving parts in the Perfection Rotary Pumps,—the internal gear rotor and the idler pinion. The inter-meshing teeth in the rotor and pinion work like a series of pistons in cylinders.

The outstanding feature of the Perfection is the helical (spiral) cut of the teeth in the rotor and pinion. The teeth of the rotor "shear" through the liquid at the intake and discharge ports instead of striking the liquid column flat or head on, thus eliminating shock and vibration. The smooth running helical gears prevent excessive churning and deliver a uniform flow.

Perfection Sanitary Pumps are made in Iron or Bronze and are highly finished inside,—easy to keep sanitary. Bronze pumps nickel plated if desired. Capacities 8 to 90 gallons per minute. Mounted on base with with tight and loose pulleys or with reduction gears for individual motor drive or on pedestal like illustration. Industrial types for water or brine. Write for catalog and prices.

Perfection Manufacturing Company
2187 East Hennepin Avenue
Minneapolis, Minn.



Consider the
DUMORE for Guaranteed
Bottle-Cleaning Performance!

The Dumore and Dumore-Junior Bottle-Cleaning System has proved that bottles can be made absolutely sterile! It has demonstrated in continuous service, to thousands of users, that it is the safest, most economical, and most efficient bottle-*cleaning* system built.

Submerged soaking in caustic solution, outside brushing, inside brushing, rinsing, inside re-brushing, and complete re-rinsing comprise the basically sound bottle-*cleaning* method for which Meyer is internationally famous.

Again we say, "Consider the DUMORE for guaranteed bottle-cleaning performance!" Eliminate all chance of profit-loss through spoilage, by installing Meyer machinery. Send for bulletins describing each unit in detail.

Geo. J. Meyer Manufacturing Co.
Largest Builders of Bottle Cleaning Machinery in the World.
569 Barclay Street Milwaukee, Wis.
Offices: New York and Chicago

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION, INC.
ASSOCIATE MEMBER NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS

MEYER-DUMORE BOTTLE CLEANER
Capacity 60 to 200
bottles per minute
Bulletin B30

DUMORE-JUNIOR BOTTLE CLEANER
Capacity 24 to 60
bottles per minute
Bulletin B36

The Meyer
Dumore
Bottle Cleaner
Known the World Over

thought, they will better appreciate the dairy
production of food and feed. They will take ac
of their many opportunities.

This long outline of this situation, written b
who has followed the destinies of the Southern
for many years, has for its purpose the idea of
that some day, and in the near future, the So
will emerge from its handicaps, its obstacles and
forth with a dairying scheme that will startle th
It is coming about now, but so slowly one from
side hardly can see, so steadily that it is not a
to many, and when it does break forth, it wi
much astonishment to agricultural observers thr
the nation.

Men like L. O. Crosby and L. J. Folse are
behind the gun, and they are leading the farme
South into the promised land of milk and hone

⚜

A NEW PROCESS OF STERILIZATION

Sterilization of milk and cream by a new pr
eliminating bacteria and lactic acid that sours t
thereby overcoming the perishability of milk, h
announced by George Grindrod of Oconomowo
who was formerly chief chemist of the Carnati
Co. The process is declared to be founded upo
discovery of how to make fluid dairy produc
oughly sterile without destruction or deter
After seven years of study and development
"scientific process for keeping milk and crean
natural state, fresh and sweet, for an indefinite
has been produced.

While the head of the Carnation company
work, Mr. Grindrod, in seeking to eliminate the
taste" present in condensed and evaporated n
upon the idea of using a processed steam instead
and cooling to cook and freeze the damaging
the foundation of pasteurization. The proces
only five to seven minutes and tests show that t
no bacteria left, consequently nothing left to sour
taminate the fluid so long as it is kept airtight in
container.

For proof, the chemist opened a bottle of mi
ing the date of April 11, that had been kept in
nary glass container exposed to the sun and wa
the room. There was no difference in taste fr
of milk delivered that morning. Cream six we
subjected to bacteria test and count, was stil
Acid tests, made on cream two and three mon
showed the same reaction as cream two and thr
old.

In the case of pasteurization the milk is he
145 degrees or higher, held for a varying per
then cooled down quickly. It is a matter of disp
completely the pasteurization method kills off
by thermal action and freezing.

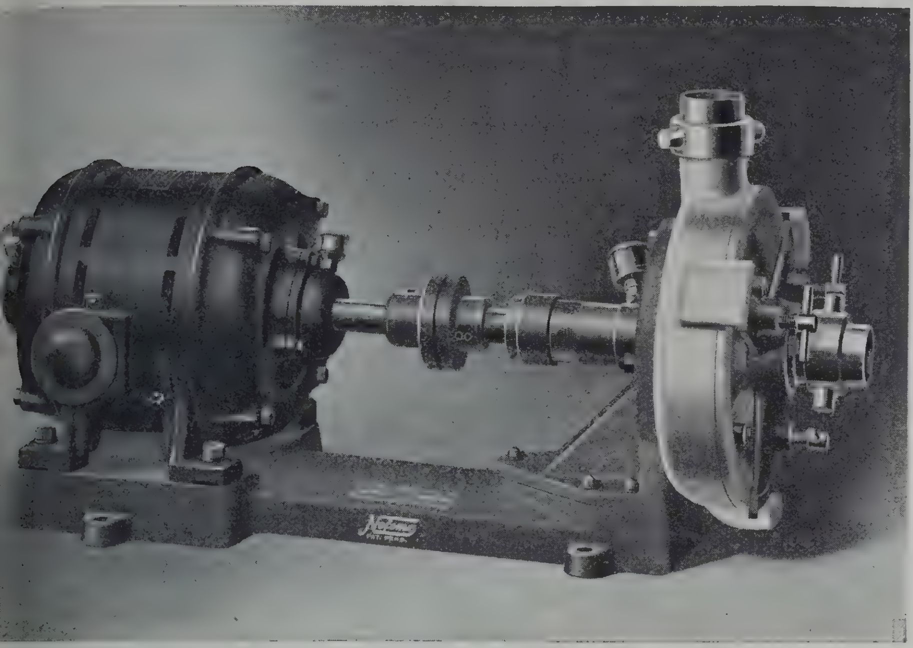
"This is not a bacteria retarding process but
plete sterilization," states the chemist. "There is
left in the milk to sour. Moreover there is no ch
the food values and none of the vitamines are l

⚜

HOLD CREAMERY EXHIBIT IN BANK

To educate the people to drink more milk f
health, and to make them realize that it is a goo
insurance, was the purpose of the exhibition w
Superior Russell Creamery Company, 1627 Br
Superior, Wis., staged in the lobby of a local ban
exhibition attracted many favorable comments.

Nofome Sanitary Milk Pump



No churning, because the enclosed impeller carries the milk to full periphial speed without the vanes passing through the milk.

No foam because no air can enter the pump from shaft bearing, nor grease from the same source.

Milk passes through the impeller housing, but the vanes do not pass through the milk, which prevents churning and injury to the cream line.

Let us solve your Pump and Fitting Problems.

Fittings to Fit Your Needs

ufactured by **SPECIALTY BRASS COMPANY,** KENOSHA, WISCONSIN
ALBION, NEW YORK

Your Choice of Packages for MILK POWDER

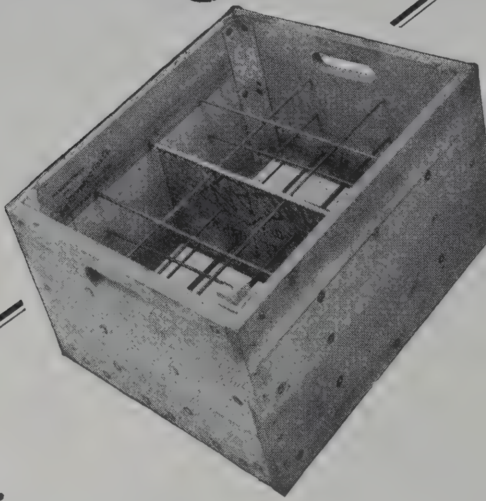
OUR interest in your package has never ended with the sale and shipment of a carload of barrels, but has continued until your product has been packed, stored, and has been safely carried to destination. This policy of cooperation with producers of powdered milk has resulted in the development of an improved slack barrel which has proven satisfactory to the extent that nearly 100% of all milk powder reaching the market for human consumption is cked in barrels made over specifications adopted by this company.

LLINOIS COOPERAGE MFG. CO.

neral Office: **220 South State Street, - - - - - CHICAGO, ILLINOIS**

In addition to our chain of barrel factories, this company also operates its own stave and heading plants, assuring a continuous supply of material necessary for the manufacture of the proper grade of barrel required in this industry.

Strength



in
REPUBLIC
Bottle Crates

"As Strong as the Republic"

GIVE your milk bottles complete protection against breakage by using strong, solid, and well constructed Republic Milk Bottle Crates. They stack perfectly, fit nicely into wagons, slide easily on conveyors, and stand the bumps and jars.

To give Republic Bottle Crates that extra margin of strength, "Toncan," the most durable and highest grade of galvanized metal obtainable is used for all metal parts of Republic Crates.

Let us show you how Republic Crates save money for you. Write for prices and quantity discounts.

The Republic Box Co.
1693-1711 Merwin St.
Cleveland, Ohio

KENTUCKY DAIRY EDUCATIONAL TRA

A purebred sire train furnished by the L. & the L. H. & St. L. railroads through the courtes agricultural development department, visited tucky counties and made 52 stops from April 2 12, inclusive.

Agricultural trains and educational cars a new venture in Kentucky, but the attendance re the generous reception of the purebred sire sp exceeded any previous effort. Official attendanc show a total of 75,100 or an average of 1,444 visited.

In every county visited by the train, a pure was traded for a scrub bull with the exception

One-half of the crowd of 3,000 people who visite pure bred sire special at Lebanon, Ky.

county where a scrub bull could not be found this county was the first one in the United eradicate the scrub.

The train was sponsored by the Agricultu mittee of the Kentucky Bankers' Association doing so they also utilized the co-operation and of some 20 other agencies which have been promulgating the idea of bettering the dairy Kentucky.

It is felt that not only will the train be re the accomplishment of much good which wi directly on the farm, but it is also pointed out merchants and bankers of the communities vi come to a greater realization that agricultural is necessary, serious and a worth while cause. ing to advice received from Kentucky, comm cream is growing in popularity, but in the ma the rural towns it is still looked upon as noth than a Sunday dessert and possibly a summe the fountain. However, they do seem very cated concerning the misleading facts which h intensified by the negative advertising and the tive conduct of some indifferent, unscrupulous manufacturers.

This and the fact that pasteurized milk is able in most places and is looked upon in a so or superstition points out the need of well educational propaganda.

⁂

Many a dollar can be saved by supplying y through "Milk Dealer" Want Ads. Others h it, why shouldn't you?

RTH AMERICAN
REAMERY CO.
BETTER
MILK AND CREAM

Roomy, Convenient
Light of Draft

Hoiby
Wagons

Substantially built with plenty of room for large loads. Convenient for drivers and easy on the horse.

Let us send you list of styles and prices

HOIBY Company
North Washington Ave., Minneapolis, Minn.

To Preserve
Chocolate Milk
Or Similar Products Packed
— IN —
Glass Bottles or Tins

USE THE
**FORT WAYNE
AGITATING TYPE
STERILIZER**

Backed by
TWENTY YEARS OF EXPERIENCE

Built to Meet Any Requirements as to Capacity or Type of Container

Fort Wayne Dairy Equipment Co.
1600 WINTER ST. FORT WAYNE, IND.

ACTUAL USAGE
Proves this IS
A
Long-Life
Dairy Apron

LONG-LIFE
BRAND
DAIRY APRON
REAR VIEW SHOWING ADJUSTABLE STRAPS

Special fabric, scientifically treated to resist the disintegrating effects of fats and acids about dairy plants, gives the Long-Life dairy apron an ability to render continued useful service long after other aprons have been discarded

A TRIAL ORDER WILL PROVE IT!

You Will Learn a New Item on Which to Save Money.

he M. F. Murdock Company
... RUBBERIZED FABRICS ... ...
5 So. Main Street AKRON, OHIO

**The Famous Flueless
— Boiler —**

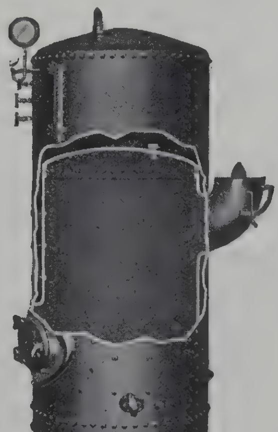
Famous as a Quick Steam Producer.
Famous as a Fuel and Repair Economizer.

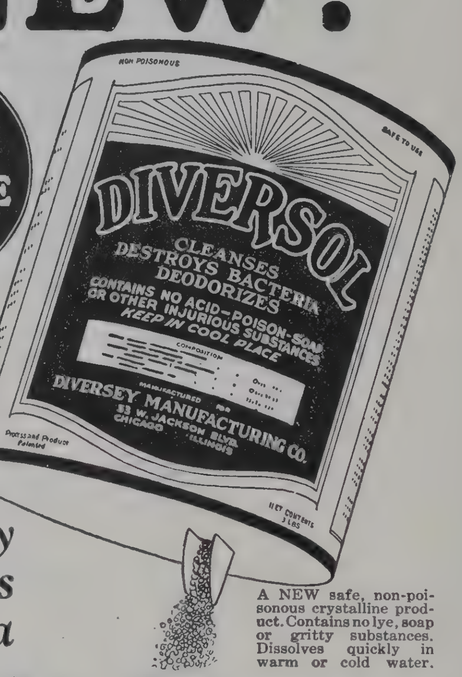
BOILER is regularly constructed with extension to form ash pit, but can be furnished with cast iron base, in all sizes up to and including 48 in. diameter, without extra charge. Boiler comes complete with fire door and frame, ash door, grates, elbow and damper, hand hole plates complete. Steam trimmings include safety valve, steam gauge and syphon, water gauge, gauge cocks, blow-off valve, injector complete with check and feed valve. All constructed to comply with the A. S. M. E. code for 100 lbs. working pressure and tested to 150 lbs. hydrostatic pressure.

Boilers carried in stock at all times.

See your nearest jobber for further particulars.

Schwab Boiler &
Machine Company
16th & Canal Streets
MILWAUKEE, WIS.





for **Milk Plants**

NEW!

Mail Coupon for FREE Sample

Instantly Destroys Bacteria

A NEW safe, non-poisonous crystalline product. Contains no lye, soap or gritty substances. Dissolves quickly in warm or cold water.

As It Cleans

and Prevents "Off-flavors"

NOW!—with Diversol—one cold or warm water rinse or wash and your utensils and equipment are *instantly* rendered fresh and clean and free of bacteria and odors. You don't even need hot water, let alone steam. Diversol *with cold water* destroys the bacteria that spoil your product! It is MORE than a washing compound—Diversol destroys bacteria *as it cleans* and removes odors. Does all three at one time with that ONE operation! Think of the time, labor and worry Diversol now SAVES YOU. Moreover, Diversol is very economical. One pound makes 100 gallons sterilizing solution. You make *your own* solution. And Diversol never deteriorates. You need this great NEW product right now. You'll marvel at the many NEW things it will do for you.

Mail Coupon for Free Sample

Yes, mail coupon now and SEE what even this FREE sample will do for you. Contains only one pound—yet even this small amount makes 100 gallons of sterilizing solution. Send for it now and SEE how DIVERSOL will clean, sterilize and deodorize your utensils and equipment. THEN you'll *know* why the biggest plants in the country endorse Diversol so enthusiastically. Mail free sample coupon NOW!

Used and Endorsed by Leading Plants Everywhere

Read This

"We have had exceptional satisfaction with Diversol as a cleaner and sterilizer combined, also from the economical use of it, we have not found its equal."
Ira J. Mix Dairy Co.
Chicago

FREE Sample Coupon!

Diversey Manufacturing Co., Dept. A-266
53 W. Jackson Blvd., Chicago, Ill.

Without any obligation please send me your FREE Sample Package of DIVERSOL. Also send me free literature telling all about this great NEW discovery.

Name--
Address---------------------------------------
State-------------------- *R. F. D.*----------
Jobber ---------------------------------------

WHEN TO SCRAP DELIVERY TRUCK

(Continued from page 30)

"According to our way of reckoning, a li cylinder car that we use for city salesmen s good on an average of three years, and at th that time should be traded in on a new one. made rather exhaustive surveys of the subject a series of reports made by our department of i engineering, we have been able to apply stand to individual cars. These reports provide for t year trade-in policy—the period will, of cou with conditions of use."

Amortizing Trucks.

Every cost system, of course, if it is at all and trustworthy, allows for depreciation bas on years or mileage.

Different concerns depreciate trucks in ways. Nevertheless, it is advisable to set an mate length of service to be expected from eac and to charge off pro-rata each month until the investment is accounted for. Amortization (th for depreciation) is best calculated on a basis running from a usual minimum of 20,000 miles miles, depending on the quality of the vehicle kind of service.

If, at the time of a trade-in, the full invest not been charged off, the depreciation period underestimated or the truck has given poor se the vehicle has been charged off completely with amount of service still to be received, the amo course, considered as a profit in the business.

By keeping charts as mentioned above and s the illustration, it is possible to accurately tel investment from a poor one. Likewise, ex expenses due to poor handling on the part o can be detected and remedied.

Advice on "Trading-In."

There is always a tendency to scrap a truck turely or unwisely due to what appear to be u good trade-in allowances from truck dealers. A trying to sell a new truck with a policy of "long and an inflated price to make up for it, often m unusually high offer for an old truck on a trad

This, of course, is one of the biggest prob both the motor truck and passenger car industri trade allowances are misleading and often te owner to trade in his old machine at a good pri new truck that is really not such a bargain a The best advice that can be given on this subjec your first problem is to select equipment that w full dollar value by harmonizing with condition iar to your business. Consideration of this i mount. Forget your second-hand equipment moment, for its disposal is a problem all its ow an important problem, to be sure, but of second portance during the purchase of new equipment

The purchase of new equipment should not p contemplate the replacement of old, but if it d must carefully weigh the dollar value that is s in the old equipment or its component parts that of the new.

The purchase of new equipment must nec be considered from so many different angles th difficult to conceive of anything else occupyin mind during the transaction.

The purchase of new equipment is of paramo portance, the disposal of the old secondary. quire study and a knowledge not only of transp

ry

a Tri-Clover

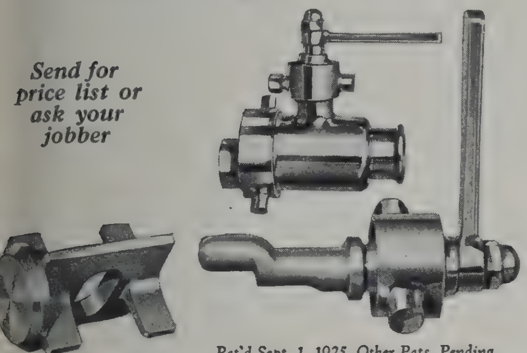
NEW-TYPE

TRAIGHTWAY VALVE

It is the ideal valve you have been looking for. Serves best where all others fail. Has no plug-washer, springs or packing. Drip proof and saves its cost in milk.

Tri-Clover Machine Co.
Kenosha, Wisconsin
Makers of Tri-Clover Fittings

Send for price list or ask your jobber



Pat'd Sept. 1, 1925, Other Pats. Pending

At Last!

Dallinger's
"Garden of Allah"
Concentrated Coffee

A strictly pure high grade coffee in concentrated form.

A coffee milk shake or coffee soda which has a true flavor is a *big seller*. This fact has been an astonishing surprise to our customers who dispense these drinks at dairy counters and soda fountains.

Coffee Milk is also ideal to bottle for supplying factories, stores, restaurants and the home. It is not only nutritious but invigorating.

Packed in quarts and gallons. Samples, prices and formulas on request.

Brokers and jobbers desired in large distributing points

Frank W. Dallinger Co.
Manufacturers
78-80 Beverly Street, Boston, Mass., U. S. A.

The

ARLASS

Quality Line

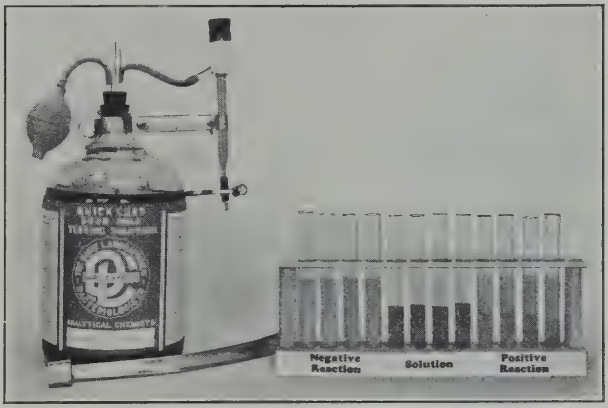
DEPENDABILITY *and* EFFICIENCY !

We can give you this in the following lines which we represent:

MANTON-GAULIN HOMOGENIZERS
PFAUDLER GLASS LINED EQUIPMENT
CHESTER BARREL HEATERS
CHESTER COOLERS
OAKES & BURGER PASTEURIZERS
OAKES & BURGER CAN WASHERS
MID-WEST BOTTLE CAPS
BERNEY-BOND MILK BOTTLES

We also carry a complete stock of Dairy Supplies which have been carefully selected for quality and service.

Arthur T. Barlass Co.
WEST AUSTIN AVE. CHICAGO, ILL.



QUICK-KURD
Sour Milk Testing Solution
RAPID *ECONOMICAL* *CONVINCING*

A simple and reliable test for high-acid and Garget milk that can be **performed by anyone in a few seconds.**

Placing a dipper of milk in the test tube containing solution and shaking undesirable milk will produce an unmistakable **curd** at once.

No. 18. Supplied for eliminating milk over 0.18% acidity and Garget milk. One Gallon (sufficient for 375 tests), $2.50.

No. 22. Supplied for eliminating milk over 0.22% acidity (milk that will curdle on heating), and Garget milk. One Gallon (sufficient for 375 tests), $2.50.

Outfit Complete, tubes, dippers, etc., without solution $5.00

THE DAIRY LABORATORIES
2300 LOCUST STREET PHILADELPHIA, PA.
New York Baltimore Washington
"The Home of Flav-O-Lac Liquid Cultures"

ditions but of sales values as well. "Be sure you are right, then go ahead."

Scrapping Obsolete Trucks.

A truck which has become an "orphan" or an obsolete model may usually be scrapped to profitable advantage. As a truck becomes older it is necessary that parts should be immediately available. One owner expresses this well in the following statement:

"One of the big factors we found we had to take into consideration when we were simplifying our equipment was to select those types of cars that underwent the fewest engineering changes from year to year, and whose makers give good service on parts. This latter has been extremely important for with some of the makes that we have owned, it has occurred many times that a car has had to stand idle on the floor for several days waiting for some minor part which was expected at a moment from the factory. This kind of a situation is naturally very expensive as our net loss on a car standing idle is in the neighborhood of $15 a day."

In buying a truck, likewise, the trade-in value at the time of turning-in should be considered. There is a great difference in the "book value" of different makes of trucks of the same age and original price and this difference is generally based on the popularity of the make and its reputation for quality.

Avoid, by all means, the possibility of having an "orphan" or an obsolete model on your hands at the time of a resale. It means hundreds of dollars of difference in the actual price obtained.

When to Scrap Tires.

The replacement of solid tires when necessary should not be neglected. A great deal of damage may be inflicted upon the vehicle when the tires have been worn to a point where they have very little cushioning quality. Ordinarily, a solid tire should be replaced when it has been worn down to within an inch of the steel base. It must also be remembered that the condition of the rubber in a solid tire has a great effect upon the tire's resiliency and that even though it may be two or three inches in thickness, it may need replacement.

It is a good idea to occasionally interchange rear tires with front ones. The rear tires, being the driving and braking tries, naturally are subject to the greater abuse, and by interchanging them with the front tires, their mileage life will be considerably lengthened. Changing tires from one side to the other is also a practical method of increasing the service obtained from them as those on the right-hand side are usuall
ered to be subject to the greater strain.

"Breaking-In" a New Truck.

And remember that when you do trade in
truck for a new one, some provision must be
that the new truck gets the right start towar
mileage life.

The bearings and all working parts of a ne
are fitted sufficiently snug to prevent them fro
ing loose, until they have adjusted themselves.
fore, the driver should exercise care and good j
in driving the new truck by avoiding the full-g
speed and hard going for the first two hundred

The working-in of the engine and all new
parts is entirely in the hands of the operator.
care and sufficient lubrication during the wo
period will repay the owner well after the tr
"found" itself.

It is a good practice to pour one quart of goo
cating oil into the gasoline tank with every five
of gasoline during the first 500 miles. This will
lubricate the piston rings while they are wor
and will give more mileage to the gallon.

Inspect and tighten all nuts frequently (es
those on the spring clips) during the breaking-i
All nuts are thoroughly tightened at the fact
while the spring leaves are settling, the sprin
have a tendency to work loose.

**COST OF DEPRECIATION AND MAINTENAN
PER YEAR.**

City Light Fours.

Average monthly mileage	Year	Cars traded every 2 years	3 years
675 miles	$386.85	$287.53	$265.25
1,000 miles	423.60	344.70	344.40
1,400 miles	484.00	435.50	424.50
2,000 miles	581.70	552.25	539.50
Country Light Fours			
1,000 miles	444.75	374.32	382.08
1,550 miles	538.90	521.02	513.52
Total average cost per year	$476.60	$419.20	$411.50

**AVERAGE "UNUSUAL" MAINTENANCE EXPE
PER CAR.**

City Light Fours.

Car run from	Cost	Cost
1 to 5,000 miles	$ 0	$ 0
5,001 to 10,000 miles	17.44	0.0
10,001 to 15,000 miles	32.41	0.0
15,001 to 20,000 miles	64.85	0.0
20,001 to 25,000 miles	107.88	0.0
25,001 to 30,000 miles	172.28	0.0
30,001 to 35,000 miles	218.33	0.0
35,001 to 40,000 miles	264.38	0.0
40,001 to 45,000 miles	310.43	0.0

**REGULAR MAINTENANCE COST (NOT INCLUD
UNUSUALS).**

City Light Fours.

Average monthly miles traveled	Maintenance cost per month			Maintenan cost per m	
	First year	Second year	Third year	First year	Second year
501- 600	$3.80	$5.30	$6.40	$0.0069	$0.0096
601- 700	4.20	5.80	7.50	0.0065	0.0090
701- 800	4.60	6.60	8.60	0.0062	0.0088
801- 900	5.20	7.60	9.60	0.0061	0.0089
901-1,000	5.80	8.40	10.60	0.0061	0.0089
1,001-1,100	6.40	9.40	11.60	0.0062	0.0090
1,101-1,200	7.00	10.30	12.70	0.0061	0.0089
1,201-1,300	7.60	11.20	13.80	0.0061	0.0089
1,301-1,400	8.30	12.20	14.80	0.0061	0.0090
1,401-1,500	9.00	13.00	15.95	0.0062	0.0090
1,501-2,000	12.40	18.00	.....	0.0062	0.0090

The Neil House
in Columbus
OHIO

Opposite the Capitol
650 ROOMS
Each With Private Bath
$2.50
AND UP PER DAY

Unexcelled Cusine
DINING ROOM FEATURES
Neil House Dinner (Main Dining Room) ... $1.50
Capitol Luncheon (Main Dining Room) ... .75
Club Breakfast (Grill Room) ... .60
Blue Plate Luncheon (Grill Room) ... .60
Dinner (Except Sunday) (Grill Room) ... 1.00

For reservations address
F. W. BERGMAN,
Managing Director

ALLOVA WORK SUITS
Advertise Your Business

MISSOURI
DAIRY

$3.25 Each
Less In Quantities

Put Your Men In ALLOVA UNIFORMS at Wholesale Cost!

Allova Work Suits, Work Coats and Caps are made of eight-ounce cloths, closely woven, and stronger, heavier, longer wearing! In order to guard against the inevitable shrinkage, we cut all garments oversize, and make them two inches longer than ordinary work clothes.

Snappy uniforms, lettered with the individual name, trademark or monogram of the wearer, give an air of "class" to any place of business—and yet cost but little more than nondescript, shabby overalls.

Every seam is stitched to stay. Pockets reinforced with double thickness of material. All buttons covered. Your choice of many colors: Solid blue; solid white; solid khaki; blue and white striped; blue and khaki striped. Sizes 34 to 56.

uits or Coats....**$3.00** each
uits or Coats.... **2.88** each
uits or Coats.... **2.75** each
46 to 56 are 10% additional.
.... **.40** each

ne Suit or Coat FREE n each dozen ordered ered all alike, at above es.

Your dry goods, department or clothing store can supply you ALLOVA suits at the prices named. If not, order direct from the Motor Suit Mfg. Co.

We embroider names, trademarks or monograms in fast colors for 25c per garment. Choice of any color embroidery. 24 to 72 hour service.

tor Suit Manufacturing Co., Dept. 291

LANTS: Manufacturers Exchange Bldg., Kansas City, Mo.
107 N. Austin, Dallas, Tex. 327 S. Market St., Chicago, Ill.
53-55 Walton St., Atlanta, Ga.

Improve your milk
. . . at the farm!

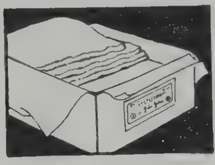
Sell farmers and dairymen these two filtering aids. Our advertising will help

MILK should be filtered *before* it reaches the pail—to catch the bacteria-laden dirt particles before the bacteria have a chance to do harm. That is the verdict of authorities.

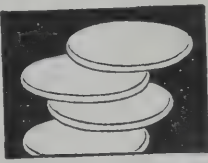
Farmers and dairymen everywhere are learning this fact from our advertising—learning to stretch a J & J Filter Cloth over the pail at milking time—and to use J & J Cotton Discs in their strainers.

Sell these aids to *your* supply men. Make sure that your milk is of higher quality before it leaves the farm. Often this precaution will make a real difference in the grading of your milk.

We also make Filter Cloths on order to fit the various machines on the market. All three of these products are chemically pure and aseptic. Write direct to us for prices and free samples.



FILTER CLOTH

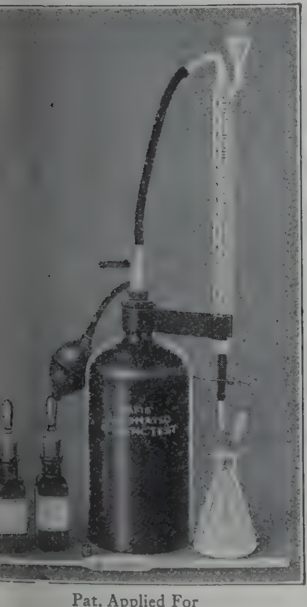


COTTON DISCS

Johnson & Johnson

NEW BRUNSWICK, N. J.

IT'S AMAZINGLY SIMPLE
) CONTROL WASHING SOLUTIONS
by regular use of the new
Nafis Automatic Caustic Test!



Shows percentage of

Total Alkalinity.

Free Caustic

Carbonate

Introductory price only $10, F. O. B. Chicago.

Write for illustrated circular.

Specify NAFIS GLASSWARE to your Supply House. Do not accept substitutes.

Pat. Applied For

LOUIS F. NAFIS, INC.

Specialists in Testing Glassware for the Dairy Industries.

-23 N. Desplaines St. Chicago

Ask the Men Who Use It.

SEE OUR ADVERTISING LINE

SEND FOR THESE SAMPLES

A new and beautiful line of printed **DISPLAY CARDS** and **HANGERS** for your dealers to use to push the sales of your **MILK, BUTTER** and **CREAM CHEESE.**

Also attractive LETTER HEADS for creamery and dairymen.

Send for samples now as each particular number is sold to but one firm in a city. Use Coupon below.

SAN-DEL PRTG. CO. **604 Gratiot St.** **ST. LOUIS, MO.**

"Creators of Snappy Advertising"

CLIP HERE AND PIN ON YOUR LETTER HEAD

San-Del Prtg. Co.
604 Gratiot St., St. Louis.

We wish to secure the sole rights in our city of your advertising material, which we may select from the free samples you may send to us.

Sending for the samples and prices obligates us in no way.

Name..

Address..

City.................................... *State*............

Approximate number of dealers..................................

WASHINGTON — MAINE

Notes From Far and Near

CALIFORNIA — FLORIDA

Pawhauska, Okla.—Lee Hopkins has purchased the former Whipkey Dairy and has added it to his dairy herd.

Malvern, Ark.—J. F. and T. C. Guerin have purchased the Charles S. Smith property in this city and will open a dairy there.

Tulsa, Okla.—Tulsa Dairy Products Company has been chartered with a capital stock of $24,000 by P. E. Estill and others.

Bonifay, Fla.—The Bonifay Dairy, of which C. A. Melvin is proprietor, has purchased the J. T. Byrd dairy herd.

Wills Point, Tex.—The Sanitary Dairy barn here was destroyed by fire recently with a loss of $8,000, partially covered by insurance.

Barron, Wis.—The whole milk supply has already outgrown the capacity of the new whole milk plant of the Barron Co-operative Creamery here. A month ago a new dryer was installed in addition to the first one and it was thought that would take care of the whole milk for some time to come. For the month of April patrons of the whole milk and butter departments were paid $87,733.87.

Madison, Wis.—The board of health recently announced a new ruling, effective January 1, 1928, under the terms of which all milk delivered in the city must be either pasteurized or certified. More than 23,000 quarts of milk were delivered to Madison homes each day during the past year, an increase of more than 9,000 quarts since 1920.

Manitowoc, Wis.—Articles of organization of the Osman Co-operative Dairy Association Company, listing the capital stock of the corporation at $10,000, were filed with the register of deeds recently.

Atlanta, Ga.—It is reported that Columbus Roberts, president of the Coca-Cola Bottling Co., 12th St. and Sixth Ave., Columbus, Ga., has purchased the pasteurizing plant and delivery equipment of the Georgia Dairies, Inc., located at 198 S. Forsyth St., this city. He will remodel the same to handle 400 gallons of milk daily. The company will be known as the Georgia Dairy Co.

Hazard, Ky.—The Bluegrass Milk Co. has been incorporated here with a capital of $8,000. J. D. Smith, Curtis Lucas, and W. C. Smith are the incorporators.

Greeneville, Tenn.—With Will Kiser as head of the condensery committee, directed by the Chamber of Commerce, and assisted by County Agent Vickers, plans are being made to get in touch with the farmers of each district. The condensery demands that the farmers furnish 50,000 pounds of milk daily.

Chester, Pa.—The commissioners of Upper Darby township, in a special session held in the municipal building, Upper Darby, recently, passed a resolution adopting a lengthy milk ordinance as prepared by the board of health and presented to the commissioners for approval. The township heretofore has had no form of legislation governing the methods of distribution and sanitary features of milk in this section, and this ordinance, according to Cyrus F. president of the board, is a necessity in the protectio dents of the community.

Fairmount, Ind.—Fire recently destroyed the la buildings owned by Emory Adams, near here, doing a estimated at from $4,000 to $5,000. The loss wa covered by insurance.

Moundsville, W. Va.—Dairymen of Marshall co invited to inspect a model steam sterilizer for sterili bottles and utensils, which is on display at the County health office on Sixth Street.

Los Angeles, Cal.—Milk shipped across the from Los Angeles to Washington, D. C., scored 99.3 perfect in the national milk scoring contest after it days old. Arden Certified Dairy, this city, entered which defeated 30 other certified milk entrants repr dairies all over the country. The American Assoc Medical Milk Commissioners sponsored the contest.

Washington, D. C.—The report of the bureau of tural economics of the United States Department of ture shows the "average American" drank nearly more milk last year than he drank in 1920.

Huntington, W. Va.—Federal co-operation has sured the city when the new full-time milk and spector takes charge on July 1. The plans sugges for a thorough inspection of every dairy in the working out with the dairyman conditions that will the product as well as benefit the producer. Miss E Moore is the inspector.

Eugene, Ore.—Two consolidations of dairies s Eugene with milk have taken place here. The "Do dairy, an establishment founded by J. W. Swope near field, to produce fancy milk, is now being conducte similar lines by the Wild Rose Stock Farm, the "Do herd of Guernseys having been moved to the new a ern barn on the Wild Rose farm. C. B. Swango is t ager. The other consolidation was that of the dai ated by J. A. Neher of Springfield, whose retail mi ness was purchased by W. H. Stout, proprietor of the side" and "Norkenzie" dairies.

Belleville, Ill.—The A. and L. White Lily Dairy h incorporated here at 1613 W. Main St., this city, wit ital of $5,000. The dairy will distribute and sell m dairy products of all kinds. The incorporators are Abend, Charles Abend, Wilmer Liebig and Homer Lie

Monticello, Wis.—The Monticello Dooly Dai changed hands and is now the property of John C. The dairy was previously owned by James Dooly. Th ness will now be run under the name of Elmer's Brow Dairy.

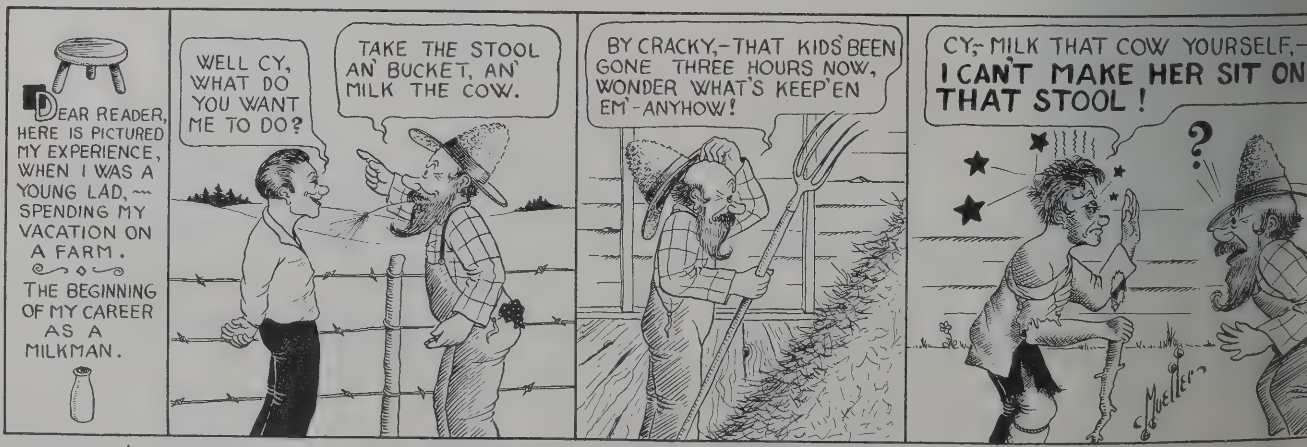
Santa Monica, Cal.—The Santa Monica Dairy Co this city, was awarded second place with a score of a result of a milk scoring contest held in conjuncti the Certified Milk Producers' Association of the Unite and Canada which held its annual convention at Wash D. C.

Martinsburg, W. Va.—Dr. C. W. Larson, chief Federal Bureau of Dairy Industry, said that indicati that there will be an increase in the milk produc southern New Mexico, Arizona and the Imperial Va the near future.

Dayton, O.—The very latest equipment for paste milk has been installed recently in the plant of The

THE MILK MAN

By E. S. Mueller


DEAR READER, HERE IS PICTURED MY EXPERIENCE, WHEN I WAS A YOUNG LAD,— SPENDING MY VACATION ON A FARM.
THE BEGINNING OF MY CAREER AS A MILKMAN.
WELL CY, WHAT DO YOU WANT ME TO DO?
TAKE THE STOOL AN' BUCKET, AN' MILK THE COW.
BY CRACKY,—THAT KIDS BEEN GONE THREE HOURS NOW, WONDER WHAT'S KEEP'EN EM'-ANYHOW!
CY,-MILK THAT COW YOURSELF,— I CAN'T MAKE HER SIT ON THAT STOOL!
?
Mueller

Vhen in CHICAGO

joy your stay — at the superb new

IORRISON HOTEL

Cor. Madison and Clark Streets

The Tallest Hotel in the World
Forty-six Stories High

Closest in the city to offices, theatres, stores and railroad stations

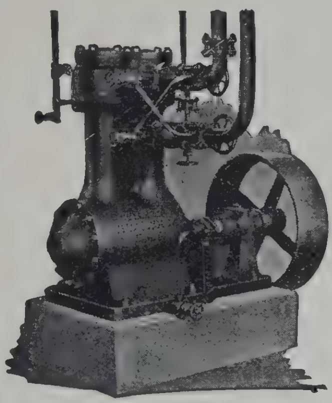
1,944
Rooms
$2.50 Up

—all outside, each with bath, running ice water, bed-head reading lamp and Servidor.

e New Morrison, when completed,
l be the largest and tallest hotel in
world, containing 3,400 rooms

Home of the
TERRACE GARDEN

Vilter Enclosed Type Ammonia Compressor



An ideal ice machine for the moderate size plant. Modern in design, made of high grade materials and thoroughly inspected and tested. Let us send a copy of our Bulletin No. 29R to you. It tells of the force feed lubrication to the piston pins, the easily operated Vilter plate valves, the oil sealed stuffing box and gives other information of value.

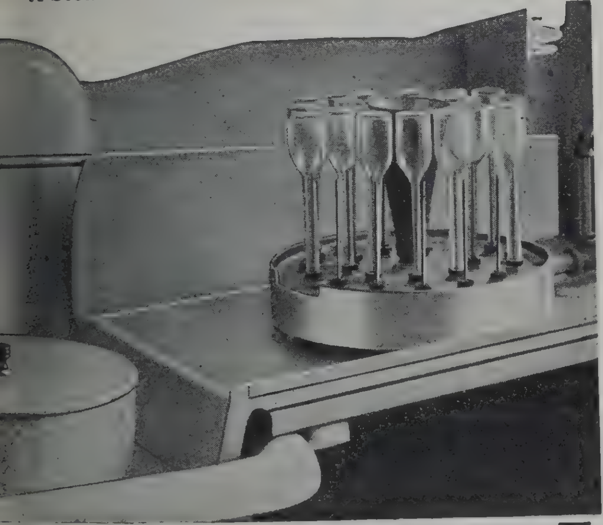
Let us Submit quotations on your requirements
—no obligations to you.

The
Vilter Manufacturing Company
ESTABLISHED 1867
875 Clinton Street Milwaukee, Wis.

Wilson

'est Bottle Washer

A Steam and Hot Water Pressure Washer



Simple to Install—Washes Quick and Clean.

Made in 2 sizes to wash 24 or 36 Milk or Cream Bottles—*and it does it in 2 to 3 minutes.*

No Brushing — Stops Breaking of Bottles.

Send for Leaflet explaining operation.

Stout Mfg. Co., 610 Sycamore St.
Milwaukee, Wis.

Leffel CREAMERY BOILERS

Save Time Labor Fuel

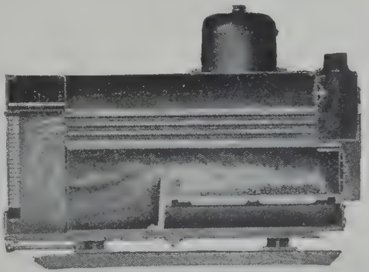
A tremendous saving in fuel costs at your plant, can be effected by using Leffel Creamery Boilers, because they get double service from every pound of coal used.

The hot gases are **compelled** to travel twice the length of the boiler through water surrounded passageways.

Even the ash pit is surrounded by water, thus utilizing every possible heat unit to produce steam.

Because of this highly efficient application of heat, owners save 30 to 50% in fuel costs.

In all sizes 6 to 150 H.P.—workmanship and quality guaranteed—will meet all state boiler laws.



Full description and prices on request.

The James Leffel & Co. BOX 330
SPRINGFIELD,
OHIO, U. S. A.

3

Products Co. at 219 E. Fifth Street, this city. The new equipment has an output of 1,200 quarts of pasteurized milk an hour. The Dairy Products Company was the first organization of its kind in Dayton, and has kept progressing through the ability of President John N. Gibson to anticipate future needs. Today this plant stands, and is widely recognized, as the most complete dairy plant in the country.

Gary, Ind.—The Bowman Dairy Company, an Illinois corporation, has been incorporated here to conduct a general dairy business, with a capital of $54,000.

Martins Ferry, O.—A new bottling house has just been completed at the Golden Guernsey dairy farm of Roy S. Smith & Sons on North Sugar St., this city. The new structure has windows on all sides and along the western exposure is a device in which milk bottles are hung for purification by the sun after they have been washed.

Pittsburgh, Pa.—The Dearborn Dairy Company has been incorporated here with a capital of $10,000. Henry P. Lotz, treasurer; John Lotz and William Lotz are the interested parties.

La Grande, Ore.—Members of the La Grande Realty Board have as their program to increase better dairying in Union county three or four times its present scope.

Eatonton, Ga.—T. H. Strange, well known man of the county, has gone into the dairy business. While as yet his herd is not a large one, he is entering the business with pure-bred registered cows.

Klamath Falls, Ore.—That this city is immediately faced with the problem of providing an inspector and a car to handle dairy sanitation work for this section, became apparent at the city council meeting held recently when Dr. E. D. Lamb, deputy state dairy and food commissioner for this district, appeared before the council with a startling statement as to existing dairy conditions. Dr. Lamb told the council that four dairies had been closed because they failed to come up to the standard set by the state for dairy operatives.

Winstom Salem, N. C.—The Southern Dairies, Inc., of Washington, D. C., have taken over the Forsyth Dairy Company of this city, according to information received recently. The Carolina Creamery of Asheville is also concerned in the merger. The Southern Dairies, Inc., have a number of branches throughout Virginia, North Carolina and other states.

Morgantown, N. C.—John M. Mull of Morgantown has opened a dairy on his farm near Lake James, starting the enterprise with 42 thoroughbred Jersey cows. It is the plan of Mr. Mull to supply Morgantown and surrounding towns with milk and cream daily.

Benton Harbor, Mich.—When the large new daylight addition to the plant of the Producers' Creamery Company, this city, opens in July, the twin city public need have no worry as to either purity or supply of milk for the new machinery that has been installed will bottle 43,200 quarts of pasteurized milk in a 12-hour working day.

Bartow, Fla.—Dexter Summerlin has started a dairy business with his farm east of this city. "Quality is what I am striving for," he said.

Janesville, Wis.—A surplus supply of milk, in order that a sufficient quantity will be available during the low point of production during August, September and October, is being purchased by the Bowman Dairy Company throughout this section and is being shipped through the Janesville creamery.

Waukesha, Wis.—The contract for the construction of the Wisconsin Sterile Milk Company building was let recently and construction will begin in a few days, according
to the Association of Commerce which has been instr
in bringing to this city the new milk plant, backe
organization incorporated for $100,000.

Santa Paula, Cal.—A fine new and up-to-date coo
bottling plant has been installed by Harold and Erne
ardson, proprietors of the South Mountain Dairy. T
is to be made a model of sanitation and cleanliness.

Cincinnati, O.—The Norwood Dairy Products
will become the buying company for the Louis Kae
Dairy Company, Norwood. The company applied for
ter with 100 shares of no par value stock. Louis, He
Amelia Kaesemeyer, Violet Crail, Harry E. Engelha
A. C. Shattuck are the incorporators.

Toledo, O.—The Ohio-Clover Leaf Dairy Co.,
large milk and cream distributing plant at 1820-24
Avenue, is the largest distributor of dairy product
home in this city, according to the officers.

Columbus, O.—Incorporation of the Tip Top Dai
Dayton, with capitalization of $50,000, was perfec
recently. The incorporators of the new concern ar
J. Reichert, former owner and manager of the
Hotel, Dayton; Adam D. Steele, Ida E. Steele, E
Steele, Ida E. Reichert and Mary E. Kerber.

Grand Rapids, Mich.—The purpose of the newly
Milk and Milk Products Research Bureau, which
headquarters here, is to establish bureaus of resear
cation and general information for the public's
throughout the United States and Canada. W. H.
the managing director.

Sherman, Tex.—Through the establishing of
cream market here for Grayson county farmers by
deker Ice Cream Company, dairying in the count
pected to be increased and become more profitable
opinion of H. F. Boedeker, member of the firm from

Brooklyn, N. Y.—The new distributing station
1689 Sixty-second Street, of the M. H. Danken Dai
pany, has the most modern equipment to insure sanit
distribution of milk and milk products.

Bloomer, Ark.—A. T. Crouch was able to see
future of dairying and this vision has now led him
enterprise that keeps a score of people busy oper
creamery and nine trucks on the road hauling cream

Sacramento, Calif.—California is inaugurating a
for inspecting and grading manufactured milk and
which is designed to increase the quality of the
product as laid down before the consumer, incre
profits of the milk producers and lead to the establ
of similar testing regulations in every state in the
Dr. J. J. Frey, chief of the Bureau of Dairy Contro
State Department of Agriculture, has just announ
details of the plan.

Flint, Mich.—The Home Dairy Company of Sagin
Flint, Mich., is spending $500,000 in Pontiac in the p
of Saginaw street property and erection of a three-sto
proof building.

Santa Ana, Cal.—Raitt's Sanitary Dairy has adde
frigeration plant to its dairy in order that milk may b
the perfect care which will insure the patrons gett
best that is procurable anywhere.

Wheeling, W. Va.—The Producers' Milk Product
pany to be located at West Alexander has been incor
under the laws of the state of West Virginia. The da
purchase milk and dairy products direct from the farm
dairy farms. The directors of the new concern are
lowing: David McKee, well known attorney of Wh
Earl W. Green, of Wheeling; J. A. Chambers, of Wes
ander; L. J. Quinn, of Pittsburgh; E. A. Parks, of Wes

Your Quality Rides In His Milk Cans!

Control the cleanliness of your milk supply where it should be controlled — *On The Farm* — and you don't gamble with the sales of your products. We offer you a new filtering disc and a simple but effective plan which will practically insure the cleanliness of your milk supply. Write for samples, literature and particulars.

SCHWARTZ MFG. CO. - - TWO RIVERS, WIS.

PERFECTION FILTERING DISCS

THE BROWNELL COMPANY
The World Over
SINCE 1855
DAYTON, OHIO. U.S.A.

INTEGRITY

ark of integrity and so recognized by competitors and boiler users . Also, definite assurance to you that all features demanded in

Modern Creamery Boilers

be present in any Brownell we might recommend for your partic- needs.

ted steel construction, accurately known strength, high heating ency, low fuel consumption, convenience, long life, moderate first

Brownells comply with ASME and all state codes and are in world-wide use. Brownell consulting engineers in all principal cities.

Write for Bulletin B-3.

THE BROWNELL COMPANY, Dayton, Ohio

BROWNELL
BOILERS

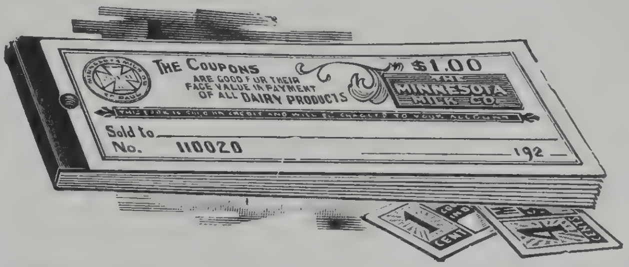
Wipe Out Bad Debts
with
NATIONAL DAIRY COUPONS

National Dairy Coupons make every account "good." They eliminate possibilities of bad debts because your customers pay in advance. It is easy for your driver-salesman to sell books to new customers and fill out his route with paid up deliveries.

National Dairy Coupons simplify accounting records, build up new routes and are the most economical method of getting cash from house to house deliveries. The coupons are made up in denominations of cents and can be used for all products regardless of change in price.

Send for Samples

NATIONAL CHECKING COMPANY
ST. PAUL • • • MINN.

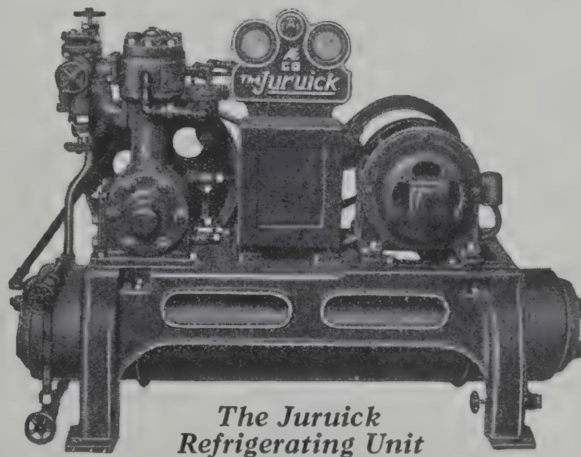

THE COUPONS ARE GOOD FOR THEIR FACE VALUE IN PAYMENT OF ALL DAIRY PRODUCTS
$1.00
MINNESOTA MILK CO.
Sold to
No. 110020
192

COWLES CLEANERS
for
thorough cleaning of bottles and all dairy equipment.

E COWLES DETERGENT CO.

565 Commonwealth Building
Euclid Avenue at East 102nd Street
Cleveland, Ohio.

Juruick
REFRIGERATION



The Juruick Refrigerating Unit

Send for the *Juruick Folder* which tells how by simply turning a switch you can have the best in

ELECTRIC REFRIGERATION

American Engineering Company
2417 Aramingo Ave., Philadelphia, Pa.

ander. The company is capitalized at $100,000 with 1,000 shares at $100 each.

Fond du Lac, Wis.—About 125 Tennessee bankers, business men and farmers will arrive in this city on August 12 for a visit to Fond du Lac county dairy farms, according to an announcement received by the Association of Commerce from Union City, Tenn.

Portsmouth, O.—Plans are now being made to start a dairy improvement project in three communities in Pike county. The aim of the project is to improve the quality of dairy cattle in the three sections of the county that are furnishing whole milk to this city.

Trenton, N. J.—J. R. Wykoff Company has been organized to deal in dairy products. It has a capital of $125,000.

Van Horn, Tex.—Mr. and Mrs. Gene Rowe have purchased the Fred Irby residence and lots and will go into the milk business on a small scale.

Pompano, Fla.—It is reported that D. A. Story will construct a dairy plant here.

LaPorte, Tex.—The Phenix Dairy will erect a sub-station at Sylvan Beach Rd. and Shoreacres Rd.

Colorado, Tex.—J. W. Chase and J. A. Green have purchased the C. E. Webb dairy, formerly the Hardison dairy.

Fort Plain, N. Y.—Monroe Waner of this village has purchased a building here which he will convert into a modern sanitary milk bottling plant. He expects to start operations by July 1.

Altoona, Pa.—S. H. Keith & Sons Dairy moved to their new location at 710 and 712 Fifteenth St., this city, and the firm is making ready for a formal opening which will be held some time in the near future.

Chicago, Ill.—The erection of a dairy building to cost $250,000 by M. F. Strauch, Chicago architect, is contemplated. The owner is the National Milk Co.

Arpin, Wis.—The Arpin Milk Products Company is continuing to make improvements to take care of increased patronage. At the present time the concern is handling daily more than 65,000 pounds of milk.

Ketchikan, Alaska.—R. S. Waltz, Pacific Coast sales manager of the Carnation Milk Co., is here on his first visit to Alaska. Mr. Waltz said that Alaska uses more evaporated milk, per capita, than any other place in the world.

Washington, D. C.—Milk consumption in the United States increased nearly 2,000,00,000 pounds last year and most of the fluid was consumed as a beverage, the agricultural department estimated.

Janesville, Wis.—Shipment of 30,000 pounds of milk daily from the Bowman plant here to the condensery in Whitewater, was confirmed by officials. The condensery being installed here is in operation on a limited scale at present.

Fordyce, Ark.—The Terry Dairy Company of Little Rock will establish a plant here and work on the building will be started within a few days.

Prescott, Ariz.—The Crystal Ice and Fuel Co. is making plans for the installation of an addition to its refrigeration department which will enable it to accept produce of all kinds for cold storage.

Chicago, Ill.—Work is scheduled to be started immediately on the construction of a new three-story building for the Wieland Dairy Company at 3625-40 Broadway. It will be of reinforced concrete construction and will be completed by September 1. Exceptional recreational features for the employees will be included.

Newark, N. J.—The old Provost plant on Nassau St., this city, has been discontinued as a pasteurizing plant by the Fairfield Dairy. All the pasteurized milk is now processed and bottled at either Newton or Gracie. Cream and by-products will continue to be handled at the Newark plant.

Trenton, N. J.—Jacob Liebling of 151 Asmore has just installed a new pasteurizer.

South Bound Brook, N. J.—Van Nostrand and have just installed a refrigerating machine in th plant to improve their cooling and storage facilities.

Washington, N. J.—Holter E. Bugge of West Ste this city, has just installed a coil vat pasteurizer. zation of milk is a new idea in this town, being expe a recent epidemic of scarlet fever due to raw milk.

Stevens Point, Wis.—Anton Slotwinski and Jos. have opened the Sanitary Dairy on Superior Aven city.

San Marcos, Tex.—O. L. Miller, of Dallas, who moved to this city, has formed a partnership wit Smith in the dairy business three miles out on the Rd. They have named their dairy the Miller-Smith

Mishawaka, Ind.—The Mishawaka Pure Milk has been incorporated here with a capital stock of common. The directors are Harry I. Rodduck, Clyd hill, E. J. Rodduck.

Savannah, Ga.—Dairy mergers and other matters interest to the membership were discussed at the me the Chatham Dairy Association held here recently.

Atlanta, Ga.—A charter will soon be applied fo Georgia Dairy Company, formerly the Georgia Dair It has a capital stock of $50,000.

Cattaraugus, N. Y.—C. V. Young of New Albion elected to the office of president of the Dairymen's at a community meeting of the Dairymen's League, a Crowley of Ellicottville was elected secretary and tr

Weston, W. Va.—David E. Brown, chief of poli act as milk inspector for this city for the time bein result of a meeting of the city council held recently.

Muskegon, Mich.—The following are the officer Muskegon Heights Co-operative Dairy Company: DeGraves, president; Chris. Peterson, vice-president Farr, secretary-treasurer, and George Bringedahl, ma

Kirkland, Wash.—The Leschi Dairy was again the highest score in the county for raw milk, with a 97.7. The dairy, which is owned by S. Norby, has first place for sixteen consecutive months with an score of 97.75. The test includes such important bacteria count, butterfat, other solids, sediment, flav ity and condition of the bottle and the cap.

San Francisco, Calif.—According to H. E. Van president of the American Dry Milk Institute, fiv pounds of valuable skim milk products went to w year.

Providence, R. I.—It is hoped that a Rhode Islan men's Association will be formed to solve many of t lems facing the milk industry.

Bowling Green, Ky.—According to a survey freight rates practically the entire output of the l Milk plant will go to consumers in the South.

Havana, Cuba.—Establishment of agricultural provide the necessary capital for the advancemen dairy industry will be sought by Cuban dairy interes

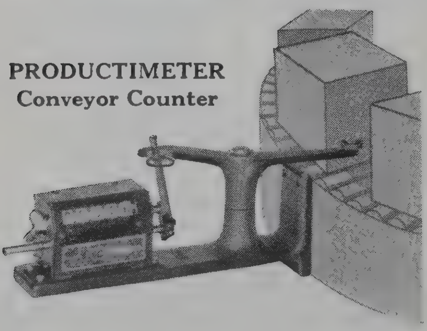
Randolph, N. Y.—In celebration of the completi Dairymen's League plant at Conewango Valley, mem ited the new plant and listened to an entertainmen evening.

Hoboken, N. J.—Incorporation papers have be here by the Closter Milk and Cream Co., 39 Newark city. The amount of the incorporation is $100,000.

Charleston, W. Va.—A charter has been granted som Dairy Company with a capitalization of $25,000.

Passaic, N. J.—The H. Baker Milk Company, to

COUNT 'EM ACCURATELY—BOTTLE or CA



PRODUCTIMETER
Conveyor Counter

Productimeters recording daily volume on important machines or operations give you an accurate count, in plain figures, quickly and dependably. They tell you at a glance just what has been done in a given period of time; make it easy to figure costs, bottle and case requirements, etc.

Built in various models—to fit washing, filling, sealing machines, conveyors, and to tally bottles, cases, packages, boxes. Our Service Department advises you which model is best for particular applications. Write for the Productimeter Catalog, telling us what you wish to count.

Durant Mfg. Co., 663 Buffum St., Milwaukee, Wis.

Productimeter Bottle Co

DIFCO

mparable Bacteriological Data

secured with

Bacto-Nutrient Agar

A uniform medium containing ingredients in proportions stipulated in "Standard Methods."

Invaluable in milk control for the collection of comparative bacteriological data over long periods of time.

Bacto-Nutrient Agar, Dehydrated, has been recommended by the Laboratory Section of the American Public Health Association as allowable in "Standard Methods" of Milk Analysis.

To use dissolve 23 grams in a liter of water and sterilize. No adjustment of reaction or filtration.

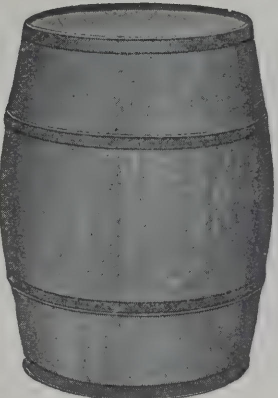
THE SIMPLICITY OF PREPARATION INSURES UNIFORMITY

***Specify* "DIFCO"**

The Trade Name of the Pioneers

In the research and development of Bacto-Peptone and Dehydrated Culture Media

GESTIVE FERMENTS COMPANY
Detroit, Michigan, U. S. A.



Made
RIGHT

This is the way you will find

Jacob's Powdered Milk Barrels

Made of selected, kiln-dried staves. Hooped with beaded steel hoops, heads firmly fitted, all at a ***right*** price.

WRITE

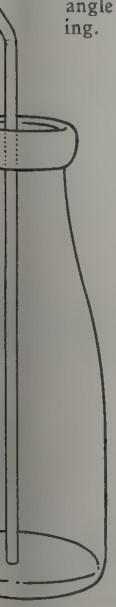
K. W. Jacobs Cooperage Co.
19th and St. Paul Ave. - Milwaukee, Wis.

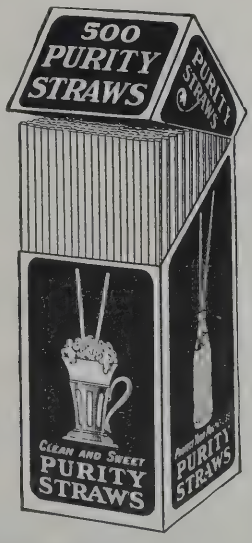
URITY STRAWS

Are Guaranteed Sanitary

It is easy to swing school, office and shop customers to taking your milk if you furnish Purity Straws because they eliminate washing of glasses and the inconvenience of drinking from the bottle.

Purity Straws are the cleanest and strongest artificial straw on the market. They will not dissolve or soften and can be bent at an angle without breaking.





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COE MANUFACTURING CO.
53 Park Place New York, N. Y.

ARCUS COUPON BOOKS

NOT A KICK IN A MILLION!

That's why our business in the milk trade has grown to such large proportions and keeps on growing.

Nothing like satisfied customers to boost business—is there?

Let us serve you too!

Send in samples for quotations.

The Arcus Ticket Company
350 N. Ashland Avenue CHICAGO, ILL.

milk, has been organized here with a capitalization of $100,000.

North Costa Mesa, Calif.—Earl Patterson is constructing buildings here at 22nd and Santa Ana Avenue for the operation of the Newport Creamery. Mr. Patterson is the owner of the Santa Ana Creamery.

Tacoma, Wash.—Plans for an entirely new and complete electrically equipped plant of the Producers Dairy, this city, are being made and work will be started within the next two or three months.

Menomonie, Wis.—It is expected that the Nestles Food Company will begin receiving milk at its condensery, June 15, according to M. C. Reppen, district field manager.

Kansas City, Kans.—The Milk Producers' Association has an approximate membership of 100, who desire to systematize the sale and distribution of milk in the Kansas City market.

Canton, O.—The Universal Dairy Company has been incorporated here with a capital of 500 shares, common, no par value, and $50,000 preferred. W. A. Pittenger, H. I. Pittenger, R. S. White, M. E. White and W. R. Thackwell are the interested parties.

Standish, Mich.—The Freeman Dairy Company, of Flint, Mich., has purchased the Standish Milk Plant.

Belvedere Gardens, Calif.—A surprise milk scoring contest has just been completed in the Huntington Park-Belvedere district of the Los Angeles County Health Department. As a result of the contest a rating of 94.8 per cent was given the district, which is an increase of 2.4 points over the last contest in the district which was held in December, 1925.

Newark, N. J.—Bordens Farm Products Co., Inc., are the owners of the new pasteurizing plant which is being erected at Orange and Nesbitt Sts., this city. The architects estimate the building will cost $1,000,000.

Morristown, Pa.—After being affiliated with the Penn Dairies for the last year, the Baumgart Dairies, known for the last generation as one of the outstanding milk dealers in this section, is again doing business independently, according to a recent announcement.

Covington, Ky.—Summe & Ratterman have a permit to erect a $20,000 milk depot in the rear of 219 E. Nineteenth St. The building will be of brick and concrete.

Easton, Md.—The mayor of this city has reported that the city is planning the building of a $30,000 milk cooling station.

Indianapolis, Ind.—Articles of incorporation were filed recently with the secretary of state by the Indianapolis Dairy Club, a new organization for men engaged in the dairy business. The purpose is to get men of the dairy business together to discuss matters of mutual interest, according to Mr. Carey, treasurer.

Wheeling, W. Va.—Dr. D. Berman of the Marshall county health unit, is finishing plans for the testing of all milk brought into the city, by means of the new bacteriological testing process recently purchased by the city council.

Cudahy, Calif.—A new dairy company has located here, under the name of Spencer's Dairy Company, to deal in milk, cream, butter, buttermilk and pure food products at 925 Cecelia St. Vivian M. Spencer, residing at 215 Prospect Ave., Bell, Calif., is the sole owner of the business.

Canton, O.—O. E. Barkey, manager of the Canton Pure Milk Company this city, states that at the present time the concern is distributing 25,000 pounds, or approximately 2,100 gallons, of milk every day.

Washington D. C.—The Interstate Commerce Commission, in a decision rendered in Investigation and Suspension Docket
No. 2653, Milk and Cream Between New England Poi
held that the increase of 20 per cent proposed by
roads on shipments from New England points and fro
in New York to points in New England, was not
except for distances up to 100 miles.

Columbus, O.—According to data collected by
cians, Ohioans spend approximately $1,200,000 dail
state's 13,000 restaurants, and from one-tenth to
of it goes for dairy products, which include milk,
butter and ice cream.

Seattle, Wash.—Through the activity of the Roya
5428 Leary St., this city is now shipping 400 gallons
to Manila every two weeks for human consumptio
product, according to F. R. Schain, manager of th
Dairy, is pasteurized and shipped in the refrigeration
ment of the steamer. When it arrives at its destin
is said to be in as perfect condition as on the day of s

Akron, O.—The Akron Pure Milk Co. has purcha
Ewart Dairy Co. of Cuyahoga Falls, it was learned, f
filing of a deed conveying the property on Northamp
to the Akron company.

Spokane, Wash.—W. V. Robb, manager of the
division of the Western Dairy Products Company,
announced the sale of its milk, cream, buttermilk, co
milk, and ice cream business in Idaho and Montan
Broadview Dairy Company of this city.

Madison, Wis.—Improvement in the nation's mil
will follow a more common use of the practice of gra
of purchasing milk and cream according to its g
quality, E. H. Farrington, head of the dairy depart
the University of Wisconsin, points out in his ne
"Quality in Dairy Products."

Minneapolis, Minn.—Alden W. Elwell, vice-presi
the Northland Milk & Ice Cream Co., died at his hom
Come Ave. S. E., after an illness of three months.
39 years of age.

Miami, Fla.—Work has been started on the new
home of the June Dairy Products Co., Inc., which
located at 1773 N. W. Seventh Ave., this city. It is
to be ready for occupancy by July 1.

Toledo, O.—The Tindall Dairy has just installed
cally new equipment throughout, and is now prepare
liver either raw or pasteurized milk.

Tyler, Tex.—Geo. Wilhams, proprietor of the
Dairy, which suffered a loss on account of fire, estima
loss to be about $8,000. The fire is said to have start
an improperly insulated electric wire.

Dayton, O.—The Tip Top Dairy Co. has been incor
here for $50,000. Frank J. Reichert is the owner.

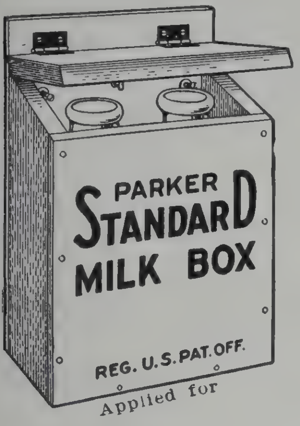
Albany N. Y.—Lauber's Dairy, Inc., has been ch
at Albany. Leon Goodman, Charles Barban and Archi
1133 Broadway, New York City, are the directors a
scribers.

Grand Rapids, Mich.—Articles of incorporation fo
cle Milk Company, a new Grand Rapids corporation, w
with the secretary of state recently. The company p
to engage in a general dairy business in this city, and
italized at $100,000. The incorporators are Walter J
son, William H. Hassett and R. F. Doornick, all of th

Norton, Va.—The Norton Dairy, Inc., has been
porated here with a capital of $15,000. E. S. Frale
president and P. J. Fraley is the secretary of the com

Bellevue, O.—The Pure Ice Cream and Dairy C
leased of C. A. Thompson, the dairy building on Wo
St., and the company is now installing an ammonia

WILLIAM H. TIMM
CONSULTING ENGINEER AND ARCHITECT
PERRY BUILDING
Chestnut & 16th Sts.
PHILADELPHIA
PENNSYLVANIA
DAIRY AND ICE CREAM PLANT SPECIALIST
Consulting Service for By-Product Processes



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ARKER
ANDARD
MILK BOX
Gives Positive Protection!

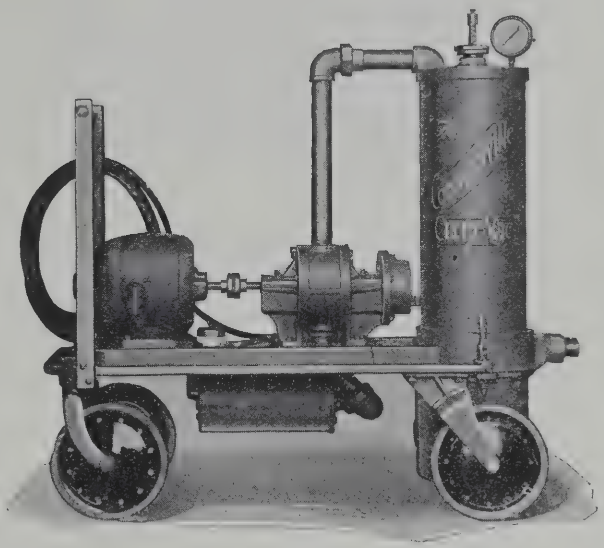
THE Parker Box protects milk against theft and contamination. Strong and well-constructed to last indefinitely. It prevents milk from freezing in the winter and keeps it cool in the summer. It can have a hook for a daily order card which enables your driver to deliver extras without errors and keeps customers satisfied.

The Parker Box guarantees delivery of your milk in a sanitary condition, eliminates losses through broken bottles, and is a constant reminder to return the empties.

Write for quantity prices and complete details.

ker Standard Milk Box Co.
ARREN AVE. :: SAGINAW, MICH.

Connersville Curry-Vacs



Make Profits for Others

Connersville Curry-Vacs are cutting stable costs in dairies all over the United States. Under ordinary conditions they pay for themselves in three months.

The health of both horses and cows is better when they are thoroughly cleaned with Curry-Vacs. Horses are able to do more work and cows to produce more milk when Curry-Vac cleaned.

One of these machines will increase your profits. Write today for complete information.

They Will for You

Please send information on ( ) Truck ( ) Stationary Type Curry-Vac for cleaning ( ) Horses ( ) Cows.

Name ....

Address ....

City ....

United Vacuum Appliance Corp.
CONNERSVILLE Dept. M6 INDIANA

TRADE MARK REG. U. S. PAT. OFF.
ESTABLISHED 1903

Improve Your Buttermilk with

ESSEX GELATINE

YOUR buttermilk will be improved by the wonderfully smooth and creamy flavor. It softens the curd, retards excessive acid flavor, prevents wheying-off, and imparts a new and delicious smoothness that will quickly increase your buttermilk sales.

For many years Essex Gelatine has been used in the highest grades of ice cream for body and velvety smoothness. You too can now take advantage of this stabilizer for your natural or cultured buttermilk.

Essex Gelatine is economical, you would use only 2 pounds in 100 gallons for a marked improvement. Write for working sample, instructions and prices.

Essex Gelatine Company
40 North Market Street
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Branch Offices:

NEW YORK CITY
54 Washington Street
PHILADELPHIA
708 So. Delaware Ave.
CHICAGO
323 West Polk Street
GRAND RAPIDS
135 Ionia Ave., S. W.
ATLANTA
169 Haynes Street

ST. LOUIS
400 So. Broadway
DALLAS, TEXAS
301 No. Market St.
LOS ANGELES
412 West Sixth Street
SAN FRANCISCO
Second & Brannon Street
PORTLAND, ORE.
403 Hoyt Street
SEATTLE
1018 4th Ave., South

system and making other changes in the building,
it for use as a cooling and storage building for mil
Baltimore, Md.—The Western Maryland Dair
which Geo. S. Jackson is the president, is erecting a
46x46 foot brick addition at 1105-33 Mason St.,
The cost of the addition is about $8,000.

Altoona, Pa.—Fire damaged the machinery of
pasteurization plant of J. I. Forshey to the extent
The building, which was valued at approximately
partially covered by insurance.

Greenville, Tex.—Due to the policy of everythin
in the dairy line, T. P. Jones announces that exte
provements are being made in his dairy plant locat
the city.

New York, N. Y.—Herbert Dillon and E. B.
have been added to the board of directors of t
States Dairy Products Corporation and the Ph
Dairy Products Company, Inc.

Wheeling, W. Va.—Ground will be broken w
near future for the new home of The Producers' M
ucts Company, according to Earl Green, one of the
of the new company. It is the intention of the
purchase direct from the dairy farms and from th
and to sell the milk and dairy products in a new
parchment bottle. The company is capitalized at

St. Louis, Mo.—It is reported that the Pevely D
pany has purchased the Jersey Dairy Farms of this

Ventura, Calif.—The new milk ordinance which
tered by Santa Paula Parent-Teachers' Associatio
proved by dairymen went into effect recently. This
provides for the grading of milk, the strict insp
dairies by officials for tests to be made as to the q
amount of bacteria in milk. M. A. Heinzman is t
milk inspector.

Ada, O.—The Paul R. Andrews Dairy here has
to Harold Eddy of Kenton. The new manager will
to run the business under the former name.

Chesterland, O.—An addition is being built to
plant owned by W. O. Moss.

Manistique, Mich.—Leid's, Inc., has been inc
for $45,000 to deal in milk and its derivatives. F.
the manager.

Portland, Ore.—The Hoover-Guernsey Dairy Co.
recently organized here and has a capital of $10,
incorporators are E. J. Hoover, Esther Hoover and
Hoomissen.

Pittsfield, Mass.—A charter of incorporation
granted to the Model Dairy, Inc., of this city, a $100
cern with 1,000 shares of common stock. The inco
are J. B. North, president and treasurer, F. M. M
F. H. Chant.

Dallas, Tex.—The Dallas Milk Co., 1811 Leonar
city, has increased its capital from $75,000 to $125,

Palatine, Ill.—The Palatine Dairy is the title
business firm in this city. It will be operated b
lingnon & Sons.

Middlesboro, Ky.—Grant Cosby of Taxwell, T
purchased the equpment of the Middlesboro Sanit
Company and is now operating the company under
of G. G. Cosby & Company.

Brooklyn, N. Y.—A new concern has been inc
here under the name of Whitestone Dairy Products
concern is located at 1979 Flatbush Ave.

Seattle, Wash.—In an endeavor to end the
"milk wars" that have at times almost demoralized
County dairy industry, the Seattle Milk Shippers'
tion, an organization controlling 90 per cent of the
sumed in the city, recently voted to unite with ot
producing counties of the western part of the sta
control of the Consolidated Dairy Products Compa
operative marketing organization.

Cedar Rapids, Ia.—Articles of incorporation
Searles Dairy Products Company were recently filed
county recorder with an authorized capitalization of
Officers and directors are James R. Searles, presi
treasurer; Dorothy M. Searles, vice-president, and G
ville, secretary.

Phillips, Wis.—G. C. Meyer has built a chees
in the town of Emery. His factory and residence
is 24 x 40 feet, two stories, and is now completed,
the factory equipment. Mr. Meyer is a practical che
with 18 years experience.

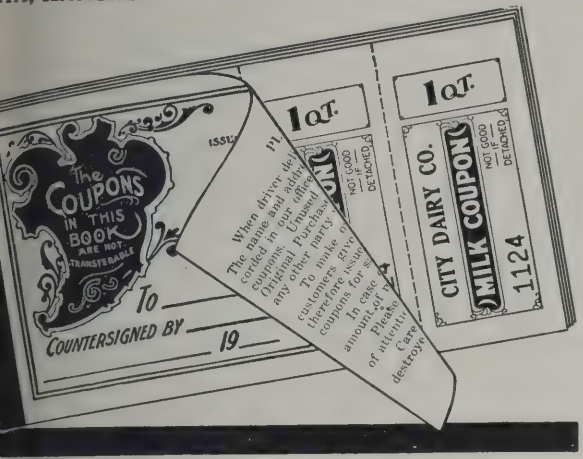
Black Creek, Wis.—An 18 foot cement block add
been built on the west side of the Black Creek Co-
Creamery Company's creamery. The new boiler
installed in this new addition.

Springdale, Wis.—The Springdale Co-operativ
Factory, Inc., has been incorporated with the foll
incorporators: O. A. Oimen, H. J. Bang, Ole Ling
Roedel, Louis Bank and Carl Bieri.

ow Prices
COUPON
BOOKS

ively printed with your name on each stub.
Well-bound. Quick shipment.

SAS BANK NOTE CO.
IIA, KANSAS


The COUPONS IN THIS BOOK ARE NOT TRANSFERABLE
To
COUNTERSIGNED BY
19
1 QT.
NOT GOOD IF DETACHED
1 QT.
CITY DAIRY CO.
MILK COUPON
NOT GOOD IF DETACHED
1124

SAVE

25% Fire and Tornado INSURANCE

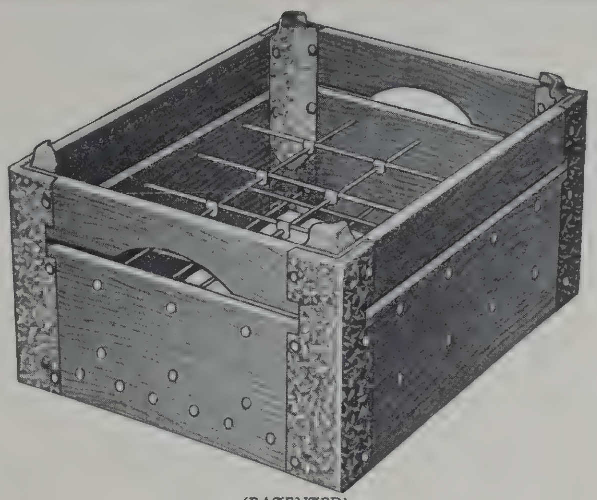
20% Workmen's Compensation Automobile, Teams and Other Liability Insurance

036,000.00 *Savings Returned to Policyholders*

$4,311,000.00 *Surplus and Reserve*

Loss Adjustment Service Everywhere

ruce Dodson and Company
Established 1900
& Wyandotte Kansas City, Mo.



(PATENTED)

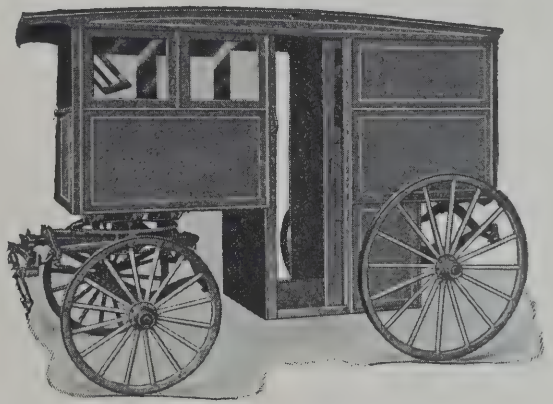
"The STANLEY"
SATISFIES!

Heavy galv. corner irons overlapped at top and bottom.
Long galv. stacking irons riveted through corner irons.
Strong — Durable — Yet light in weight.
Bottom runners if desired.
Will stack on any standard size cases.
Simplest and strongest construction — lowest in price.

WRITE FOR PRICES BEFORE YOU BUY AND REMEMBER *STANLEY'S* SATISFY.

THE STANLEY MILK CASE CO.
Front, Second and Lawrence Sts. CINCINNATI, OHIO

Sturdy Construction
MEANS ECONOMY



We have built milk wagons for over 25 years and fully understand the needs of the dairyman in this line. We make a specialty of installing equipment for carrying cases in any of our wagons.

Send for our No. 48 free catalog showing eight styles and many sizes of gear from which to make selections

Special Wagons Built to Order.

DeKalb Wagon Company
300 Garden Street DE KALB, ILL.

CONTROL OF MILK SUPPLY STRESSED IN NEW JERSEY PUBLIC HEALTH COURSE.

From June 28 to August 4, a course in public health administration is given at Rutgers University Summer School, New Brunswick, N. J. Not alone are the subjects of epidemiology, vital statistics, public health law, bacteriology of communicable diseases and general sanitation discussed but a considerable period is devoted to milk and its products.

Beginning with sanitation in the production of milk at the farm until the milk reaches the consumer either in the fluid state or in the form of by-products, every phase of this important food is discussed. Besides the lectures and quiz periods, several hours are set aside for visits to model dairies, pasteurizing plants, certified dairies, ice cream plants and restaurants. Prospective health officers and sanitary inspectors are expected to have an intimate working knowledge of dairy control matters, as this part of sanitary science in New Jersey demands their frequent attention.

The lectures and field demonstrations in milk control are under the direction of A. I. Goehrig, special investigator of milk products, New Jersey Department of Health; also a member of the examining board for health officers and sanitary inspectors.

⁂

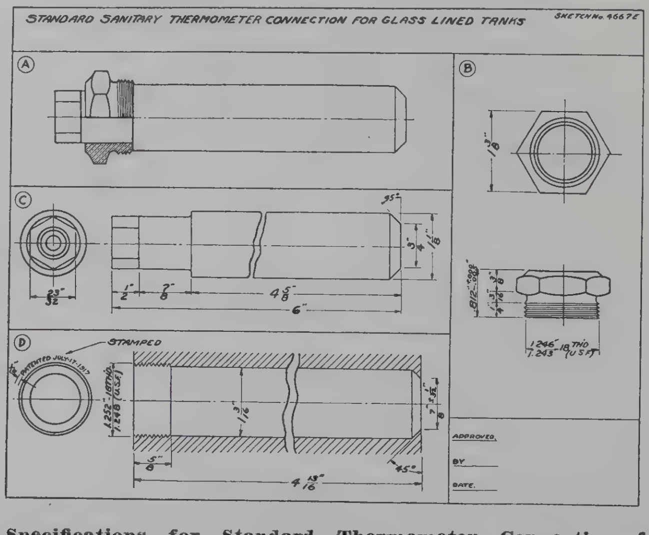
68 YEARS YOUNG.

In a recent letter our good friend E. R. Leighton of the Milk Dealers' Supply Co., Lawrence, Mass., lays claim to being the oldest dairy supply salesman in New England. He says "I am 68 years young with 34 years experience, first selling the milk man his milk cans, and old one and two quart measures, and later the old Fidelity milk bottles and caps. Always a booster for everything of interest to the milk man. Right here I wish to say the average milk man is the reddest blooded, he man in the good old U. S. A. and I will bet a box of cigars that Lindbergh has helped some milk dealer in old Minnesota."

⁂

NEW FORM OF MALTED MILK INTRODUCED.

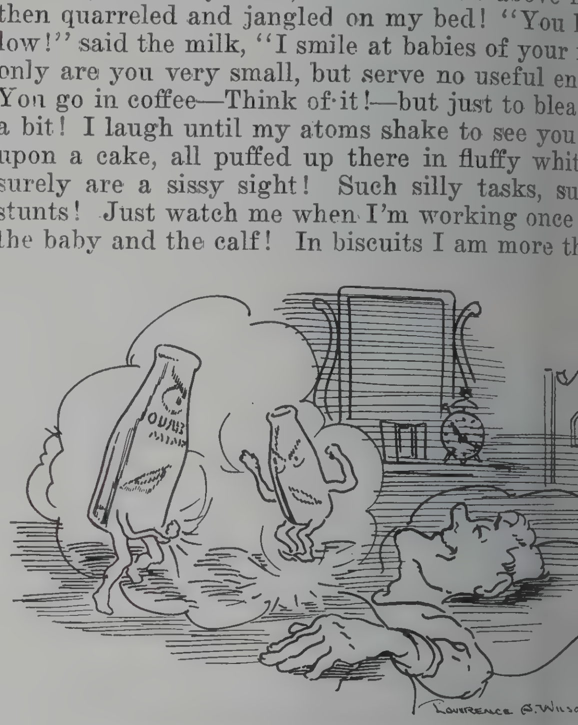
Malted milk mints, a delicious confection, is being produced by the Kraft Cheese Company at Plymouth, Wis. The mints have proven an instant success. It is said that the buyer "goes after them as a hungry trout after an angle worm."


STANDARD SANITARY THERMOMETER CONNECTION FOR GLASS LINED TANKS
SKETCH No. 4667E
A
B
C
D
STAMPED
PATENTED JULY-17-1917
APPROVED
BY
DATE

Specifications for Standard Thermometer Connection for Glass-lined Tanks Suggested by the Committee on Standardization of Equipment of the International Association of Milk Dealers.

MIKE THE MILKMAN

DREAMING OF A FIGHT



When sound asleep the other night I dreamed
awful fight! I dreamed two bottles, one of cream
of milk, a worthy team, met in the air above
then quarreled and jangled on my bed! "You
low!" said the milk, "I smile at babies of your
only are you very small, but serve no useful en
You go in coffee—Think of it!—but just to blea
a bit! I laugh until my atoms shake to see you
upon a cake, all puffed up there in fluffy whit
surely are a sissy sight! Such silly tasks, su
stunts! Just watch me when I'm working once
the baby and the calf! In biscuits I am more t
while pancakes, mush, and oyster stew, depend
and not on you! When Kate, the cook, cuts lo
makes a batch of cookies or of cakes I don't si
top and crow, I jump right in and make the do
do big things, I do not play, nor loaf around in si
But you—say, here's another thing I'll tell you
little king, before you'll work at all, I know, y
be whipped an hour or so!" "Look here, big f
said the cream. "You're not so wondrous as yo
You're larger, I'll admit, than I; I'm not so br
not so high, but I am made of better stuff, a littl
is enough! They put me in the dough, 'tis true,
would take a bite of you, if when the cake is ba
browned I were not sticking close around, to to
in pleasing way, conceal your plainness, may
And you in coffee! O, the hue! You make it
gray, and blue! You do big tasks with will an
Try making butter, if you please!" There I aw
was a dream, that squabble 'twixt the milk and
It was a dream, but every day men quarrel in j
funny way! Each fitted for a worthy task, eac
all a man could ask, yet neither willing to ad
other fellow worth a whit! Each good as gold, b
to see the other fellow's ministry!

—J. Edw. Tufft, Grand Forks, N. D., June

⁂

REPORT OF CONSOLIDATED DAIRY PROD COMPANY.

Consolidated Dairy Products Company, Nev
City, reports sales of $652,200 in 1926, as compar
$180,580 in 1924, an increase of 261 per cent over
year period. It estimates that sales for 1927 w
$1,300,000.

:NG ON A SUCCESSFUL MILK EXHIBIT.

(Continued from page 23)

ɔut that only harmless and beneficial germs are n milk that has been carefully handled and then :ed.

ıs also made plain that certain germs, should into milk, are very dangerous and should be at any cost. This can be done by rigid cleanli- prompt cooling of the milk after it is drawn, diligent care of the health of the cow and the ıdler. Pasteurization was illustrated and the .de that when done all disease-producing germs l.

ed to the idea of cleanliness was the demonstra- couple of flies mounted on a card board so that ɔer and under sides would show under a special us, binocular microscope. This apparatus is n the table at the extreme left just in front of that reads "The Dirty Fly." Every minute of one heard "Oh's" and "Ah's" and "Oh come the flies." Every one seemed impressed with that the fly is really a horrid creature, and s resolved to keep them out of the milk.

lletin machine displayed twelve catchy health each with an appropriate cartoon cleverly done by Mr. Iske. The only trouble with this ar- nt was that folks wanted to wait and see what em said and this sometimes tied up the proces- ıe quips on the cards were as follows:

nk creamy milk and rise to the top."
n the window and throw out your chest."
ou digest well you won't die jest yet."
ep in bed but not in your shoes."
spinach and own your own iron range."
your rouge of the vegetable man."
cabbage and come out ahead."
ı't be afraid to bathe. You won't shrink."
ke the cow one of the family."
it with cauliflowers."

ıe end of the booth that does not show were particularly interesting things. One of them y steam engine which was run by the heat of butter. There seemed to be no way of burning ilk as was done in such a spectacular way by desen of Chicago so butter was used instead. ine clicked right along though it smoked quite ome folks thought it was run by a hidden elec- or, but they were all wrong. It was a real steam hat used water in a boiler heated with butter, urned many awkward fingers that needed occa- to adjust it.

her feature not shown was a comparison of the ıe of a glass of milk with other common foods. sat on a little shelf and its food equivalents in ɔotatoes, eggs, meat, sugar, beans, apples and aples indicated below with the actual food on

llon of milk had been analyzed and its content of rotein, fat, milk sugar, and ash shown in bottles able. From each bottle a ribbon led to a beauti- lored poster describing the use in the body of ticular ingredient indicated. Folks who had study of the matter were greatly surprised to t there was so much protein, sugar and ash in t was clear that they were convinced that milk l to be eaten and not merely a beverage to tickle ıte.

he extreme right of the photo can be seen the a revolving ferris wheel which was loaned to us

K-W Products are made right even in the parts you can't see.

New York Pattern Can

K-W cans are economical first and last. Their first cost is low, and they out-last ordinary cans.

K-W Milk Cans

Here are some K-W axioms that spell satisfaction to K-W can users:

1. **K-W service means prompt shipment.**
2. **K-W quality means best materials and precise workmanship.**
3. **K-W dependability means "The customer is always right."**

K-W cans are quality cans produced at low cost through quantity production methods under rigid inspection and supervision.

KEINER
WILLIAMS STAMPING
COMPANY

Jersey Pattern Can

KEINER WILLIAMS STAMPING COMPANY
8746—123rd Street, Richmond Hill, L. I., N. Y.

Send me descriptions and prices of K-W milk can checked below:
☐ K-W NEW YORK MILK CAN
☐ JERSEY MILK CAN

Signed____________________
Name of Company____________________
Address____________________

Use
BOVINOL
REG. U.S. PAT. OFF.
and Stop the Unequal Fight

your cows must wage against flies. A cow has only a switching tail for a weapon to keep flies from stinging. Fighting the unequal battle for quiet and comfort, the cow wastes energy—equivalent to the food value of a pound of oats per head per day! Scientists have made that estimate.

What is the result of this waste to farmers and dairymen? Financial losses. During very severe outbreaks of flies, it has been estimated that milk production was reduced by 40 to 60 per cent, while the rate of fattening was reduced almost as much.

NET CONTENTS FIVE GALLON
BOVINOL
KEEPS COWS COMFORTABLE
STANDARD OIL COMPANY
SERVICE
(INDIANA)
STANDARD OIL COMPANY
(INDIANA)

Spray your cows with Bovinol and prevent such losses. Flies may settle on a cow that has been sprayed with Bovinol—but they cannot sting! Bovinol is harmless—contains no poisonous elements. It is odorless, tasteless, and stainless.

Apply Bovinol with the compressed air type of sprayer in which the oil is forced out by air pressure and is further atomized by an air blast. Spray against the direction of the hair, so that Bovinol will penetrate the coat, and be sure that every square inch of the hide is covered. It requires less than a minute to spray one cow.

Agricultural experiments and practical dairy tests have shown that a consistent use of Bovinol will increase milk production at least 10%!

Spray your cows morning and evening with Bovinol.

BOVINOL
REG U S PAT OFF
Sold in Cans and Barrels
Tasteless • Odorless • Colorless
A Scientific Product Characterized By All the Efficiency Customary in Products of the
STANDARD OIL COMPANY
[*Indiana*]
910 So. Michigan Avenue, Chicago

Ask the Nearest Standard Oil Agent
4701-B

by the National Dairy Council. As it turned it i
the following eight health rules:

“Use at least four glasses of milk every
“Eat fruit every day.”
“Brush teeth every day.”
“Eat some vegetable besides potato every
“Drink at least four glasses of water ever
“Sleep many hours with the windows ope
“Play part of every day out of doors.”
“Take a bath oftener than once a week.”

These same rules were also represented by t
of health rule posters which were displayed or
about the booth at the level of the shoulders.
other printed posters were furnished by Mr. I
of the Indiana Manufacturers of Dairy Prod
were beautifully colored by Mrs. L. Y. Mazzini
of an assistant at the medical school.

All of the posters used were covered with
celluloid, backed with stiff paper, and bound at
with picture binding. This greatly enhance
pearance of the posters, and protecting them fr
Two splendid posters dealing with milk ma
were presented by the American Institute o
Both showed a glass of milk with a loaf of b
otherwise they were different. Both were e
done.

Literature on milk was distributed to t
seemed interested. A senior medical stude
Wright (shown in the picture), or myself was
all of the time to explain the exhibit and ke
shipshape. We were kept mighty busy. Each
the hospital dietician, Miss Trout, sent out fr
vegetables, fruit, or whatever was necessary to
the exhibit and keep it fresh.

We feel that the exhibit was of very unus
in selling the people on the milk idea. It wa
hibit representing the medical school of a u
that does not teach dairying or agriculture in a
We had no other motive except to help the p
ward health and well being. We received no
dairy interests except the gift of a few printed
and the loan of a ferris wheel. The sign over t
read:

“GOOD MILK
the
Most Important of All Foods”

Exhibit of Indiana University School of Med

There is no doubt that the exhibit was of
versal interest. Great crowds of folks tarr
enough to look it over carefully, and we saw
many people coming back bringing their friends
ily to see it, or especially to see the steam en
fountain of youth, the fly or the ferris wheel.
declared that we had copied the barn and fa
his own farm and was immensely flattered.
back again and again proudly bringing his fr
show them. As a matter of fact we had done n
the kind, but had merely happened to reproduc

A thousand times we heard mothers say, “J
here James (or Mary). Isn't this just what I h
telling you? These men are doctors, and they
should drink lots of milk.” We received m
compliments from the fair authorities and the
of the university. Two newspapers wrote up
hibit at considerable length.

Considering the fact that we were rank ama
the making of milk exhibits, and had to use
and enthusiasm rather than a lot of money
didn't have for the purpose, we were migh
pleased with the result. I doubt if the state of
has had a more effective piece of milk propagan
certainly not at a less cost.

raig Brothers Company

Retinning and Specializing in

PASTEURIZERS — MILK VATS
COOLERS

iry Equipment — Ice Cream Equipment

Work Guaranteed to Pass All Inspections

Work Done at Your Plant.

PRICES QUOTED UPON APPLICATION

51 Spruce St. - PHILADELPHIA, PA.

HANDYCAP
Milk Bottle Opener and Cover
TWO IN ONE
NDICAP
The Old Way
REVERSE SIDE
The Handy Cap Way
HANDYCAP

Good Housekeeping has approved the Handycap. It's a real convenience to the housewife and an excellent means of advertising for the milk dealer.

Ask Your Advertising Specialty Dealer to Show You Samples.

E HANDYCAP CO. *Sales Office* **Irvington, N. J.**

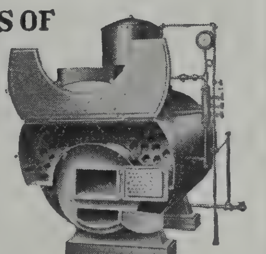
URRAY IRON WORKS COMPANY

BURLINGTON, IOWA

INCORPORATED FEBY 1,1870

STEAM BOILERS OF ALL STYLES AND SIZES

The cuts show vertical and horizontal boilers requiring no brick work



build also Water-Tube and lar Boilers to be set in Masonry

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NICKEL
99% +
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American
Mond
Nickel
Company
Pittsburgh,
Pa.

IF YOU MAKE BUTTERMILK OR COTTAGE CHEESE

Hansen's Lactic Ferment Culture and Hansen's Rennet and Color are the most economical and reliable Dairy Preparations you can use. They may be obtained from your regular dealer in dairy supplies.

FREE BOOKLETS

"Soft Cheese Manufacture" gives, among other things, full directions for making Sweet Cottage Cheese. "Starters and Cultured Milk" gives directions for making Commercial Buttermilk. May we send you either or both of these booklets?

CHR. HANSEN'S LABORATORY, Inc.
LITTLE FALLS, N. Y.
Milwaukee, Wis. Toronto, Can

FILTERING
STERLING
PADS

"Sterling" Cotton Filtering Discs are made from the highest quality of cotton, and will fit all standard milk strainers. All sizes in stock for immediate delivery.

Warranted Full Count and Perfect Circles.

Use "STERLING" Discs and have CLEAN MILK!

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1413 W. Jackson Boulevard Chicago, Illinois

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SELLS ITSELF

USE....

DAIRYWEAVE

DAIRYWEAVE
Means OBLONG Weave
MILK-FILTERING FABRICS

(FILTERGAUZE and FILTERFLANNEL)

These Dairy Fabrics are built to clarify milk, and, are the topic of discussion in Dairy circles. Their accurate, oblong meshes, strong and tough, make them efficient for clarifying hot, cold, raw, or pasteurized milk, better than any other straining medium.

Put an end to your terrifying, clarifying problems, with a 36 inch wide bolt (any yardage) or we will make you Bags, Cones, Discs, Tubes or any Special Shape. Pamphlet and Sq. Yd. samples FREE.

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THE PRICKETT MANUFACTURING COMPANY
HAMPDEN, MASS., U. S. A.

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Ice Cream and Milk Cans

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Ice Cream Lids Galvanized Outlast Lids Retinned

Sanitary Tinning Co.
3753-63 E. 93rd St. Cleveland, Ohio

DAIRY SCIENCE ASSOCIATION TO MEET JUNE 22, 23, 24, 1927.

The annual meeting of the Dairy Science Association is scheduled for June 22, 23, 24, 1927, at East Lansing, Mich. The summer meeting is an experiment and officials of the association express the hope that the three days given over to the meeting, without interference with other activities, will make it possible to have a real gathering. Members are urged to attend and the department of dairy husbandry of the Michigan State College has completed plans to help make the meeting a success. It is announced that the best program ever offered to the members has been prepared.

In addition to the regular program the local members have made plans for a general get-together on Wednesday evening at 8 o'clock, at the Woman's Building. On Thursday evening the entertainment will consist of a "fish fry" at Pine Lake. Plenty of time will be available for a swim and other forms of recreation at this time.

Arrangements have been made to house the guests in the Woman's Dormitory. Charges for this will be $1.00 per person, per day. Those who desire hotel accommodations should make their reservations at Hotel Olds, Lansing, Michigan.

Golf fans, tennis sharks, and Ananias fishermen will be given an opportunity to show "their stuff" in Michigan—the sportsman's paradise.

The ladies are also cordially invited to attend the meeting. Arrangements will be made for their entertainment.

PROGRAM.

President J. B. Fitch, Presiding.

9:30 A. M.—Opening Remarks, Dean R. S. Shaw.
Announcements, President J. B. Fitch.

10:00-11:00 A. M.—"Vocational Teaching," Dean Phelan, Educational Dept., Mich. Agr. College.

11:00-11:40 A. M.—"Importance of the Fundamentals in Dairy Instruction," J. M. Sherman, Cornell University.

1:30-2:20 P. M.—"Teaching Cattle Breeding," W. W. Yapp, University of Illinois.

2:20-3:00 P. M.—"Fitting Our Curriculum to Meet the Demands of Industry," H. A. Ruehe, Univ. of Illinois.

3:00-3:40 P. M.—"The First Course in Dairying. What it Should Contain and How it Should be Taught," H. P. Davis, University of Nebraska.

3:40 P. M.—Demonstration of Experimental Work in Progress at Michigan Experiment Station, O. E. Reed, C. F. Huffman.

Thursday, June 23—Research Program.

J. M. Sherman, Vice-President, Presiding.

9:30-9:45 A. M.—"The Possibility of Producing Iodized Milk, a Progress Report of the Study of the Iodine Content of Milk as Affected by Feeding Iodine," C. F. Monroe, Ohio Experiment Station.

9:45-10:00 A. M.—"The Effect of High and Low Protein Diets on Growth and Development of the Internal Organs," S. W. Mead, University of California.

10:00-10:15 A. M.—"High and Low Protein Rations," A. E. Perkins, Ohio Experiment Station.

10:15-10:30 A. M.—"The Economic Effect of Contagious Abortion," R. F. Morgan, University of Nebraska.

10:30-10:45 A. M.—"Chemical Sterilization in the Dairy Industry," M. J. Prucha, J. M. Brannon, Univ. of Illinois.

10:45-11:00 A. M.—"The Food Value of Milk as Affected by Rations. The Effect of Widely Differing Rations on the Vitamine Content of Milk," W. E. Krauss, Ohio Experiment Station.

11:00-11:15 A. M.—"The Adaptation of the MacDonad Process for the Removal of Onion Odor and Flavor in Milk to Creamery Practice," C. E. Wylie, Univ. of Tennessee.

11:15-11:30 A. M.—"Recent Results Concerning Vita
Requirements for Calves," S. I. Bechdel, State
Pennsylvania.

11:30-11:45 A. M.—"Recent Development in Calciu
Phosphorus Metabolism," C. F. Huffman, Mich. E

11:45-12:00 M.—"The Effect of Butterfat on Overr
Quality," P. S. Lucas, Michigan Experiment Stat

1:30-1:45 P. M.—"Sugar in Ice Cream," W. N. Marti
sas Experiment Station.

1:45-2:00 P. M.—"Research Problems in Dairy Pro
on the Pacific Coast," W. M. Regan, Univ. of Cal

2:00-2:15 P. M.—"Effect on the Ice Cream Mix of
Gelatine and Sugar at Different Times and of Ho
izing Before and After Condensing," J. C. Benin
eva, N. Y., Experiment Station.

2:15-2:30 P. M.—"Studies in the Manufacture of Cre
Neufchatel Cheese," J. C. Marquardt, Geneva, N.
periment Station.

2:30-2:45 P. M.—"The Relation Between pH and Ti
Acidity in Milk," P. F. Sharp and T. J. McInery,
University.

2:45-3:00 P. M.—"Butter vs. Oleo in the Ricket Co
Pigs," E. L. Anthony, W. Va. Exp. Station.

3:00-3:15 P. M.—"A Statistical Study of the Babcock
D. H. Nelson, California Exp. Station.

3:15-3:30 P. M.—"A Successful Attempt to Impro
Quality of Creamery Butter," L. M. Thurston, Un
of Minnesota.

3:30-3:45 P. M.—"Sorghum Grains for Growth and f
Production," H. W. Cave, Kansas Exp. Station.

Friday, June 24.

A. J. Cramer, Chairman, Extension Section, Presid

9:30-11:00 A. M.—Report of the Extension Confer
Madison, O. E. Reed and A. C. Baltzar.
General discussion of extension problems.

11:00-12:00 M.—Reports from Bureau of Agric. Ext.
of Marketing.

Friday, June 24.

Joint Meeting Production, Extension and Officia Testing Sections.

A. C. Ragsdale, Chairman, Production Section, Presi

1:30-2:10 P. M.—"Feeds and Feeding Laboratory,"
Savage, Cornell University.

2:10-2:50 P. M.—"Teaching Dairy Cattle Judging,"
Schaefer, University of Minnesota.

2:50-3:30 P. M.—College Feed Conference — Boar
Open Formulae Feeds, A. R. Merrill, Connecticut

3:30-4:00 P. M.—Present Day Problem in Official T
General discussion.

Friday, June 24—Dairy Manufacturers' Section.

E. C. Guthrie, Chairman, Manufacturing Section, Pres

1:30-1:45 P. M.—"Physical Factors Influencing th
Content of Cream Separated from Milk by Gravi
C. Troy and P. F. Sharp, Cornell University.

1:45-2:00 P. M.—"The Oxidation of Fat in Relation
Keeping Qualities of Dairy Products," G. N. Holm
D .A.

2:00-2:15 P. M.—"The Comparison of the Methylen
Reductase Test with Bacterial Counts, Acidity an
ment Tests," A. S. Ambrose, University of Illinoi

2:15-2:30 P. M.—"Composition and Shrinkage of Cr
Print Butter in Relation to Working," V. C. M
Purdue University.

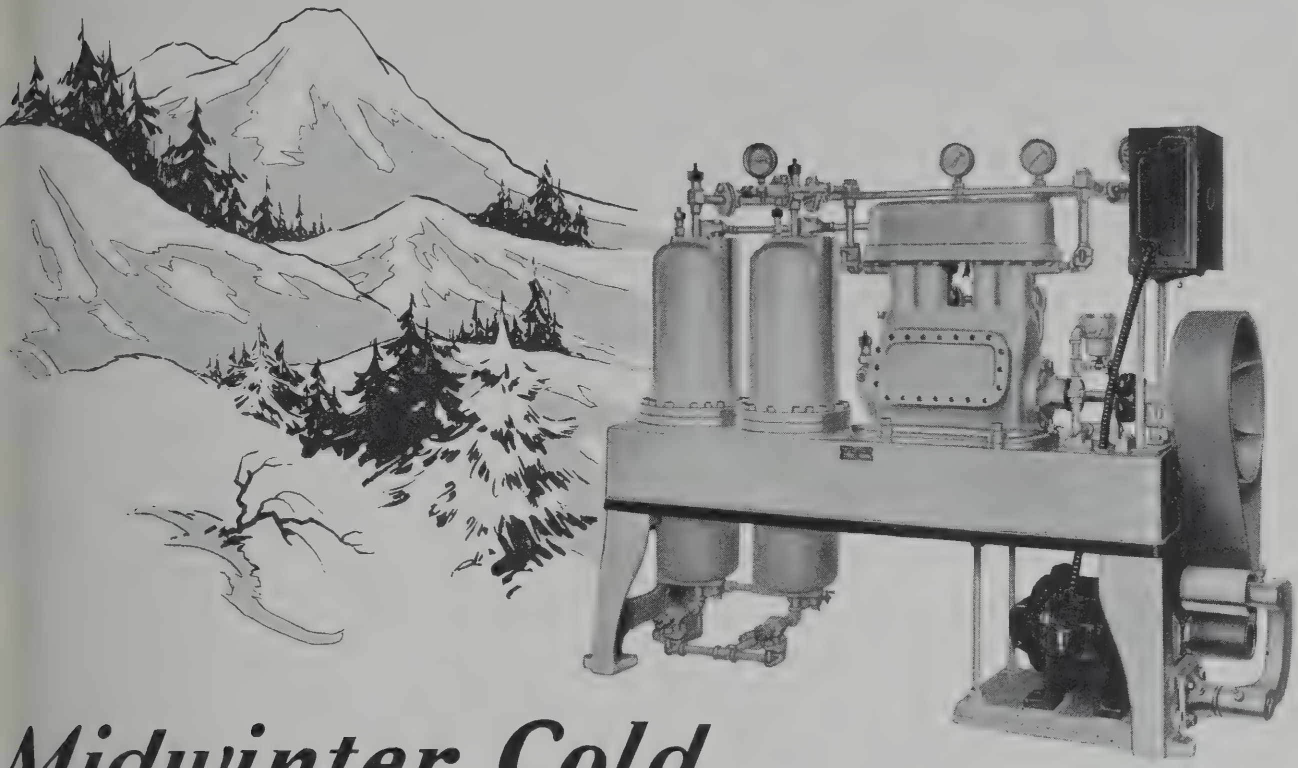
2:30-2:45 P. M.—H. H. Sommer, University of Wisc

2:45-3:00 P. M.—"Hydrogen Ion Concentration in
Storage Butter," E. W. Parfitt, Purdue Universit

3:00-3:15 P. M.—"The Effect of Freezing Milk Befo
Subsequent to Pasteurization on the Physical Pro
of Milk," W. H. E. Reid, Univ. of Missouri.

3:15-3:30 P. M.—"The Relation of Acidity of Cream
Quality of Butter, with Special Consideration for
tions in the Acidity Below and Above 3/10 of O
Cent," W. White, U. S. D. A.

3:30-3:45 P. M.—"The Development of Dairying
Pacific Northwest," J. A. Nelson, Montana Exp.



Midwinter Cold in June!

y, constant cold, like that of a crisp midwinter's day, ps dairy products perfectly, helps them retain flavor l freshness.

ith Lipman Refrigeration it's easy to maintain this al temperature. A simple thermostat setting and the oman functions automatically, keeping the temperature ctly where you need it, *true*, full-automatic operation.

ink of the savings possible with this modern method refrigeration. Spoilage reduced to a minimum; half e cost of icing saved. It is equipment that soon pays itself in economies achieved.

ecide today to get full information; return the coupon low.

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Model 420 Lipman, for use where medium capacity is desired.

There is a Lipman model for every service, heavy or light.

All are soundly engineered and soundly built, with the distinctive Lipman feature of full automatic operation.

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When writing to GENERAL REFRIGERATION COMPANY *please mention The Milk Dealer.*

NOTES OF THE TRADE

News of Interest Concerning What Our Readers and Advertisers are Doing
to Develop the Industry. We Invite Correspondence Relative
to New Products and New Equipment.

A GASOLINE TRUCK ESPECIALLY FOR DELIVERY OF MILK.

For the first time in the history of the automotive industry, a gasoline-operated motor truck is being built especially for the retail delivery of milk. It was designed by creamery men for their own use, and embodies many revolutionary time-saving and money saving features heretofore unheard of in house-to-house and store-to-store delivery vehicles. The new truck (Divco) is being manufactured by the Divco-Detroit Corporation, a newly organized company, 2435 Merrick at Sixteenth St., Detroit.

A compilation of the results obtained by many of the representative plants using Divco trucks showed that Divco had reduced delivery costs to ten cents a mile. This remarkably low figure included everything—operation, maintenance and fixed costs. In comparison with the other delivery vehicles used (horse and wagon, electrics, and various conventional trucks) Divco saved on an average more than 33 per cent for every mile it operated. The saving in time ranged between one and two hours for every route. The milk routes over which the results were obtained varied from 10 to 50 miles, and from 135 to 350 stops.

Perhaps the most sensational of the many time-saving features is its patented three-point control. With this simple arrangement of driving controls, the driver can start, operate, and stop the truck from either running board or from the front seat—a convenience which saves time and many stops for the delivery man.

Another important convenience is its unusually accessible body; it may be loaded and unloaded from either side the front or rear. Ample room is provided for 45 cases—twice the carrying capacity of the horse-drawn The body is also dust-proof and insulated, thus a clean, fresh milk under all weather conditions. This w proof body likewise provides complete protection driver, all three sets of controls being enclosed.

Other unique features designed to save time and m multiple-stop delivery are its patented "controlled ho carburetor which cuts gasoline consumption in half; its oil filter which purifies the oil every 30 minutes and it necessary to change oil but twice a year; and its safety brake which se an automatic stop Divco is in motion.

It is as quiet as an and its heavy dut speed, spring suspend tor, governed to 18 m hour (1,400 R. P. M.) and vibrationless. makes for long life a maintenance costs, a the sturdy oversize the full ball bearing mission, the special n the counter balanced shaft, and other oversize parts.

Divco is a real b the solution of traffi gestion problems. Ha wheelbase of only 86 it turns around in a street or on an averag four-foot smaller circl a Ford. In traffic it re but half the space required for a horse and wagon. The omy of storage space is even greater, three Divcos occ no more space than one horse and wagon.

Names prominent in automotive and financial circl pear on the directorate of the Divco-Detroit Corpo Carl H. F. L. Flinterman, who was for several years pre of the Detroit Pressed Steel Company, and now heavily ested in automotive companies, including the Flint Corporation, is president. C. R. Norton (inset), fo years general sales manager of the Packard Motor Car pany of Detroit, is directing vice-president. G. M. who promoted and developed the Detroit Electric "An Carriage," and who conceived the idea of a three-poin trol to reduce delivery costs, is another vice-president. M. Ferguson, Divco chief engineer, was formerly chi gineer of Studebaker and later consulting engineer fo General Motors Corporation.

CHANGES IN THE BARBER-GOODHUE ORGANIZATION.

Announcement is made of an enlargement of the board of directors of A. H. Barker-Goodhue Company, by which the directorate is increased from three to seven.

At a special stockholders' meeting, held on March 26, the following men were added to the board: H. H. King, T. K. Johansen, E. L. Slayton, L. H. Barber. These men, in addition to the old board consisting of A. H. Barber, P. C. Barber and H. S. Fielder, constitute the entire board. The officers are as follows: A. H. Barber, president; E. L. Slayton, vice-president; P. C. Barber, treasurer; H. S. Fielder, secretary.

Mr. Slayton has had active experience in the sales department for the last ten years; he has a wide acquaintance among ice cream manufacturers, milk dealers and large creamery operators. In addition to his general sales duties he has active charge of the ice cream department.

Mr. Fiedler has had a long identification with the pany both in the capacity of sales and engineering. cent years his work has been entirely in the engineeri partment, where he was closely associated with Mr. Goo After the death of Mr. Goodhue, Mr. Fielder was made of the engineering department and continues in that ca

Mr. King has been identified with the company more 20 years; he is purchasing agent and director of supply

Mr. Johansen has been with the company all of 15 and has been principally identified with Chicago sale continues in that capacity and as director of sales of B Simplex long distance flow pasteurizers.

L. H. Barber is not actively identified with the co as his time is devoted to A. H. Barber & Company, who cheese dealers; he is the secretary of that company.

These changes place added responsibility upon these long been identified with the company and who ributed to its success.

* * *

GLIABUE MFG. CO. HAS OPENED NEW BRANCH FACTORY.

. J. Tagliabue Mfg. Co. of Brooklyn, N. Y., makers rial instruments, has opened a branch factory at negie Ave., Cleveland, the recent growth of the iness in that region having made it necessary to a branch factory there.

rice function of the new factory will be repair work, ial attention to emergency orders. The Cleveland ill be prepared to fill emergency orders for standard eters both of the industrial and laboratory type, ers and kindred instruments, oil testing instru- nd other laboratory supplies, standard recording eters and recording pressure gages, standard auto- ntrollers for temperature and pressure and various sses of instruments.

actory is in charge of the district manager, A. R.

* * *

THE "PAK-AGE-CAR."

Dobbin," who has consistently maintained a promi- sition in the house to house milk delivery field ut the motor age, is now confronted with a new Pak-Age-Car. The vehicle, designed and built to the horse in the work where he has proved most efficient, exhibited for the first time, is made by the Package Car Corporation, Union Stock Yards, Chicago. Factory offices for national sales and distribution have been opened at 1923 South Michigan Avenue, in charge of Albert A. Lau, general sales manager.

Through two years of ruthless testing on Chicago milk routes the car has shown itself capable oming all weather obstacles, and has established a upkeep record unrivaled by the horse-drawn vehicle to house delivery.

gasoline consumption is one quart per hour of run- approximately 40 to 60 miles per gallon straight Oil consumption is one quart per week.

ppearance, the car resembles an underslung wagon. ors, extending from floor to roof, permit easy en- rom either side. There are no built-in seats.

re control is vested in dual levers, one beside each it can be operated from either side. A steering wheel enter is adjusted to the standing posture. An auto- lutch permits shifting of gears without use of foot The shifting lever, when pulled back, operates the The car is accelerated by turning the handle, the used on motorcycles.

Truck Has No Chassis.

re is no chassis. The enclosed body is supported by a al truss that extends along the roof from front to t has no axles. The front supporting springs, mount- swise, one above the other, terminate in ball and connections which replace the usual king-pin construc-

power plant is one of its most startling features. ine and all of its accessories, clutch, transmission and orm drive are all assembled in a unit with the rear and wheels. In case of emergency, this entire unit replaced on the road, without disturbing the load, in minutes.

twin-cylinder, horizontally opposed engine used in ck has been designed by members of the Society of otive Engineers. It develops about ten brake horse- and is capable of propelling the truck at the rate of s per hour when carrying 3,000 pounds, about twice ed of a horse at trot. Its maximum speed, unloaded, iles an hour. The truck alone weighs 1,800 pounds. ause the car is designed for frequent stop, short-haul ies, the motor is seldom shut off. It is, however, d with a self-starter. In the water cooling system, a is employed, operating on the same principle of nu- small stationary engines, which eliminates radiators, d pumps, and the usual freezing hazard.

The truck, with body completely equipped, sells for $950 f. o. b. Chicago. The designers not only have applied the principles of efficient automobile construction to their product through fourteen years of experimentation, but they have utilized ideas that have proved of value in the construction of motorcycles, aviation engines, and stationary gas engines. The truck embodies features so different from conventional designs that it may justly be regarded a new type of motor construction, yet every detail conforms to established engineering principles.

* * *

TWO NATIONALLY KNOWN MILK BOTTLE COMPANIES CONSOLIDATE.

The Berney-Bond Glass Company, Clarion, Pa., and The Winslow Glass Company, Columbus, O., having in common the same high ideals of quality and service and ever mindful of their increasing responsibility to their many customers, have joined forces to the end that they may effect a wider field of usefulness.

It is claimed that the merger will give the customers a better bottle, because the combined knowledge of both engineering departments will be united; quicker delivery, due to increased manufacturing capacity and factories located in different sections; and uninterrupted service, due to the fact that there are now five complete manufacturing units, two at Clarion, Pa., two at Columbus, O., and one at Hazelhurst, Pa.

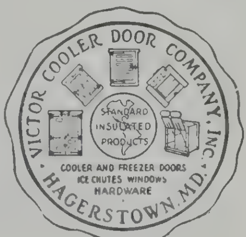
* * *

VICTOR COOLER DOOR COMPANY INCREASES PLANT CAPACITY.

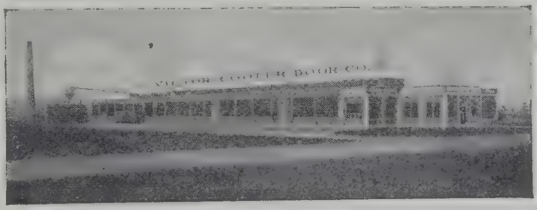
Back in 1917 several modest frame buildings, with a floor space of 4,200 square feet, represented the factory possibilities of the Victor Cooler Door Co. But, today, the former factory would not be sufficient to house the present shipping department.

In but ten short years the recognized standard of the Victor Cooler Door Co. products has made necessary the erection — at Hagerstown — of a magnificient steel and brick construction factory building, containing more than 42,000 square feet of floor space —all on the ground floor.

And even this greater structure is proving none too large to take care of the great increase in the demand for Victor Standard refrigeration products, cooler and freezer doors, ice chutes, windows and refrigeration hardware.



With every part of this new and modern plant flooded with direct daylight—with the most modern of efficient and labor-saving equipment— with the most comfortable and up-to-the-minute offices and executives quarters—and with shipping facilities second to none, the Victor Company is consistently keeping step with the unusual and rapidly growing demand for its product.



Victor Cooler Door Co.'s Plant at Hagerstown, Md.

The new trade mark seal of the company evidences this organization's appreciation of the value of a recognized and merited name of dependability, the confidence it inspires and the quality it assures.

* * *

TWO BIG FIRMS MERGE.

According to an announcement in the Toledo newspapers, M. V. Girkins, vice-president and general manager of The Automat Molding and Folding Company, disclosed the fact that negotiations have been concluded for the merger of The American Butter Cutting Machine Company of New York with the Toledo company.

The joining of these two companies, with manufacturing centered in the Toledo plant, is a big forward step in the history of The Automat Company, and makes it the manufacturer of the most complete line of wrapping, cartoning and cutting machines ever made by any one concern.

R. F. Stewart, former head of The American Butter Cutting Machine Company, is well known to the dairy trade and as an inventor and manufacturer of printing and cutting machines and other labor saving devices for print rooms, has obtained a wide distribution of Stewart equipment throughout the dairy industry.

Under the merger agreement with The Automat Company, Mr. Stewart will have charge of the New York sales office, and servicing the complete Stewart-Automat line.

With the establishment of the New York office under the personal supervision of Mr. Stewart, The Automat Molding and Folding Company now has sales and service branches in three strategic centers of the country through its New York, Toledo and Los Angeles sales offices. The complete Automat line now comprises the following units: wrapping and cartoning machines, wrapping machines, tub cutters, print-making machines, individual chip cutters, and collapsible butter boxes.

The engineering staff of The Automat Company has been augmented by the addition of Stewart engineers, and, according to Mr. Girkins, plans are already in force to design and produce a line of the most efficient machines ever offered to the trade.

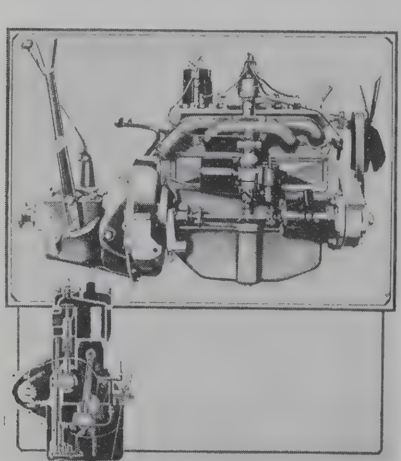
The Automat Company was incorporated in 1921, and its history has been one of continuous success. Automat machines of various types are operating throughout the country.

Officers are: J. J. Urschel, president; M. V. Girkins, vice-president and general manager; G. H. Faist, secretary, and Geo. C. Urschel, treasurer.

* * *

NEW ENGINE IN GRAHAM BROTHERS TRUCKS.

A great step forward in Graham Brothers history—and in motor truck development—has just been taken. A new, greater performing four-cylinder engine built by Dodge Brothers, Inc., now replaces the former powerful and economical engine which has been built into Graham Brothers truck for six years.



More power, greater speed throughout the range of usual operation, quicker pick-up and smoother, quieter operation at all speeds result from the use of this new motor.

However, the most striking fact about the new engine is that while it develops more power and has greater acceleration it actually operates on less gasoline.

The chief reasons for this are the improved vaporization of the gasoline due to the design of the new intake and exhaust manifolds with "hot-spot" and to the new combustion chamber with sloped head.

The fact that the new engine is now used in all Graham Brothers trucks and commercial cars, including ¾, 1, 1½ and 2-ton models—capacities which serve 91.9 per cent of all commercial motor transportation requirements—makes the advance important to practically every user and prospective user of delivery and hauling equipment.

The new engine is fitted with a sturdy, heavy-duty transmission and a large single plate clutch, both de
truck service.

While the engine is a new design, the bore
dimensions and the time-tried qualities of the one
—which is serving thousands of truck owners so
retained. The large chrome-vanadium steel crank
five main bearings and the highly efficient two-u
generator system, introduced during the last y
Dodge Brothers engines, are essential features.

The smoothness of power flow resulting from t
in the engine itself has been enhanced by increase
of the engine supports. This reduces vibration to a
and permits much smoother operation at all speeds
all driving conditions.

The distributor is mounted on top of the new e
eliminating the possibility of trouble from wate
which might enter through the radiator or the lou
sides of the hood.

The location of the water pump has been im
placing it at the rear of the engine. From the
water goes directly to the rear end of the cylin
which is the hottest part. From there, it flows forw
radiator where it is again cooled.

The long hand brake lever has been fitted w
ratchet and improved release and is exceptionally
for quick action by the driver.

Throughout the engine, improvements have b
toward the ideal of the best possible performance a
est operating cost.

* * *

NEW EXPERIMENTAL EQUIPMENT.

New methods of producing milk products a
worked out in the laboratory before they are put
tice in the milk plant. One of the signs of the ti
increasing use of laboratory equipment, both in m
and in the agricultural colleges. An interesting a
experimental equipment has recently been devel
placed on the market by Arthur Harris & Co. of C
is a small, compact milk evaporator, embodying a
provements this company has made during the last
large size evaporators. Instead of the usual coils
jacketed bottom, there is a set of three individual f
ring coils.

The body is made in two sections and hinged a
ter so that by uncoupling the vacuum suction line a
ing the clamps, the top half of the evaporator can
back, leaving the inside exposed for easy cleaning.
paratus is furnished complete with vacuum pum
necessary valves and fittings ready to be connect
water and steam lines.

* * *

WALKER ELECTRIC TRUCKS TAKE FIRST, SEC THIRD PRIZES IN LONDON'S ANNUAL TRUCK PARADE.

First, second and third prizes in the electric
section of the twenty-first annual parade of the C
Motor Users' Association, Inc., London and Home
Division, have been awarded to Walker electric tru
ufactured by the Walker Vehicle Company, Chica
S. A.

In first place was a Walker electric owned by th
Wholesale Dairies, Ltd., Winnipeg, winning the Bri
trical Development Association's silver plaque; Ho
won the second prize with another Walker; and B
Polson, Ltd., took third prize. Small prizes were

Electric Drive Bottle Washers

Single Brush - $30.00
Three Brush - $70.00

Write for circular

With ¼ H. P. Motor, 1 phase, 60 cycle, 110 volt. Motors of
specifications can be supplied at small extra charge.

MANUFACTURED BY

R. G. WRIGHT & COMPAN
BUFFALO, N. Y.

of the winning trucks in these competitions.
British account of this event states that the vehicles
t taken into the shops for a general overhauling and
up preparatory to the display, but that "the aver-
er of a commercial motor vehicle is a sportsman and,
raged, he will display an esprit de corps which proves
luable, and a good driver is almost as proud of his
as is a captain of his ship.

* * *

AN EFFICIENT STRAINER.

mple and durable milk strainer, at the same time
fficient, is the "Solar Seamless" manufactured by the
urges Mfg. Co., Melrose Park, Illinois.
ead around the bottom of strainer provides a means

ively locking steel ring in place thus preventing sepa-
forated disc or cotton pad from working out of place.
eans all milk passing through strainer is thoroughly

strainer is drawn seamless from a single sheet of 22
nilk can steel. There are no seams or joints to open
rust, or crevices where filth can lodge. The perforated
is integral with the body of the strainer. Body of
is bulged, an exclusive feature which tends to pre-
lk from splashing out. Spring steel ring comes out
stant when ends are pressed together, and perforated
easily removed by means of the knob handle.

* * *

LARGER QUARTERS FOR DALLINGER.

ng to the increased demand for Dallinger's "Garden
n" concentrated coffee, it has been necessary for the
W. Dallinger Co. to move into larger quarters. Since
the company has been doing business at 78-80 Beverly
ston, Mass. Officials of the firm advise that the new
ent that has been installed and the more spacious
s have placed them in position to supply and develop
larger output of concentrated coffee.

* * *

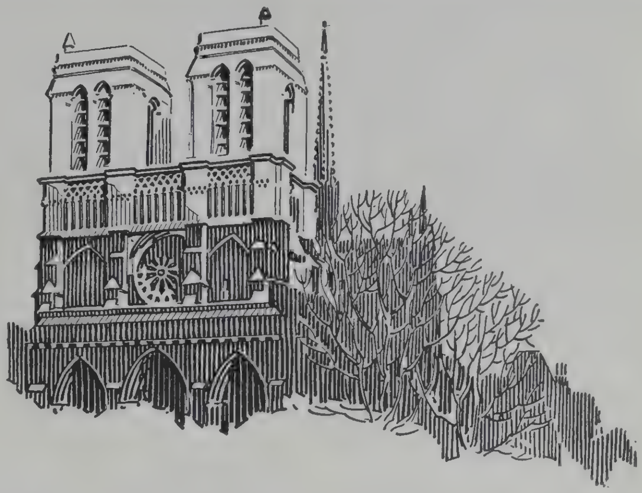
NEW LOCATIONS FOR ARMSTRONG CORK & INSULATION CO.

New York office of the Armstrong Cork & Insulation
y is now located at 225 Broadway.
new Tulsa, Oklahoma, location is 419 Central Na-
Bank Bldg.

⚜

S OF DAIRY PRODUCTS TO HOLD STRONG FOR SOME TIME.

). Pope, farm economist of the Alabama Experi-
Station, Auburn, Ala., has made an analysis of
t supplies and prospective production of livestock
estock products which reveals that prices of dairy
ts promise to hold strong for some time. The
nption of dairy products is increasing and this
se is increasing the demand which is being re-
in prices. It is expected that dairy products will
a good price for some time.
e analysis shows that important livestock changes
seen during the next few years.



See.. Europe

while attending the

World's Dairy Congress

THE World's Dairy Congress, the greatest international convention of dairy products manufacturers in the history of dairying, will be held in London, England, June 25th until July 4th.

As official transportation agents for the American Delegation, the American Express Company offers a number of carefully planned tours before and after the convention.

These tours vary in length from the ten day tour between the arrival at Cherbourg and the official opening of the Congress in London, to longer and more comprehensive tours to various countries following the Congress.

Planned by travel experts, the itineraries of these tours cover both the important places of interest, and those away from the beaten path. The difficulties of strange customs, currencies and languages are smoothed over. Each travel party will be accompanied by a travel expert.

The American Express Company employs more than 2,000 people in its foreign offices, and its travel service forms a network over Europe. It is estimated that 90% of all American travelers make some use of its offices when abroad. Since 1891, the year it devised the Travelers Check System, the American Express Company has been perfecting its service to American Travelers in Europe.

It is not too early to make plans for this great Congress in London, and the subsequent tours. *For further information write to*

The Olsen Publishing Company
501-515 Cherry Street Milwaukee, Wis.

AMERICAN EXPRESS
TRAVEL DEPARTMENT

Wanted—A National Slogan

For Selling and Advertising Milk. What the Connecticut Milk Producers' Association is Doing to Attract Public Attention

[By Special Field Representative of the Olsen Publishing Co.]

IS THERE a best slogan for selling milk? If so what is it? Have you the "best" one tucked away some place in your advertising that you feel will do for all the rest? Several have been proposed and none taken because there so far has been no national advertising of milk by any organization of any moment today backed by any adequate allotment of funds to make a dent in getting over to all or to any considerable portion of the populace WHAT MILK WILL DO other than that done by the health agencies, nurses, teachers in the great health movement that has swept over the country the last few years. This latter group without question has been the dominant factor in the impetus given to the extension of the uses of milk especially. Every one who has done any advertising has doubtless helped some but the consumer does not take readily pure educational material when placed in apparent advertising space allocated and paid for by an advertiser who has something to sell as his immediate motive.

C. E. HOUGH.

Well, what is the national slogan? This article will deal with one of the following picked up on a field trip to good old New England. We have had proposed several slogans. Which do you like best and why? The editor of the National Milk Slogans Suggestions will welcome your criticism and suggestions now. "Milk for Health," "A Bottle of Milk is a Bottle of Health," "Be Healthy—Drink Milk," "Milk—A Quart a Day for Every Child—A Pint for Grown-ups," "Milk—the Food for Thought," "Milk, the Best Food We Have,"
—Good to the Last Drop," "Milk, There's H
Every Drop."

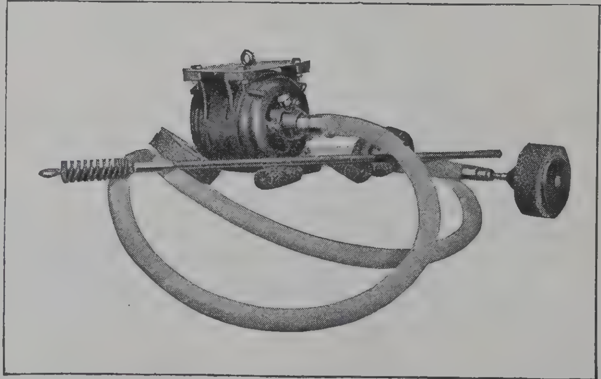
"All good in different ways," you'll say, b
is being done about it? You might say, "Let'
thinking about it and then it may be we can get
something together about it, or raise some fu
then decide on the program." The writer beli
should first take some definite surveys to find o
if national milk advertising is feasible and t
way to go about it after the facts are secure
takes time and should be started before any broa
of national advertising should be attempted.
tising and sales surveys, when properly condu
trained surveyors, has shown to milk and ic
dealers oftentimes a saving of from 30 to 50 per
their funds, generally expended with equal o
results. It is known that this has had the atte
the advertising and sales section of the Inter
Association of Milk Dealers and doubtless so
definite will appear in due time.

Connecticut Takes the Lead.

It was six years ago that C. E. Hough took
of the Connecticut Milk Producers' Association
the building housing their office he had erected
signs, "Drink Milk" and the other one "Be He
Later when the Connecticut Dairy and Food
was organized in 1922 the two slogans, which fa
railroad station where the writer first saw i
merged into a milk selling slogan for the enti
organization viz., "Be Healthy and Drink Milk.
then Miss Dorothy Buckley, in charge of nutritio
ers, has carried this message to schools, clubs,
where in the state.

Talk about "burning in your brand," Mr. Hou
originator of the slogan, has done this in every
of the state both in the cities and small towns
as in the country where a white metal milk bottl
18 inches tall bearing the slogan, "Be Healthy-
Milk," in black letters appears on the gate or far
of every producer of milk for the association.

This slogan has appeared on the backs of over
000 school book covers which have been distrib
this area in the last four years. Get on any st
and this snappy slogan greets you on the back



The King Cleaner *vs.* Steel Wool an Harsh Brushes

RESULTS—Both will keep Sanitary Piping an tubular pasteurizing equipment perfectl clean,—but—the King Cleaner will not rui the tubing, and requires far less time an effort for the work.

Send us diameters and lengths of tubing in your equipment and we will advise you size and price of Cleaner needed.

King Sanitary Pipe Cleaner Co., In
SANDY HOOK, CONN.

'S RECORDING (DAIRY) THERMOMETERS

{ecords of Temperature
Guide Pasteurizer Operation

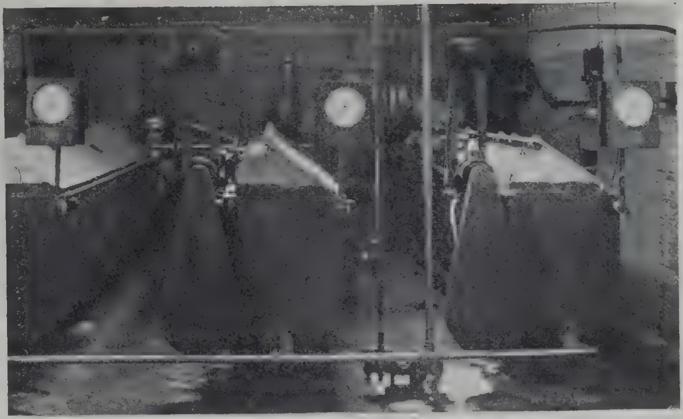
hen operatives have ready access to the con-
uous chart records made by Recording Ther-
ometers they can maintain pasteurization tem-
ratures at exactly the right degree, from the
oment heat is turned on until the batch is run
to the cooler. At no time do they have to
ess at conditions; a complete story of what
happening is faithfully written into the record
e on the chart.

ch records not only help to prevent the bad
ects of over- or under-heating, but are *ac-
otable proof of thorough pasteurization,*
here such evidence is required.

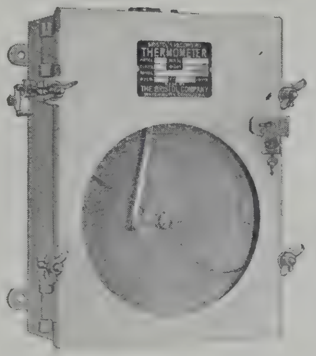
he Bristol's Thermometer is simply and
ggedly constructed; in fact there's nothing to
t out of order, and they are absolutely fool-
oof.

Write for Bulletin 349. It gives complete details.

he Bristol Company Waterbury, Connecticut
FOR 38 YEARS Ask Any Technical Engineer MAKERS OF
BRISTOL'S RECORDING INSTRUMENTS



Three Bristol's Recording Thermometers in the City of Philadelphia used in connection with Simplex Spray Pasteurizers.



Bristol's Recording (Dairy) Thermometer, Model 40; with inverted pen arm. Moisture proof case, finished in white enamel.

ook. You find it in restaurants, on milk dealers'
in the newspapers. You can't go any place in
cut where you do not run across it from the
cities to the smallest suburban towns. This
makes the appeal to health first, which is good
ing, but ties it up with an order to drink milk.
o ideas, thus associated through endless repeti-
kes you think of milk when you think of health.
lk is a healthful drink. This slogan possesses
and force and as used always on a milk bottle
ed value in thinking of milk in bottles, instead
cows, barns, and other suggestive sources.

question right now is, is this slogan broad enough
enough, comprehensive enough for a national
Is there a better one? Connecticut ranks as
he very highest states in the United States, if
very highest, in milk consumption per capita.
our suggestions to the editor of The Milk Dealer

⚜

RKSBURG DAIRY NOW IN NEW HOME.

Clarksburg Dairy Company, Clarksburg, W. Va.,
moved into the new building which is especially
l to handle the products of the dairy. It is most
its keynote is sanitation and it is now in a posi-
take care of 3,000 gallons of milk daily, thus
it to cater to a large clientele. The building is
f and acid-proof and is a distinct acquisition to
mercial life of Clarksburg.

esley Law is the manager and treasurer of the
urg Dairy Company.

⚜

ing for a better position? Why not try a "Milk
Want Ad. They bring results.

"LIKE FATHER, LIKE SON."

J. E. Bell, state dairy expert, recently told dairymen of the lower Rio Grande Valley that they must act like gentlemen if they would have their cows produce good milk, and lots of it.

"Never excite a cow by loud talking or by hard driving, abuse or any unnecessary disturbance," advised Bell, who also suggested that balky bovines can be made to milk more freely if the milker wears a freshly laundered white uniform.

LUCKY LINDY LODGE

Miss Nave, "The Viking Cinderella," christens the "Lucky Lindy Lodge" with a bottle of milk. A tract of beautiful mountain and forest land comprising 240 acres of the Fayson Estates on Fayson Lake near Boonton, N. J., was formally dedicated and named for Col. Charles A. Lindbergh under the title of "Lucky Lindy Lodge." In this secluded and idyllic spot a four-room hunting lodge of field stone and waxed chestnut log construction was built for "Lindy" to rest up when he got through with the New York reporters. A deed for the lodge property, including the run of the entire reservation, which is hemmed in by the Boonton and East Jersey watersheds, was presented to Col. Lindbergh upon his arrival there by the owner, Frank B. Fay.

Milk for the Flood Refugees

Nature's Perfect Food Plays an Important Part in Providing Nourishment for Suffering Thousands. "Milk Time" on the Levees

By FELIX J. KOCH

IF THERE has been one time, more than any other, when milk has done its bit by the great human race that has bred and fostered the cows producing it, 'till they have reached their present super-grades of butterfat efficiency, it was at the very height of the rescue-work for the vast Mississippi river flood zones.

Almost so soon as the waters of the Mississippi and then its major tributaries had risen to either crevasse and break the protective levees of a stated area, or had poured over levee tops to flood the bayou land behind, local agencies, and then the parent Red Cross, set to work bringing out the refugees.

Nature of the territory made the plan of operation a rather step-on-step one. Usually, some large steamer, volunteered to this end, was sent to some central base point in the river.

Around the Milk Tents of the Camps at Vicksburg.

Out and away from that what motor boats and motor launches could be secured would hurtle, going to so far as could be to the submerged buildings, the rises on which people had taken refuge with the caving of the banks. Unable to make a passage closer in then, and the water too deep for the wading over to the parties to be saved, skiffs and punts, with outboard motors, were employed to get them from the shore.

Brought to the big boat, this moved on—up river—to collect more and more of the refugees so, until holding all that decks might hold. Then—full speed—off and away to what rescue camp was nearest, and still might offer accommodations for these.

At these rescue camps there were regular meal-times always, when all who would might stand in line; file past long tables, where volunteer chefs, refugees themselves, all attended carving, serving, and receive all the food that they desired.

But, bringing an entire country-side, it usually was, to a refugee-encampment, meant bringing endless hosts of children, of wee babes, just past the nursing stage, and, in turn, of nursing mothers, along.

Things are dire enough with the poor refugees. God knows; almost all of them state, very frankly, they have had their very all swept away. This so, their health, their kiddies, health and strength, must be conserved, over all.

Milk is the one item of fare found, by lon
ment of welfare-workers put to like situations
every need of a situation like this here.

The more milk, within reason, a babe, a chi
grown adult even, will take per day, the bette
all-'round, in the end.

At the refugee camps about Vicksburg, the
was arranged, very early, that all in addition
milk might be served with the meal-times, the
be distinct milk-calls as well between.

Nicely convenient to the very largest pa
huge encampment, in each case, there was pit
tent just for this work and that labelled, ther
TENT, that all might see.

Each newly-arrived quota of refugees come
and brought up for the inoculations against c
diseases that were required there, was given di
structions as to this.

Neat, bright, shiny tin-cups were issued eve
Your cup was yours to the end. You might
other and another if you lost it. Please, thoug
good of all, do not lend your cups around!

With this cup you might come to the milk-t
times—at the mid-meal periods—and have all
you desired. Drink your fill and welcome; onl
don't be wasteful. Even a tablespoonful of mil
by each random comer here must mean gallons
waste in the end.

Issuing the cups, inexpensive tin-plates we
also. If one wished, he might bring the plate
the tent there and receive a generous helping
clean, healthful crackers along.

Nor did one have to come in person to the
for one's supply.

Mutual sorrow breeds mutual helpfulness all
everywhere about the camps one found a spirit
ally WANTING to lend the next-neighbor a
hand.

So when Ora or Earl went down to the
with the cups for themselves and mother a
brother and tiny sister, they stopped always
those of the poor, despondent widow with the
the tent across the way.

And when Mrs. Brown or Mr. Black went to
Tent with the cups for their own families, the
take those of some broken, dejected, spiritless
refugee on the tent-street along.

Everywhere thus the custom for milk-time.

Everywhere a seeing to it that all who mi
for such should be abundantly supplied.

At the tent, procedure was extra-simple:

The endless line filed slowly by. It came to
door, blocked by a kitchen-table. Behind the g
of milk awaited. As they emptied, they were
by others from the truck behind.

One attache filled the cup and placed it on
plate, or returned it to the owner. The next ad
helping of crackers for the caller only; or
served as well in turn.

Off and away, then, to wherever one's ten
make place for other comers, filing past then
space through—more and more, and ever more

VANT DEPARTMENT

ELP WANTED
(Rate: 2c per word)

)—Young man to sell record-
nents and automatic tempera-
ol equipment to the dairy and
industry for long established
er. Candidates must have
aracter references and be free
transfers and unlimited travel
s of the United States. Young
preferred who had operating
ing experience in the dairy in-
rite stating age, education, ex-
nd salary desired. Address:
Milk Dealer. 7-27

**AL SALESMAN — Experienced
ade to Represent Manufacturer**
ed chemical manufacturer will
and expenses to two energetic
en 25 and 40 to sell and dem-
eaning materials to milk, ice
ter and cheese plants in Wis-
Ohio. This is an excellent op-
for men who like to sell and
tical dairy experience, some
ducation, and considerable de-
to succeed. Reply in detail
ograph. Address: D-342, The
r. 6-27

)—Man to take charge of milk
ouse. Must understand machin-
over 35 preferred. Brook Hill
esee Depot, Wis. 6-27

)—High grade man experienced
rizing milk, making cottage
nmercial buttermilk and oper-
arators. Must be capable of
t the very highest grade prod-
e a steady, hard worker. State
ected. This is a city milk plant
ndling an average of 6,000 gal-
k daily for bottling, condensing
ream mixes. No floaters need
dress: D-321, The Milk Dealer.
7-27

D—Salesman to handle a side
e of merit now on the market
g to the dairies. A good re-
ll help to increase milk sales.
)-323, The Milk Dealer. 6-27tf

D—We desire a young American
man, who has had an agricul-
ege training, to work into an
position with a rapidly growing
cern in a New England city.
villing to do all kinds of work
familiar with all departments
iry business. Must be neat in
e and well trained in speech. A
rtunity for the right man. In
please state age, education, ex-
and salary desired. All com-
ns will be regarded as strictly
al. Address: D-326, The Milk
6-27

MISCELLANEOUS.

D—To furnish increased capital
more successful milk plants op-
territories where milk is avail-
arge quantities at fair prices.
pansion and investment. A rec-
ccessful operations and ability
e is necessary. Address: D-250,
Dealer. 7-27

SITION WANTED
(Rate: 2c per word)

ON WANTED—As manager or
ndent of city milk plant. Have
years of practical experience in
gement and operation of the city
iness, both wholesale and retail.
e business thoroughly from the
e consumer and understands how
ce quality and render service.
up a new or an old run down
Address: D-334, The Milk
6-27

ON WANTED — As bookkeeper
intant in milk plant. Willing to
small concern and take charge
Central West preferred. Ad-
320, The Milk Dealer. 6-27

RATES

2c per word for ads placed under headings "Help Wanted" or "Position Wanted."

5c per word for ads placed under all other headings — "Wanted to Buy," "For Sale or Exchange," etc.

In computing amount of remittance, add six (6) extra words if wanted published under Blind Address.

Bold Type—Double regular rates.

Minimum Charge—50c.

Blind Address — EXTRA — 25c in U. S. only; 65c Foreign — To cover postage in sending out replies from this office.

REMITTANCE MUST ACCOMPANY ORDER.

IT PAYS TO ADVERTISE

NOTE: Names and addresses of advertisers using blind addresses cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of this paper.

NOTICE

The publisher disclaims any responsibility for the reliability of parties advertising in the Want Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting suspicious dealings.

We reserve the right to refuse to accept advertisements which we believe are detrimental to the dairy industries.

Want Ads are accepted up to 7th of month preceding date of issue. Forms close on that date.

POSITION WANTED—By energetic and industrious worker, graduate of a leading dairy school, willing and capable to accept any position in reliable milk or ice cream plant. Have had six years of practical experience in milk and ice cream production. References. Will go anywhere. Address: D-333, The Milk Dealer. 6-27

POSITION WANTED — By young married man 33 years old with 14 years experience at pasteurizing and the making of cottage cheese, commercial buttermilk and sour cream. Can furnish good references. Address: D-328, The Milk Dealer. 6-27

POSITION WANTED — General milk executive, young, aggressive and competent. Experienced in all departments of business, production, buying, selling, delivery, etc. Available immediately. Can furnish unqualified references. Change of ownership of present employment makes new connection desirable. Address: D-316, The Milk Dealer. 7-27

POSITION WANTED — As service and distribution manager. Experience as route salesman, milk solicitor and general office work with one of Michigan's finest creameries. Also familiar with retail delivery of milk from the farms. Twenty-three years old and married. Address: D-302, The Milk Dealer. 6-27

The wealth of a nation lies in the prosperity of its people. The power of a Want Ad is in the number of subscribers reading them. Do you read "The Milk Dealer" Want Ads—regularly?

Please Mention The Milk Dealer.

FOR SALE or EXCHANGE
(Rate: 5c per word)

BUSINESSES

FOR SALE—Completely equipped retail dairy. Daily output 650 quarts. Dairy is located in the southwestern part of Michigan. Address: D-244, The Milk Dealer. 6-27

FOR SALE—Well equipped dairy plant. Two fine brick buildings. Almost new machinery, boiler, motors, etc. Good milk supply. Arthur L. Bates, Meadville, Pa. 7-27

FOR SALE—Combination creamery and milk plant selling 700 gallons of milk and 500 pounds of butter daily. $10,000 will handle, and balance easy terms with security. Address: D-296, The Milk Dealer. 7-27

FOR SALE—Creamery, market milk and ice cream plant located in city of 15,000 population. Business established fifteen years. Equipment all renewed in last two years. Everything guaranteed in first class condition. Will sell or trade for good city real estate. Address: D-268, The Milk Dealer. 6-27

FOR SALE—Wholesale and retail milk plant; fast growing southern Ohio city of 40,000 people. Handle 600 gallons of milk per day. Modern machinery, good delivery trucks. Purchase includes real estate and business. Price $26,500. Full information write American Business Brokers, Inc., 907 High-Long Bldg., Columbus, O. 6-27

FOR SALE — Pasteurizing milk plant. A modern and thoroughly equipped plant; catering to both wholesale and retail trade. Ohio city of 300,000 people. Operate 6 deliveries. Purchase includes real estate and business. Price $18,000. For full information write American Business Brokers, Inc., 907 High-Long Bldg., Columbus, O. 6-27

MISCELLANEOUS.

FOR SALE — Fine up-to-date 80-acre farm. All under cultivation. Good buildings. Will sell reasonable as owner wishes to retire. Address: D-336, The Milk Dealer. 6-27

MACHINERY AND SUPPLIES

FOR SALE — Refrigeration Machines — Used—We have several used and new machines of nationally known make, which we can sell at a big saving to you. Will erect and guarantee the plants fully. Address: Erecting Engineers Company, 4725 West Lake St., Chicago, Ill. 6-27tf

FOR SALE — Meyer Dumore Junior, $1,250. Formerly used at Bowman Dairy's State Street plant, Chicago. Replaced by Miller Hydro. Offered as is, subject to inspection before shipment. Miller Manufacturing Company, Bainbridge, Ga. 6-27

FOR SALE—Ice cream and dairy equipment of all kinds, including boilers, compressors, vats and separators. The Telling-Belle Vernon Co., Cleveland, O. 7-27

FOR SALE—One new $285 Rice & Adams brush bottle washer and sterilizer. Sacrifice price, $185.

One new $640 Cresco 200-gal. pasteurizer with motor direct connected. Sacrifice price, $490.

One new $306 Cherry 100-gal. batch mixer. Sacrifice price, $265.

One new $75 Milwaukee bottle drainer. Sacrifice price, $55.

One new $325 Alvey bottle case elevator. Sacrifice price, $275.

One rebuilt C-P 150-gal. coil pasteurizer. Sacrifice price, $225.

One No. 12 $110 De Laval separator; universal drive, used only about 6 months. Sacrifice price, $67.50. Address: D-270, The Milk Dealer. 6-27tf

(Want Department continued on next page)

FOR SALE—One 1,000-lb. Cherry Perfection belt drive churn; one 150-gal. Simplex spray milk pasteurizer, almost new; one 1927 Ford ton milk truck, Martin-Parry body; one 1925 Ford ton milk truck, Parry body. Cheap. Address Platteville Dairy Co., Platteville, Wis. 6-27

FOR SALE—One Blue Line belt drive bottle washer, $250; one H Milwaukee filler, belt drive, $350; one 30-h. Leffel steam engine, $250; one 300-gal., belt drive, C. P. pasteurizer with coil, $250; one Myers self-oiling bull dozer deep well power pump, belt drive, $150; 14-ft. cooler, 14 1-in. tubes, $75; one 8-ft. cooler, 14 1½-in. tubes, $100. We have discontinued a branch plant the reason for disposing of this machinery. Address Greiner Dairy Co., 462 Wayne Ave., Zanesville, O. 6-27

FOR SALE—Heavy ice crusher, 11x17, line shaft and hangers, 2-h.p. Westinghouse motor, 60 cycle, 3 phase, all or separate. Good shape. Inquire R. L. Smith, care Famous Dairy Co., Salem, O. 6-27

FOR SALE—One 100-gal. C. P. coil pasteurizer, belt drive, price $150. One C. P. bottle filler, 4 quarts x 5 pints, enameled tank, price $75. Both machines as good as new. S. Peterson, City Creamery, Greenville, Mich. 6-27

FOR SALE—Here is an opportunity. New Davis rotary filler, Junior size, Model 640, motor driven, cost $700. A reasonable offer takes it. Also nearly new De Laval separator, capacity 2,500 lbs. per hour, direct motor drive, for $125. Cost $185. We also have several tubular milk coolers, large and small sizes. Address Merkle Dairy Company, 2727 N. Halsted St., Chicago, Ill. 6-27tf

FOR SALE — Several good two-horse wholesale milk wagons. Will look brand new with some paint work. These are hand made wagons and will be sold very cheap. Merkle Dairy Company, 2727 N. Halsted St., Chicago, Ill. 6-27

If you want a Manager, Superintendent, Expert Chemist, Bacteriologist, Buttermaker, Pasteurizer Man or Ice Cream Maker—or help of any kind—"The Milk Dealer" can help you find the best available man.

WANTED TO BU
(Rate: 5c per word)

WANTED—Used pasteurizing
ers, ice breakers, ice cream cans
churns, etc. Send us list of wha
for sale. B. Riley Hauk & Son
201 S. First St., St. Louis, Mo.

WANTED TO BUY—Retail
ness in Pennsylvania or Ohi
consider stock in a good com
wants a young man who is exp
all phases of the milk distribu
ness. Give full particulars in
Treated confidential. Address:
Milk Dealer.

WANTED—Milk business or
tion plant, in Middle West or
Address: D-327, The Milk Deale

WANTED—A Crown cork and
½-pt. milk bottles with No. 3 cr
dress: D-348, The Milk Dealer.

Send news items to "The Mi
and see how well they look in p

FROM OWNER OF ONE-HORSE DAIRY TO HEAD OF ONE OF LARGEST INDEPENDENTLY-OWNED DAIRIES IN COUNTRY IS RECORD OF ROY BABCOCK.

About thirteen years ago a young man with one horse and a milk cart delivered the best grade of milk he could obtain to a route which brought him in contact with the best families in what was then known as the West End of Toledo, O. Roy Babcock was the name of the young man. It wasn't long until Roy's service and merchandise had made such a name for itself that he was forced to expand his business to the extent of operating a plant with several routes, serving an increasing number of patrons.

Mr. Babcock now has a fine, modernly equipped dairy plant which he operates at Berdan and Martha Avenues, Toledo. It serves 12,000 customers on 30 great milk routes with the fresh milk which 18 huge trucks have collected from the farms in the vicinity of Toledo. Cottage cheese and butter also are products of this dairy. Baby Special milk is also one of the features.

The Babcock plant operates its own ice factory, producing sufficient for refrigeration of all wagons and trucks, totalling some three tons or more daily. A refrigeration system in the plant also is operated. The plant, in its entirety, is said by Mr. Babcock to be one of the largest independently-owned dairies in the country.

Associated with Roy Babcock, who is president and general manager of the Babcock Dairy Co., are his brother, Walter H. Babcock, vice-president and assistant manager, and E. E. Urie, secretary and treasurer.

Mr. Babcock also has been active in civic enterprises.

⁂

FREEMAN DAIRY COMPANY HAS NEW MANAGER.

John. J. McDonald of Detroit has been named vice-president and general manager of the Freeman Dairy Company of Flint, Mich., it was announced in connection with notice of the retirement from the active management of the company of Leonard Freeman. While Mr. Freeman is retiring as the acting head of the concern, he still will remain president of the company. Mr. McDonald also becomes a stockholder.

Until he resigned to come to Flint, the new general manager of the company had been general manager of the Arctic Dairy Products Co. of Detroit since 1923 when that company took over the Conner Ice Cream Co. of Owosso in a merger. It was Mr. McDonald who developed the Connor company which started as a small concern 20 years ago.

Mr. Freeman has been the active head of the Freeman
Dairy Company since its organization in 1913.
from Fenton to Flint the year previous. The
Dairy Company has grown until today it has
in Kalamazoo, Muskegon, Lansing, Bay City,
gan, Petoskey, Cadillac, Mt. Pleasant and Detr
concern also maintains a large condensery at

⁂

MILK PRODUCERS TO RECEIVE ANOT CHANCE.

An agreement was signed recently at the de
of health, New York City, between dairymen
distributors by which the sale price of milk at t
will be guaranteed for six months in advance,
Louis I. Harris, health commissioner.

At the same time, the commissioner announ
the milk-shed would not be extended from its
area, and that the milk producers would receive
chance during this summer to maintain an ampl
The time limit for the present arrangement exte
the fall.

⁂

SAVE MORE AND MORE.

Five billion pounds of valuable skim milk
went to waste last year, H. E. Van Norman, pre
the American Dry Milk Institute, told Califor
Washington dry skim milk manufacturers at
meeting.

Conservation of the food solids, exclusive c
the big problem confronting manufacturers of
milk, Mr. Van Norman said.

Conservation of this byproduct has jumped f
000,000 pounds in 1916 to 80,000,000 pounds la
He predicted 100,000,000 pounds will be conserv
year.

⁂

CUBA BECOMING MORE AND MORE INTE IN DAIRYING.

At the recent industrial congress on dairyi
at Havana, Cuba, a resolution was passed as
government to establish agricultural banks to
the necessary capital for the advancement of t
industry.

The congress also approved resolutions as
government to increase taxes enough to provide
establishment of laboratories to test milk in each
and to require the tuberculin test for all dairy

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York Milk Machinery Company Cover IV

PROTECTION

Unretouched Photograph of the United States Battle Fleet steaming through the breakwaters into the harbor at Los Angeles, California.
(Photo by Underwood & Underwood)

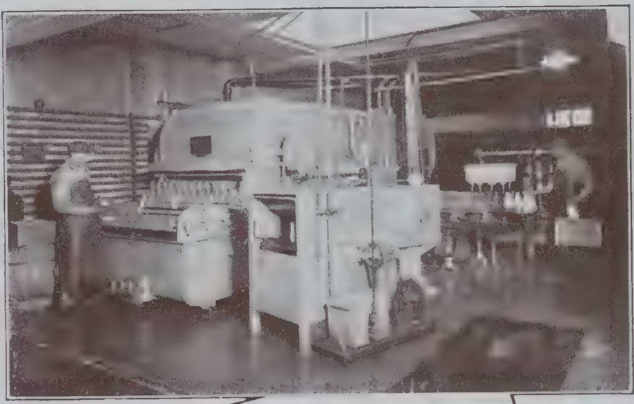
ttleship Construction of the *CP* Ladewig Washer Is Your Protection Against Shutdowns

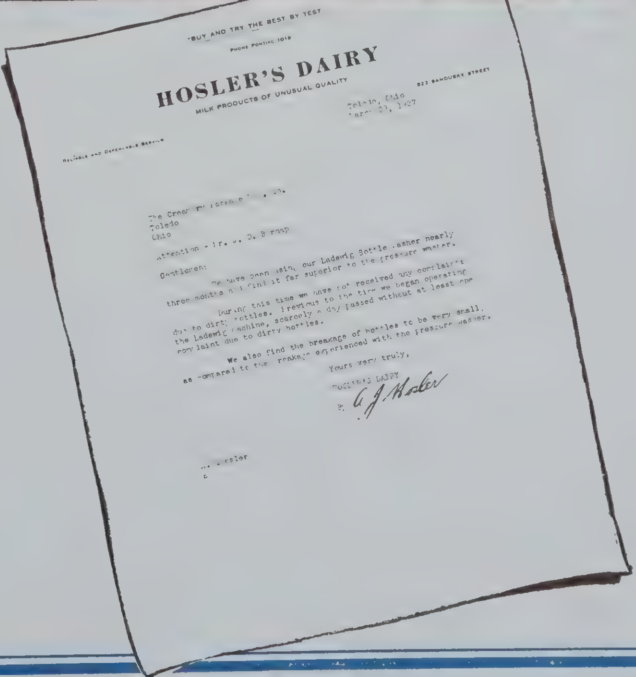
ike a mighty battleship, the *CP* Ladewig sher is fully armored and ready to do le — to dirty bottles. Boiler plate and y rivets make up its walls and compart ts and give it the weight and strength ithstand the strains and stresses to which ay be subjected.

ike a battleship, the *CP* Ladewig has its guns, but in the form of hydraulic scrub jets. Every bottle receives six individ jettings, completely annihilating the my—dirt, old milk and bacteria.

ike a battleship, the *CP* Ladewig is de dable. By building every part over size extra strong, we know with certainty it will give maximum protection, service profit to the plant that owns one.

CREAMERY PACKAGE MFG. COMPANY
W. Washington Blvd. Chicago, Illinois
Sales Branches Everywhere





"BUY AND TRY THE BEST BY TEST"
PHONE PONTIAC 1019
HOSLER'S DAIRY
MILK PRODUCTS OF UNUSUAL QUALITY
RELIABLE AND DEPENDABLE SERVICE
822 SANDUSKY STREET

Toledo, Ohio
March 23, 1927

The Creamery Package Mfg. Co.
Toledo
Ohio

Attention - Mr. W. D. [illegible]

Gentlemen:

We have been using our Ladewig Bottle Washer nearly three months and find it far superior to the pressure washer.

During this time we have not received any complaints due to dirty bottles. Previous to the time we began operating the Ladewig machine, scarcely a day passed without at least one complaint due to dirty bottles.

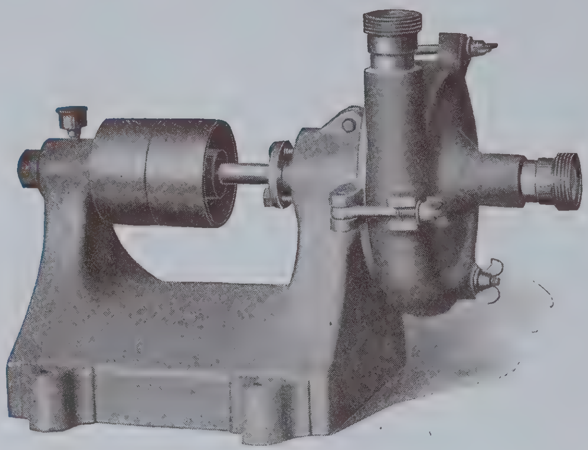
We also find the breakage of bottles to be very small, as compared to the breakage experienced with the pressure washer.

Yours very truly,
HOSLER'S DAIRY
By G. J. Hosler

[illegible] Hosler

"FOR BETTER MILK HANDLING"

The YORK Milk Pump is made in No. 1, No. 2 and No. 3 sizes and in either belt drive or direct motor drive.



Belt driven pump assembled.

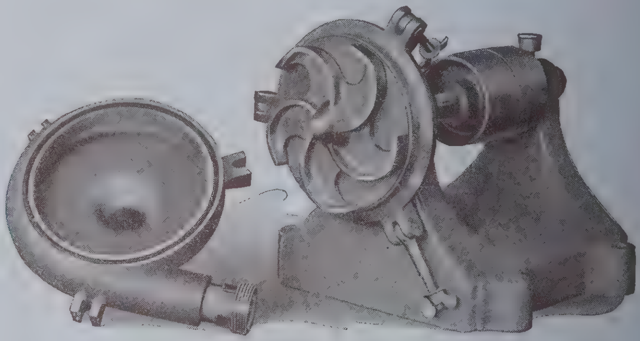
YORK No. 2 Milk Pump

A PUMP which can be cleaned easily and thoroughly is a boon to the dairy. That is what you will find in the YORK No. 2 Milk Pump.

By loosening three thumb nuts, you are able to clean every inch without any guess work. There are no cracks or crevices which are hard to get at.

It has an oilless bearing at the impeller end, and a shaft made of 70% nickel. All castings are brass heavily tinned with pure blocktin. Regularly furnished for 1½ inch sanitary tubing connection. May be had direct connected to motor or belt driven.

The illustration shows the belt driven pump.



Belt driven pump taken apart. Note easy access for cleaning.

For further information or prices, write

YORK MILK MACHINERY CO.

Manufacturers of Milk Handling Equipment

York, Penna.

THE MILK DEALER

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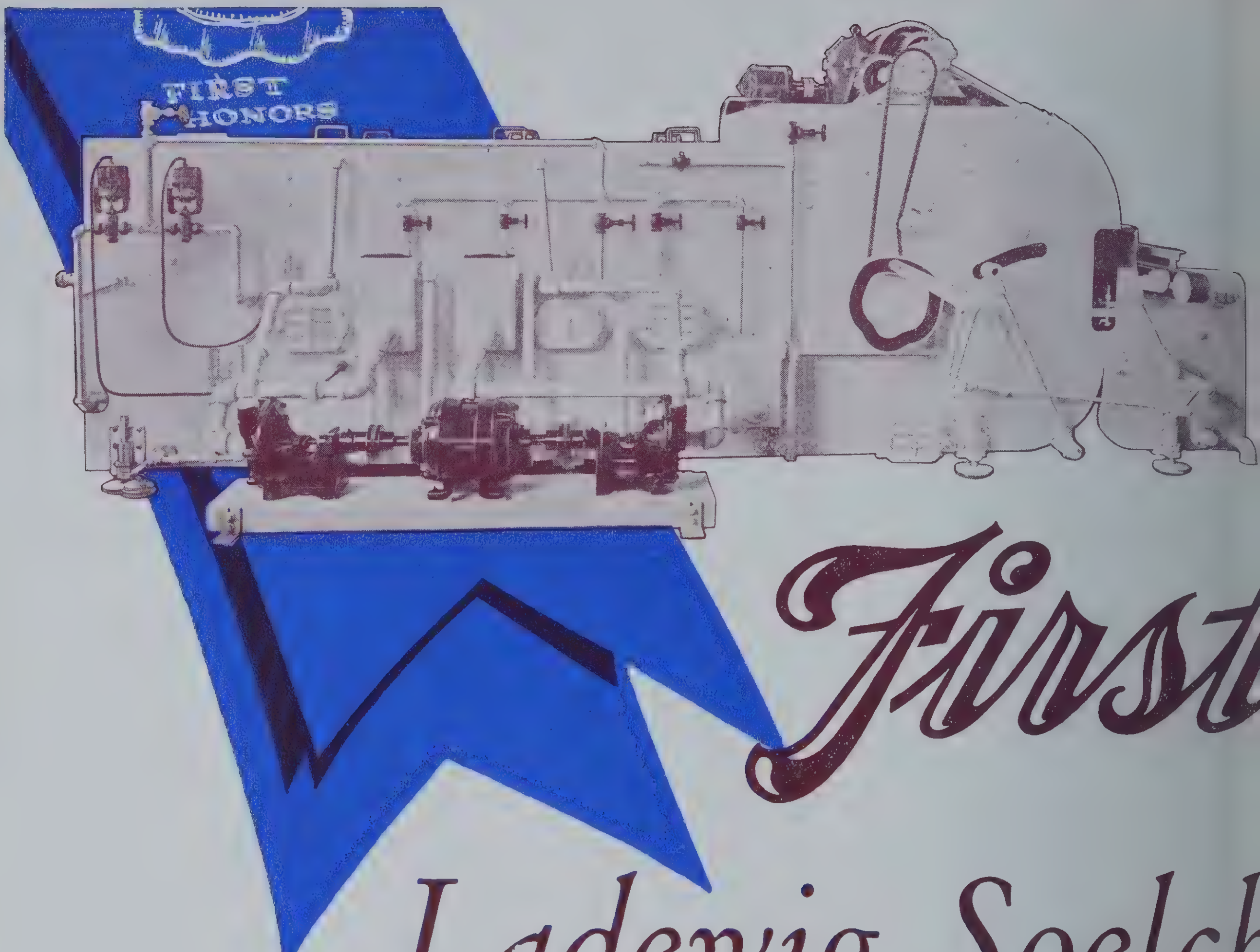
KEEP FROZEN !

Frozen Milk in Transit Between Seattle and Manila

e 16 July, 1927 Number 10



First

Ladewig-Soelch
SUPER EIGHT

FIRST! No matter how you judge the Ladewig-Soelch Super Eight Bottle Washer, inevitably you will give it first place. First in service, first in efficiency, first in low washing costs—the Ladewig-Soelch breaks all records for washing bottles clean, cold and sterile faster and cheaper than it has ever been done before. Truly it will be a revelation to you to go into the mechanical details of this triumph in engineering. For regardless of what you demand in a bottle washer, the Ladewig-Soelch Super Eight has it. Let us send you complete information.

A. H. ARNOLD & COMPANY
718 W. RANDOLPH STREET, CHICAGO, ILL.
Manufactured by LADEWIG-SOELCH CO., 38th & Lapham St., Milwaukee, Wis.

The Faultless

Safer Pasteurization for Dealer and Consumer

Positive Automatic Valveless HOLDER

Safer for Consumer because the pasteurization is more thoro.

Safer for Dealer because the automatic valveless design assures uniformly dependable and positive operation without danger of cooked taste or loss of cream line.

The *Faultless* Pasteurizer is particularly adapted to growing plants because its unit principle of construction permits easy installation of additional capacity.

SEND FOR COMPLETE DETAILS NOW.

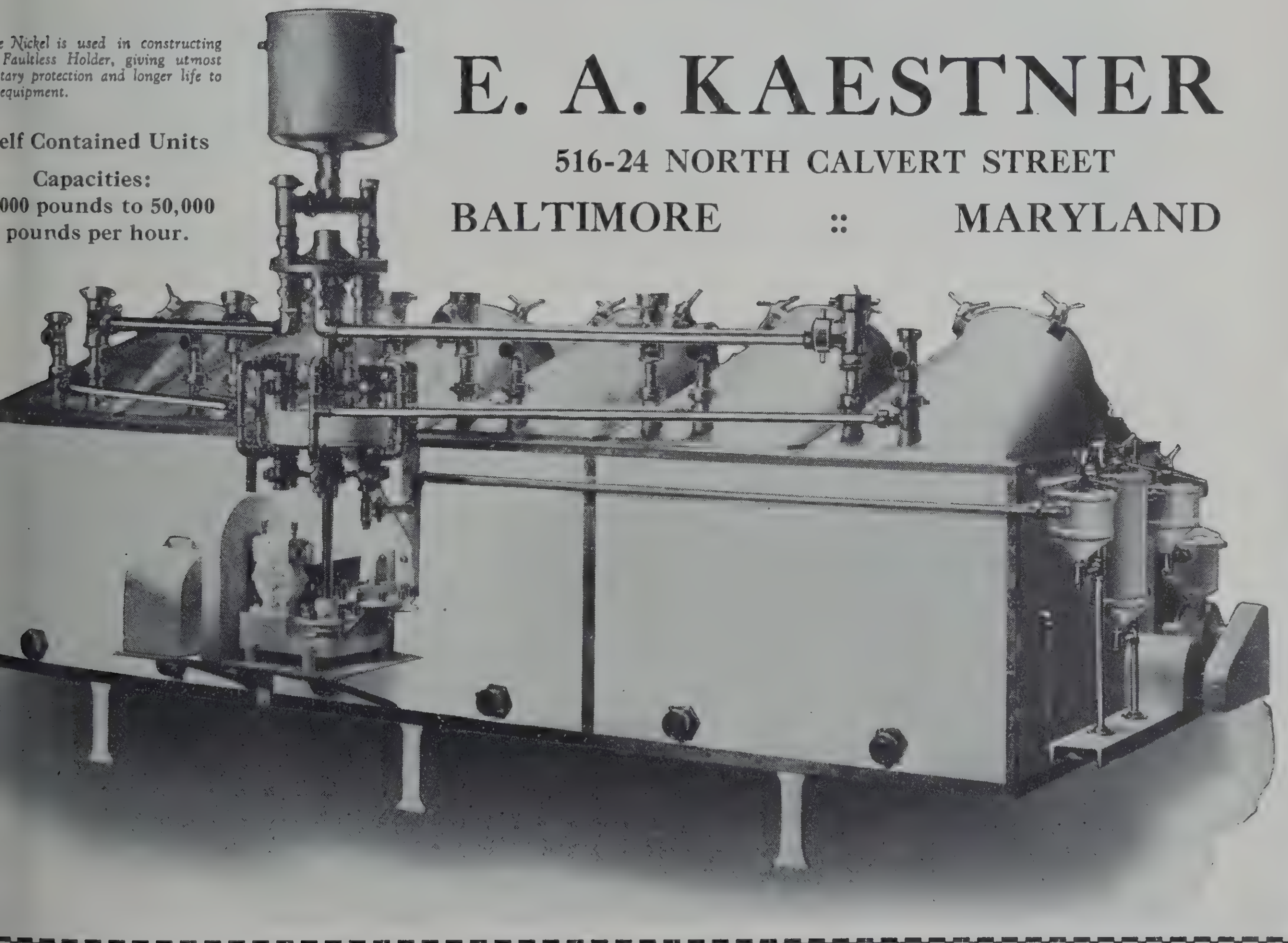
e Nickel is used in constructing Faultless Holder, giving utmost tary protection and longer life to equipment.

elf Contained Units

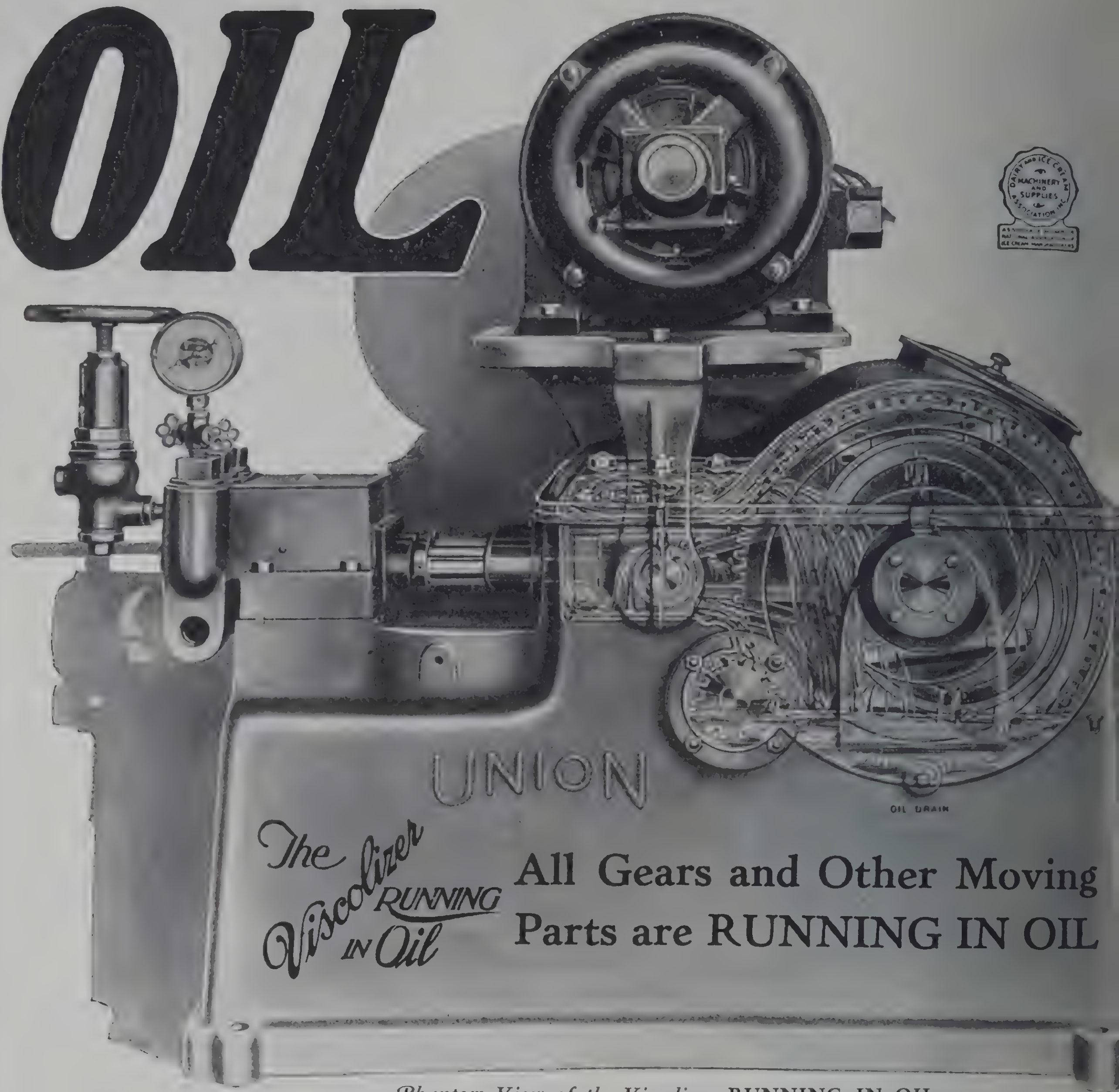
Capacities:
000 pounds to 50,000 pounds per hour.

E. A. KAESTNER

516-24 NORTH CALVERT STREET
BALTIMORE :: MARYLAND



When writing to E. A. KAESTNER *please mention The Milk Dealer.*


OIL
UNION
OIL DRAIN
The Viscolizer RUNNING IN Oil
All Gears and Other Moving Parts are RUNNING IN OIL

Phantom View of the Viscolizer RUNNING IN OIL

THIS illustration shows how the gears and other moving parts of the Viscolizer are lubricated. The oil actually penetrates every wearing surface, thus eliminating noise and insuring LONG WEAR.

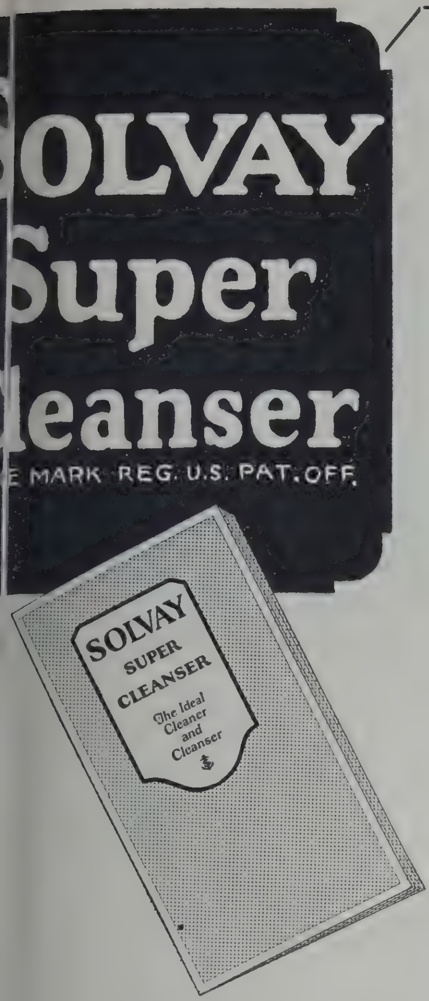
There Are More Viscolizers In Operation Than All Other Similar Machines Combined

Distribution Directed By

JOHN W. LADD CO. ∽ **CHERRY-BASSETT CO.**

And Sold By Leading Dairy Supply Houses Everywhere

When writing to JOHN W. LADD CO. *or* CHERRY-BASSETT CO. *please mention The Milk Dealer.*



—decreases the COST

—increases the CERTAINTY

of

CLEANLINESS

in Milk Plants and Creameries

THIS necessity for absolute cleanliness is an important item in costs in the milk business. Here's a suggestion:

By using Solvay Super Cleanser, the IDEAL cleaner and cleanser, you make sure that your equipment is kept perfectly clean at all times at the minimum of expense.

You actually save money by using Super Cleanser because it is produced and sold direct to the trade by the largest producer of alkali products in the United States. You get the benefit of large scale operation together with prompt handling of your order through the nearest of our many distributing points.

OUR Technical Service Department will gladly discuss with you your particular cleaning problems — entirely without charge — or we will send you a booklet on Solvay Super Cleanser with generous testing samples. Ask for Booklet No. SC2.

SOLVAY SALES CORPORATION

Alkalies and Chemical Products Manufactured by The Solvay Process Co.

40 Rector Street, New York

Boston Syracuse Chicago Indianapolis Cleveland Cincinnati Pittsburgh Detroit Philadelphia Kansas City St. Louis Atlanta

When writing to SOLVAY SALES CORPORATION *please mention The Milk Dealer.*

This Dairy Saves

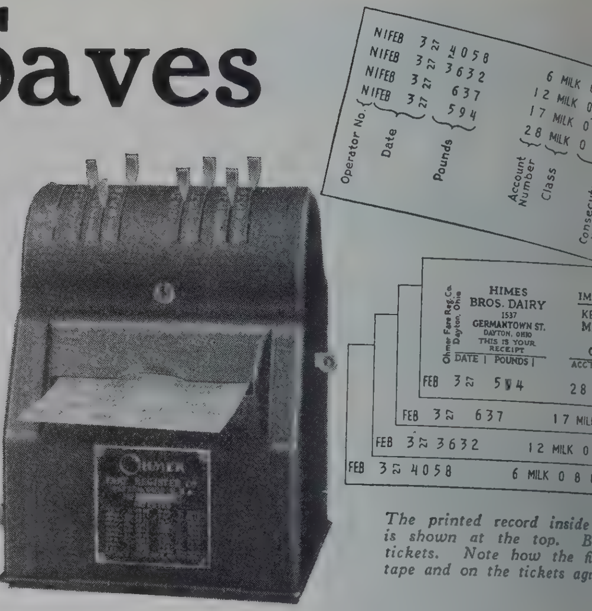
$1,550 per year

with an

OHMER

REG. U.S. PAT. OFF.

Ticket-Printing Register



The printed record inside is shown at the top. B tickets. Note how the fi tape and on the tickets ag

"IT HAS saved us anywhere from $3.50 to $5.00 per day. On a basis of an average saving of $4.25 per day over 365 days, an annual saving of more than $1,550 has been made possible." That's the experience of the Himes Bros. Dairy, Dayton, Ohio, with an Ohmer No. 79 Ticket-Printing Register. And any dairy or creamery that adopts this register can realize similar savings.

Quick and Accurate Receiving Records

When your receiving department weighs the milk or cream delivered by a producer, the clerk sets the levers of the Ohmer Register, turns the crank, and two things happen—**a ticket or receipt is issued and a duplicate record is made.** The ticket shows the name of your company, the date, the weight, the account number, the kind of product, and the consecutive number of the transaction. The ticket is **printed complete** from type in the register, automatically set by the simple manipulation of the levers.

At the same time—**from the same type**—a **duplicate record** of the data is **printed on a tape locked in the register** and accessible only to the official who holds the key.

There can't be any errors or misunderstandings from illegible, blurred, or transposed figures. There can't be any lost or mutilated memoranda. There can't be any erasures or alterations.

Simplified Accounting

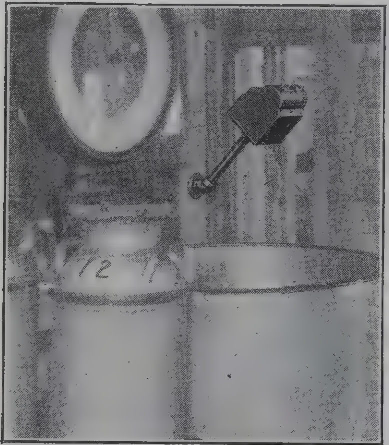
When the milk or cream is all received, the record inside the register contains all the detailed information for easy bookkeeping. The printed record made by the register in tabulated form comprises a complete and permanent journal. Ledger accounts can be posted directly from it. And your bound to tally with the prod ceipts.

Errors and confusion are avo this simple, perfect system o ing. Receipts are issued and are made in much less time t be done by hand-writing—and infinitely more readable. The transaction can't be lost or o Disputes are eliminated and are satisfied—they are glad to readable receipts for conve keeping their own accounts.

Ohmerize NOW

Ask for detailed information Ohmer No. 79 Ticket-Printing See how it will save time in ceiving department—how it w your accounting—how it will losses and avoid arguments. literature that fully illustrates scribes the register and show how it is used. Write or wire

THE OHMER FARE REGISTER CO.
Dept. A Dayton, Ohio



See how the register in the receiving room is out of the way, yet convenient for instant use.

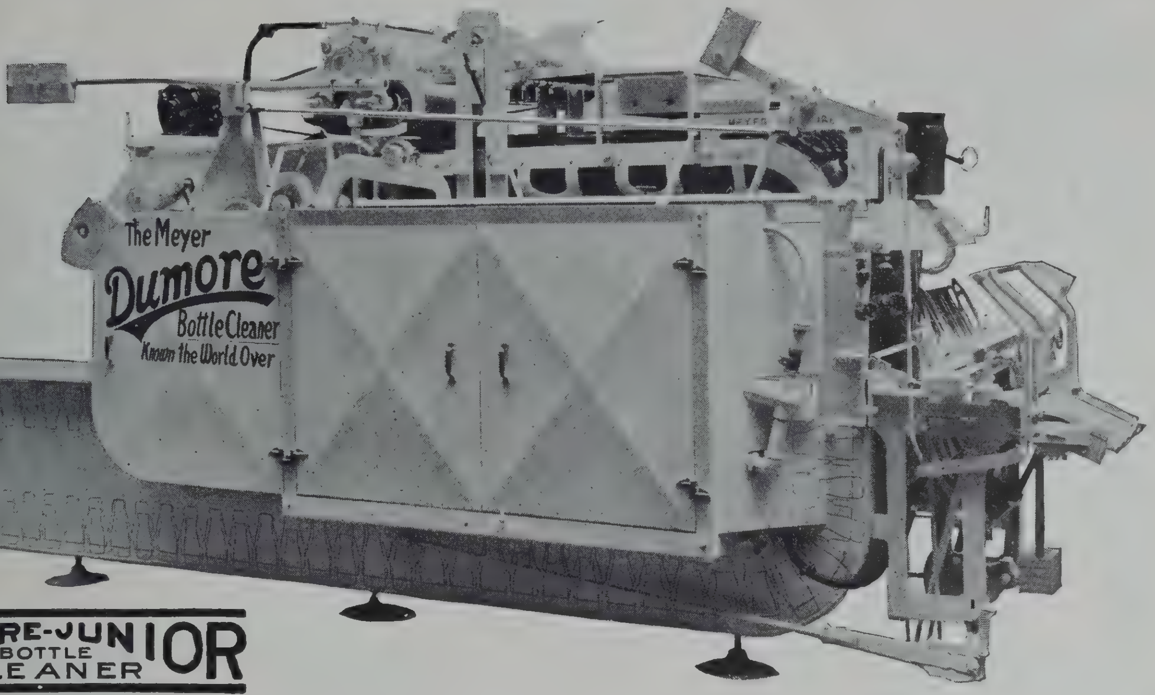
Other Ohmer Products

- OHMER ODOMETER gives accurate distance traveled by motor vehicles an ways.
- OHMER RECORDOGRAF gives a stylographic analysis of the operation of t hicle on which it is placed.
- OHMER TRUCK AUDITOR produces complete printed record of the operat motor vehicles.
- OHMER HUB-ODOMETER, an accurate counter for commercial vehicles. I on in place of hub cap.
- OHMER PRINTING TAXIMETER prints receipt for the passenger and pr locked-in record for the owner.
- ATCO TAXIMETER, accurate and most durable non-printing taximeter o market.
- ATCOGRAF TAXIMETER produces a stylographic record of the movements cab.
- OHMER FARE BOXES, convenient and durable receptacles for fare colle
- OHMER INDUSTRIAL COUNTERS are for use wherever accurate count is de

Ohmer recording instruments are leaders of their type throughout the world.

When writing to OHMER FARE REGISTER CO. *please mention The Milk Dealer.*

There's a Dumore to Fit Every Dairyman's Purse



UMORE-JUNIOR BOTTLE CLEANER

Capacity 24 to 60 bottles per minute.
Bulletin B36.

Ve Build Bottle-Cleaners of ANY apacity—*a Case a Minute or Carload an Hour!*

e are the world's leading builders of bottle-*eaning* machinery. We are equipped to build ttle-*cleaners* to fit your individual requirements. egardless of the capacity of your plant, we can rnish equipment that will insure a steady, de-ndable supply of *sterile* bottles in any quantities. eading dairymen everywhere are coming to Meyer secure *clean* bottle insurance—*the Dumore way!*

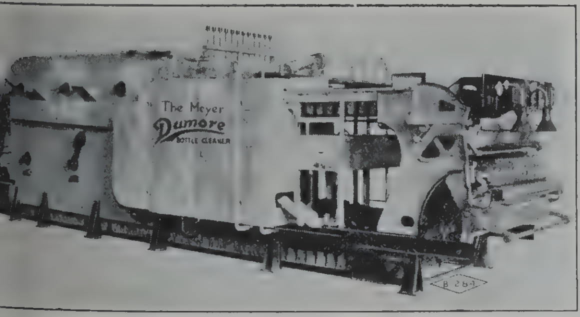
o produce *sparkingly clean bottles,* you must nploy brush friction—friction that is capable of removing all sun-baked dirt, syrup, and other foreign material. High water-pressure alone cannot do this. You can see the difference in the finished product. Bottles washed without brushes are clouded and misty—bottles brush-*cleaned* the Meyer way are sparkling and scintillating with cleanliness.

Be safe with the Dumore system! Submerged soaking in hot caustic solution, outside brushing, inside brushing, rinsing, inside rebrushing, and complete rerinsing comprise the basically sound bottle-cleaning method which dairymen everywhere depend upon.

Let us give you full details regarding the efficient application of the Dumore Bottle Cleaner in your plant. Remember—we build equipment especially designed to meet your particular requirements! EMPLOY THE DUMORE FOR CLEANEST BOTTLES THE EASIEST WAY!

MEYER-DUMORE BOTTLE CLEANER

Capacity 60 to 200 Bottles per minute.
Bulletin B30.



Geo. J. Meyer Manufacturing Co.

Largest Builders of Bottle-Cleaning Machinery in the World

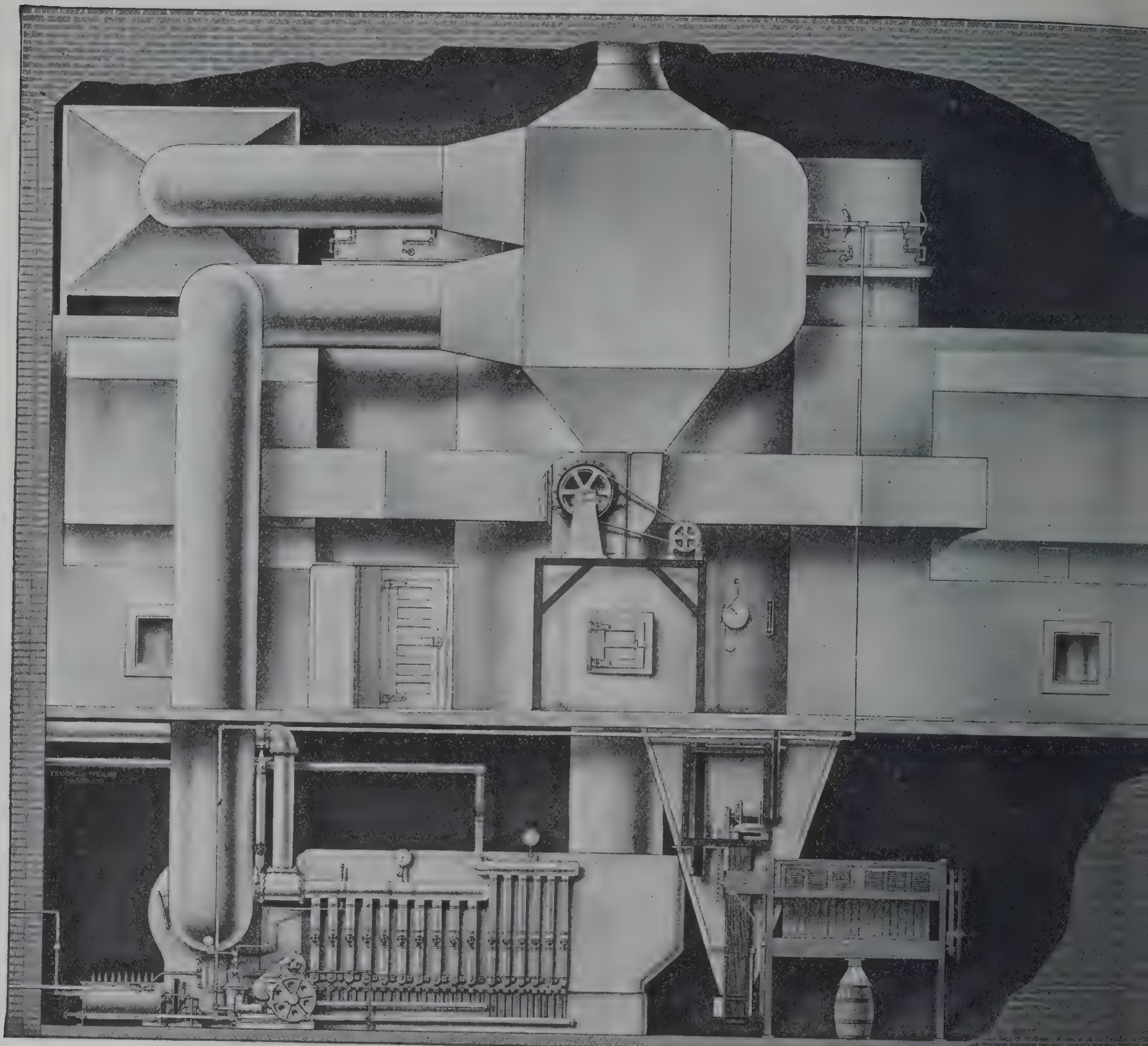
569 Barclay Street Milwaukee, Wis.

Offices: NEW YORK and CHICAGO.

When writing to GEO. J. MEYER MANUFACTURING CO. *please mention The Milk Dealer.*

ROGER

SPRAY PROCESS



MILK POWDER PLANT

Costs no more than other spray process milk powder plants — yet it produces approximately t times the quantity of milk powder, of higher quality, and at considerably less Steam, Power Labor cost per pound of powder produced.

Produces milk powder that is more readily and completely soluble even in ice cold water.

Gives complete recovery of solids.

Produces a uniformly high grade powder of lower bacteria content, and of any texture desired.

Guarantees a uniform moisture content under 2%.

Eliminates all possibility of second grade powd

Gives you a license to operate under Rogers pa without any strings tied to it.

Does not require you to pay royalties. This sa alone, not counting lower manufacturing costs, pay for a Rogers Plant within two or three years

Once you see a Rogers Spray Process Milk Powder Plant in operation you too will be convinced of its superiority an ceptional money making possibilities.

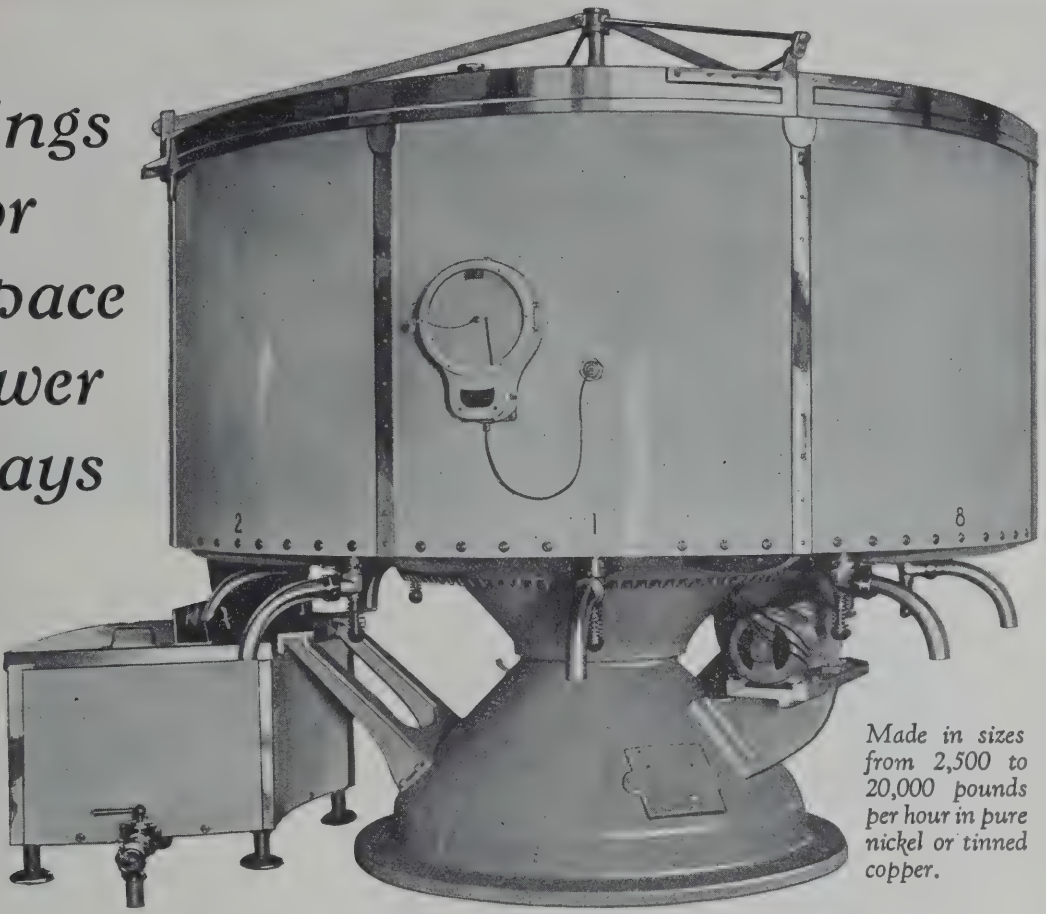
Let us show you one of the 20 Rogers Spray Process Milk Powder Plants in operation, and give you complete and rel information on MILK POWDER — its Manufacture, Uses and Marketing.

C. E. ROGERS COMPANY

8731 WITT STREET
DETROIT - - MICHIGAN

When writing to C. E. ROGERS COMPANY *please mention The Milk Dealer.*

Its Savings
in Labor
Floor Space
and Power
Soon Pays
its Cost



Made in sizes from 2,500 to 20,000 pounds per hour in pure nickel or tinned copper.

The MORTENSEN Positive Automatic All Nickel Holder

For economical, dependable, unfaltering operation—this Mortensen Automatic Holder has proved its worth wherever installed. It takes but a short time to demonstrate a saving in labor.

The floor space it saves per pound of milk handled is a pre-determined fact that needs no installation for further proof.

The automatic features of filling and holding and discharge are all operated by a very small motor—thus limiting power consumption to a definite low cost.

These facts—plus the quality of product it turns out, and the assurance users can give of satisfactory service should convince you that a thorough investigation is to your best interests.

Why not write for the complete details NOW?

Standard Milk Machinery Company

(INCORPORATED)

LOUISVILLE *Our Milk Plant Engineering Services are always under my personal supervision.* **KENTUCKY**

C. Mortensen

When writing to STANDARD MILK MACHINERY CO. *please mention The Milk Dealer.*

ICE CREAM
ICE CREAM
ICE CREAM

"JUST THE THING"

An educational exhibit showing the food value of milk, butter or ice cream—

FOR HEALTH FOOD SHOWS, CONVENTIONS, FAIRS, WINDOW DISPLAYS, ETC.

Attractive-Educational-Effective

Artists in the Educational Display Department of the National Dairy Council have just added the "finishing touches" to another unique exhibit, emphasizing the value of dairy products. Whenever doctors, dentists, school authorities, health commissioners, or other influential groups meet, the Council's outstanding message is there to inform them of the latest scientific and practical information.

Many of these effective displays are available for rental to the dairy industry, on a cost basis, for conventions, food shows, window exhibits, schools, fairs, etc. As this new department develops, more of these unusual displays will be announced. This is another striking service of *your* educational organization.

Write or Wire for Details

NATIONAL DAIRY COUNCIL
Promoting Health and Child Welfare
910 South Michigan Avenue
Chicago, Illinois

When writing to NATIONAL DAIRY COUNCIL *please mention The Milk Dealer.*

Exterior view of the plant of the Windsor Farm Dairy Company at Denver, Colorado.

another Cherry Gravity System of Pasteurization

ECONOMY of operation—perfect pasteurization—a fine cream line—delicious taste—and minimum bacteria count.

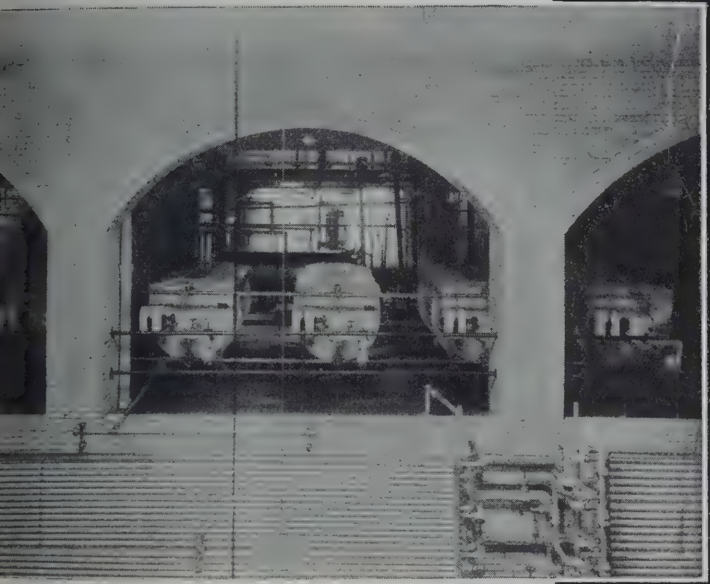
The Windsor Farm Dairy Company of Denver wished to be sure that their pasteurizing equipment would give them these five advantages.

So they installed a Cherry Gravity System. The five 300 gallon Class L Cherry Pasteurizers are direct motor driven and equipped with air control and automatic hot water system.

J. G. Cherry Company

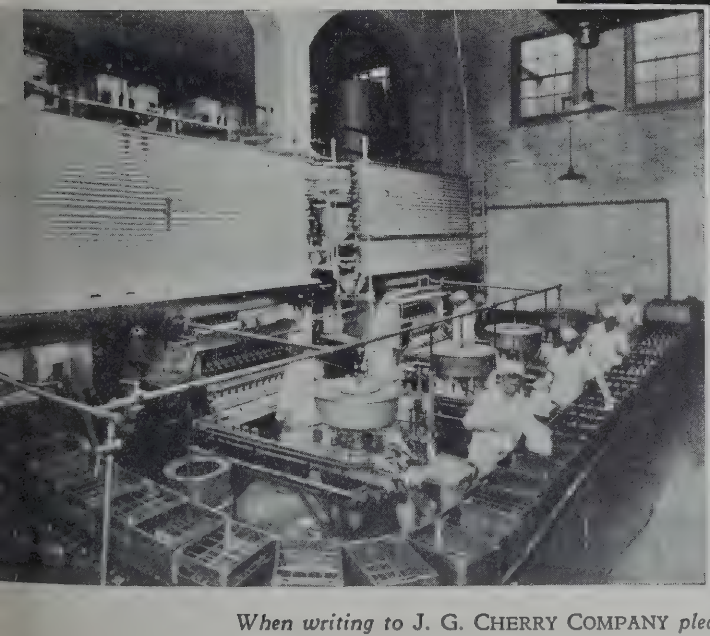
Cedar Rapids, Iowa

St. Paul, Minn. Tama, Iowa Peoria, Ill.

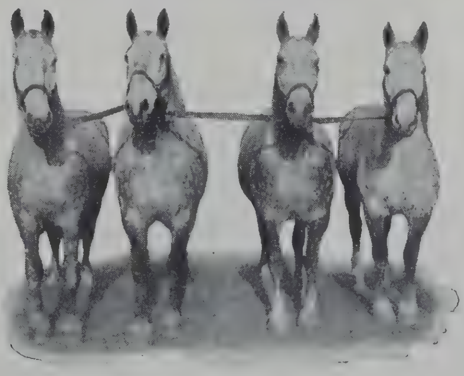


Above—the Pasteurizer Room, showing the Five 300 gallon Cherry Pasteurizers.

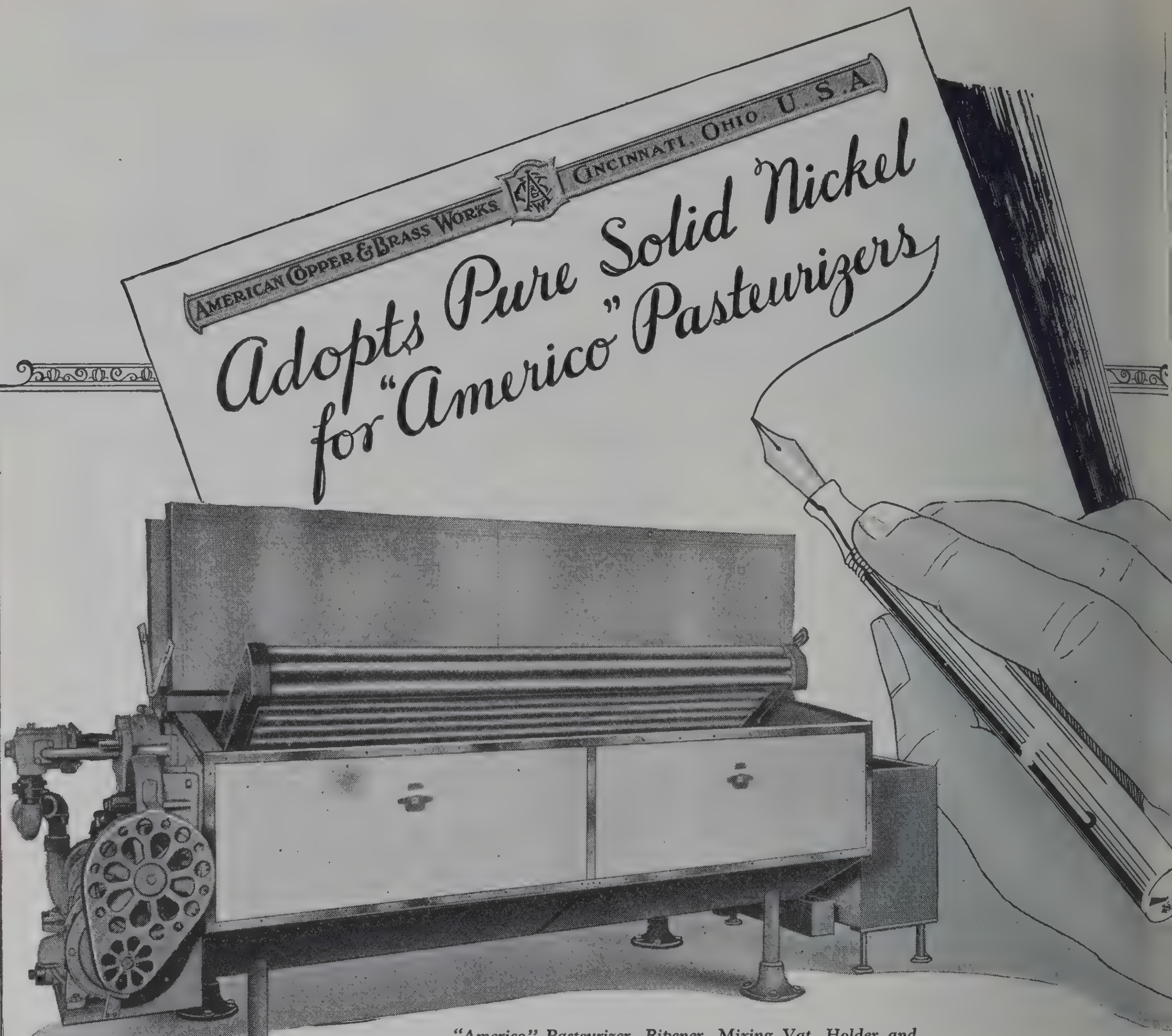
Below—the Bottling Room.



The Blue Ribbon Four-Horse Hitch of the Windsor Farm Dairy.



When writing to J. G. CHERRY COMPANY *please mention The Milk Dealer.*


AMERICAN COPPER & BRASS WORKS
ACBW
CINCINNATI, OHIO U.S.A.
Adopts Pure Solid Nickel for "Americo" Pasteurizers

"Americo" Pasteurizer, Ripener, Mixing Vat, Holder and Buttermilk Machine with Pure Nickel lining for vat, Nickel coils and Nickel lids. Manufactured by AMERICAN COPPER & BRASS WORKS of Cincinnati, Ohio.

TO INSURE LASTING CLEANLINESS AND A QUALITY PRODUCT, LEADING MANUFACTURERS USE NICKEL

THE responsibility of equipment manufacturers to their customers, and the equal responsibility of dairies to the general public, dictate the use of the most sanitary construction material.

With this fact in mind, leading manufacturers of dairy equipment now use Pure Solid Nickel in order to insure low bacteria counts for the dairy products handled in their equipment.

This general acceptance and use of Pure Nickel by the leading companies in the industry result from the ever-increasing appreciation of the properties of this attractive silvery metal:

1. It does not contaminate dairy products.
2. It resists the corrosive attacks of dairy products.
3. It will not rust.
4. It has no coating to wear off.
5. It is strong and tough as steel.
6. It is easy to clean and keep clean.

Every one of these properties is important to buyers of dairy equipment. Therefore, we suggest that in ordering your new equipment, you specify Pure Solid Inco Nickel.

SEND FOR NEW BOOKLET—"NICKEL FACTS FOR THE DAIRYMAN"

INCO NICKEL TRADE MARK

Nickel

INCO NICKEL TRADE MARK

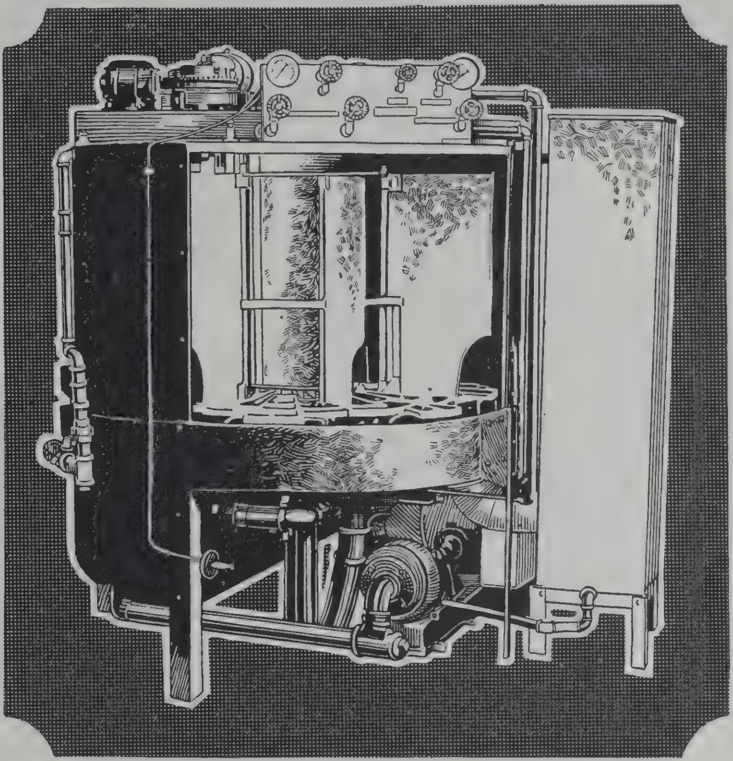
THE INTERNATIONAL NICKEL COMPANY (INC.), 67 WALL STREET, NEW YORK CIT

Barber Goodhue

Everything for the Dairy Industry

ON DAIRY PRODUCTS ALL THRIVE

The R & A ntermittent Rotary Can Washer



MANY voluntary expressions of satisfaction with the R & A Rotary Can Washer come to us regularly from creameries, milk plants and ice cream factories. Wonderfully efficient, durable, economical in upkeep. Delivers a steady stream of absolutely clean, sterilized, dry cans and covers, day after day for years.

Intermittent operation — entirely automatic. Operator simply loads cans and covers. They are carried through machine automatically, stopping for just the right period over each jet. The process is so positive, it can't help producing perfectly uniform cleanliness in every can and cover.

If you want utmost efficiency, durability, speedy performance and satisfaction you can't select a better, more dependable machine than the R & A Rotary—*regardless of how much you pay for it.* Capacities from 120 to 600 cans per hour.

Write us now for detailed specifications and prices.

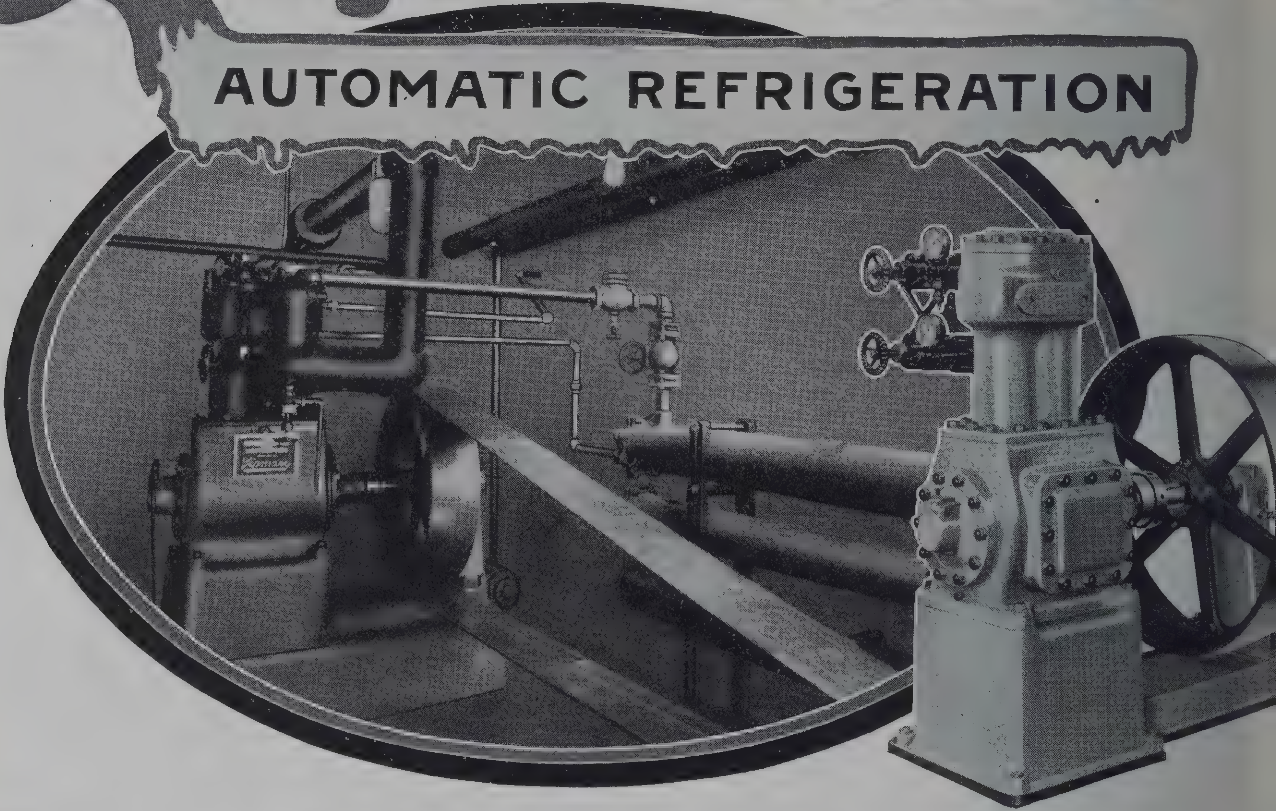
A.H. Barber-Goodhue Company

TWIN CITY OFFICE
2490 University Ave.
ST. PAUL

Home Office
300 W. Austin Ave.
CHICAGO

216 South
Pennsylvania St.
INDIANAPOLIS

When writing to A. H. BARBER-GOODHUE COMPANY *please mention The Milk Dealer.*



Lipman

AUTOMATIC REFRIGERATION

"Dependable and Economica

The Martin Dairy, Little Rock, Arkansas, (Mr. W. T. Martin writing) says:

"We are very well pleased with the operation and economy of our plant. One feature in particular we wish to call to your attention, and that is, the absence of any oil pumping in this compressor. We have been operating this plant for about a year and a half and have not had to re-charge with oil on account of pumping. This machine operates economically and is giving us entire satisfaction.

"We can highly recommend your system to anyone requiring a dependable and economical operating plant."

Above is shown the compressor of our Model 3000. In the Martin Dairy it does a complete job at all times and at approximately the cost of this company's salt bill when it was using the old salt and ice method. For facts about Lipman Refrigeration, send in the coupon.

GENERAL REFRIGERATION COMPANY

131-193 SHIRLAND AVENUE, BELOIT, WIS., U. S. A.

Please send me full particulars including Free Descriptive literature on Lipman Refrigerating Machines.

Name.................................... St.....................

City.................................... State...................

THE DRY, CONSTANT COLD OF THE MOUNTAIN TO

GR CO

When writing to GENERAL REFRIGERATION COMPANY *please mention The Milk Dealer.*

OLEY 1288 M. C. OLDHAM, MGR.

HE PHENIX DAIRY
PASTEURIZED MILK
HIPPING CREAM, PLAIN CREAM,
BUTTERMILK
POLK & SMITH STS.
HOUSTON, TEXAS

February 2, 1927.

n Engineering Co.,
leveland, Ohio

lemen:

Regarding the Bestoval
le Washer we purchased
you and installed in
new plant on November
1926, wish to say that
machine is performing
satisfactorily in fact
r a few minor adjust-
s when installed we have
no trouble with it.

The bottles discharged
it are sparkling and
r and we would heartily
mmend this type machine
nyone in the market for
rge size bottle washer.

Yours very truly,

K THE PHENIX DAIRY.

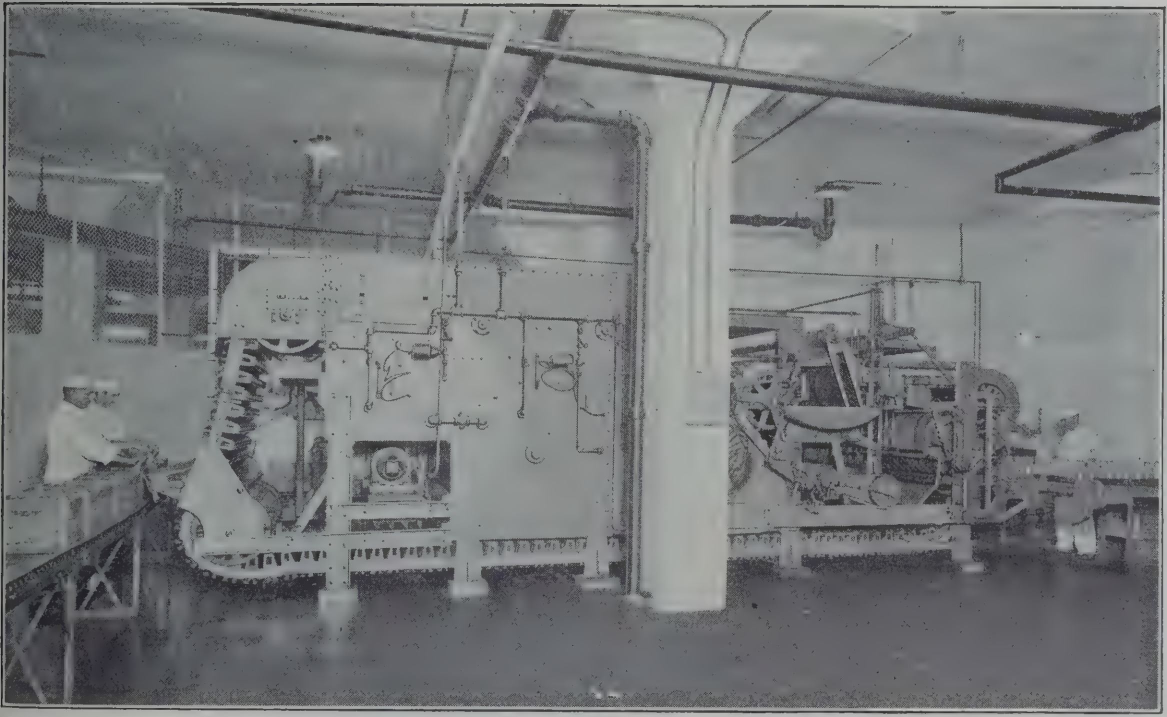
MORE PROOF!

of the SUPERIORITY of the

CLEVELAND BOTTLE WASHER

MR. OLDHAM of the Phenix Dairy, Houston, Texas, after having carefully studied all makes of bottle washers for more than three years, decided on the **CLEVELAND** for his new plant, which is one of the largest and most up-to-date in the South.

He was thoroughly convinced that the **Cleveland Method of Pressure and Dormant Soaking in Conjunction with Clean and Sterile Brushes** would give him the cleanest and most sterile bottles to match his unexcelled product. Furthermore he knew that the Cleveland Bottle Washer was the machine for service due to its rugged construction and simplified design and this has been conclusively proven by the fact that **The Phenix Dairy erected and put their bottle washer into operation themselves without the assistance of any representative of the Union Engineering Co.**



No. 120—CLEVELAND BEST-OV-AL in The Phenix Dairy, Houston, Texas

Guaranteed Cleaning Efficiency 99 9/10%

Clean and Sanitary Soaking Solutions with from 30 to 50% Less Alkali.

Clean and Sterile Brushes.

HE UNION ENGINEERING CO.

CLEVELAND, OHIO

LIST OF AGENTS

Dairy Supply Company	**Cincinnati, Ohio**
Company	**Indianapolis, Indiana**
assett Company	**Philadelphia, Pennsylvania**
reamery Supply Company	**Chicago, Illinois**
Jensen Creamery & Supply Company	**Oakland, California**
Meyer-Blanke Company	**St. Louis, Missouri**
Wright-Ziegler Company	**Boston, Massachusetts**
Hughes Sales Company	**Seattle, Washington**

When writing to THE UNION ENGINEERING CO. *please mention The Milk Dealer.*

Oakes & Burger Co. Inc

ESTABLISHED 1873

CATTARAUGUS, N.Y. ERIE, PA., U. S. A.

Looking across the beautiful Cattaraugus Valley, you can easily see a portion of the O & B factory nestling against the big hills which tower hundreds of feet above it. Near to it are the homes of many of its contented American workmen, some of them representing the third generation of craftsmanship in production of high grade dairy equipment and supplies. Near by is the village church, and further down the valley is the business section of Cattaraugus.

Some Advantages of the Purity Gregory Coole

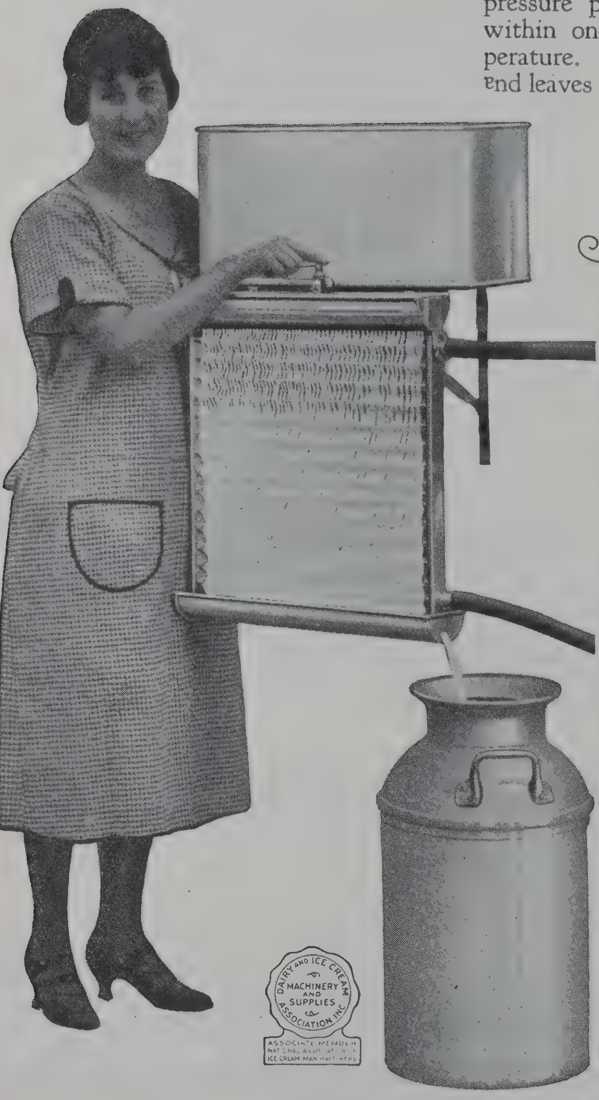
ALL the advantages of the tubular cooler and some of its own beside.

Guaranteed to stand 25 lb. water pressure per square inch. Cools within one degree of water temperature. Water enters at bottom and leaves at top. Thus the coldest milk is always in contact with the coldest water.

The Purity Gregory is quickly taken apart and as easily cleaned as a china dish. It aerates as well as cools.

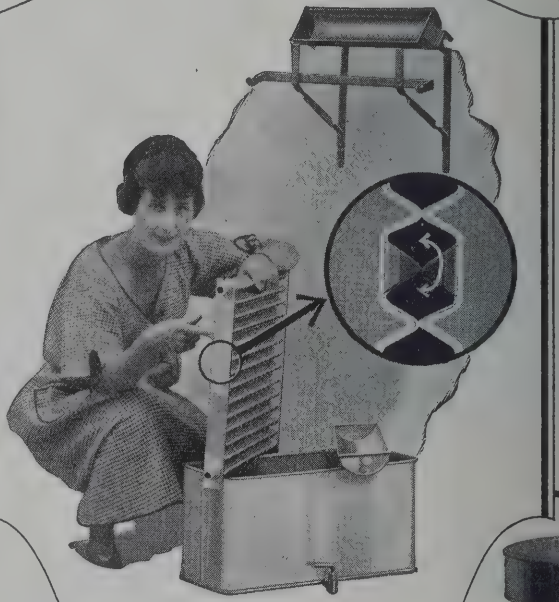
The most scientifically constructed farm cooler on the market. Should be in every dairy.

ORDER YOUR SAMPLE AT ONCE.



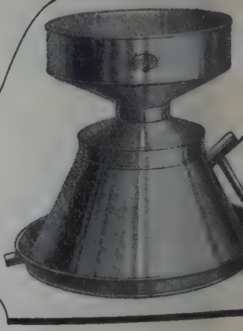
DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION INC.

ASSOCIATE MEMBER NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS



Two views of the ory Cooler showin operation and als assembled. The sheet copper used construction is p nently soldered in a way as to provid tive water circulat

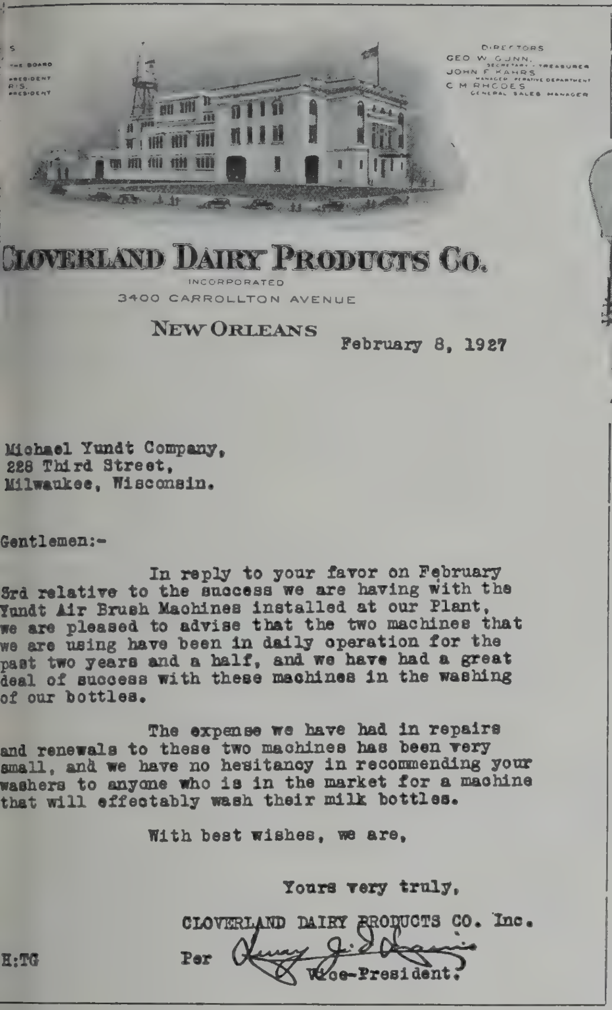
Below is show Purity Jr. Cooler water agitator drain. This is a sr cooler which is pre by some farmers. for descriptive liter



Fifty Years of Honest Equipment

When writing to OAKES & BURGER CO., INC., *please mention The Milk Dealer.*

Unparalleled Service!



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CLOVERLAND DAIRY PRODUCTS CO.
INCORPORATED
3400 CARROLLTON AVENUE
NEW ORLEANS

February 8, 1927

Michael Yundt Company,
228 Third Street,
Milwaukee, Wisconsin.

Gentlemen:-

In reply to your favor on February 3rd relative to the success we are having with the Yundt Air Brush Machines installed at our Plant, we are pleased to advise that the two machines that we are using have been in daily operation for the past two years and a half, and we have had a great deal of success with these machines in the washing of our bottles.

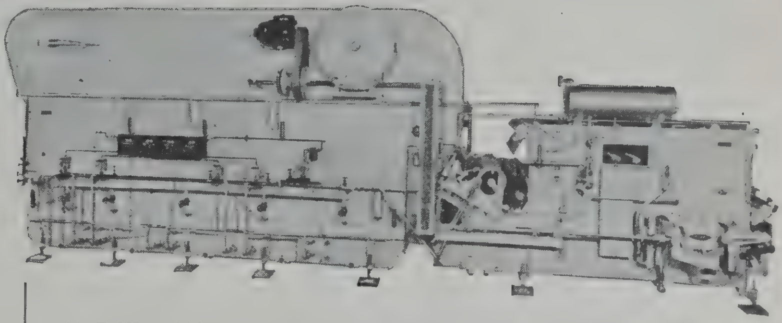
The expense we have had in repairs and renewals to these two machines has been very small, and we have no hesitancy in recommending your washers to anyone who is in the market for a machine that will effectably wash their milk bottles.

With best wishes, we are,

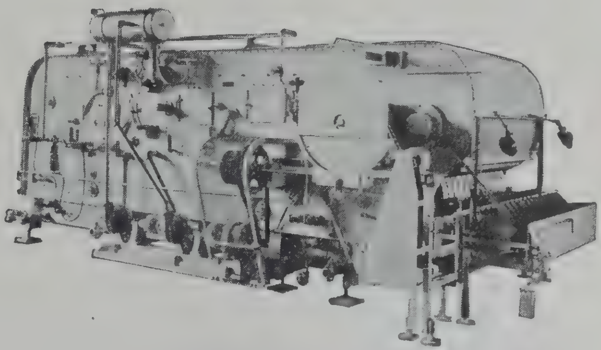
Yours very truly,

CLOVERLAND DAIRY PRODUCTS CO. Inc.

H:TG Per Vice-President.



THE YUNDT MILWAUKEE AIR BRUSH MILK BOTTLE WASHER
Built in capacities from 30 to 160 bottles per minute.
Write for Bulletin No. 109.



THE YUNDT MILWAUKEE JUNIOR COME BACK TYPE AIR BRUSH MILK BOTTLE WASHER—ONE MAN OPERATION
Built in capacities of 30 and 60 bottles per minute.
Write for Bulletin No. 110.

In the million dollar plant of the Cloverland Dairy Products Co., Inc., New Orleans, La., two large capacity YUNDT MILWAUKEE AIR BRUSH MILK BOTTLE WASHERS are installed.

Their experience for the past two-and-a-half years is convincing proof of the efficient service that can be obtained from the YUNDT AIR BRUSH MILK BOTTLE WASHER.

Superior Performance, combined with Minimun Operating Cost and Utmost Dependability, are a few of the many YUNDT MILWAUKEE AIR BRUSH MILK BOTTLE WASHER features.

Bottles are discharged sparkling clean, cold and bacteria free.

Write for bulletins, telling how to economize on your bottle washing cost with the YUNDT MILWAUKEE AIR BRUSH MILK BOTTLE WASHER.

Manufactured and sold by

ICHAEL YUNDT COMPANY

AUKEE, WISCONSIN WAUKESHA, WISCONSIN

DOUTHITT MILK POWDER PLAN

GRAY-JENSEN SPRAY PROCESS

Designed and Built by

DOUTHITT ENGINEERING COMPANY

100 WEST MONROE STREET, CHICAGO

Sheffield Farms Company's plant at Lisbon, N. Y.

Add to your creamery profits by manufacturing your skim milk, buttermilk, or whey into powder on the Gray-Jensen Spray Process Milk Powder Plant.

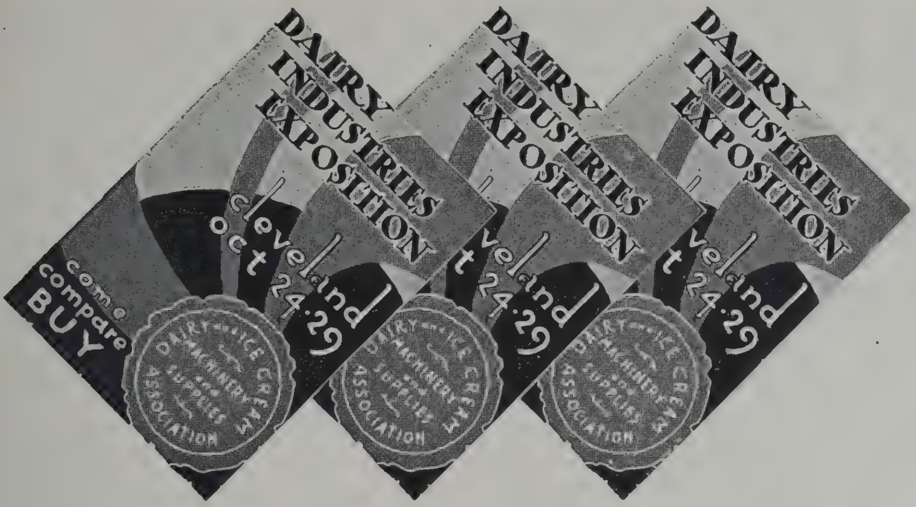
The highly developed efficiency of the Gray-Jensen process results in recovery of milk powder actually equivalent to the solids in the milk, with lower labor, fuel and power costs than are possible with any other type of milk powder plant. These savings alone pay for one of our plants in from one to three years. Operating records prove this.

We can furnish an assured market for all skim milk and buttermilk powder made on our plants.

These plants are built in sizes to handle from 10,000 to 120,000 pounds of normal liquid milk or milk products daily.

Write today for booklet describing the Gray-Jensen Spray Process Milk Powder Plant

When writing to DOUTHITT ENGINEERING COMPANY *please mention The Milk Dealer.*


DAIRY INDUSTRIES EXPOSITION
cleveland oct 24-29
come compare BUY
DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION

Dairy Industries Exposition, Cleveland, October 24—29

Come

NINE THOUSAND others from the dairy industrial field are coming too. ***Your*** show—assembled for ***you***—why miss a foot, a booth, a moment of it? Write to a Cleveland hotel today (Hollenden is National Association of Ice Cream Manufacturers' headquarters—some others are Statler, Cleveland, Winton, Olmstead).

Compare

Where else can it be done? Every essential of perfected plant, process, distribution, management. Every expert in machinery design, equipment utilization, special services application, supplies economies. ***Acres*** of displays of indispensable products for you to examine, check, appraise, compare!

Buy

Naturally it's a convenient, and in many instances the most effective, most economical place to buy. But first, and ***thoroughly,*** compare! Study in this great, this almost unbelievable, practical university of your industry. Make sure there of your needs in materials, services, equipment, accessories, supplies, machinery for 1928. Then—when you're sure—and if it is convenient—***buy!***

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION, INC.

Two Twenty-Five West Thirty-Fourth Street, New York City

The Buyer's

Seal of Safety

THE
MILK DEALER

PUBLISHED THE TWENTIETH OF EACH MONTH BY
THE OLSEN PUBLISHING COMPANY
H. P. OLSEN, President and Manager
LESTER S. OLSEN, Vice-President
E. K. SLATER, Secretary and Editor
Also Publishers of
"BUTTER, CHEESE & EGG JOURNAL" and "THE ICE CREAM REVIEW"

FIFTH AND CHERRY STS. MILWAUKEE, WISCONSIN

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Entered as second-class matter December 1st, 1911, at the Post Office at Milwaukee, Wis., under the act of March 3rd, 1879

Requests for CHANGE OF ADDRESS must be received not later than the 10th of the month to insure delivery of that particular month's issue at New Address. **Old Address** as well as **New Address** must be given us as all records carried by us are "Geographically arranged" and not "Alphabetically arranged."

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Foreign Subscriptions ....$3.50 per annum
Payable in Advance.

OFFICIAL ORGAN OF
The International Association of Milk Dealers
Dairy Products Association of Kentucky, Inc.

JULY, 1927

BULLETIN *of* EVENTS

Dairy Industries Exposition—The second annual exposition of the Dairy and Ice Cream Machinery and Supplies Association will be held at Cleveland, Ohio, on October 24-29, inclusive. Roberts Everett, 225 West 34th St., New York City, secretary and manager.

International Association of Milk Dealers—Twentieth annual convention to be held in Columbus, O., on October 19, 20, 21 and 22, 1927. The Neil House will be convention headquarters. Secretary, R. E. Little, 228 No. La Salle St., Chicago.

Pacific Slope Dairy Show—Seventh annual exposition to be held from November 14 to 19, 1927, at Oakland, Calif. Secretary-manager, Robert E. Jones, 1404 Franklin St., Oakland, Calif.

Ohio Milk Distributors' Association—Annual convention to be held in connection with the convention of the Ohio Association of Ice Cream Manufacturers and the Ohio Association of Creamery Owners and Managers, at Toledo, on January 24 and 25, 1928. Commodore Perry Hotel will be convention headquarters. Secretary, W. A. Wentworth, 5 East Long St., Columbus.

EVERYTHING points to the greatest outpouring of milk men in the history of our industry at Columbus in October, at the annual convention of the International Association of Milk Dealers. For the first time in many years the convention will be held entirely free from other attractions. There will be no show or exhibit of any kind in connection. Four full days will be given over to a consideration of the problems in the industry.

Then the following week the big Dairy Industries Exposition will open in Cleveland. Delegates to the Columbus convention will go on to the big show in Cleveland with nothing to do but profit and play. Make your plans early to visit both cities.

⚜

A READER asks us to "please tell me why it is that the fluid milk distributing industry that supplies more than half the population of the country with the one food that is absolutely indispensable to human welfare, and supplies that food by means of the m
cient and most economical system that human in
has ever devised, consistently neglects to see t
food value of its merchandise and the economic
its service are properly interpreted to the peo
must pay the ultimate bills, and on whose good
existence of the industry in the last analysis dep

Our correspondent, of course, would not incl
milk distributors among those who "consistent
lect" to tell the consumer about their product an
service. There are outstanding exceptions. H
however, present a question which merits an
We believe the majority do the very thing he
them of doing.

We cannot, in one attempt, give our friend t
sons for this "consistent neglect," but we believe
point out one of them. Perhaps it is the chief o
here it is: the majority of milk distributors are
ently and constantly building sales bigger and bi
the years go by. New additions to plants, new bu
and added equipment everywhere. From all p
the country come reports of expansions.

These men are building in spite of their "co
neglect" of opportunities that lie at their doors.
they are not expanding their businesses as rapidly
aggressive ones, who are the exceptions, but th
making progress just the same. Many of them a
isfied with the comparatively slow progress they ar
ing. "Why not let good enough alone?" seems
their motto. Why get excited over something that
more effort and expense?

These men are very busy building their organi
and taking care of their expanding businesses.
of them spend long hours in their plants and hav
time to give to, what to them, seem new proposals

We would not wish for them a less prosperou
ness condition in order to force them to adopt m
gressive publicity measures, but so long as prese
ditions prevail we can see little hope for anythi
but "consistent neglect" of their opportunities.

It's hard to convince a man in perfect health t
needs medicine. "When the devil is sick the d
monk would be; when the devil is well the devil a
is he."

⚜

IT DOESN'T require very much brain material
liver a bottle of milk. A flashlight and the
to read figures on a milk card make it possible to d
milk, even before daylight. If a man is content t
milk delivery man, and his employer is content
such ability, then lack of gray matter, sales abili
ambition, or whatever you may please to term it,
a serious handicap.

But if a man wants to be a milk salesman it
entirely different story. If he has ambition, kn
that promotion comes to milk salesmen and not t
delivery men, he must have real ability. He m
salesman enough to study the habits of his cust

their whims, and give them the sort of service
mpered public demands.
ong ago the milk card at our home was not
up for the morning's requirement. The usual
ts of milk were there just the same. Early in
oon the salesman called on the phone to inquire
the deal was satisfactory. If not, he would call
the milk. That's a little thing perhaps, but he
quarts of milk that otherwise he would not have
morning, and he pleased a customer. The real
sman finds many ways to build up business.

* * *

dealers are inclined to go along the even tenor
their ways, giving little attention to competi-
ept that offered by other milk dealers. They
or granted that there are no substitutes for the
they have to offer for sale.
realize, of course, that there are other articles
andise that the consumer might buy with the
e should spend for milk, but that sort of com-
doesn't frighten them. The man who orders a
offee for his noon-time lunch might order a bot-
lk instead, but even that sort of competition
bother the average milk man very much. He
on the theory that there is a certain fixed de-
milk, especially in the homes, that no one else
ly. He feels secure.
s he secure? What is happening in the homes?
are some of the things that are happening:
ple are eating in clubs, restaurants and hotels
before in our history. People are "going out
r" more each year. Less cooking is done in the
d this trend is not confined to any particular
society. Cooking oils, and other so-called sub-
or dairy products, are now extensively adver-
l extensively used, both in public and private
aces.
another significant thing has happened and
r all, is what prompts this editorial. Lying on
is a full page advertisement, torn from the July
of The Saturday Evening Post, in which evap-
ilk is presented to millions of readers as "the
ream and milk supply."
e reader who knows, the advertisement carries
ent that would justify him to tell his milk man
eliveries of fresh milk and cream, but it is filled
er suggestions to tempt the uninformed reader
m his or her milk man. "Undiluted evaporated
es in place of cream—at less than half the cost
" and "it can be diluted to suit any milk need,
s less than ordinary milk" are samples of the
ade for the product.
e you brought your milk supply up to date?"
xceeded in subtlety by "you need to **know** that
you use is pure, and fresh, and sweet, and ab-
clean." The implication is, of course, that the
can not be sure that his supply of fresh milk is
d fresh and sweet and absolutely clean." No
ys being out of date. Patronizing the milk man
ed as passe.

Now, we have no quarrel with the manufacturers of evaporated milk. It is a dairy product entirely suited for the uses to which it is ordinarily put. We strenuously object, however, to its being put forward as superior to fresh milk and cream.

But this is a free country, in spite of the claims by folks who sometimes in some places find it hard to get an adequate supply of "hard likker;" the evaporated milk folks can go right on educating consumers of fresh milk and cream away from them if they choose to do so.

What are the milk dealers going to do about it? Will they continue to rest snugly in the belief that they have little or no outside competition, or will they take steps to tell the consumers the truth about evaporated milk and their own products?

We believe that we have herein pointed out a real danger to the market milk industry, and that something should be done about it by our dairy leaders. What say you?

* * *

HOW to get the loyal co-operation of employees is an ever-present problem in the milk industry. In spite of all the labor-saving machinery with which the modern milk plant is equipped, the milk business demands lots of labor. The personnel of an organization can make or break the business. The plant manager who can get efficiency, plus loyalty, is worth his weight in gold and then some. Too many employees stop with efficiency and many never get that far. Even the efficient ones do what is put before them to do. They are quite as ready to quit at quitting time as they are to begin in the morning. They work by the clock and they have little or no interest in the business. They do not seem to realize that the business must succeed if their jobs are to continue.

Some milk dealers have adopted the plan of setting aside a bunch of stock and selling it to their employees. Each employee is permitted to subscribe for stock to a certain limit, payment to be arranged for weekly or monthly. Some have been delighted with the results; others have not. This plan has been followed out by employers of labor in other lines and in many cases it has proven very successful. Your business may not be arranged so that you can adopt it, but if it is so arranged it might be worth trying out.

* * *

THAT a thing worth doing at all is worth doing well was never better exemplified than in the experiences of several milk dealers we know in producing and marketing cottage cheese. Some have failed to gain the results they expected while others have succeeded, some to a degree far and beyond what they expected.

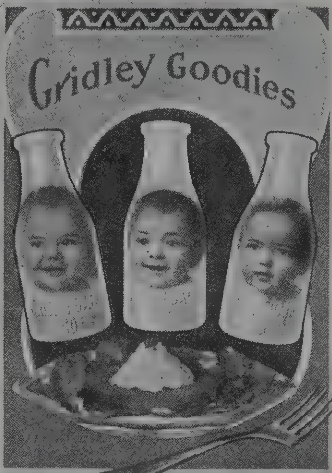
Most who failed didn't take the job seriously. They either failed to make a good product or they failed to market it right, or both. They treated it as a by-product of inferior value and their customers accepted it as such.

The dealers who have made good cottage cheese and marketed it in an intelligent, aggressive way have, in most cases, made money and strengthened the good will of their customers.

The Child as an Advertising Sub

By P. W. KOEPPEN

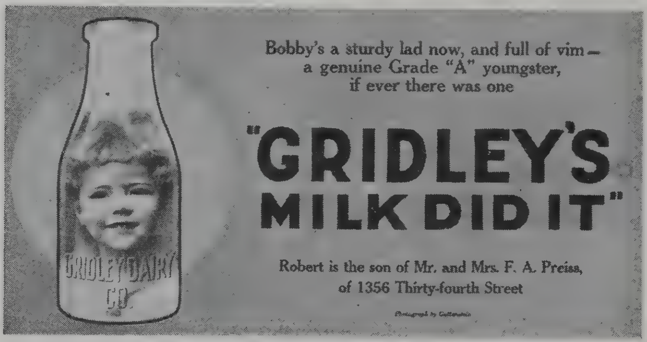
Milwaukee's Largest Milk Distributing C pany Builds Good Will by Featuring Childh in a Year 'Round Advertising Campa



FOR five years the Gridley Dairy Company of Milwaukee, Wisconsin, has been running the same kind of advertisement in the street cars, in the daily newspapers, and on the billboards, and the advertisements are arousing as much interest today as they did five years ago when they first appeared. On the street cars, you overhear people reading them aloud.

The ads have the same theme, have identical layouts, have copy very much along the same line and vary only in the colors used for the backgrounds. Yet everyone reads the ads and looks for new ones to appear. They have become news.

Harry H. Heming, who for 15 years has been handling the advertising of the Gridley Dairy Company, hit upon the idea of using children as testimonials in the Gridley advertising. They were to be attractive, healthy children who had been fed consistently on Gridley's milk. Their health and attractiveness were to be tied up with the milk in such a way as to form a dignified, convincing testimonial advertisement.


Bobby's a sturdy lad now, and full of vim—
a genuine Grade "A" youngster,
if ever there was one
"GRIDLEY'S MILK DID IT"
Robert is the son of Mr. and Mrs. F. A. Preiss,
of 1356 Thirty-fourth Street
GRIDLEY DAIRY CO.

Street Car Cards Used Freely and Continuously.

The layout, which is shown here, is invariably the same,—the baby, the bottle and the slogan—"Gridley's Milk Did It!"—together with the usual testimonial copy which runs much in the same vein and expresses the health idea in a few, simple words which are easily understood—for instance, "Gilbert is a husky little fellow who has been fed Gridley's milk since he was born," followed with "Gilbert's parents are Mr. and Mrs. Edward Smith, 666 Eighth Street, Milwaukee."

"There is nothing which has the universal appeal that children have," said Mr. Heming in a discussion of the Gridley advertising policies. "Everyone is attracted by a healthy child. We believe Gridley's milk t
ideal food for children and we want them to dri
of it. To accomplish that we educate parents to t
of our milk by showing them what Gridley's n
accomplished in the cases of other children.

"Five years ago we began the series of adverti
which is still running, and which we will continu
indefinitely. I believe that when you have hit
good idea, and have proved its worth, that the
do is to keep hammering at it. The public quic
gets unless it is constantly reminded. That is
advertise constantly and consistently.

"Our own deliverymen helped us to get sta
this series of advertisements. They were meet
patrons constantly. They knew families on thei
which had attractive children and turned thei
over to us. We got in touch with the mother and
her permission to use the picture of her child i
fied advertising. We had no trouble at all in
her consent. Then we sent the children over t
tographer of our own selection to be photograph
have never used previously taken photos of the c
There was no expense to the mother at all.

"After the first advertisements had appeared
phoned and wrote us, offering their children as s
for other ads. They did this without any hope
pensation. There was no pay or reward of any
the mother for permitting us to use her child as t
ject for an advertisement.

"The interest of mothers in our advertising h
tinued through the entire five years that the se
been running. We have plenty of photographs
dren to be used in ads. One might call it a 'waiti
for we have pictures months before the advertis
appear.

"All of our advertising is of an educational
We try to get our patrons to use more milk o
of any other of our dairy products. 'Health' is t
back of all of our promotional efforts. We tell ou
in the simplest possible words because milk is a
which even the most illiterate should be educated
more freely. If we estimate that the average voca
is less than 300 words, we must tell our story in
words, easy to read and easy to understand. C
reading our advertisements, are often our best b
for they tell their parents what they have rea
must make our story, therefore, simple enough
the children will read it, understand what they re
tell others about it.

"Because we appreciate that children are goo
pects and influence the buying habits of a househ
advertise in the various school papers. This is i
tion to our regular advertising in the street cars,
billboards, in the newspapers and more recently,
signs.

"We have been consistent advertisers. We ad
in the newspapers at least 10 months of the year

EDITOR'S NOTE—The cut appearing in the heading of this article represents the upper half of the reverse side of a Gridley monthly milk card. Below, on the card, are three recipes, one for a pineapple cheese salad, one for a boiled salad dressing to be used with whipped cream and the last for a tomato cheese salad. Cottage cheese is specified in the two salads. The entire reverse side of the milk card is printed in attractive colors.

f the year we are in the street cars and on the s. Not to keep up our advertising would be

road sign advertising is new—new to us as a advertising and new in its idea and mode of out. For some time we have been doing dash vertising on the street cars. These ads appeared ıer week, and supplemented our regular adver- side the cars. The layout of the ads which ap- ı the outside of the cars was a bit different from the inside. Both are shown here. Our road replicas of the street car dashboard signs. They baby looking at himself inside the bottle and n, 'Gridley's Milk Did It!'

se road side ads appear every half mile, alter- ı either side of the road. They are of paper and ıanged from time to time. They are located on principal highways of Milwaukee county, both nd state."

newspapers, the "baby and the bottle" adver- varied with advertisements on various features y service. Not long ago an advertisement told rps of trained dairymen employed by the Grid- Company to go about calling on the farmers ply milk for Gridley patrons, suggesting im- its on the farm which will enable them to turn ter product.

he Gridley Dairy Company does not stop with ral advertising. If you were a Gridley patron d be acutely aware of the more personal type tion which the company does. Sales messages the milk cards left on your doorstep or in the net each month. On one side of the card is the orders for the month. On the other side, in a suggstion for a new and seasonable dish us- Gridley product. There is an illustration of ractive dish and the recipe for it. In July, it ttage cheese salad. All of this is intended to a demand for Gridley dairy products by show- ıses for them.

, pamphlets and attractive folders are produced e to time, and distributed by the Gridley deliv- ith the morning milk and cream. Direct liter- ning by way of the back door with no other circulars to vie with it for the attention of the , are given, in most cases, thoughtful attention.

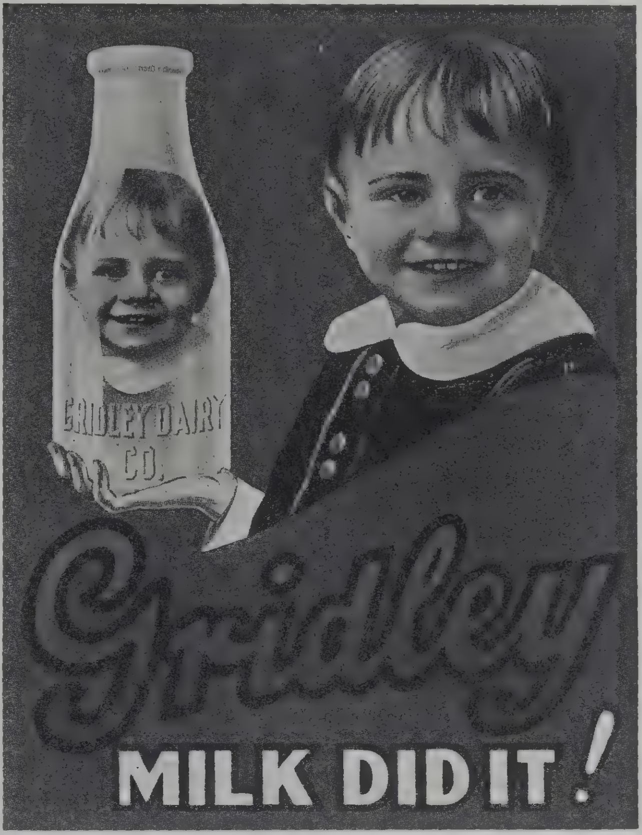
uple of years ago," said Mr. Heming, "we ran g contest to stimulate the use of our cottage We offered 33 cash prizes. The first prize was contest was announced in advertisements in the wspapers. We rented space in the Plankinton ne of the most prominent office buildings, and cookery delivered there. Four local judges, s on home economics, chose the finest cake, at dish, etc.

e were 285 entries in the contest. In practical- them the cottage cheese was so cleverly dis- at one would never have guessed that cottage s the main ingredient in them, and even those hey do not like cottage cheese could have eaten h relish. We raffled off the cookery after each sampled and graded, collected $60 and donated y to the Red Cross.

ı we secured the recipes for the best 100 dishes porated them into a cook book. This was de- our patrons by our delivery men. The book opular that we have demands for it even yet. etters from 28 states and two foreign countries r copies.

ve sometimes heard it said by men who do not believe in advertising, that if they advertise, their competitors will be getting the benefit of the increased interest in their community. They use this as an argument against advertising. This is wrong—absolutely wrong.

"It is true that advertising of any commodity will also benefit the non-advertiser in the sense that it will stimulate the demand for that product. But the advertiser is content if his advertising is successful and he gets his share of the increased business.


GRIDLEY DAIRY CO.
Gridley
MILK DID IT!

These 21x26 Advertisements Appear on All Principal Roads Leading Into the City.

"The Gridley Dairy Company doesn't worry about the milk business which may go to the other fellow because Gridley advertising is educating the public to drink more milk. As long as the business is increasing at a satisfactory rate, we feel that our advertising is paying.

"We have found that our series of advertisements, featuring the baby and the bottle, are effective and we intend to keep on along that line."

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IT PAYS TO USE THE BEST EQUIPMENT AND METHODS OF PRODUCTION.

Plans have been made for increasing the capacity of the plant of the Sanitary Dairy, Filmore, Cal., according to Mr. Hardison, one of the owners. The dairy has had a steady increase in its milk business during the ten years of its existence, and Mr. Hardison attributes this to the sanitary methods of production which are used in the business.

A. R. Millsaps, the other owner, will continue to produce an unlimited supply of milk of guaranteed quality which is next to certified. The buildings and equipment belong to Mr. Hardison, who will cool, bottle and deliver the milk. A refrigerating plant is being installed which will cool the milk to the requirements of certified.

Milk Publicity in the Home To

A New Jersey Milk Company Gets a Three Page Story in the Official Organ of Their Local Chamber of Commerce

(Editor's Note:—We are privileged to publish below a story which appeared in "Trenton," the official organ of the Trenton, N. J., Chamber of Commerce. This is the sort of publicity that builds confidence. Are you employing such means for publicity in your city?)

IT WOULD be hard to imagine a more important industry—for indeed it is an industry—than that of collecting, protecting and distributing the milk supply of a city. Nature seems to have regarded milk as the essential food, the distribution of which in our modern city is a responsibility which increases with every new customer. The consumer is concerned mainly with the delivery. He wants it on his breakfast table. He is vaguely conscious that the health authorities and the dairy company have done their part to give him a pure food and that the dairy company has tried also to give him a product rich in those body building qualities which milk contains.

Fine modern plant of the Castanea Dairy Co., Trenton, N. J. Inserts—right, H. W. Comfort, president; left, B. M. Woodward, treasurer and gen. manager

Castanea DAIRY CO.

If the responsibility increases as the number of customers increase, then the Castanea Dairy Company, Trenton's chief agency in the distribution of milk, has a great load on its shoulders. A journey through the plant of the company impresses the visitor that the entire force realizes this fact.

Thirty years ago the milk business was a one-horse peddling of milk. Today it is a highly organized business, meeting in a most efficient way the increasing costs of producing pure, healthful milk by modern scientific methods.

From the well-designed two-story front the visitor does not gain the true impression of the size of the Castanea plant. Entering through the new retail store the visitor meets a guide who points out proudly that the beauty of this store, regarded among distributors as a model of its kind, is due largely to the mosaic tile that line the walls and cover the floor and counter.

In the office the visitor is given an idea of the size of the Castanea Dairy Company's field of operation. Its 60 delivery routes extend not only over Trenton and its suburbs, but over neighboring towns of Morrisville, Pennington, Ewingville, Mercerville, Hamilton Square as well, with an agency at Lambertville. In Princeton the Rockwood Dairy sells the Castanea milk.

To supply this territory, milk is brought principally
from the rich farming counties surrounding T
both in New Jersey and Pennsylvania. Twen
motor trucks are needed to gather the milk fr
proximately 500 farms and bring it to the city
This represents milk from between 5,000 and
cows. Every source of new milk supply is
investigated by the company's own farm and da
spector before the milk is taken on. He also ma
spections at different intervals during the year.

All the milk is bought by weight and butterfa
This method of buying encourages the farmer to p
richer and better milk, while the basis of buyin
by volume on
not give the
tive for bette
higher class
production.

The "A" m
produced fro
lected farms
these farms th
are all tube
tested. Ba
counts and bu
tests are made
milk from
dairies. Bonus
paid according
results of these
The cows prod
this milk are
the Jersey
Guernsey bree

The "B" m
produced b
spected herds
are aiming a
have not yet re
the requiremen
"A" milk. The
milk will tes
proximately 4.5 per cent butterfat and the "B"
approximately 3.8 per cent butterfat. This doe
imply that all "A" and "B" milks are of this star
as this state and city do not recognize any standa
the grading of milk. They label all milk above
cent "whole milk."

On arriving at the receiving platform the fa
milk is inspected and weighed. A daily sample is
for the laboratory inspection. It is from a combi
of butterfat tests, bacteria tests, etc., and by the i
tion of a field representative of the company, tha
dairy received its classification. The milk then
through frost covered pipes, is thoroughly chille
held in large glass-lined tanks until ready to be
teurized and bottled.

About 1860 Louis Pasteur, the most noted ba

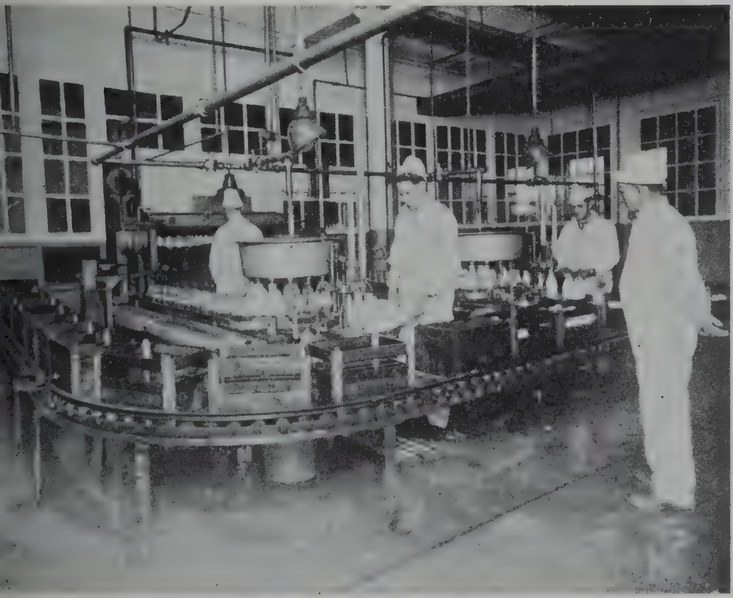
CASTANEA DAIRY

Neatness in Delivery Equipment is Highly Important.

in an effort to wipe out a deadly at was being germinated in beer, d by a process of heating in de- the harmful bacteria. This process me known as pasteurization and is lied to milk to destroy bacteria. It in any way change the milk nor ose its vitamine content. Pasteuri- s recognized today as the only cer- ns of safeguarding the public and ly advocated by the leading health ies. After pasteurization the cream does not seem so large; this is be- steurization has a tendency to con- the cream.

milk is pumped from the large stor- through a filter and then over the zer where it is heated to approxi- 146 degrees F. and passed on into storage tank where it is held at perature for 30 minutes. In pas- on the milk is never boiled, as some as that would mean a temperature egrees F.

r pasteurization the milk goes back wer floors where it is bottled automatically and capped. The bottles are washed and dried just before being filled, all this being done by machinery. The bottles are then placed in cases ready for delivery. The cap denotes the grade of milk and tells the date of bottling. From the time the can is emptied to the time the customer removes the cap the milk does not come in contact with the air.



Where Cleanliness Reigns Supreme.

Possibly the most interesting part of the plant is the laboratory. Here the samples are tested for bacteria count and here the butterfat testing is done. Upon examining the little transparent substances the visitor is able to see the bacteria cultures and how the bacteriologist arrives at his grading. Singularly the name Pasteur means pastor or shepherd or guardian of the flock. When one visits the Castanea company's laboratory, he realizes that the great bacteriologist was indeed a guardian in more than name alone. The Castanea Dairy Company sells the Walker-Gordon certified products which has about 2,000 cows, and is the largest certified farm in the world. This milk is not pasteurized but is produced under the most sanitary conditions, bottled on the farm, and handled with meticulous care.

The New Retail Store.

The entire Castanea plant is under the direction of Dr. Charles E. North of the Public Health Bureau of New York City.

There would naturally at times be a surplus. This is made into butter and the skim milk made into cottage cheese which is mixed with cream and packed in sanitary cartons. Another important by-product is creamed cultured buttermilk. This is not tablet buttermilk nor is it milk left in the churn but it is whole milk which is heated to 180 degrees. Culture is added, then it sets until it reaches the right degree of acidity. It is then thoroughly agitated and immediately cooled and bottled. A high grade of whipping and coffee cream are also sold by the company.

The Castanea company was founded by Henry Comfort in 1905. Mr. Comfort's

(Continued on page 117)

CLEVER DAIRY PRODUC ADVERTISIN

How Manufacturers and Dealers A
Using the Printed Page to Carry The
Sales Messages to the City Consum

By JOHN T. BARTLETT

Is your baby's picture here?
NORTHLAND MILK

CASHING in on the universal appeal of the new and unusual, clever dairy products advertisers have departed from the ordinary in advertisements, and adopted stunt and other interesting publicity ideas. Two incentives to employ new, different advertising methods exist. The first is the recognized special interest which the public has in new things—in news. By and large the enormous number of magazines, newspapers and books which are published cater to this appetite for news. This magazine, in fact, is in response to news information about the dairy products industry, of special value to men and concerns operating in it.

Aside from the news appeal, the new and different advertising idea may have special effectiveness otherwise. It may contain in unusual ways that precious thing—pull.

Try a glass of Milk at noon every day for a month and see how well you'll feel
WESTERN MARYLAND DAIRY
WESTERN MARYLAND DAIRY
Irvin D Baxter - Chairman of Board

THE world is fast learning that fresh cow's Milk is the greatest food for promoting health. So much so that if Milk is lacking in the diet the human frame cannot reach its highest development. The business man or woman who must always be alert to be successful, should eat a light lunch at noon and drink one or two glasses of Milk. Milk supplies the energy and strength you need without taxing your digestion. Try a glass of Western Maryland Dairy Milk every day for a month and see how well you'll feel.

Do all new ideas in dairy products advertising "work?" Only a percentage do, of course. Nobody is keen enough in dairy products advertising, or any other advertising, to infallibly create successful new ideas. For new plans, however, this much is to be said—among them, quite often, appear most unusual successes. Every dairy products advertiser should feel under the ne
of trying out new things continuously, if only
successor ideas for old ones which wear out.

Weber's, Indianapolis, have a splendid trad
for bottle cap use. This trade mark is also fe
from time to time, in newspaper advertising.

The design is a circle, within which, with a
band between, is an inner circle. reverse plate
a picture of a husky infant. Upon the white band
wording, "Weber's clarified, pasteurized, standa
milk."

Every cap thus embellished advertises esp
Weber's milk for child use. The advertiser also fe
the trade mark in advertising. One message, tw
umns by nine inches, placed the trade mark cap i
siderably more than half life size at the top, with
tle of milk inside it. The single-word heading
"Mothers ——."

This message followed, in two paragraphs of t
large size:

"To convince yourself of the excellence of W
milk, you need to observe the sturdy, good health
children growing up on this better drinking milk.

"To further substantiate our claims, we urge
acquaint yourself by personal observation of the
sanitary methods and equipment used in our plant.

Weber's has a slogan based on age—"44 conse
years in Indianapolis."

Southern Dairies of Florida dares to use u
curiosity-arousing copy. An advertisement thre
ums by 11.5 inches, headed, "Biggest Business W
Backs Largest and Livest Organization," surely
its alliterative beginning that which will tempt w
readers to go on.

The answer comes in the first paragraph:

"Anyone versed in statistics can tell you the bi
business woman in the United States is THE C
and she is rapidly assuming a position of leadersh
the city of Miami."

The copy which follows, extensive, is planned t
peal to the patriotic in newspaper readers. Here
concern which is accomplishing big things for Fl
farmers. The "biggest business woman" figure,
which the advertisement started, is continued, thus

"The many country homes of this big bus
woman who mothers the gigantic dairy industry h
be looked after first—and this was done by Sout
Dairy experts. So well was this source of milk s
looked after that Southern Dairies has already
between three-quarters of a million and a million d
for milk produced in the section around Miami
Palm Beach. It has brought prosperity to the
farmers of this section, and the dairy farmers
motored to Miami with the proceeds. At the crea
plant, a large force is constantly employed, with a
roll of $30,000 a month—and this is spent in Miam

"Fuel and supplies for the plant, to keep it and very system in operation, have released another lion dollars in the city.

:ause it operates five Florida plants, the organi- as elasticity of supply and demand which enables ke all local production, assuring constant stabil- price to the dairy farmers and a never-failing to the city, and the encouragement of a big business to stimulate constantly increased pro- ''

drug stores advertise dairy products has a great do with consumption. An advertising idea of n Drug Store, 75 East Flaglier St., Miami, is e both intereting and significant.

store, to begin with, features the soda fountain usiness name. That is fine. It gives the fountain nent equal prominence with the drug department. her, a special advertising signature has been This puts the store name and address, as it pon the fountain front. Sitting up at the foun- a friendly group, at center. An arch effect sur- these, upon it being the words, a slogan, "Meet he Fountain."

sort of drug store advertising can be counted where to increase the consumption of dairy prod- The latter, indeed, frequently are mentioned in nged advertising text of this store. A sample sement, for example, played up the fact that re cream is served with the store's coffee.

ker's Riverside Creamery, Laredo, Tex., believes specific, in advertising. Advertising the qual- s ice cream, "Cleanly made from the purest in- ts," it continues—"Rich cream from our own Jersey purebreds, vanilla from the finest Mex- nilla beans, chocolate from the cacao of Caracas sh fruits direct from orchard and field."

inviting old friends and new to visit the new he advertiser declares, "Our ice cream maker ster of his art, and we want you to know him lly."

is putting the specific suggestion in copy.

appeal of photographs is being used by a quite ng number of dairy products advertisers. Con- togravure sections alone.

gravure presents the photographs with unusual and charm. Western Maryland Dairy, Balti- pitalizes this fact in a large space advertisement g, primarily, to business people. Here we have miling, go-getter in the pink of health, about to glass of milk. A bottle of Western Maryland shown. "Try a glass of milk at noon every day onth and see how well you'll feel," is the head- erse plate presentation.

mortise is found the persuasive statement, "The man or woman who must always be alert to be ul, should eat a light lunch at noon and drink two glasses of milk. Milk supplies the energy ength you need without taxing your digestion. lass of Western Maryland Dairy milk every day onth and see how well you'll feel."

other advertisers presenting the appeal of roto- make their advertisements "baby" messages. nd Milk and Ice Cream Company, Des Moines, e question, "Is your baby's picture here?" In vo columns by five inches, around the border, han 14 smiling baby faces, all smiling, are shown. e's a "kick" in this advertisement!

Fairfield Farms, Baltimore, shows thus in large space Fairfield baby number 511. The caption introduces a sturdy young fellow weighing at eight months no less than 28 pounds. This photograph reproduction is a large one.

The advertising text includes several interesting statements. There are two slogans, "The Perfect Food For Every Age," and "Famous For Babies." Two other statements with sales-making influence inform the reader that plants are always open for her inspection; further, "A Fairfield Farms wagon passes your home every morning before breakfast."

There is appeal of a different sort in a milk-for-health committee advertisement at Ft. Worth, Tex. Growing children need milk, the heading declares. There is reproduced the photograph of a large group of school children. A striking statement is that 46 per cent of the school children are underweight! In all capitals the message declares "Milk Will Build Them Up."

There is abundant advertising competition in dairy products—which means, for one thing, there is strong incentive to use new, different appeals. Judging from the survey made by the writer, dairy products lend themselves unusually well to distinctive and "different" advertising. Probably any individual advertiser can be original, and productively so, who will study his product with sufficient determination.

MILK ALSO BYRD'S FAVORITE BEVERAGE.

"He chatted with his hosts, and drank a glass of milk before retiring."

This is the Associated Press report of what Commander Byrd thought most essential when he was rescued from his good ship America, landed in the sea 200 yards off the Normandy shore.

Lindbergh, probably less tired than Byrd, wanted milk and a bath before retiring; Byrd just wanted a glass of milk.

What they drank is an unfailing indication of what they are. It tells the reason for their ability to stand the test, endure the strain and win the race.

There is no doubt as to the importance of the diet factor in the success of many men, less doubt now than before the real value of milk and milk products were scientifically analyzed and classified. It takes, however, a Lindbergh and a Byrd to make the emphatic demonstration of these facts for the guidance of all who would emulate their stamina, their manhood, and their success.—A. M. Loomis, Secretary, American Dairy Federation.

DAIRY PRODUCTS COMPANY MAKING STEADY PROGRESS.

In adding new equipment to their plant that has greatly increased their production capacity, the Dairy Products Company, 219 East Fifth St., Dayton, Ohio, has taken another step that keeps them among the leaders in furnishing dairy products to the people of Dayton.

This company recently installed a new pasteurizing machine that has a capacity of 1,200 quarts per hour. The machine is equipped with six 150-gallon tanks that are filled, drained and refilled automatically and in which the milk is pasteurized thoroughly.

John N. Gibson, the president of the company, has been able to anticipate future needs of the company and today this plant stands as the most complete dairy plant in the country.

Helping Their Patrons to Produce Better M

Big Michigan Firm Grades Milk by Bacteria Count and Sediment Test. Increases Number of Patrons, at the Same Time Accomplishes Real Progress in Quality Improvement

AT LEAST 60 per cent of the 393 producers that supply milk to Mead Johnson & Co., Zeeland, Mich., receive a bonus for delivering milk with a bacteria count below 100,000 per c.c. and with a sediment test grade of at least one or two. This was their record for May, 1927, a year after adopting a bonus plan.

The Mead Johnson system is to take bacteria counts by the Breed microscopic method three times each half month, and to make a sediment test at least once within that period. All samples are taken direct from the producer's can of milk as it is delivered, and tests are immediately made. At the end of each half-monthly period reports are sent to each patron showing how his milk graded and whether he has earned a bonus. If the sediment test has run three or four, the disc is attached to the report to emphasize the importance of clean milk. In cases where a bonus is granted, however, the disc is not attached.

Fieldmen Help Patrons.

If the bacteria count is below 100,000 for two of the tests but is above 100,000 on the third, then the patron is not granted a bonus. He must deliver a constant good quality of milk. The company is doing much to make it easier for the producer to deliver clean milk of high quality. They send out a monthly letter in which they tell means to keep dirt out of the milk and to keep the bacteria count at a minimum; and in addition to this they employ one full time and two part time fieldmen. The full time man works mostly with those who do not regularly receive a bonus. He does, however, make it a point to visit each farm at least twice a year.

The Mead Johnson & Co. plant at Zeeland, Mich.

Of the work of fieldmen, R. F. Keeler, manager of the company, explains:

"Previous to the inauguration of the present system, we had our own fieldmen scoring the farms and trying to instruct the producer in the care and handling of his milk. In addition there was inspection made by the Chicago Board of Health. These inspectors and instructors were looked upon with suspicion by the producers, and the inspectors were treated more or less like policemen and necessary evils. It was obvious that the appearance of the milking stool had very little bearing on the quality of the milk. Today, if a produce
to get the bonus, he sends for the fieldman t
him what is wrong, and in general, the relations
tween the two has undergone a radical change."

During the months of February and March,
series of meetings was held with an attendance o
30 producers at each. These conferences were
an attempt to prepare the producer to deliver a
quality of milk in the future. One of the topics a
was the relation of atmospheric temperature to th
ber of producers receiving the bonus. The com
looking forward to being able to present to the
definite data at other meetings to be held next

System Wins Farmers' Respect.

The farmers who send milk to Mead Johnson
have learned that the grading and bonus syste
them is a substantial institution. Only a few yea
however, there was little respect for the gradi
tem, because so many companies had started i
almost immediately abandoned the idea. And so
been in the face of keen competition that this co
has broken down the prejudices against grading m
and has gained the confidence of their patrons.

Just how well they have accomplished this
seen from the accompanying table. It shows a co
son of the records for May, 1926, when the te
started, and May, 1927.

	May 1926
No. of producers supplying milk	290
Percentage of these producers receiving bonus	39
Percentage of these producers receiving the different grades in the sediment test:	
Percentage with grade (1) sediment	11
Percentage with grade (2) sediment	32
Percentages with grades (3) and (4) sediments	57
Percentages of samples examined which were in the different bacteria grades:	
Percentage of samples in grade (1) bacteria	65
Percentage of samples in grade (2) bacteria	18
Percentage of samples in grades (3) and (4) bacteria	17

It will be seen from the record that the num
those receiving a bonus has increased more in p
tion than has the number of patrons. It shows als
while most of the producers send in milk that
"2" in the sediment test, an increasing perc
falls within the bonus requirement. Finally, th
a very marked decrease in the number who are se
in milk that grades "poor."

Consider Probation Plan.

As for the bacteria count, most of the farmers
used methods which make their milk fall consis
within the "less-than-100,000" class. Accordi
present plans, a period of probation is to be inst
for those who fail to attain the bonus requirem
proportionate number of times, yet who are inte
in bettering the quality of their milk.

Of the general effects of this bonus and grading
the manager reports that there is, as a result o
system, an increased interest in dairying in that lo
Many of those who have thought to abandon the
cow and try to make a living in some other way,
been shown that if the farmer uses available inf

:l simple means of improvement, he can be suc- Many of the letters sent out by the company ressed intelligent farming practices as well as nethods of producing cleaner milk and keeping :eria count low.

act, one of the keynotes of the success of this a monthly letter to patrons. Each is snappy, information, and chatty. Here is the way one out in July, 1926:

> s are pigs, and milk is milk with many people. They very little difference in quality of milk from a san- andpoint. To these people milk is good until it thick or tastes sour. Because milk changes very appearance till it is very sour, they cannot under- iality in what appears and tastes like good milk. otatoes or moldy grain is very easily seen and qual- e readily determined at a glance. While quality in nnot be ascertained by sight, by laboratory means measured more accurately than quality in potatoes
>
> **Good Dairymen Market Clean Milk.**
>
> quality of your milk depends on you, the same as clothes depends on the tailor who makes it. You care to buy a suit of clothes in which the seams sewed or which had holes in the pockets. A suc- ailor doesn't make that kind of a suit, neither does cientious dairyman produce milk that is comparable y with a suit that has holes in the pockets or that wed seams."

the writer goes on to emphasize that milk is at quality when it is drawn from the cow, and the y to keep the quality up is to keep the dirt out temperature down. One of the most important e explained, is to clean all utensils thoroughly scalding. Then to scald them and thoroughly m is an effective and inexpensive method of utensils sterile and sweet smelling.

e August letter he attacks the problem from a t different angle, but just as interestingly. He that the cow's milk was intended by nature ed direct from the cow by the calf. Unlike veg- eggs and grains, milk has no protective coat, ot in a sealed package. Such a handicap lays rly complete food open to the work of fungi, , and to contamination by dirt. Then too, he en though all bacteria in milk are not harmful, to assume that they are and do all we can to their growth. Cold water rinsing and ample are good antidotes for bacterial growth.

subject of summer feeding is one not too far from the patron's letter. And along this line to supplement grass pastures and the like are ed.

eck-up on the efficiency of management and care eynote of a September good-will builder. The ints out that something more than mere strength is needed to make good dairymen and to market lk. In it are suggested sources of information open to the farmers, such as: Agricultural col- xperiment stations, and the U. S. Department ulture.

a line of bold face type reading, "Clean cows ean milk and more milk," the November letter zes the convenience of clipping cows to keep an. In this paper we find also some facts shown ew bonus system. They are that "during the f October 16 to October 31, there were 185 pa- o secured the bonus. Of the remaining patrons, d have had the bonus if their milk had been "

Cleanliness is Winter Problem.

they point out that producing quality milk dur- winter is chiefly a matter of keeping the cows clean, and that milk kept at a low temperature will keep the bacteria count down.

It has been the object of Mead Johnson & Co. to encourage producers to deliver milk that is above the average in quality. At the same time they needed to increase the number of patrons. Obviously, this company has succeeded remarkably well, showing within one year an increase of almost fifty per cent in the total number of producers delivering milk to them. Furthermore, during that period a steady improvement in quality of milk was brought about.

Even though a few producers did not show a desire to co-operate and produce better milk, there were plenty who were only too eager to do so. Mr. Keeler explains that, "although it is practically impossible to get 100 per cent of the patrons on the bonus list, the results to date have been far better that we had hoped for. As a rule, we find that the producers with the smaller herds are harder to interest than those with the larger herds."

Wins in Spite of Prejudice.

These results have been accomplished in the face of competition, and in a territory prejudiced against milk grading systems. It is another example of how the untiring, wide awake milk dealer can succeed and at the same time benefit his community and his patrons.

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SOUR MILK CHIEF DIET OF STRANGE MADAGASCAR PEOPLE.

An ideal country for tramps has been discovered by Dr. Ralph Linton, leader of the Captain Marshall Field expedition to Madagascar. The expedition has found strange tribesmen who never bathe or wash their clothing. They sleep on carved wooden pillows and subsist chiefly on sour milk. Instead of washing their garments they soak them in grease.

Head hunting is practiced by these Antandroy and Mahafaly tribesmen and a man's wealth and importance is attested to by the number of heads of enemies he has suspended on a rack outside his residence.

The tribes are wealthy. Captain Linton speaks of ceremonies he was permitted to attend where the women wore gold jewelry worth hundreds of dollars. The natives capture fish by the use of cleverly devised wooden decoys, with flexible horn fins.

The region where these strange people live is in the midst of tidal swamps and is extremely unhealthful. A white man could not long survive there. All the waters are infested with crocodiles which are so numerous and so vicious that the women of the tribe, who do most of the work, get water from the pools by using a dipper on a 10-foot pole.

The tribesmen have developed an elaborate system of drum language and Captain Linton says they can communicate over long distances by the use of signal drums.

⁂

OHIO MANUFACTURERS TO PLAY AT CEDAR POINT.

The fifth annual meeting of the Ohio Dairy Products Association will be held at Cedar Point-on-Lake Erie, Sandusky, on Thursday and Friday, July 28 and 29. You are cordially invited.

⁂

MUST MAKE NECESSARY INSPECTIONS.

It was decided at a conference at Ottawa, Canada, recently, that Canadian authorities will be required to make the inspections necessary to meet requirements of American laws respecting shipment of milk and cream to the United States.

One of Wisconsin's Finest Dairy Plant

Big Plant in Fond du Lac Doing a Nationwide Business in Eleven Different Dairy Products. Drying Equipment Recently Added

ONE of the finest and best equipped dairy plants in the country is located in Fond du Lac, Winnebago county, Wisconsin. It is owned and operated by the Galloway-West Company, an organization for many years identified with the development of the dairy industry of the Badger State.

Morris West is president of the company, E. C. Galloway is vice-president, I. C. West is secretary, and T. C. Ebbernau is treasurer.

Products of this fine plant find sale in many states of the Union. Shipments of sweet cream go to several Eastern cities, and ice cream mix finds a ready sale in Chicago and many other cities in nearby states. One hundred and fifty 100-pound bags of sugar are used daily in preparing ice cream mix.

In one day recently 240,000 pounds of milk were received and used in making the eleven different products put on the market, of which 157,000 pounds were taken in at the Fond du Lac plant. Two oulying plants supplied the balance.

All milk comes from tuberculin tested cows, so the products they produce find ready admittance to any market.

Enormous sums of money have been expended by the Galloway-West Co. to improve the quality of the milk produced by its patrons. The company goes so far as to build milk houses for its farmers, allowing the farmer to pay the actual cost in small monthly payments.

A visit to this fine plant is an education in itself. There one finds efficiency on every hand—efficient capacity, efficient equipment, efficient methods, and, of course, efficient management.

Just recently the company has added powdered milk equipment, and a large su mof money has been invested to make this department in keeping with the balance of the business. A large new addition contains the drying chamber, which has a capacity of 41,241 cubic feet.

The drying chamber has a diameter of 28 feet, and is 28 feet in height. Its entire interior, including the floor and roof, is lined with tin. Human hands do not touch the product at any time during its transformation from the fluid to the solid state, and but two men are required in the manufacturing process. An important part of the equipment is the blower system used to provide the drying the atomized milk particles into powdere This system provides what is known as a "ba draft" and is the first of its kind installed by th Rogers Company of Detroit, manufacturers of the ment purchased by the Galloway-West Company probably the only one of its type in use in the States at present.

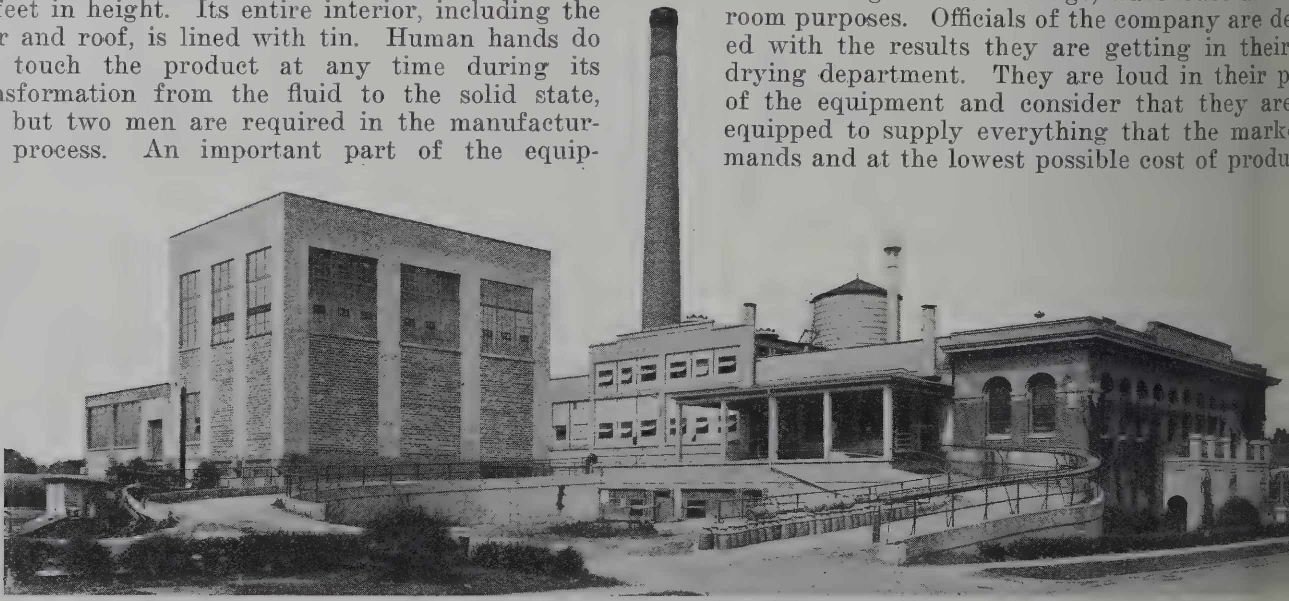
The air intake is on the third floor of the nev tion which houses the powdered milk manufa equipment. The air is first drawn through an oi which purifies it. The oil filter is built in section of which contains steel wool dipped in oil. Afte milk run, one of these sections is removed, wash again immersed in oil before being replaced in th rack.

From the filter the air passes into a heat gen Through this generator, outgoing air from the chamber is being circulated about cold air pipes this method the cold air is heated to an apprecia tent before reaching the heating coils.

The heating coils are similar to those used in h a building. Part of the coils use exhaust steam wh others use live steam. After the fresh air has been in these coils it is sucked through a large tube in drying chamber where it shoots up to dry out th being atomized at the top of the room.

The manufacturing equipment at the Galloway plant is guaranteed to handle 500 pounds of pow milk per hour, but as high as 750 to 800 pounds pe have been run through. It is estimated that 1 pounds of skimmed milk will produce 8,500 pour powdered milk.

The addition erected by the Galloway-West Co for its powdered milk manufacturing equipment no provides a plant 52 feet high and 47 by 46 feet in dimensions, but also a two-story, 46x48-foot addit its engine room. The second story of the engine addition is being used for storage, warehouse and room purposes. Officials of the company are de ed with the results they are getting in their drying department. They are loud in their p of the equipment and consider that they are equipped to supply everything that the mark mands and at the lowest possible cost of produ



Galloway-West Company Plant at Fond du Lac, Wis.

Dairy Clubs Entertain British Envoy

Representative of World's Dairy Congress Meets Dairy Leaders in Milwaukee and Chicago and Tells Them About Plans for the Big World's Dairy Congress in England Next Year

A. EVANS of London, a director of the World's)airy Congress, accompanied by Mrs. Evans, is in he United States in the interests of the big dairy to be held in his country next year.

Thursday, July 7th, Mr. and Mrs. Evans were ests of the Wisconsin Dairy Club in Milwaukee, the following day they were entertained by the al Dairy Club and the International Association k Dealers in Chicago.

both occasions Mr. Evans paid high tribute to terprise of American business men. In telling of fferent experiences he had met up with in this y he repeatedly said, "Of course, we don't do it ay in England."

ou do everything on such a big scale," Mr. Evans I am not surprised that you extend to Mrs. Evans such a generous welcome."

Evans is not an orator, and he doesn't pose as He is just a successful business man who makes a tudy of the dairy business and who can, in a most ting way, tell his hearers what he knows and the sions he gains. He is a director of the United , Ltd., which supplies 80 per cent of all the milk London.

ngland has adopted American methods of milk dison for large cities in every detail," Mr. Evans "Not only that, but we believe that we have made mprovements, and we want your American dairy look our plants over when the World Dairy Cons held in London next June.

merica has taken to the use of milk because you vast wholesale supply. That is one of our prob England—raising fine herds like yours. While American cities, such as Chicago and Washington, eir entire supply of milk from tuberculin tested there are not more than 100 such herds in England. spite of the fact that most people think of Eng a strictly industrial country, farming is our basic y, as it is the basic industry the world over. Engs the home of several of the finest breeds of "

cording to Mr. Evans the ice cream industry in d is ready for a great expansion. Very little ice is to be found on the market and when found it nferior quality. Plans are being laid, however, for velopment of the industry along the lines followed country. Eight million people in London alone iting to enjoy good ice cream, like American made am.

Evans emphasized the opportunities that are manufacturers of equipment and supplies in this y who are in position to handle an export business. people have the money and they are waiting to ur goods," said the speaker.

Evans said he was delighted to find, upon arrivthis country, that plans for a World's Dairy Con-Tour were already far advanced. "That is the way ks do things," he said, "and when I learned about our I immediately wrote my colleagues in London se their plans for entertaining American delegates. l of the 100 delegates we were counting on from America I fully expect to see a thousand arrive to take part at our opening session."

Mr. Evans, of course, referred to the World's Dairy Congress Tour which is being sponsored by the Olsen Publishing Company. "I admire your pluck," he said. "You not only take right hold of a big enterprise, but you pick out the finest boat on the open seas. Why, I am astounded!"

His astonishment, however, was one of pleasure. He urged his hearers to join in promoting the tour. "You men all want to go, and the most of you can go if you just make up your minds to do it. You will be amply repaid. When you come, bring the ladies along. In our country we don't take the ladies to our business conferences. Come and show our people how you treat the ladies in this country. Bring them with you, by all means. They will be royally entertained."

Mr. Evans was particularly pleased to see the ladies turn out at both the Milwaukee and Chicago meetings to entertain Mrs. Evans and to learn about plans for the tour. They met a very charming English lady, who is thoroughly enjoying her first visit in America.

As time goes on further details regarding the World's Dairy Congress Tour will be published in the Olsen publications. Readers will be kept posted as plans unfold. The S. S. Leviathan will carry our party, sailing from New York City on June 9, 1928, and arriving at Cherbourg, France, on June 15th.

The World's Dairy Congress will open in London on June 26th and will continue until July 5th. The intervening time will be spent in touring France, Belgium and Holland, under the auspices of the American Express Travel Bureau.

Following the Congress tours will include visits to Holland, Germany, Denmark and Sweden and other countries.

Further details, including transportation costs, additional side trips, etc., will be cheerfully furnished on request.

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COST OF POWER PLANTS.

If you are contemplating building a power plant you will be interested in the following costs recently given in a paper presented before the A. S. M. E. by a prominent engineer:

It is estimated that the cost of Colfax Station upon its completion—270,000 kw. capacity—will be $107.50 per kw. The division of costs for 190,000 kw. capacity are:

	Per cent
Building and foundations	20.1
Boiler plant	16.1
Turbine and generators	15.9
Switchboards, transformers, conduit and wiring	14.4
Piping	6.9
Condensers and auxiliaries	6.8
Draft system	4.9
Condensing water system	4.1
Auxiliary equipment	1.9
Service equipment	1.7
Station yard and tracks	1.7
Coal handling	1.3
Feed-water system	1.3

Reports the Manager Must Get

The Use of Statements for Curtailing Expenses in the Business of Operating a Modern Milk Bottling Plant

By C. L. PEGGS*

IN THIS modern age, knowledge is rapidly taking the place formerly occupied by mere experience. Knowledge, when applied to the operation of business affairs, must be of such a nature, that it will dislose the actual conditions supported by accurate facts and figures relative to cost and selling prices.

With the growth of business enterprises, greater need has arisen for developing adequate means by which to keep those responsible for the operation and direction of business informed of its past accomplishments and its present status. Especially does this apply to the business of today that is compelled to operate under such keen competition that causes the margin of profit to be in many cases very small and indeed in many cases inadequate to promote growth.

Because of this fact, business executives are recognizing more keenly than ever before, the essential part which properly prepared reports play in the conduct of business. This is especially true in the case of reports rendered by accountants to departmental heads, managers and executives, many of whom are apparently lacking in a proper appreciation of the necessity of preparing reports so that they may be easily understood by those for whom they are intended. For a poorly constructed report, though seemingly harmless, may prove to be a most dangerous instrument in the hands of those who use it.

It is the duty, and should be the pleasure of the accountant to prepare statements and reports from the standard of uniform practice with respect to forms, arrangement and terminology as well as satisfaction, and with the all important factor predominating, that of enabling the department head, the manager or executive, if at all possible without detrimental effects, to reduce or curtail expenses, and the accountant should develop a uniform procedure for presenting the financial facts of the business so that reports for different periods may always be comparable.

In the dairy products industry the margin of profits is small compared to that of other industries. It is presumed that this condition arises from the fact that the pioneers of the milk and ice cream manufacturing industries, in determining their selling prices, established a schedule of rates which prevented returns such as are enjoyed by other industries. The difference between purchase price and selling price, termed "spread," has in the case of many dairy products proved inadequate to meet the cost necessary to finishing and selling these products.

These men intended, as is our intention, to net a fair profit on the sale of these products, but accounting, which is the means of presenting to the management the knowledge of the elements entering into business so that effective control may be maintained, was not sufficient in its scope to provide intelligence on which to base sound judgment; a knowledge of the various costs and expenses added to the product as it passes through the various processes to the finished state was practically unknown.

Competition in this industry as well as in all others is becoming keener, and those who know their costs are
the ones who will survive and prosper, because
fact, that through this knowledge they are in a
to reject all undesirable business, they know th
ucts which net the largest returns and they kn
control their selling and distribution expenses.

And now after the products have been pr
and finished under the present stanadard of sc
methods and systems usually found in the averag
and ice cream manufacturing plants, these res
dealers are then confronted with the problem o
and distribution. They realize that in order to
and hold their old customers as well as continue
new ones they must maintain a service that is a
on a par with that of their competitors and t
of successful business demands that this service
erated at a profit. Therefore it is very importa
proprietors or directors are furnished with the ne
intelligence in the form of statements or report
will enable them to closely observe this law.

Schedules of departmental expense, both in
and operating groups, should be prepared in suc
that comparisons of previous periods can be
made. This will immediately bring to the atten
the department head any variation in the expe
operating the department. These schedules shou
show the proportion of expenses to volume handl

Selling and distribution expenses should be re
in such a way or under such a classification that
countant will have at his disposal information th
enable him to prepare statements and reports
various classes and conditions of sales.

In constructing a system of accounting in a ma
turing or processing plant, the aim of the accou
should be, to so build his forms that the items
penses can be charged direct to the product or
tion affected. If this aim is accomplished the accou
will have reduced to a minimum the necessity of a
ing expenses on an estimated basis.

The proper interpretation of comparative ex
schedules or sales reports will provide a means
flecting a very efficient expense control. With ex
properly controlled the problem of curtailment th
volves only the impairment of efficiency. These
ules will furnish data that will enable the execut
determine intelligently whether or not the redu
or elimination of certain items of expense can be ef
without impairing service or production.

Meetings such as this have sustained and pr
gated a continuance of the fundamental princip
accounting, interchange of ideas and practical e
ences of the controllers and accountants whose fu
it is to prepare and submit to both executives and
agers summaries, statements, reports and statistic
formation relative to the operation of milk and ice
plants.

As we as controllers and accountanats endeav
keep pace with the trend of the times and newl
vanced ideas, we are many times confronted wit
expected to furnish executives and managers with
ments and reports that perhaps were not in the vo
lary of our text books or training in accounting
cedure, so it becomes necessary for the controlle
the accountant of today in order to be efficient an

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* Polk Sanitary Milk Company, Indianapolis, Ind., at District Cost Council held in Indianapolis in May.

No. 70 New Series
De Laval at
West Frankfort
Pure Milk Co.,
West Frankfort, Ill.

eeting the test
of actual, everyday use

WHEN you install a new separator be sure you get *proved* skimming efficiency—*proved* capacity—*proved* mechanical efficiency—*proved* ability to produce churnable cream of high quality.

No separator user can satisfy himself on all these points in a day—or in a month. Any separator worthy of the name should run smoothly and skim fairly clean when it is brand new—but the real test comes after a few months of service.

Likewise any separator will do its best work when milk can easily be kept warm and cows are fresh—but see what it does when conditions are reversed.

Scores of New Series De Lavals have now been in operation for a year or more.

—And the concensus of opinion among users is that the New Series machine is in every way the most wonderful separator ever built. That is the real test—what users say—not what we or any other separator manufacturer may tell you.

We have prepared a folder containing interesting letters from 12 users of New Series machines. Write for a copy.

THE DE LAVAL SEPARATOR COMPANY
165 Broadway, New York 600 Jackson Blvd., Chicago
DE LAVAL PACIFIC COMPANY, 61 Beale Street, San Francisco
THE DE LAVAL COMPANY, Limited
Montreal Peterborough Winnipeg Vancouver

ew Series
De Laval Separators

When writing to The De Laval Separator Company *please mention The Milk Dealer.*

cessful in his work to continue to study and enlarge on his knowledge of the accounting field.

The accounting department of the milk dealer and ice cream manufacturer of today, while perhaps in some ways are not unlike the accounting departments of other industries, yet, there are many intricate and perplexing problems that the accountant is called upon to solve, for the reason that the sales of the milk dealer and ice cream manufacturer are made up and composed of small packages of dairy products to be delivered to the consumer 365 days per year, and the shut-down is practically unknown.

These distinct conditions prompted some members of the International Association of Milk Dealers to undertake the tremendous task of the establishment of a uniform cost accounting system that would not only assist the controller and accountant to render an improved service to management but to be enabled to determine the cost of the individual unit of the dairy product.

Most of you perhaps are familiar with the proceedings, development and success of the project; of how the manual was first published by the milk dealers; and afterward the ice cream manufacturers prepared a much improved manual and by their combination the International Association of Milk Dealers have adopted for installation the uniform cost accounting system for the milk dealer and ice cream manufacturer or a combined form for the milk dealer and ice cream manufacturer.

Of course, the great question that predominated in the minds of the members of the association was "Would it prove successful?" And it is with pride that those who have had experience in the application and operation of the uniform cost accounting system both the milk dealer and the ice cream manufacturer can justly say that "It is a real success," when properly installed, operated and applied.

Especially to the controller and accountants of the milk dealer and ice cream manufacturer should the accomplishments and achievements be of particular interest, as the uniform system was built by the controller and accountant within the industries.

So in order to effect the foundation and basis for curtailing expenses it is absolutely necessary that the statements are of such character that will reflect the actual operation and condition of the different departments necessary to successfully operate a milk plant or ice cream plant.

As members of the Controllers' Council we are firm in our belief that we are making a great contribution toward a successful end and have been greatly assisted by the other groups, namely the purchasing section, production section, sales management, engineering and administration sections.

The controllers and accountants of the milk dealer and ice cream manufacturer who are operating the uniform system of accounting must certainly feel a sense of great satisfaction and gratification to be enabled to present to executives and managers reports in detail that actually disclose the cost of the individual unit of product, schedules of departmental expenses, the profit and loss on each unit of product sold and the profit and loss from operation of each individual route, as well as properly constructed financial and depreciation statements and many other reports and statements that are vital to the operation of a milk or ice cream plant and most valuable statements and comparisons for sales and distribution control. And the statement that perhaps is the most important insofar as departmental control is concerned, is the statement that will develop ways and means to control the expenses of any one or all departments. Therefore it is necessary to operate a
that will give the flow of product through the pl
natural group of expense, and the segregation
penses to departments and the cost of the unit
uct through each department and finally the cost
of finished product placed in the package for d
Then with this information readily and promp
nished the matter of application of costs relative
ing prices becomes greatly simplified.

And from the knowledge attained through
perience of systems adapted to the milk and ic
industries we feel confident in saying that the
cost accounting system is beyond the question of
the greatest asset that controllers and accountant
place in the hands of those engaged in the milk
cream industries.

⚜

NIELSENS PRODUCE ACIDOPHILUS MI

Thirty-five years of intensive study on the su
milk, including six years spent in research work
has given N. D. Nielsen, biological chemist, 1114
Ave., Pittsburgh, Pa., a thorough knowledge of t
ject. Mr. Nielsen, at the present time, is conduct
Nielsen Dietetic Laboratory, with his son, S. D.

Fifteen years ago the elder Nielsen first prop
theory of milk. This theory held that beside the
hydrate, fat, and casein to be found in milk, there
a gland secretion which makes eighty-five per cen
bulk, and is the ingredient which aids in the met
of the food portion.

Clinical findings over a long period of years
stantiated Mr. Nielsen's theory, and it is gener
cepted as a fact. In the laboratory fitted up at t
of the Nielsen residence, research over a period
enabled them to separate the culture of the glan
tion.

After nurturing the culture for three and
years it was finally possible to produce it in com
quantities, as is now being done, under the name
sen's Acidophilus Milk, consisting of the origin
mones from the milk.

Just recently the Nielsens have produced a be
of pure fruit juice, combined wth their acidophil
which proved successful when oranges and the mil
combined.

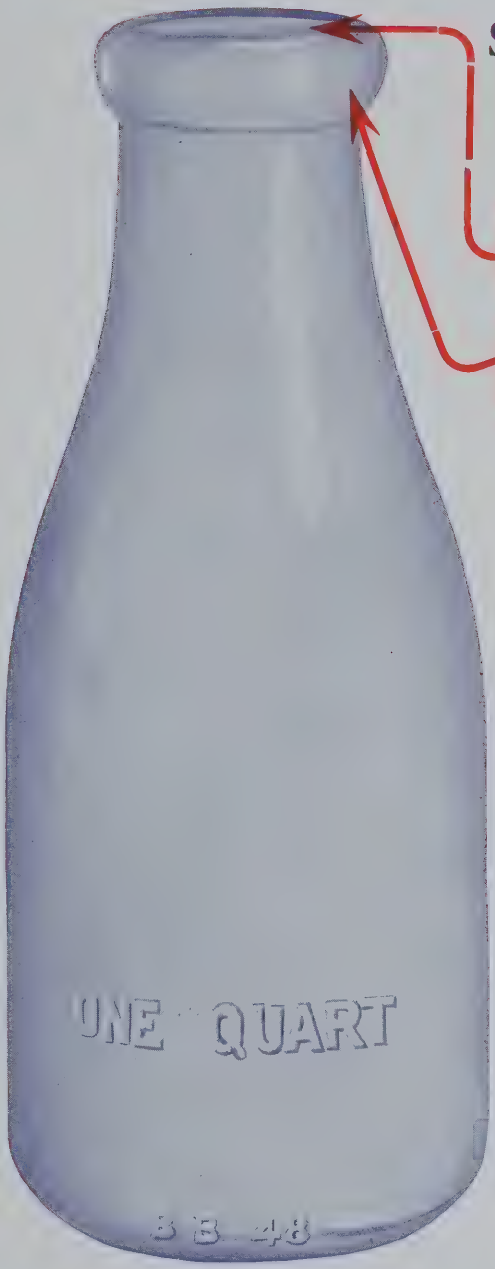
The Nielsen laboratory is a completely mode
thoroughly scientific plant, and the liquid is han
glass containers from the time it comes to the lab
as milk from the cow, until it is bottled for the c
ers' use. In addition to their schedule of prod
the Nielsens are constantly carrying on research
in the field of their choice.

Acidophilus milk, which has now been distr
all over this country and in Europe, will be foun
ficial in connection with a large number of ailme
is claimed by the originators. Acidosis, indigestio
tric and duodenal ulcers, gastro-intestinal trouble
gish liver, dizziness, insufficiency of pancreatic
diabetes, kidney and bladder irritations, auto-in
tion, pernicious anemia and other diseases hav
benefitted by the use of the liquid.

⚜

If that business of yours does not suit you, som
else will be glad to get it. Let them know ab
through a "Milk Dealer" Want Ad.

Automatically Processed Milk Bottles of Quality



Six Little Details All Big

1. Round cap seats that hold the cap
2. Well formed heads designed to obviate chipping
3. Accuracy in capacity uniformly maintained
4. Glass clear in color
5. Scientifically annealed (tempered) giving maximum strength
6. Grace in design, making a pleasing package

Our Motto:

Quality

Economy

Dependability

You Want Quality Let Us Serve You

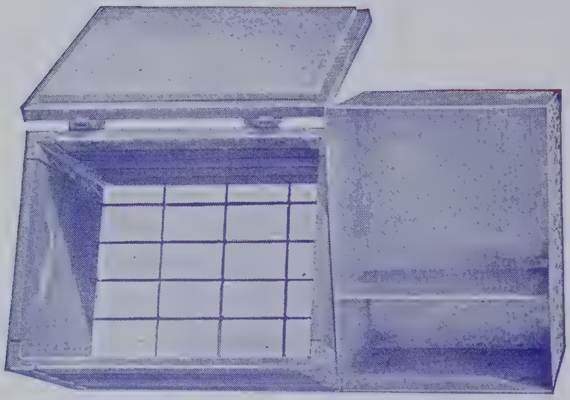
BERNEY-BOND GLASS COMPANY

Main Office-Factory: CLARION, PENNA.

CHICAGO Representative: A. F. MARTIN, 1654 Cleveland Avenue, Chicago, Ill.
MICHIGAN and OHIO Representative: Lock Box 56, Redford, Mich.
NEW YORK, N. Y., Hudson Terminal Bldg., 50 Church St.
BOSTON, MASS., 170 Summer St.
PHILADELPHIA, PA., Abbott Bldg., Broad and Race Sts.

When writing to BERNEY-BOND GLASS COMPANY *please mention The Milk Dealer.*

The WOOLSE



A Necessity on
every wagon for th
delivery of
Dairy Specialties
in proper condition

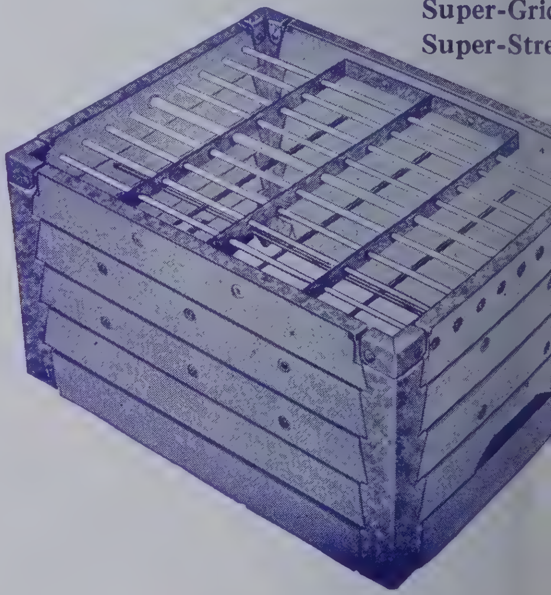
MADE LIKE THE FAMOUS

WOOLSEY
Bottle Crate

with Wire Laced—Interlocked Metal
Corners and Unit Slat Construction

◆

*"The Standard of Excellence in
Bottle Crate Construction"*



Super-Gri
Super-Stre

The Northwestern Collapsible Carrier

Ask These Jobbers:

A. H. Barber-Goodhue Co.,
Chicago, Ill.—St. Paul, Minn
Indianapolis, Ind.

The W. E. Barrett Co.,
Providence, R. I.

E. A. Kaestner,
Baltimore, Md.

Meyer-Blanke Co.,
St. Louis, Mo.
Birmingham, Ala.
Dallas, Tex.

N. A. Kennedy Supply Co.,
Kansas City, Mo.
Oklahoma City, Okla

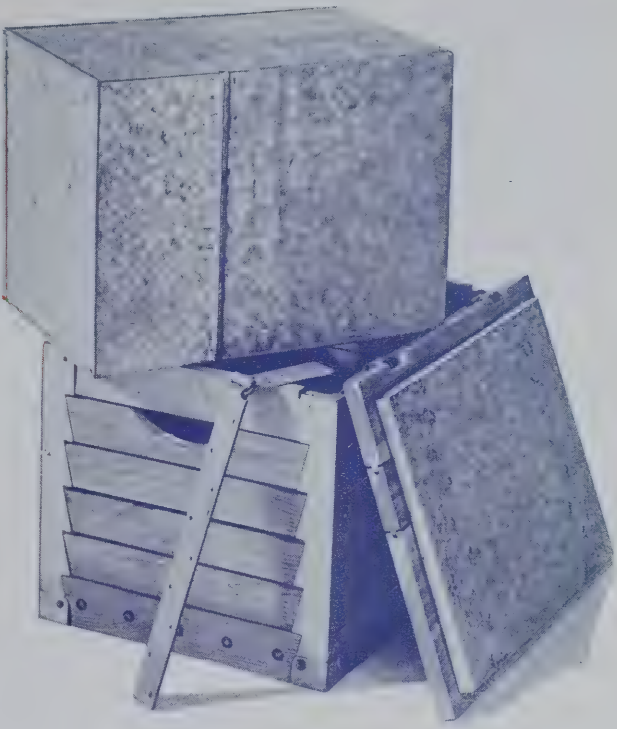
Oliver M. Dean & S
Worc

Beatrice Supply Co
D

Ohio Creamery Su
Clev

When writing to THE NORTHWESTERN COLLAPSIBLE CARRIER CO. *please mention The Milk Dealer.*

utter Box



ompetition has changed
aphazard delivery methods
o those of exactness—to
ethods that will preserve
he finer qualities of dairy
pecialties until final delivery
o consumer.

he Woolsey Butter Box will preserve quality appearnce, and make proper delivery more convenient.

he separate ice compartment keeps he contents cold and clean. Made s two separate boxes and joined ogether. This gives longer life and revents leaks from ice compartment.

he *insulated cover* thoroughly protects against dust and dirt and keeps heat out of the box for the distance of the route.

A strong, specially designed hinge permits the cover to be opened at any angle without strain on the hinge.

Every Wagon Should be Equipped with a Woolsey Butter Box NOW!

AMPLE STOCKS FOR IMMEDIATE DELIVERY

-- ***Wire Your Order*** --

Talmadge Ave., S. E.,
MINNEAPOLIS, MINN.

1821 Callowhill Street,
PHILADELPHIA, PA.

& Equipment Co., Pittsburgh, Pa.
Bros., New Haven, Conn.
mond, Ltd., Toronto, Canada

Kennedy & Parsons Co., Sioux City, Ia.—Omaha, Neb.
Geo. G. Mill Co., Great Falls, Mont.
N. W. Creamery & Dairy Supply Co., Seattle, Wash.

T. C. Power Co., Helena, Mont.
Oakes & Burger Co., Cattaraugus, N. Y.—Erie, Pa.
Phoenix Seed & Feed Co., Phoenix, Ariz
C. Peterson, Hartford, Conn.

Geo. W. Prising Co., Inc., San Francisco, Calif.
The Smith-Comstock Co., Bridgeport, Conn.
United Dairy Machinery Corp., Buffalo, N. Y.
Warr Supply Co., Los Angeles, Calif.

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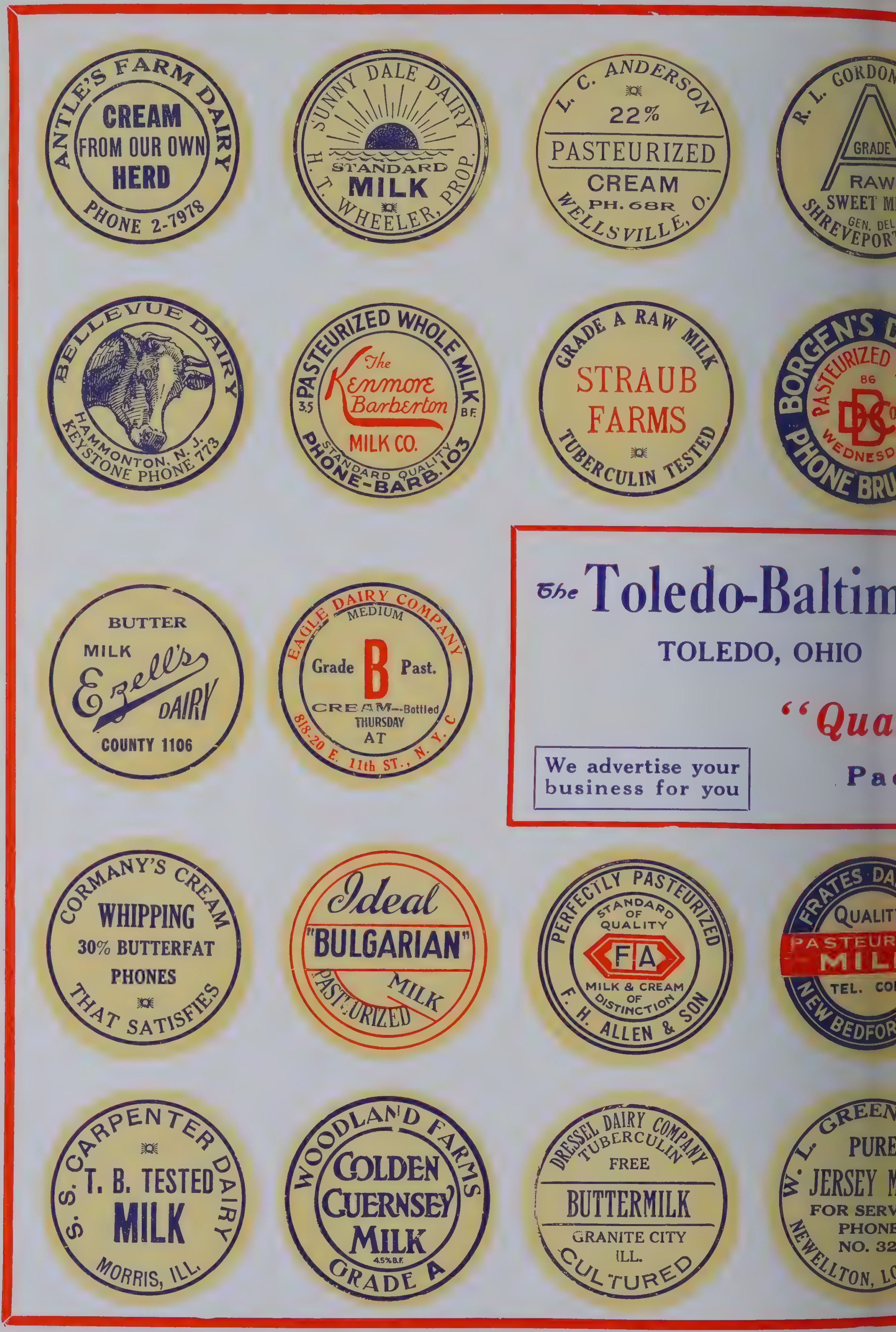
en writing to THE NORTHWESTERN COLLAPSIBLE CARRIER CO. *please mention The Milk Dealer.*


ANTLE'S FARM DAIRY
CREAM FROM OUR OWN HERD
PHONE 2-7978
SUNNY DALE DAIRY
STANDARD MILK
H. T. WHEELER, PROP.
L. C. ANDERSON
22%
PASTEURIZED
CREAM
PH. 68R
WELLSVILLE, O.
R. L. GORDON
A GRADE
RAW
SWEET MI
GEN. DEL
SHREVEPORT
BELLEVUE DAIRY
HAMMONTON, N. J.
KEYSTONE PHONE 773
PASTEURIZED WHOLE MILK
The Kenmore Barberton MILK CO.
3.5
B.F.
STANDARD QUALITY
PHONE-BARB. 103
GRADE A RAW MILK
STRAUB FARMS
TUBERCULIN TESTED
BORGEN'S D
PASTEURIZED
86
DDC
WEDNESD
PHONE BRU
BUTTER
MILK
Ezell's DAIRY
COUNTY 1106
EAGLE DAIRY COMPANY
MEDIUM
Grade B Past.
CREAM—Bottled
THURSDAY
AT
818-20 E. 11th ST., N. Y. C.
CORMANY'S CREAM
WHIPPING
30% BUTTERFAT
PHONES
THAT SATISFIES
Ideal
"BULGARIAN"
PASTEURIZED
MILK
PERFECTLY PASTEURIZED
STANDARD OF QUALITY
FA
MILK & CREAM OF DISTINCTION
F. H. ALLEN & SON
FRATES DA
QUALIT
PASTEUR
MIL
TEL. CO
NEW BEDFOR
S. S. CARPENTER DAIRY
T. B. TESTED
MILK
MORRIS, ILL.
WOODLAND FARMS
GOLDEN GUERNSEY MILK
4.5% B.F.
GRADE A
DRESSEL DAIRY COMPANY
TUBERCULIN
FREE
BUTTERMILK
GRANITE CITY
ILL.
CULTURED
W. L. GREEN
PURE
JERSEY M
FOR SERV
PHONE
NO. 32
NEWELLTON, LO

The Toledo-Baltim

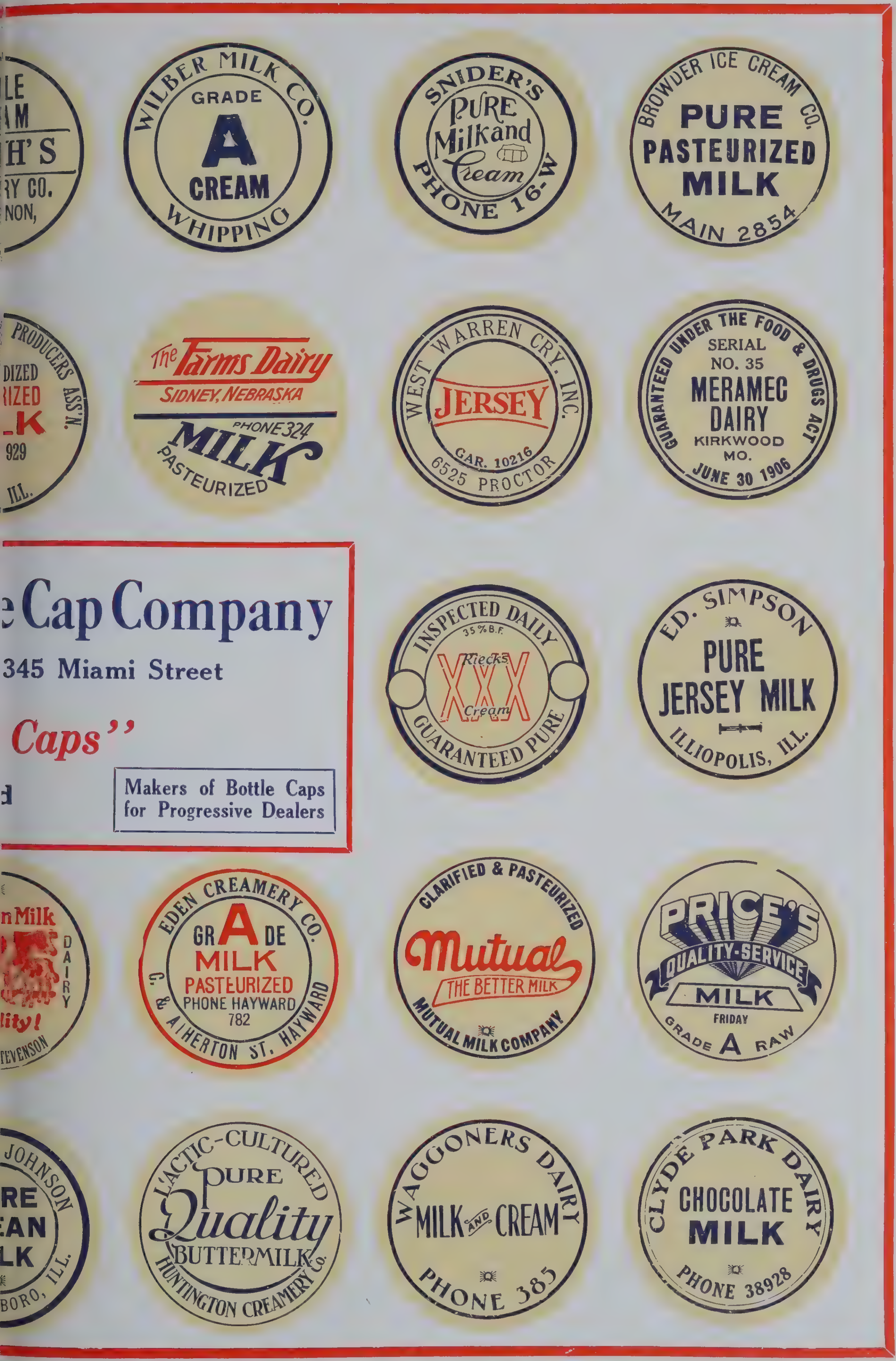
TOLEDO, OHIO

"Qua

Pa

We advertise your business for you

When writing to THE TOLEDO-BALTIMORE BOTTLE CAP COMPANY *please mention The Milk Dealer.*


LE
AM
H'S
RY CO.
NON,
WILBER MILK CO.
GRADE
A
CREAM
WHIPPING
SNIDER'S
PURE
Milk and
Cream
PHONE 16-W
BROWDER ICE CREAM CO.
PURE
PASTEURIZED
MILK
MAIN 2854
PRODUCERS ASS'N.
DIZED
RIZED
LK
929
ILL.
The Farms Dairy
SIDNEY, NEBRASKA
PHONE 324
MILK
PASTEURIZED
WEST WARREN CRY. INC.
JERSEY
CAR. 10216
6525 PROCTOR
GUARANTEED UNDER THE FOOD & DRUGS ACT
SERIAL
NO. 35
MERAMEC
DAIRY
KIRKWOOD
MO.
JUNE 30 1906
INSPECTED DAILY
35% B.F.
Riecks
XXX
Cream
GUARANTEED PURE
ED. SIMPSON
PURE
JERSEY MILK
ILLIOPOLIS, ILL.
n Milk
DAIRY
lity!
TEVENSON
EDEN CREAMERY CO.
GRADE
MILK
PASTEURIZED
PHONE HAYWARD
782
C. & ATHERTON ST. HAYWARD
CLARIFIED & PASTEURIZED
Mutual
THE BETTER MILK
MUTUAL MILK COMPANY
PRICE'S
QUALITY-SERVICE
MILK
FRIDAY
GRADE A RAW
JOHNSON
RE
EAN
LK
BORO, ILL.
LACTIC-CULTURED
PURE
Quality
BUTTERMILK
HUNTINGTON CREAMERY CO.
WAGGONERS DAIRY
MILK AND CREAM
PHONE 385
CLYDE PARK DAIRY
CHOCOLATE
MILK
PHONE 38928

e Cap Company

345 Miami Street

Caps''

d

Makers of Bottle Caps
for Progressive Dealers

When writing to THE TOLEDO-BALTIMORE BOTTLE CAP COMPANY *please mention The Milk Dealer.*

The BEST BULWAR

CLEARNESS
ACCURACY
STRENGTH

CLEARNESS

—that the customer may see the quality of milk you are distributing.

ACCURACY

—that the customer may get the amount that he or she buys.

STRENGTH

—that the bottle may last the dealer as long as possible. Bottle loss is one of the milk distributor's problems. Less breakage, less cost.

ATLANTIC
Milk
Bottles

ATLANTIC BOTTLE CO.

FACTORY: BRACKENRIDGE, PA.

90 W. Broadway, New York
327 S. La Salle St., Chica

When writing to ATLANTIC BOTTLE CO. *please mention The Milk Dealer.*

e Truth about Chocolated Milk

WE started it in the South at the Army Camps during the World War and it has now spread over the entire country and is a growing success where the Milk Dealers are using

CHOC-O-LISHUS

[TRADE MARK REG. U. S. PATENT OFFICE]

There is no reason for using imitations.
The original Choc-O-Lishus is just as cheap and it goes further.

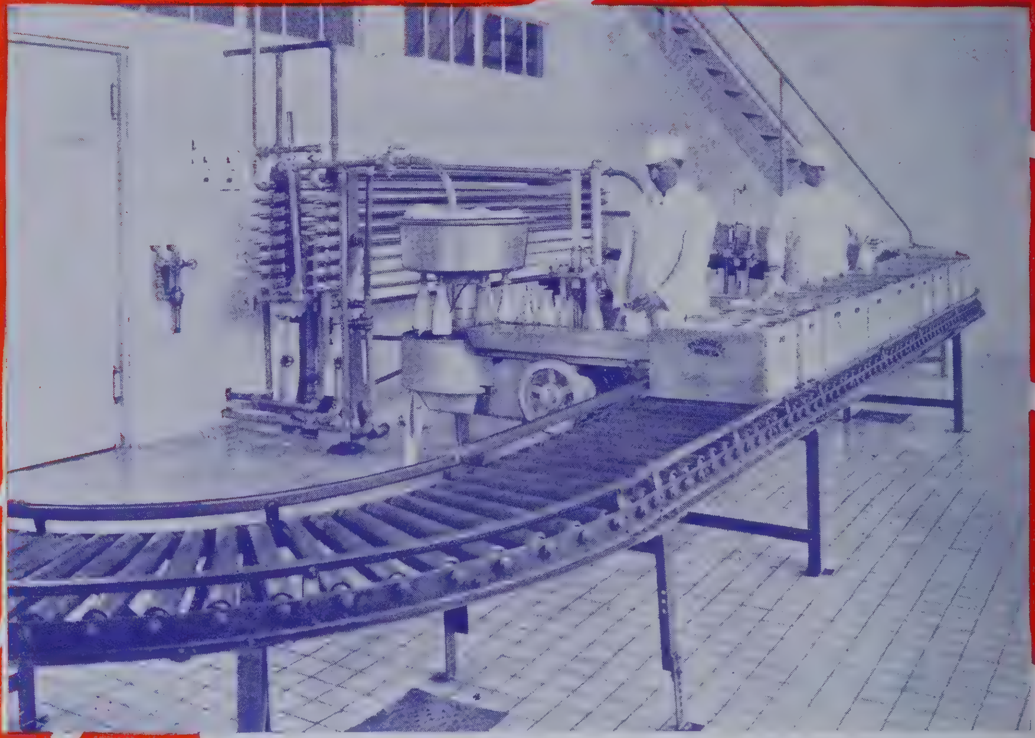
It has the true Chocolate Flavor.
It is the best by test.
It deserves your support.

The manufacturers of Choc-O-Lishus are the oldest and largest manufacturers of Chocolate Syrup in the world.

THE CHOC-O-LISHUS CO.
NORFOLK, VIRGINIA

ry of H. B. HUNTER CO., INC.

MILWAUKEE FILLERS and CAPPERS



Producers Milk Co., Oakland, Calif.

2 Type "J" Fillers

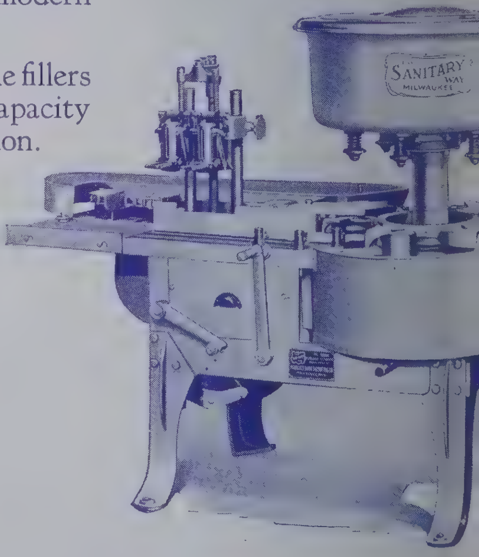
40 TO 64 PER MINUTE

THE little "J", like the largest "L", lends itself perfectly to the most efficient and speedy modern handling arrangements.

¶ One man, frequently a girl, will keep each of the fillers in an up-to-date installation like this going full capacity with plenty of opportunity for careful inspection.

Strong
Compact
Simple
Precise
Sanitary

The Type "J"
6 Valves
2 Cappers
Capacity 20 Qts. to 32 Pts.
per minute.
Tank Capacity 18 Gallons.



Sold by Best Dairy Supply Houses
Everywhere—Ask Them.

Milwaukee Dairy Supply Mfg. Co., Milwaukee

When writing to MILWAUKEE DAIRY SUPPLY MFG. CO. *please mention The Milk Dealer.*

re Space Available at Cleveland Exposition

Additions to Area Originally Set Apart Make it Possible for Management to Accommodate More Applicants for Space. Total Exhibit Space to Exceed That at Detroit

ARNEST effort is being made by the Dairy and Cream Machinery and Supplies Association, sponsor of the great Dairy Industries Expo- Cleveland in October, to provide at least a sub- part of the display area which is now being re- by would-be exhibitors.

leasing of space was opened by the association mber houses some two months ago, practically e show as originally planned and laid out was tely reserved. Requests for booths from non- houses have been received practically daily t time, according to the association, and it has, ely, been possible to re-arrange the plans for sections of the area, to permit the inclusion of ditional booths.

now clearly evident that that part of the total for area, which the capacities of the various sec- the Cleveland Public Auditorium building unit mit the association to meet, will constitute an ex- exceeding, slightly at least, the area of the ous Detroit, 1926, Dairy Industries Exposition.

Many New Machines.

ciation headquarters in New York City are y for a statement that the Cleveland exposition, out its week of October 24-29 inclusive, will to the dairy products industries a remarkable of new, or strikingly modified and improved, f machinery, materials, equipment, supplies, etc. bers of the association staff in recent trips out different parts of the country have ascer- that a number of very important developments inery, for example, will be completed before the d will be displayed there for the first time. Some e developments have already progressed far in experimental construction and tests to have prediction that they will be of startling interest products manufacturers generally.

Important Educational Section.

Cleveland Exposition will be characterized by a table educational division than have its predeces- display of considerable scope and size is now in tion at Washington by bureaus of the U. S. De- t of Agriculture. The National Association of am Manufacturers will have a large booth. The n Dry Milk Institute will have an educational headquarters. The National Creamery Butter ' Association will both have an official headquar- oth and will sponsor, at the exposition, an im- national butter contest.

Wisconsin Day — Wednesday.

Wisconsin Butter Makers' Association will hold l meeting of its membership at the exposition on sday, October 26, on which day an important del- of Wisconsin industrialists, leaders in the dairy s activities of the state and leaders in other fields ill inspect the exposition.

In recognition of these events and of Wisconsin's importance generally, as a dairy products state, the Dairy and Ice Cream Machinery and Supplies Association has announced that the day will be officially designated, in the program of the exposition, as "Wisconsin Day."

Hotel Reservations.

A recent checking of hotel reservations in Cleveland by a representative of the Machinery and Supplies Association, shows that the principal down-town hotels have already pledged room accommodations to visitors to the show, numbering in the thousands. Room reservations should be made promptly, according to the association, in order to avoid last minute narrowness of choice of accommodations.

A few of the hotels have been selected as official headquarters by different trade groups.

The Hollenden will house the convention sessions of the National Association of Ice Cream Manufacturers, which meets this year October 24-27, inclusive, in the city of the exposition.

The Dairy and Ice Cream Machinery and Supplies Association will make the Cleveland its official headquarters.

At least informally, it appears that the Statler will become a center of reservations for members of the International Association of Milk Dealers—which will conclude its annual convention the latter part of the week preceding the exposition, in Columbus, Ohio, four hours ride by train from Cleveland.

Many reservations are being booked by the Winton Hotel, the Olmsted, and a dozen or more other establishments of good class, either within the business center of the city or upon its edges. One new hotel, less than a block from the entrance of the exposition, the Auditorium Hotel, will open its doors in August.

* * *

LANSING DAIRY COMPANY TRULY A LOCAL CONCERN.

There is no organization in all of Lansing, Mich., which is more distinctly local in character than the Lansing Dairy Company. Its supplies come from the surrounding farms, all of its products are locally prepared and handled, and its ownership is in the hands of Michigan farmers and Lansing business men. It sells to Lansing housewives and appears finally as a great part of Lansing cooking.

The Lansing Dairy has had an interesting story of rapid growth in the four and a half years of its existence. Starting on a small scale, it has made use of modern methods and the most approved equipment from the very first. The Lansing Dairy invites public inspection at all times.

Just A Bath and a Bottle of Milk

Milk Dealers the Country Over Seized Upon Col. Lindbergh's Famous Request to Put New Life Into Their Advertising Campaigns

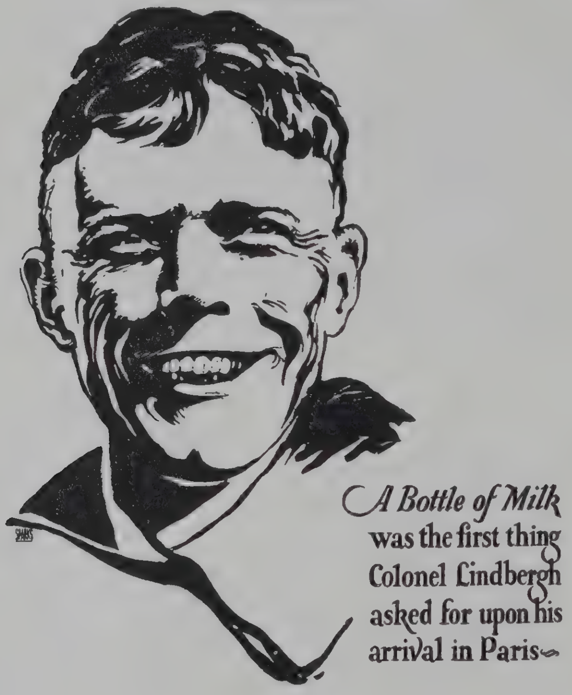
IN OUR last issue we voiced the opinion that milk dealers generally would fail to capitalize on Col. Lindbergh's request for "a bottle of milk and a bath."

We ventured to say that milk people are not in the habit of seizing on timely opportunities to popularize their product.

Perhaps we knew when we published that article that the progressive men in the business would lose no time in using our young hero's endorsement of milk in their local advertising.

Perhaps we just wanted to start something.

Reproduction of a full page advertisement in St. Louis newspapers.


SHARS
A Bottle of Milk was the first thing Colonel Lindbergh asked for upon his arrival in Paris

PEVELY SELECTED MILK *is the* BEST

Anyway, we got what we started out to get. We got evidences—lots of them—that milk dealers the country over did the very thing that we prophesied they would not do.

We have been flooded, yes literally deluged, with copies of advertisements torn from local papers. Readers have seemed to take special delight in proving an editor wrong.

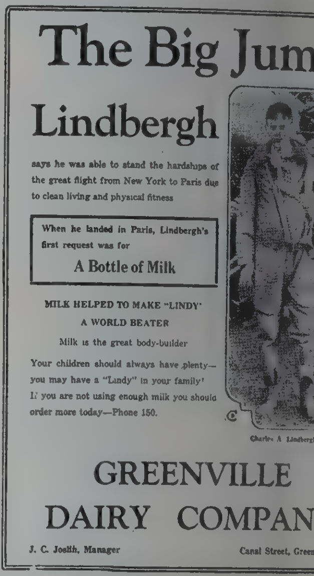
Don't waste sympathy on us, please. We are "dee-lighted," as the great Teddy used to say, to be proved wrong.

Space will not permit reproducing all these advertisements, but we are going to let you read a couple of them. We are also going to let you read a letter from one of the progressive firms that lost no time in setting us right. Here it is:

Your remarks on page 27, first column, June issue Milk Dealer has caused us to write this letter and e few copies of the manner in which our company us Lindbergh's statement on his arrival in Paris.

"We want the wide world to know that we are in the MILK BUSINESS and, although we admit sometimes we are caught napping, this is one time that we are of the opinion our advertising **went over big.** No advertising that we have ever done has caused as much comment to come back to us as this advertising on Lindbergh.

Yours for timely
advertising,
PEVELY DAIRY
COMPANY.
By J. J. Wasser.



The Big Jum

Lindbergh

says he was able to stand the hardships of the great flight from New York to Paris due to clean living and physical fitness

When he landed in Paris, Lindbergh's first request was for

A Bottle of Milk

MILK HELPED TO MAKE "LINDY" A WORLD BEATER

Milk is the great body-builder

Your children should always have plenty—you may have a "Lindy" in your family! If you are not using enough milk you should order more today—Phone 150.

GREENVILLE DAIRY COMPAN

J. C. Joslin, Manager

Canal Street, Green

Atta boy, Mr. Wasser! You not only seized the best opportunity that has come your way in a decade, but you also have spunk enough to tell an edito he is wrong. More power to you.

Our good old friend John Joslin, Greenville, P reminds us that he is not asleep at the switch. He us an ad clipped from his local paper.

These two specimen advertisements not only that some milk dealers are alive to their adve opportunities, but we submit that they are also good advertisements. They have attention arresti peal and that is one of the essentials of a good ad.

CLAIM MILK WILL ADD WEIGHT AND HE

According to Herbert C. Hooks, secretary o Evaporated Milk Association, Pittsburgh, Pa., mor 75,000,000 pounds would be added yearly to the of school children in the United States and 18,9 inches to their combined height by the addition extra pint of milk a day to their diets.

"Actual tests made on 500 children of schoo show that the addition of a pint of milk to a diet satisfied their appetites converted an average gain of weight of 3.85 pounds per child into one o pounds and produced an annual increase in height 1.84 inches to 2.63 inches," said Mr. Hooks.

TWO WISCONSIN FIRMS MERGE.

On July 1 the East Side Capital Dairy Compan the Mandt Dairy Company, Madison, Wis., consoli under the latter firm name. Increased facilities for ing the patrons of the two companies will insur success of the new organization.

STROUS ✓ ✓ DURABLE ✓ ✓ WASHABLE ✓

WHITE PAINT

Thousands of industrial plants have found that Barreled Sunlight best combines the qualities they want in interior paint—and at the lowest cost per square foot of surface painted!

UARANTEED to remain white longer

HE CLAIM of lasting white- ness that we make for reled Sunlight is backed by definite guarantee:

Barreled Sunlight will re- in white longer than any ss paint or enamel, mestic or foreign, applied der the same conditions.

Practical proof of this quality r a period of years is one son why Barreled Sunlight is most widely used white nt for industrial interiors.

Another reason is *durable anliness.* The surface of reled Sunlight is so smooth it 't hold dirt embedded, and shes like tile. Repeated wash- does not wear it away.

And because this lustrous paint reflects light of just the right quality, it greatly improves working conditions.

With all these advantages, Barreled Sunlight *costs less per square foot of surface covered.* Extremely opaque, it covers a larger area with a given quantity of paint; and containing no varnish, it flows so easily with brush or spray that there is a saving in labor hours.

Sold in 55- and 30-gallon churn-equipped steel drums, and in cans. Where more than one coat is required, use Barreled Sunlight Undercoat first. See coupon.

U. S. GUTTA PERCHA PAINT CO.
9 Dudley Street, Providence, R. I.
New York—Chicago—San Francisco
Distributors in all principal cities

THE VIAL at left above contains refined linseed oil as commonly used in white oil paints. It is deep amber color. At right is the same oil after being treated by the "Rice Process." It is almost colorless. This is one of the secrets of the lasting whiteness of Barreled Sunlight. *These are actual photographs.*

Barreled Sunlight

THE RICE PROCESS WHITE

Now we offer Outside Barreled Sunlight, and ecommend it with the same assurance as we ecommend Interior Barreled Sunlight. Write for nformation as applied to your own outside painting.

arreled Sunlight

Reg. U. S. Pat. Off.

U. S. GUTTA PERCHA PAINT CO.
9 Dudley Street, Providence, R. I.

Please send us your booklet on Barreled Sunlight for industrial painting; also painted panel.

Name...

Street...

City..........................State..............

When writing to U. S. GUTTA PERCHA PAINT CO. *please mention The Milk Dealer.*

Face-to-Face with Merchandising Comparisons

Actual Results Showing How Milk Industry Fails to Use Its Full Opportunities Where Othe Merchandisers Succeed—Power of Simplicity—Descriptive Merchandising

By CRADDOCK GOINS

THIS matter of selling more milk, now, if you just insist upon direct, face-to-face comparisons, is one of the simplest propositions anybody ever encountered. Which, no doubt, accounts for the great difficulty we experience in getting the right angle!

"The trouble with most magazine merchandising articles," one milk dealer complains, "is they are so theoretical, so far-fetched, so high up in the air, if you know what I mean."

In other words, he means it is over his head. Possibly true. Unfortunately, much we read—and hear—is so filled with suppositions and unknown quantities that we fail to get as much out of them as we might—as we might say, in talking the matter over, face-to-face, heart-to-heart.

All right, that's what we are going to do now; we are going to chat it out, face-to-face, Mr. Milk Dealer, with you on that side of the table and we on the other, and we are going to tell you, in our best conversational style, just what there is to this business of selling, drawing out actual accomplishments by other industries.

A lot of automobiles are sold in this fair and favored land, you readily will admit. You are driving your fourth one now, aren't you? Possibly your fifth one? Or is it your sixth Lizzie?

Many years ago, you know, they sold automobiles. They don't any more. They sell—well, lots of things besides automobiles, these people who make them.

We took a little stroll down the street the other day, just an average main street in an average main-street town, and we didn't have any unusual curiosity. But several things began to strike us between the eyes as we looked over the various billboards lining the thoroughfare.

There were three automobiles ads in a group of nine billboard-advertisements. Did we say auto ads? Our mistake. They were ads **by** auto companies. They were selling—well, one company was selling one definite, concrete thing and it wasted no words, nor time in telling what it was—"POWER." There were just six words in that ad. They all revolved around the one great selling thought—"POWER."

Now another auto company was selling something else—"ENDURANCE." That car manufacturer was sure his car would give good service and hold out longer than any other car in the world—and he tells the people so! Gosh, isn't it simple?

"How long," we thought, "has this good thing been going on? Here we, in the milk business, have been stumbling about in the dark of a primitive business era and haven't yet had enough gumption to pick out the simple selling points of our product. How long has this good thing been going on?"

You buy quite a bit of oil for that Lizzie of yours, don't you, Mr. Milk Dealer? No, as a matter of fact, you don't—you buy something else. One of those ads, paid for by a company making oil for automobiles, fairly screamed out its one compelling sales messag
unmistakable way—"SILKEN CLOUDS." S
quickly, how simply he conveyed his thought!
diately he makes it known that his oil is so
smooth, yet so strong in body, so serviceable, tha
make your car go as though you were traveling o
clouds. Now, it took us several words to expr
thought—and people don't read several word
they are having somebody try to tell them some

The point is this: Other people are taking th
direct, clean-cut route to interest the public's d
their merchandise. When are we going to do i
milk business? When are we going to get righ
to the one expression that will make more peo
more milk?

This one-word business of selling is here to st
a busy world. If you want to sell milk you'v
adopt the other man's selling ways. The public
patience with the word-prodigal.

Many of us would be better off—so-called s
included—if our vocabularies were more limite

"I spent several years studying the dictionar
a famous writer once, "ever seeking to incr
vocabulary, pouncing upon every unusual word
find, looking up every word I encountered in re

"Yes," said an enthralled listener, "and t
counts—"

"And now," went on the famous literatteur,
spent the rest of my life trying to forget all th
usual words and trying to use all the short, sim
scriptive words I can."

The art in anything is in simplicity. This is
larly true of merchandising—in descriptive merc
ing, of a certainty.

The masters of simple speech are our famous
—Mark Twain, O. Henry, Joel Chandler Harris.

Children, you know, are particularly descript
pressive in their narrations. It's because they are

Our small son, a lad of two, awakened the
household just the other night, with a frantic cr
vocabulary, being extremely limited, permitted
express himself in just one word, but it was s
descriptive that the entire household immediatel
his trouble, even before they could wipe the slee
their own heavy eyes.

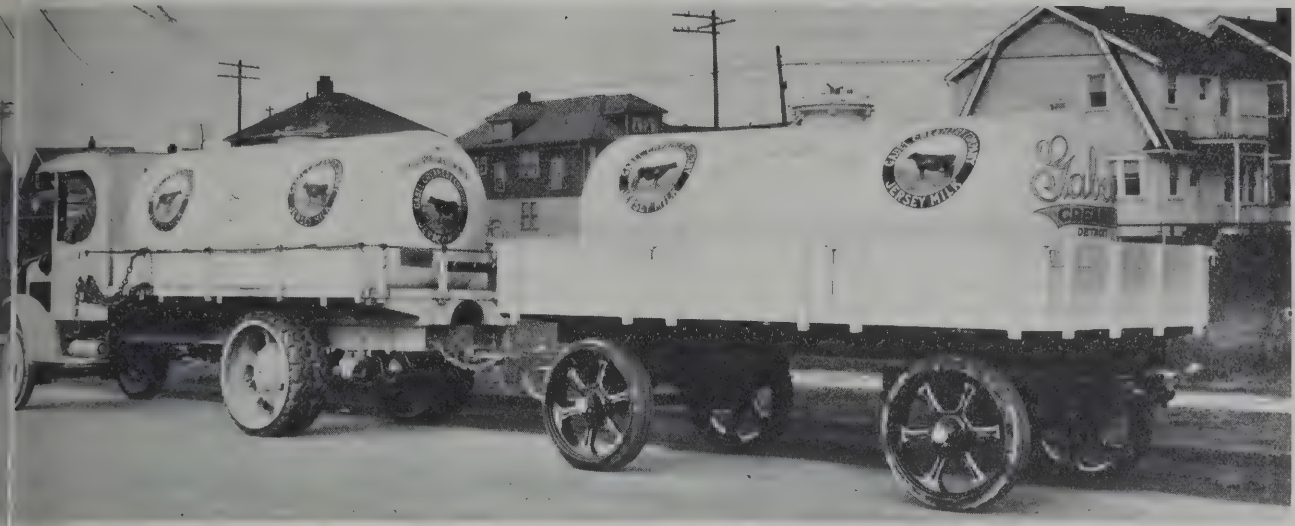
"Bite!" screamed the little man, and imme
everyone knew he had been attacked by a mosqu
there was no delay in doing what he wanted d
sprinkling him with anti-mosquito spray and in
ing up his unprotected little limbs.

There's a selling lesson, if you but see it. Th
boy wanted to sell his entire household on the
protecting him from that harassing insect that
turbed his peaceful slumbers.

Isn't it simple—just too simple for words!

Yet so many of us persist in retaining that a
fallacious idea of mystery in business. We are p

E PROFIT'S IN THE TRAILER LOAD!



This 4-ton Fruehauf Four-Wheel Trailer is one of a fleet used for low-cost haulage by the Gabel Creamery Company of Detroit

HIS COUPON WILL BRING COST-CUTTING DETAILS

'VE heard of the tremendous sav- effected by Fruehauf Trailers in milk lage.

ut do you know how these Trailers be used to best advantage in *your business?*

t won't obligate you in any way to get complete details — and it is quite likely to open the way for huge savings in your transportation costs!

Leading Milk Dealers all over America profit by Fruehauf Trailer economy. Do you want your business to have the advantage of this same economy?

RUEHAUF TRAILERS

t and Largest Manufacturers of Trailers! - *Semi-Trailers, Four-Wheel Trailers and Adjustable Pole Trailers*

FRUEHAUF TRAILER COMPANY

BRANCHES AND DISTRIBUTORS IN ALL PRINCIPAL CITIES

2 Harper Avenue **Detroit, Michigan**

MAIL THIS CONVENIENT COUPON NOW!

RUEHAUF TRAILER COMPANY
DETROIT, MICHIGAN

Give us definite details about Fruehauf Trailer haulage—showing how we can take advantage of its economy.

ame of Firm ____________________

ame of Individual ____________________

ity ____________________ State ____________________

When writing to FRUEHAUF TRAILER COMPANY *please mention The Milk Dealer.*

like Barnum said we were—we like to be fooled. We like our humbug ideas.

The hokus-pokus medicine men of business, the self-styled efficiency experts, can do business no better turn than to get out of the way or impress upon business men the importance of simplicity.

The story is told of three high-pressure salesmen who went to sell a man a locomotive. Now, as you doubtless know, although you haven't bought many locomotives—no more than we, perhaps—as you doubtless know, a locomotive is quite a bulky piece of commerce, and you wouldn't imagine offhand there would be the slightest possibility of selling a man a locomotive without considerable discussion, lasting, say, two or three days. At any rate, you wouldn't think of a sale like that taking place in a chat just before breakfast.

Well, so the story goes, the three wise men of selling science caught a train. They soon recognized each other. Two of the salesmen, bright, alert, snappy chaps who were much given to the sciences and the various angles of selling technique, began comparing notes. They started off by wishing each other well. They then began discussing their individual ideas about methods of approach, ideas upon breaking down sales resistance, creating the buying appeal, the desire of possession, etc., and so on. Then one of them chuckled, "That seedy old boy over there is going to try to sell this same man one of his broken-arches of the rail," he sneered. "Say, isn't that one for the books, though, him that ain't even got enough selling technique to persuade a flapper to buy a pin when her belt-buckle busts! He won't get anywhere. No sirree."

Yet, about the second day, when the two gentlemen of technique were getting ready for the kill, they got together and found out to their consternation that this seedy looking old gentleman already had sold their prospect one of his broken-arch locomotives.

"How in the heck did you do it?" one of them asked.

"Well, I just figured it was going to be a hard job and that I better get down to business right away," the other explained, "and so I just went out to see him, the minute I hit town, and told him why I thought he ought to buy one of my broken-arches—and I knew I didn't have any time to waste, you two boys being here on the ground, and so--"

"Well?"

"Why, I just got busy and sold him without any wast of my words and his time," the other stated.

That's what we are going to have to do in the milk business—get down to business and sell our public without any waste of our words or the public's time! One thing is a cinch. You may waste your words. You may spread all the highly technical matter you want to about milk. You may describe all the component parts. But if you don't put it in short, simple, descriptive language that tells what milk does, like creating POWER, ENDURANCE, SILKEN CLOUDS of happiness and health --then you are not going to take up much of the public's time.

Remember that. You may waste all your words and all your time, but you are not going to waste the **public's** time!

Time is a great treasure. The enlightened public is exceedingly jealous of that treasure.

You be the same way always, Mr. Dealer, both about your treasure of time and your treasure of words.

Make them all selling words. Make them all intensely interesting, gripping words, words that strike at the very soul of a man's interest and hold, hold, hold like death.

Make them pitiless, merciless words—unr
words. Make them words that so describe milk
power, endurance, health, satisfaction—so descri
jewels of life that the onlooker is powerless t
them.

You know, you and the automobile man are
the same thing. So are many other people.
competitors, not you and the other milk dealer
town.

You've got a lot to learn from that boy wh
automobiles, and your first lesson in his art i
plicity, compelling, descriptive simplicity.

Well, you insisted upon it, and there it is,
you like it or not. It's face-to-face stuff, actu
parisons, putting you face to face with what re
chandisers are doing, sparing you nothing, lov
greatly, hoping you will profit from it.

LARGE SHERMAN, TEX., MILK PLANT TO
OPERATIONS OCTOBER 1.

October 1, 1927, is the date set for the openi
of the new milk plant in Sherman, Tex., which w
ufacture condensed milk, powdered milk, but
other milk products. The new enterprise will
milk from five thousand dairy cows from the st
within the period of five years should handle t
duction of almost an unlimited number of co
would expect not less than the production o
thousand to fifty thousand cows. At the prese
the chamber of commerce is conducting a camp
acquaint the farmers with the coming of the
terprise and to enlist their support to insure a s
milk supply.

The new plant is backed by the Interstate Co
and Refining Company of Sherman, with ample
and prestige gained through a long period of su
years in the manufacture of shortening and other
seed oil products. C. A. Sanford, president and
manager, and A. G. Hopkins, secretary-treasurer
company, have traveled over a wide area of the
States inspecting milk condensing plants and
creameries and studying the dairy situation.

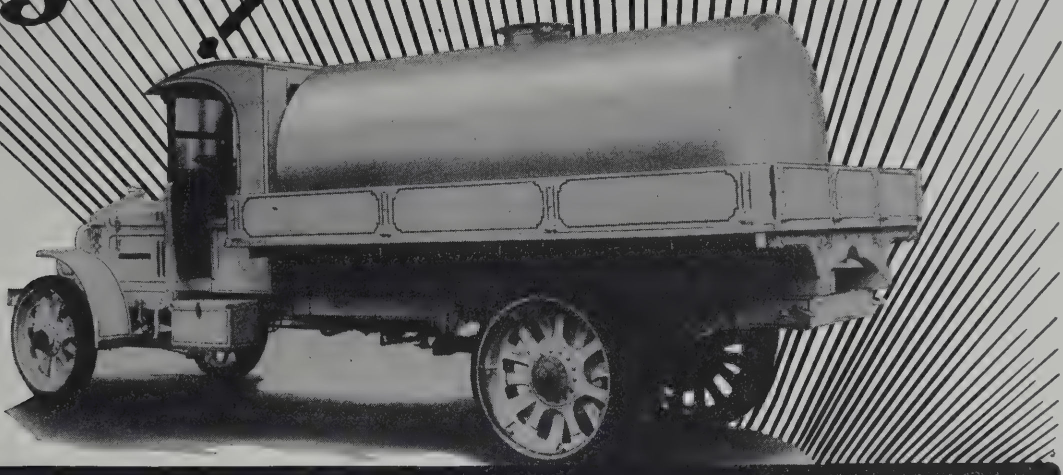
"Gentlemen, to my mind this will be the greates
ment for the advancement of diversified agricul
Grayson county and North Texas, that men of th
ent generation have ever seen and I believe our
will at once get the vision of it," said Mr. Si
manager chamber of commerce, in addressing his
of directors. "Ultimately it will mean more th
cotton crop and is right in line with our slogan o
two payrolls a year on the farm' with which w
already made some progress."

NEW DAIRYMEN'S ASSOCIATION TO BE FO

Harry R. Lewis, commissioner of agriculture, is
ing for an organization to be formed which will
the solution of the problems facing the milk indu
Rhode Island. It is suggested that the name of th
ciation would be the Rhode Island Dairymen's A
tion. Several committees have been appointed.

"Sixty-six per cent of the milk used in Rhode
at the present time is produced here," said Mr.
"With proper co-operation betwen dairymen a
Department of Agriculture, I believe we can in
that percentage. Our department will welcome
dairymen's association in order that we can consi
dairy problems that arise and solve them togethe

ave a ton
in
Weight!



very pound saved in
eight of the tank
uals two pounds
pay load —

THUS 99% Pure Nickel Milk Tank construction saves you 2000 pounds deadweight and adds 4000 pounds payload.

The reason for this outstanding advantage is that 99% Nickel is inherently stronger than steel and permits us to use much lighter nickel sheets which results in a nickel tank construction that averages one ton less weight than any units, heretofore, used.

Combine this weight advantage with the sanitary advantages of a one-piece seamless nickel construction and you have two excellent reasons why 99% Nickel Milk Tanks are generally preferred throughout the dairy industry.

Let our engineers co-operate with you.

NINETY
NINE %
NICKEL

GENERAL SALES OFFICE
CENTURY BUILDING, PITTSBURGH, PA.

NICKEL FABRICATING CORPORATION
— PHILIPSBURG, PENNA. —

When writing to NICKEL FABRICATING CORPORATION *please mention The Milk Dealer.*

Eight Reasons of Success Milk Delivery

Practical Suggestions for the Milk
Who is Confronted with the Prob
Keeping Down Truck Operation

By PHILIP L. SNIFFIN

ANSWER these eight questions and you will know how good your truck delivery system is and how much you have yet to do before your costs will be as low as you can possibly get them.

1. Are the vehicles used well adapted to the work they are called upon to perform, with respect to type, size and quality?

2. Is the truck body equipment well coordinated with conditions met in unloading and loading to insure a minimum of idle time?

3. Are routes well planned and arranged to keep each truck on the road as much as possible in the course of the day?

4. Are seasonal and rush period requirements handled in a way that will reduce idle truck time in dull periods as much as possible?

5. Are motor trucks used only on hauls for which they are qualified to do the work more economically than horses?

6. Are cost records properly kept to detect:
   - a. Incapable drivers;
   - b. Inferior vehicles, tires, fuel, etc.;
   - c. Waste in routing?

7. Are drivers well informed on vehicle operation and care?

8. Is the maintenance plan systematic, to insure the very minimum of cost for repairs and overhauling?

Each of the foregoing questions represents an opportunity to cut delivery costs. Together they cover the fundamentals of successful truck operation. Only if the individual owner can answer them all in the affirmative after careful thought may he be assured that his delivery system is not working under a severe handicap.

A review of the experiences of various concerns with motor trucks will reveal one fact of tremendous importance—a wise or unwise choice in picking a particular kind of truck will make or break the success of the delivery system. The most noticeable mistakes are:

1. Selecting a vehicle of inadequate size, resulting in the very expensive practice of overloading. A small percentage of overload with a high quality vehicle is often justifiable. But too many concerns insist on learning through bitter experience that with motor trucks, as with other things, the proverbial "something for nothing" is not obtainable. Investigation shows that a large percentage of the higher unit hauling costs can be traced to heavy repair bills and breakdowns, and these in turn to the practice of overloading.

2. Selectng a vehicle of unproven ability to meet the requirements of the individual owner's business. The selection of a motor truck, to be well based, must be the result of a careful analysis of past performance in the purchaser's own particular line of business. There are vast differences among various makes of motor trucks. Where one may make surprising records in one line of business, it may fall down completely when assigned to th
of another. The importance of careful selecti
be best appreciated when it is considered that
ciation and interest on investment, as well as n
the maintenance and running charges, are dep
on this. Probably as high as 75 per cent of th
operating expenses are influenced by the amount
exercised in selecting the vehicle.

3. Selecting a vehicle of improper type to me
conditions. There are three principal types of
trucks—commonly called the shaft-drive, the chai
and the double reduction. Each has particul
vantages for certain well defined purposes. No
lation should be made without a full considera
each of these types. Factors of dependability,
hill-climbing ability, longevity, operating econom
enter into such a consideration. An additional
eration as far as vehicle type is concerned is t
the wheelbase. Trucks are obtainable with variou
of wheelbase. Often a short wheelbase will add t
ing and unloading efficiency by permitting quic
easy manipulation of the truck in narrow and con
places. On the other hand, there are advantages
gained from a long wheelbase insofar as carryi
pacity and even distribution of the load are conc

4. Selecting a body type not well coordinate
loading and unloading conditions. It will suffice
here that there is a body type to suit every con
requirements perfectly. It may be necessary to
such a body made to order, yet the extra cost in
will invariably be made up for in the saving of t
hicle's time and that of the driver. The matter of
type has been found to present a substantial oppor
for economy.

Keep Trucks on the Road.

Inasmuch as so large a proportion of the total
ery cost lies in the items of interest on investmer
surance, garage cost and drivers' salaries, it c
seen that much of the difference in the unit cost be
one concern and another may be attributed to the
tiveness of the routing plan. When the fleet of t
is large, this is a particularly important matter.
concerns have reported that by careful routing
have been able to reduce the amount of equipme
quired, thus cutting down on total of drivers' w
and the other important items mentioned in the
going. In addition to this, many economies ca
gained by routing the trucks over the best possible
as well as over shortest distances, saving both tim
wear-and-tear on the vehicles. Fleet owners wou
well to consider the advisability of employing a
patcher to be solely responsible for the routing
scheduling of trucks.

The waste that is so often found in idle equip
time may, in many cases, be the result of installin
many vehicles. Of course, one of the principal

truck operation is that of maintaining an ade- umber of vehicles to meet rush season require- nd yet have as few trucks as possible idle when nents are low. Various methods are available operator for accomplishing this, and these will ussed more fully in a future article. It is men- here as a fundamental of importance, to be con- in an analysis for reducing costs.

thermore, the unsatisfactory experience of many s with motor trucks has frequently been due to t that they have been put to tasks for which e not actually as well adapted as are horse-drawn s. When routes are short, the idle standing time equipment during loading and unloading periods nakes the horse-drawn unit more economical, as ed charges of motor equipment are so much The reason for this very common mistake is that erator will compare only the running charges notor truck with the cost of the horse and wagon. a procedure it is very easy to show an advantage trucks. Yet if all costs are included in each case, nparison is often apt to favor the horse on the oute.

pointed out in a recent article the keeping of ac- complete costs and an intelligent application e figures will do much to reduce the cost of de- Most concerns, it has been found, recognize the of cost records, and the large majority make pro- for keeping them. An important point, however, not all of these systems are so nearly complete as a true indication of the many steps that can be to lower costs. By keeping separate records of ruck's repair costs it will be possible to detect ble drivers and inferior vehicles, both of which much to mount the operating cost. Similar econ- can be gained by a study of the cost sheets with t to such items as mileage on routes, gasoline nption, idle time, etc.

seventh and eighth points brought out in the on in the beginning of this article, having to do the upkeep of the trucks, are entirely self-ex- ory. They are both worthy of careful thought, estigation has shown that they are essential which often neglected and, at the same time, ones which n important bearing on the unit cost. Mainten- plans and operating suggestions have been dis- in previous articles. It is especially important rovision be made for taking care of minor repairs n as they develop, as this will save many large bills and much lost time of the vehicles while s are being made.

Ideas for Improvement.

us now review the results of a close observation slightly different point of view. Let us consider ds of operation or other practical ideas that have found to offer advantages in actual use. By a l consideration of each of these, it will be a simple for the reader to determine the advisability of ng them to his own use.

ry important advantages, for example, have been to lie in standardizing as far as possible on the used. Once having determined the make of which proves to be the best investment, the prac- f standardizing on this make is extremely ad-

chanics become accustomed to working on the one and adjustments and repairs are made more y and more economically.

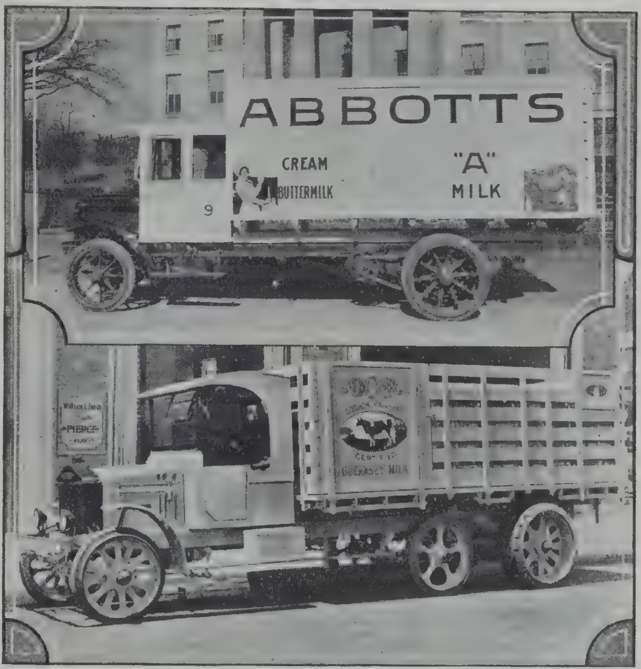
rts may be kept on hand for immediate use, thus ng the necessity of keeping the truck idle until arts can be obtained.

Many operators go even further than this by keeping complete units on hand so that, for example, a motor needing repair can be taken out of the car overnight and a substitute motor put in, thus reducing the vehicle's idle time to the very minimum.

There is also a further advantage to be gained by standardizing the loading facilities and the motor trucks to the best advantage in relation to each other.

When the fleet of trucks is large enough to justify the capital investment, it has been found that a large measure of economy in running expenses can be gained by establishing a repair shop exclusively for the owner's own fleet.

The advantages of this apply in various ways. There are some operators who do not believe in doing anything until something happens to the truck, saying "Let it run until it needs repair, and then do all the work at once." These operators are usually the ones who do not maintain repair shops, and quite naturally they do not feel that it is necessary to take the truck time and to pay the cost of regular inspections by an outside mechanic. They neglect to consider that, while the cumulative effect of troubles in their early stages seems important, the time and cost of lengthy overhauls that will invariably result are considerably greater.



Select each truck to best fit its jobs. Below a heavy-duty open model for short distance bulk hauling. At the top, a refrigerator body for long-distance work.

Every truck operator should see to it that no truck is allowed to run for more than 24 hours with a loose part, a part likely to break, a part needing adjustment or replacement. This means that a daily inspection should be made or the driver consulted as to any irregularities of running. In this way any trouble is caught immediately and before there is time for it to develop into something more serious.

Inspection on the garage floor with the engine idling is not enough; that is why the driver should be consulted. A knock may have developed in the engine, in a universal joint, or in the rear axle or countershaft. No doubt the knock would not cause interference with truck operation the next day, but, if it is not investigated and stopped, that knock may mean the breakage of a gear, a connecting rod, or what not.

Dependence on a public garage or a service station is satisfactory only in one respect. It is a place where work may be done. But these stations and garages are not able to fix up a truck and get it back to the owner in quick time. This brings out the importance of providing a repair shop equipped with adequate tools and placing it in the charge of a reliable mechanic.

Tire Replacement Important.

A policy of truck maintenance that has a most important bearing on operating costs where vehicles are equipped with solid tires is that of replacing these tires with new ones when they have been worn to a certain point. Just where or when this point is reached, however, depends entirely on the tire in question and on the treatment it receives at the hands of the driver.

The economy of replacement is due to the fact that much damage is caused to the entire truck when it is run upon tires with insufficient body or resiliency. Any operator who has ever run a motor truck for any length of time with thinly worn solid tires knows that such truck parts as the spring, axle centers, spindles, steering arm, axle shafts are seriously affected in this way. Unnecessary and very destructive strains are inflicted, which in turn tend to shorten the life of the entire truck, if the operator fails to replace his tires when their life is gone.

It is generally recommended that a truck which is operated on cobblestones or rough pavements should have its tires replaced when they have worn down the rubber to within one inch of the wheelbase. Under the best conditions of smooth surfaced roads, most authorities agree that a width of ¾-inch is the minimum required for proper cushioning.

The condition of the rubber, of course, has much to do with determining the point at which a solid tire should be replaced; for, if abused, a tire may be valueless from a standpoint of service, even though it may be two or three inches in thickness. It is a genuine temptation to keep the truck running on solid tires that are worn too thin to be useful, but it takes only one
such experience as a rule to convince an operato
it is merely "robbing Peter to pay Paul."

An idea that is increasing in popularity amo
larger operators of motor trucks is that of issuing
written bulletins at regular intervals to the truck
ers. These ordinarily take the form of concise s
tions or discussions on the more important points
eration.

Actual practice has proved that this can be c
out very effectively with considerable advantage
truck owner, providing the right attitude is as
in introducing or presenting the idea to the drive
is a most excellent method of suggesting poi
proper driving and care of the vehicle.

Many operators also use simple illustrations
decided effect. For instance, the important of
lubrication can be explained so that it will stick
driver's mind. By showing him a piece of po
steel, under a microscope, and pointing out tha
jagged outline—visible to the naked eye, must be
up with oil in order to prevent the edges from ca
damage, he is impressed more than being merely t
"oil up."

Educating the driver is largely up to the ope
for the average driver is eager and willing to lear

Saving Gasoline Cost.

The milk dealer will find that there is a worth-
incentive in the form of lower costs offered in enco
ing drivers to save in gasoline consumption.
concerns lay important stress upon this.

Among the items that enter into the cost of oper
a motor truck, that of gasoline has no small import

In fact, it may be said that of the total cost per
(including depreciation, interest, garage, insuranc
driver, as well as the more visible running costs
cost of gasoline averages about 24 per cent.

The cost of gasoline is a variable item, depe
upon the truck and the conditions under which
operated. Therefore, it is possible to effect subst
savings by rendering these conditions more favo

For instance, suppose a concern operates a fle
ten trucks, averaging 45 miles a day and each ge
an average of 4.5 miles on a gallon of gasoline.
each truck would use ten gallons of gasoline a da
the fleet uses 100 gallons. This at, say 30 cents a ga
costs $30 a day. Then suppose the average truck
age was increased to five miles a gallon, which is
one-half mile more; you would then save ten gal
or $3 a day, $18 a week, $75 a month—or $900 a
Quite a worth while sum, you will agree. The follo
are a few suggestions to help you in gaining the e
half mile or more.

1. Turn the engine off when the truck is stan
still.

2. See that the carburetor is adjusted to give
leanest mixture possible; and, above all, see that it
not leak.

3. Be sure the spark is properly timed and al
drive with the spark well advanced on the thrott

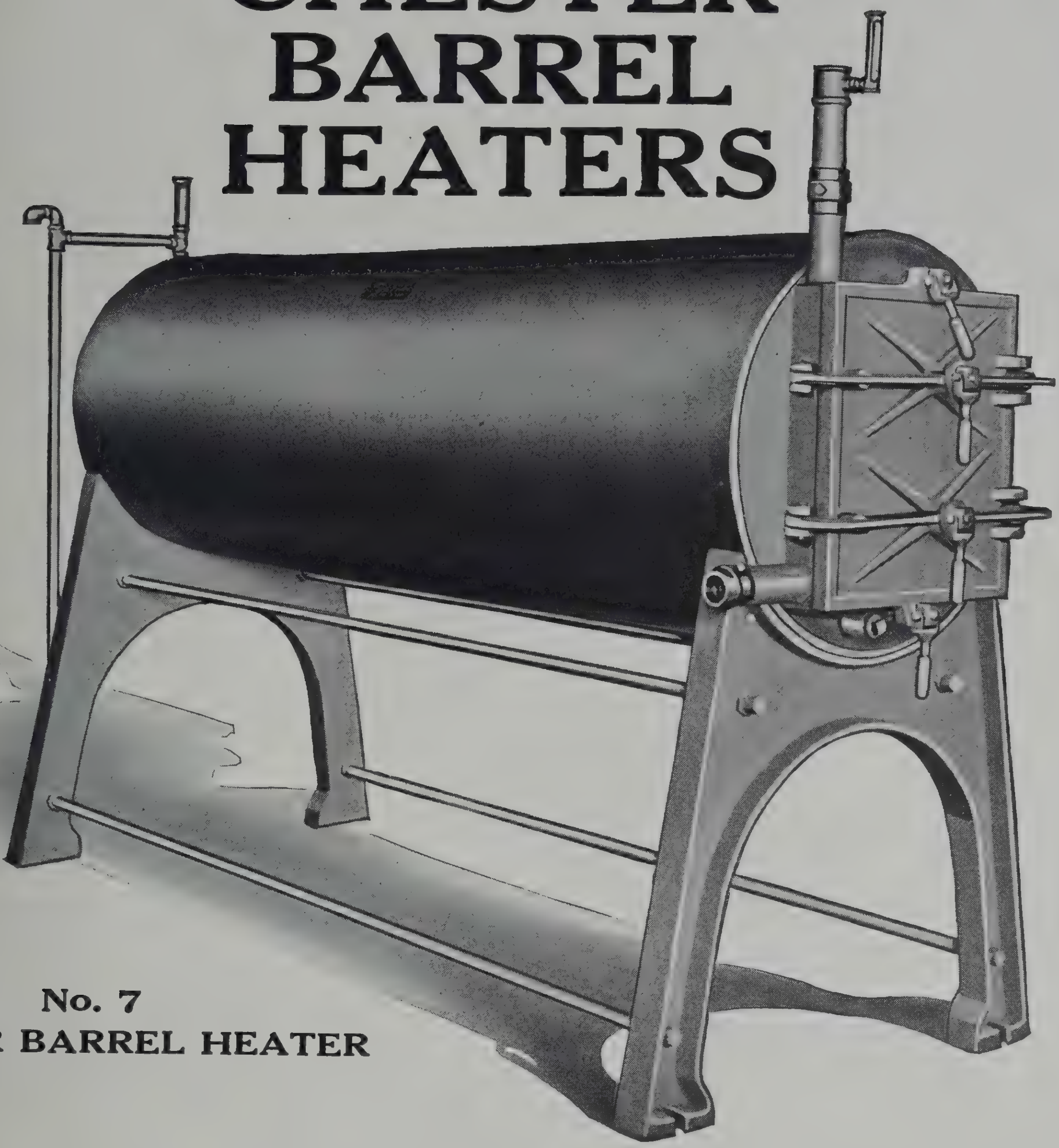
4. Remember that a truck going at a high s
uses more gasoline than one going 15 or 20 miles an h

5. Don't accelerate quickly, as this floods the
buretor and wastes gasoline.

6. On long grades, stop the engine and coast, o
least throttle down the motor.

"WILL YE HAE ANY MILK?"
Ireland—The Milk Maid of Killarney's Query is, "Will Ye Hae Any Milk?"

CHESTER
BARREL
HEATERS



No. 7
ESTER BARREL HEATER

20,000 Pounds an Hour

Largest—and best—barrel heater ever made. Barrel 30″ in diameter gives ample water space between 2″ nickel silver tubes. Handles 20,000 pounds of milk per hour from 40° to 145° with perfect ease. Large number installed during last eighteen months.

CHESTER DAIRY SUPPLY CO.
Ninth and Hyatt Streets
CHESTER PA. U. S. A.

The Sign of Service

When writing to CHESTER DAIRY SUPPLY CO. *please mention The Milk Dealer.*

Prof. Burke's Inquiry -:- Department -:-

This Service is Free to Readers of The Milk Dealer

VALUABLE INFORMATION OF INTEREST TO MILK DEALER.

Pennsylvania.

Dear Sir:—Your information in the March issue of The Milk Dealer greatly appreciated in regard to using gelatine in table cream. We are having considerable trouble and complaints with our table cream not being heavy enough. The state law of Pennsylvania requires an 18 per cent cream. We are running 26 per cent cream and still have trouble.

I would like to get more information about same. How much gelatine to use to the 100 quarts of 22 per cent cream to give us a good body. Any other information will be greatly appreciated.

Reply: It is against the law to use gelatine in cream in your state. In fact, the law reads to the effect that it is unlawful to sell cream "which contains or is mixed with any added condensed or evaporated milk or cream or cream to which has been added any substance for the purpose of increasing its consistency or thickness," etc.

For this reason we will have to attempt the preparation of a thick cream in some other way. I, therefore, suggest the following:

Pasteurize the fresh milk. Cool it immediately to 40 degrees F. and hold at this temperature for six to eight hours, but preferably over night. In the morning, warm to about 85 degrees F., mixing thoroughly, and then separate at this temperature. Cool the resulting cream to 40 degrees F., or lower, as quickly as possible, and then age it for twelve hours, or slightly longer. I believe you will find this results in the production of a cream of very high viscosity.

* * *

Texas.

Dear Sir:—I am still in Corpus Christi, working at the same old place, at the same old job, however for a new company. The Mistletoe Creameries bought this place out a year ago last month, and since that time we have made a real place out of it. We have practically doubled our business and at the same time we now have a little competition, however nothing serious.

In addition to writing this as a personal letter I am also writing for some information. The first question that I would like to ask is: Can hypochlorite be detected in milk? If so, how? Will hypochlorite, in small quantities, help preserve milk?

I am asking these questions because one of our small dairies in this city is selling raw milk and it won't ever sour, and I have made almost every test for preservatives that I know, and I have learned that he buys large quantities of B-K disinfectant which he presumably uses in disinfecting his utensils.

We used to be bothered a great deal with sour milk, but since the Mistletoe has put in equipment to handle milk, we have not had any more trouble; however we have not yet reached the stage of the game whereby we can put out milk which will not sour. (Nor do I think we ever will.)

Reply: There is a test for B-K and similar products, such as sodium or potassium hypochlorite, used as preservative in milk. The text is as follows:

To five c.c. of milk or cream add 1.5 c.c. of iodide solution made by dissolving seven grams of potassium iodide in 100 c.c. of distilled water. In the presence of a
small amount of hypochlorite the milk becomes
or brownish in color. If no color appears, add fo
of hypochloric acid, made by adding 100 c.c. of c
trated HCl to 200 c.c. of distilled water. Mix tho
ly. Place tubes in a water bath heated to 185 degr
for ten minutes; cool in cold water and then ad
half to one c.c. of the starch solution to the mater
lowing it to flow down below the curd. A blue t
plish red color appears when the starch solution is
The starch solution is made by boiling one gr
soluble starch in 100 c.c of distilled water and c

If you wish to secure more information on th
you may secure a bulletin No. 1114, U. S. Departm
Agriculture.

Now as to the merits of hypochlorite as a pre
tive. This material, as other similar products, is
did as a sterilizing agent, but it is not efficient as
servative of milk unless used in very large quan
which could be detected by the odor, the reason
that the presence of organic matter causes its de
tion. It would take a great deal of the product t
serve the milk for a very long time.

* * *

Oklahom

Dear Sir:—Can you tell me how to keep ba
count down in milk? We use a germ-killing sol
strain through cotton cloth and scald everything w
Wash the udders, run our milk over a cooler and
it in a cool place, and still have a high bacteria c
Can you explain it?

I would like to know what causes bacteria and
many different kinds there are. The plant where w
has 20,000 count after pasteurizing. Is that reason

Reply: There are four essential factors in the
duction of milk with a low bacteria count. You
undoubtedly familiar with these, as you mention
of them in your letter. They are clean cows and
barns, sterilized utensils, the small topped milk pai
cooling the milk to a temperature of 50 degrees F
lower. The small topped milk pail, which has an
ing usually five inches broad and seven inches long,
vents a great deal of dirt from dropping into the
thereby keeping down the bacteria count. Much o
dirt that falls into milk is soluble. It carries wi
millions of bacteria and, of course, these canno
strained out. It is essential to keep dirt out of
rather than try to eliminate it through straining.

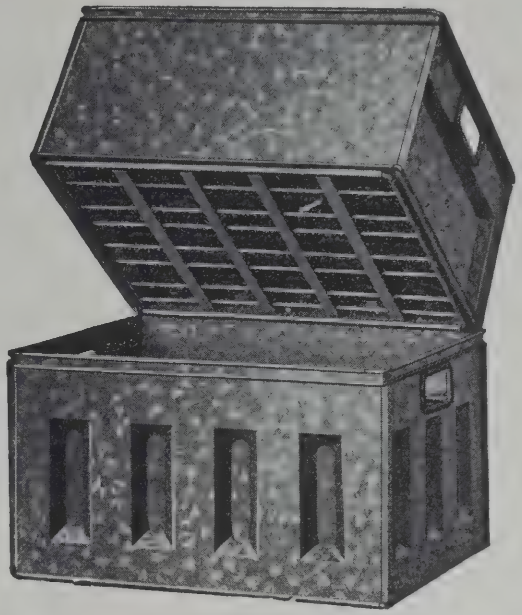
The sterilization of utensils is especially impor
probably the most important factor in keeping the
teria count low. Scalding does not have very much e
unless the water is maintained at boiling and the
sils kept in it for at least five minutes. The best me
of sterilization is accomplished through steaming
steam from a boiler and our state law, by the way
quires that dairy utensils be sterilized with live stea
believe, however, you should get satisfactory resul
you boil the utensils for five minutes and then rins
you mention, with an antiseptic solution. The milk
should be treated in the same manner.

To help keep down the bacteria count when mill
it would be desirable for you to clip the long hairs

CLIPPER CASES

(ALL STEEL)

Defy Destruction



These Jobbers Sell CLIPPER CASES

American Dairy Supply Co.	Washington, D. C.
Apothecaries Hall Co.	Waterbury, Conn.
A. H. Barber-Goodhue Co.	Chicago, Ill.
Arthur T. Barlass Co.	Chicago, Ill.
Bessire & Co., Inc.	Atlanta, Ga. Indianapolis, Ind. Louisville, Ky. Richmond, Va. Memphis, Tenn.
E. W. Biesecker	East Stroudsburg, Pa.
J. S. Biesecker	New York, N. Y.
Bingham & Risdon Co.	Green Bay, Wis.
Birmingham Dairy Supply Co	Birmingham, Ala.
D. Frank Black	Philadelphia, Pa.
Brown-Rogers-Dixson Co	Winston-Salem, N. C.
Carter Supply Co.	Lexington, Ky.
Cherry-Bassett Co.	Baltimore, Md. New York, N. Y. Syracuse, N. Y. Philadelphia, Pa. Pittsburgh, Pa.
J. G. Cherry Co.	Cedar Rapids, Iowa St. Paul, Minn.
Chester Dairy Supply Co.	Chester, Pa.
Churchill Drug Co	Burlington, Iowa
Creamery Package Mfg. Co.	Chicago, Ill.
Cresco Dairy Machinery Co.	Chicago, Ill.
Dairy & Farm Supply Co.	Atlanta, Ga.
Dairy Supply Co.	Minneapolis, Minn.
Dairy Supply & Equipment Co	Pittsburgh, Pa.
A. L. Davis' Son	Binghamton, N. Y.
Fort Wayne Dairy Equipment Co.	Fort Wayne, Ind.
Gowing-Dietrich Co., Inc.	Syracuse, N. Y. Buffalo, N. Y.
Hackney Bros. Co., Inc.	Charlotte, N. C.
Hagan's Dairy Supply House	Greensboro, N. C.
Haines-Carpenter Dairymen's Co.	St. Louis, Mo.
E. A. Kaestner	Baltimore, Md.
N. A. Kennedy Supply Co.	Kansas City, Mo.
D. & F. Kusel Co.	Watertown, Wis.
John W. Ladd Co	Detroit, Mich. Cincinnati, Ohio Columbus, Ohio Cleveland, Ohio
G. F. Lessenhop & Sons, Inc.	Lincoln, Neb.
Lone Star Supply Co.	Austin, Texas
Meyer-Blanke Co.	Birmingham, Ala. St. Louis, Mo. Dallas, Texas
Miller-Lenfesty Supply Co.	Jacksonville, Fla. Miami, Fla. Tampa, Fla.
National Dairy Equipment Co.	Utica, N. Y.
M. G. Newell Co	Greensboro, N. C
Oakes & Burger Co.	Cattaraugus, N. Y.
Onondaga Dairy Supply Co.	Syracuse, N. Y.
John Pico	New Orleans, La.
Shelley Equipment Co.	Lincoln, Neb.
Southern Dairy Supply Co.	Houston, Texas
Teague Hardware Co.	Montgomery, Ala.
Thompson-Bremer & Co.	Chicago, Ill.
West Side Feed & Bldg. Material Co	Grand Rapids, Mich.
Wisconsin River Supply Co.	Wausau, Wis.
Wisner Mfg. Co.	New York, N. Y.

They do not burn.
They do not rot.
They do not split.
They do not warp.
The heavy galvanizing prevents rust.
They have no joints to loosen.
They have no corners to pull out.
They do not soak up water.
Your imprinted name cannot be obliterated.

Dairy and Ice Cream Machinery and Supplies Association Inc.
Associate Member National Association of Ice Cream Manufacturers

¶ Clipper Cases are stamped from a heavy sheet of steel and beaded with heavy channels and steel wire. The bottle partitions are stamped from steel. All joints are welded. Galvanizing is done when case is completed.

[If you are interested in reducing bottle case expense your solution lies in a thorough trial of Clipper Cases.]

SEND FOR A LOT NOW!

The Defiance Pressed Steel Co.

DEFIANCE, OHIO

the udder and flanks of the cows. This will enable you to clean the cows more thoroughly.

Now, as to bacteria. These are very tiny plants, so small that it would require about ten thousand of them to equal an inch in length. No one knows what causes them, as they have always existed so far as we know, and there are thousands of different kinds in the soil, some in water and many are found in the intestinal tract of the human being and animals. Some bacteria are harmless, others produce disease, such as diphtheria, typhoid fever, small pox, septic sore throat, etc.

Now, as to your last question. Twenty thousand bacteria is a reasonable count for pasteurized milk. I would consider this quite satisfactory.

Finally, I might state that if after trying the above suggestions to produce milk with a low bacteria count and you still find it to be high, the trouble undoubtedly lies in the udder of one of the cows. As a rule milk obtained and tested immediately should not show over one thousand bacteria per cubic centimeter. There are some cows, however, that secrete milk with a rather high count and this may be the cause of the high count mentioned in your letter.

* * *

Oklahoma.

Dear Sir:—I want to ask you to send me the per cent in food value of oleomargarine compared to cow butter. Here it costs 25 cents per pound while good cow butter costs 50 cents. I am in the Indian service and want to know the real food value of each so I can recommend the use accordingly.

Reply: I have your very interesting inquiry regarding the food value of oleomargarine and butter. I take pleasure in giving you the following data from some of the best authorities on dietetics. In an article appearing in The Milk Dealer for July, 1922, Profs. Steenbock and Hart of the University of Wisconsin quote as follows:

"Experiments have shown repeatedly that plant fats are totally free from vitamine A, and that most body fats of animals contain but small amounts of it, although there are some exceptions. Fats in internal organs such as the kidney and liver are very potent as sources of this vitamine and occasionally the beef fats, especially the highly colored yellow ones, are as rich as butter. As the fats of the internal organs are not used commercially and as beef fats make up only part of the final product, the result is that even the best of oleos are not to be compared with good butter. This criticism applies even more forcibly to the nut oleos which pride themselves on not being contaminated with animal fats. The nut oleos are the greatest menace to the dairy industry because of their cheapness and the low price possible in the sale of the product. Furthermore, by their manufacture, the use of animal fats is decreased and the livestock industry loses the benefits which the oleo manufacturers claim to have given it by the extension of their activities. This latter is, however, a questionable matter."

This certainly brings out the relative importance of the vitamine A content of nut oleo as compared with butter.

Again in Bulletin 291 from the Wisconsin Experiment Station (and I suggest you obtain this bulletin) these same workers make the following comparisons on page 15:

"In the dairymen's competition with butter substitutes a word should be said concerning oleomargarine. This product is made from both plant and animal oils and the higher grades are churned with milk or butter
or both. The plant oils used contribute no fat s
vitamines; the neutral oil, or that pressed from
contains no fat soluble vitamine. The oleo oil, o
prepared from beef fats, does contain some of this
of vitamines and of course the milk products cont
another portion. The result is that the finished
margarine contains some of this vitamine, but it is
sarily not in the same concentration as found i
natural butter. Their dilution, as compared with
terfat, is in proportion to the plant oils and neutr
used, with a further dilution by the use of oleo oil
contains this substance in less concentration than
butter. Consequently, even the higher grades of
margarine will have their fat soluble vitamine co
diluted, the degree of dilution depending upon
method of manufacture. Five per cent of butter
a ration of purified food materials contributes en
fat soluble vitamine for normal growth, but fiv
cent of the oleomargarine we have tested will n
complish this. These are the facts as they are k
today, and they should make it clear that no produc
claim the distinction of substitute unless it shows
nutritive value in quantitative relations. These fac
not condemn oleomargarine any more than they
demn plant oils, but merely disclose what each
tributes to nutrition."

I presume you are quite familiar with the vitan
those dietary essentials which are necessary for h
growth, reproduction and the prevention of ce
diseases. If these are not present in foods, human b
as well as animals will soon perish.

Again I quote from the annual report of the
tional Dairy Council of 1922:

"The general public is awakening to the fact
there is no substitute for butter. The truth abou
superiority of dairy products is being revealed.
have all heard about the demonstration conducte
butter vs. oleomargarine at Rochester, N. Y. Chi
were studied for 18 months. The first six months
had butter and other good foods; the next six m
oleomargarine instead of butter; then the third
months they had butter again. The first six month
butter, they gained an average of six pounds each
oleomargarine they not only failed to gain, but los
and a half pounds each; then, when back on butter,
gained eight pounds each."

* * *

Pennsylvani

Dear Sir:—I am giving you our way of han
our milk for heavy and table cream.

We separate our raw milk between 85 and 90 de
F., and have the separator set to skim a 40 per
cream. We standardize this 40 per cent cream to
our 26 per cent cream. Then the cream is pasteu
and cooled to 40 degrees F. We find by handling
cream in this manner gives us a thin cream and
times cream plug.

Would you suggest after separating the aged
to re-pasteurize the cream? I find if we do not
teurize the table cream to a temperature of 150 de
F. it shows a milk line at bottom of bottle. What w
you suggest doing to eliminate the milk line and
times cream plug?

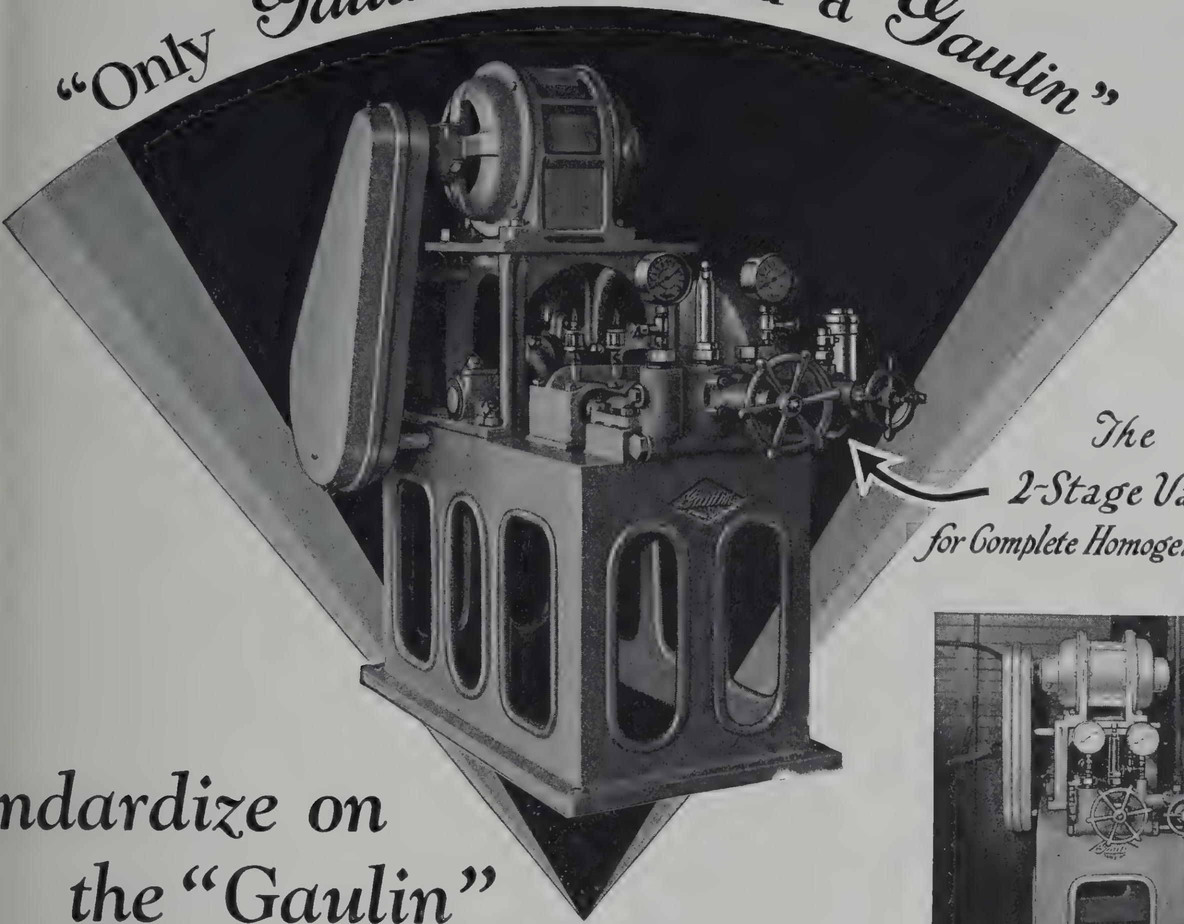
Many times we purchase 40 per cent cream, w
we repasteurize to make our table and whipping cr
which causes us considerable cream plug.

Reply: The chief causes of cream plug are:

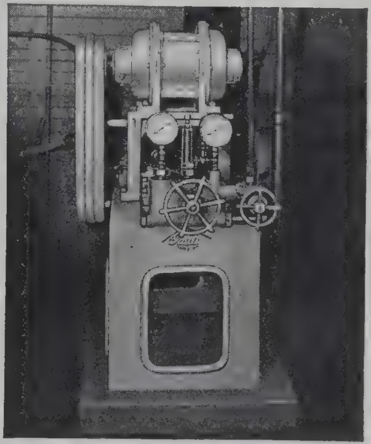
1. Evaporation of moisture from the surface of
   tled cream.
2. Partial breaking up of the fat globules in
   or cream.

Accordingly, you can see that many factors may

"Only *Gaulin* can build a *Gaulin*"



ndardize on the "Gaulin" ORIGINATOR *of the* Two-Stage Valve



Typical Gaulin Installation at Brayley's Creamery

THE 2-Stage Valve, *as originated and developed* by the Manton-Gaulin Manufacturing Company, has met with such favor because of its remarkable gain in efficiency over single valve operation, or other homogenizing devices, that it is today rapidly being adopted as *standard equipment* in the leading ice cream manufacturing plants in America and Europe.

The results obtained have been so enthusiastically received that the Gaulin Homogenizer equipped with the 2-Stage Valve has not only supplemented the homogenizing machinery in many plants, but we are constantly being called upon to equip machines of other makes with this efficient dual valve.

Reproduced above is a 250 gallon Gaulin homogenizer installed at Braley's Creamery, Somerville, Mass. After using machines of other make, this company finds that the Gaulin has given them *by far the best results.* Microscopic tests have shown that with the 2-Stage Valve they secure a much finer emulsion as well as a more uniform finished product.

More Gaulin Homogenizers are being manufactured and sold today than ever before in our history and we attribute this prosperity principally to our development of the 2-Stage Valve.

If you wish to secure *complete homogenization*—be assured of *positive viscosity control*—and guaranteed a *superior quality of finished product,* you will make the 2-Stage Valve, as *originated* by Gaulin, standard equipment in *your* plant.

A catalog describing the 2-Stage Valve in detail will be sent to you, free, upon request.

NTON-GAULIN MFG. CO. *Gaulin* TRADE MARK ***11 Elkins St.,*** **BOSTON, MASS.**

tribute such as:

1. Too vigorous or too little agitation during pasteurization.
2. Bottling before thorough cooling.
3. Pumping at the wrong temperature or too vigorously.
4. Slow cooling.
5. Heating too high during pasteurization.
6. Re-pasteurizing a second time.
7. Pasteurizing partly churned milk or cream.
8. Pasteurizing very rich cream especially at a high temperature.

I believe in your case to avoid a cream plug and obtain a heavy viscous cream, I would:

1. Pasteurize the raw milk when received.
2. Cool to 40 degrees F. and hold for six to eight hours.
3. Warm to 85 degrees F. and separate. (If a cream plug is noticed later on, then try separating at 100-110 degrees F.). Note: If you pump the milk to the separator a still higher temperature may be required. See April issue of The Milk Dealer.
4. Cool the cream to 40 degrees F. or lower. For table cream standardize at once with thinner, cold cream or cold milk.
5. Hold at 40 degrees F. or lower over night.

If you cannot handle it in this manner, I suggest you separate the milk at 100-110 degrees F. One hundred fifty degrees F. is not too high for pasteurizing table cream but I would not pasteurize the 40 per cent cream above 145 degrees F. Neither will you find double pasterization very desirable as it will result in a heated flavor and more difficulty from the cream plug.

The cream plug causes a great deal of trouble. For this reason many manufacturers are using a viscolizer, homogenizer or blender to eliminate it. If you have such a machine I would certainly use it.

* * *

Ohio.

Dear Sir:—About a week ago I was asked how much 35 per cent cream could be separated (centrifugal) from 10 gal. of 3.5 per cent milk. The rule using a hundred pounds of milk, as I understand it, is to divide the 3.5 test by 35, butterfat test of the cream required, and multiplying the result by 100, as 35 divided into 3.50 times 100 equals 10.00 pounds.

In using a smaller amount of milk than 100 pounds, as in the above case, 10 gallons or 86 pounds, should I have multiplied the quotion of the problem by 86 instead of 100, as 3.50 divided by 35 equals 10, times 86 equals 8.6 pounds?

Will you please give me the correct way to work this? Two other parties have worked it differently, getting different answers and, of course, they claim to be right and I feel somewhat uncertain.

Reply: I am very glad to give you the method of figuring the amount of cream that may be separated from milk of a certain richness. To work this, let us proceed in the following manner:

Problem: How much 35 per cent cream can be obtained from 10 gallons of 3.5 per cent milk?

Rule: Divide the pounds of fat in the total quantity of milk by the test of the cream and multiply the result by 100.

Example: Milk weighs 8.6 pounds per gallon.

Therefore 10 gallons equals (10 times 8.6 pounds) equals 86 pounds.

86 pounds of 3.5 per cent milk contains 86 times .035 equals 3.01 pounds of fat.

Assuming no loss in the skim milk, then 3.01 divided by 35 times 100 equals 8.6.

Proof: 86 pounds of 3.5 per cent milk conta times .035 equals 3.01 pounds fat.

Also 8.6 pounds of 3.5 per cent cream contai times .35 equals 3.01 pounds fat.

* * *

Massachuse

Dear Sir:—Do you think the board of health have any objection to adding a little rennet extr cream to thicken it? Those three suggestions you in The Milk Dealer recently certainly struck m right, as I am running our cream (heavy) 40 pe and light cream 17 per cent, which is often times in butterfat than the other fellow's, but their's a to be heavier, especially the light cream.

Will you kindly answer the following questi I am not asking too much?

Where can I purchase a book explaining how preservatives in milk or cream? I now have c Farrington & Woll which covers quite a few but wondering if you know of any that cover the whol ness as far as chemistry goes.

Can rennet be detected in cream; if so, can y plain a good method?

Will cream with a little rennet added stand well (in average summer weather) as straight c I have a notion it would develop a peculiar odor.

How can cocoanut oil be detected in milk or c

I thank you very much for answering my la quiry as it certainly helped me a whole lot.

Reply: I am glad to have your letter and lea suggestions have proven of some value.

You ask about the use of rennet in cream to t it. While I find nothing in my copy of the Massach ordinance that relates directly to it, I do find a under which I believe its use could be consider offense. Even though its use were permitted you not find it advisable to add it as the cream would very badly in hot coffee. If the cream happened slightly high in acid a more detrimental effect be noted.

You ask regarding a book giving tests for det preservatives in milk. Have you seen "Practical Tests," published by The Olsen Publishing Com It gives tests for the following: Formalin or for hyde, benzoic acid, salicylic acid, hydrogen pe carbonates and hypochlorites and chlorainins.

Rennet can be detected in cream but since it is only in small quantities a practical test would very reliable. The detection of small amounts re rather exact and careful technique and a well equ chemical laboratory. I have been using a modifi of the test for its detection in certain ice crea provers but in this case the enzyme is mixed and in the powder and occurs in rather large quantiti would not be applicable to milk and cream. Crea taining rennet in only the very small quantities th be used, will stand up quite well if kept cold. I believe you would notice any color.

Cocoanut oil is one of the hardest fats to det milk or cream. Its determination depends on ver cate chemical tests to determine certain constants butterfat as compared with the foreign fat. These ical tests are described in full in "Food Analysis Woodman, published by the McGraw-Hill Book pany, 370 Seventh Ave., New York City, N. Y.

◆

If you want a position "The Milk Dealer" ca you—as it has helped thousands of others—to se good position.

Quality Milk Products

by using

M-C

MOLD-CIDE
Trade-Mark
Reg. U.S. Pat. Off.

SODIUM-HYPOCHLORITE

To combat your worst enemies Bacteria and Mold

Milk Plant operators agree that a chemical cleanser, sterilizer and deodorant is necessary to insure quality products, in addition to the use of live steam and hot water.

M-C is a chemical that meets all these requirements—that may be used at all degrees of temperatures—that kills the causes of spoilage and contamination at their source—that removes the invisible casein and bacteria from utensils and equipment—that penetrates cracks and crevices where other cleansers cannot go—that leaves no traceable odor itself in either the product or plant.

We have been supplying Food Product Plants for years with machines for the production of Mold-Cide. For plants not wishing to install a Mold-Cide machine now our Laboratory has perfected a highly concentrated and stabilized solution—40% stronger than similar commercial solutions now on the market. This concentrated solution may be purchased in one and five gallon bottles.

M-C is guaranteed to keep your Plant clean and sweet and improve the quality of your products.

Eight Years in One Plant

"We would not want to operate a food product plant without the use of Mold-Cide. We have been very successful in completely destroying mold and other bacteria so often discovered in plants where the air is nearly always damp."

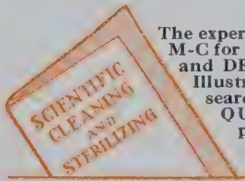
B. S. Pearsall Butter Co.
Elgin, Ill.

Economical to Use

VALHALLA
MOLD-CIDE
MACHINE

M-C
MOLDCIDE

You can buy a highly concentrated and stabilized solution of M-C in bottles, or you can make it in your own plant from salt and water.



The experiences of Food Product Plants using M-C for years as a CLEANSER, STERILIZER, and DEODORANT are related in a 30-Page Illustrated Booklet prepared by our Research Staff. Executives interested in QUALITY MILK PRODUCTS will profit by the information contained in this Booklet.

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THE VALHALLA CO.,
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Please send me your FREE 30-page booklet entitled SCIENTIFIC CLEANING and STERILIZING.

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My dealer's name is

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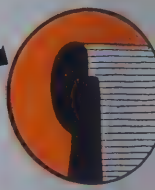
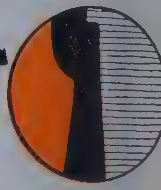
When writing to THE VALHALLA COMPANY *please mention The Milk Dealer.*

Why THATCHER Milk Bottles Last Longe



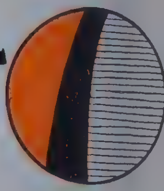
Extra Reinforced

THE UPPER EDGE or "roll" of every Thatcher Bottle is scientifically designed and extra reinforced to resist breakage, both at the capping machine and in every day use.



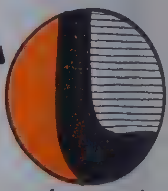
Perfect Cap Seat

DAILY TESTS and watchful care in manufacture assure every Thatcher Bottle an accurate cap-seat, designed to seat the cap perfectly and check breakage under capping machines.



Strong Shoulders

THE SHOULDER gets many bumps and knocks. The shoulders of every Thatcher Bottle are scientifically designed to resist these bumps and knocks. Uniform thickness of glass — no weak spots —insures more trips for Thatcher Bottles.



The Base Edge

THE BASE EDGE is another vulnerable spot. Thatcher Bottles are extra reinforced at the base edge to resist breakage. The rounded inner edge gives greater strength where most needed and makes cleaning and sterilizing easy.

The use of only the purest flint glass, perfectly tempered in scientifically designed lehrs, makes Thatcher Bottles stronger, tougher and more uniform in quality than any milk bottle on the market and explains why Thatcher Bottles give more trips per bottle. More trips per bottle mean greater profit to you.

The Thatcher Trade Mark is blown on the base edge of every Thatcher Bottle and is your guarantee of flawlessness. And Thatcher national advertising has helped many dairies build bigger profits. It will pay you to tie-up to it and to use Thatcher Bottles and Thatcher advertising material that is supplied FREE to Thatcher users. Mail coupon today.

THATCHER MANUFACTURING CO., Elmira, N.Y.

Operating several plants throughout the country, strategically located and devoted to making Superior Quality Milk Bottles. Prompt, efficient service—always.

Free Material that Will Increase Your Profi

MAIL THIS TODAY

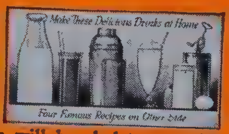
THATCHER MFG. Co., Elmira, N.Y.

1. *Send me prices and full information regarding Thatcher Superior Milk Bottles.*
2. *Send me ______Thatcher Posters.*
3. *Send me ______Recipe Circulars for distribution to my customers.*

Name ______________________________

Address ______________________________

City ________________ *State* ________________



Make These Delicious Drinks at Home

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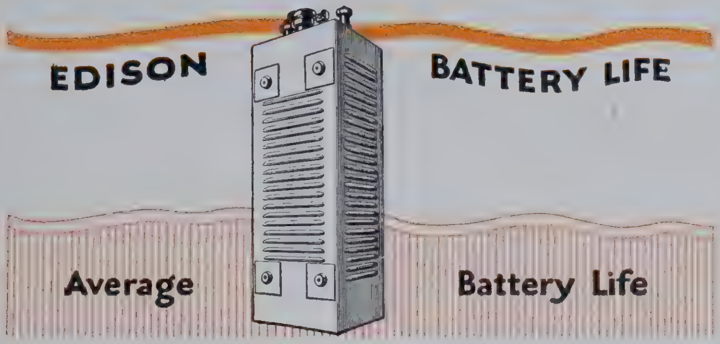
A bottle of milk is a bottle of health

A Bottle of Milk is
A Bottle of Health
The best food for the whole family

The New Thatcher Poster. 16" x 24" in color. Get supply NOW.

When writing to THATCHER MANUFACTURING COMPANY *please mention The Milk Dealer.*



Many users do not yet know the life of an Edison Battery!

THE life of an Edison Storage Battery is as far ahead of all other batteries of commercial importance as is the life of an electric truck chassis ahead of the gas truck. This long service shows itself in lower costs.

Here are the statements of a large eastern operator (name on request) whose trucks are now completely Edison equipped.

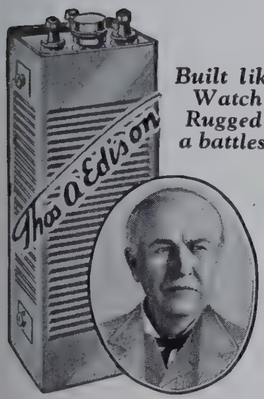
"We have some Edison Batteries in use today which have been in continuous service for twelve years and the average life of our batteries is nine years."

It is a common experience. Edison Battery long-life is a fact.

Electric trucks with Edison steel Batteries prove ideal for city and suburban delivery because the average speed is better, the service is cleaner, the life of the equipment and payload capacity are substantially greater and the maintenance costs are less.

Edison Batteries are made of steel and iron and nickel—different from all others of commercial importance on the market. The results are never in doubt. Let us show you some independent surveys of actual installations.

EDISON STORAGE BATTERY COMPANY, ORANGE, N. J.



Built like a Watch— Rugged as a battleship

Edison

STEEL-ALKALINE

TRUCK BATTERIES

Thomas A. Edison is the World's largest manufacturer of storage batteries for motive power purposes (industrial trucks and tractors, street trucks and mine locomotives) although the Edison Storage Battery Company has been in this business less than nineteen years.

ATLANTA BOSTON BUFFALO CHICAGO CLEVELAND DETROIT HUNTINGTON LOS ANGELES
NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH SAN FRANCISCO SEATTLE ST. LOUIS WASHINGTON

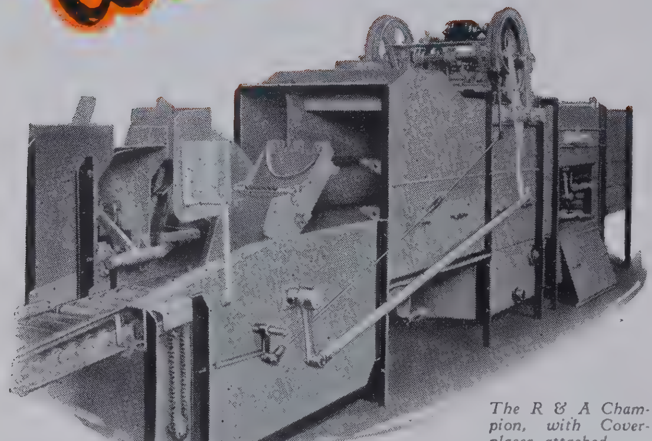
Export: 26 West Broadway, New York *Canadian Distributors: International Equipment Co., Montreal, Quebec*

HAUL MORE FOR LESS MONEY

When writing to EDISON STORAGE BATTERY COMPANY *please mention The Milk Dealer.*

Whatever the size of your pla

there's an R&A wash



The R & A Champion, with Cover-placer attached.

R&A Champion CAN WASHER

In every advertisement we publish on the R & A Champion, we say that it absolutely has no equal among straightaway washers — in strength, efficiency, completeness and fair price. That statement is submitted to you in the spirit of a friendly challenge. Check this washer against any other you may wish on the four feature points, then judge for yourself whether we have over-estimated its good qualities.

It is built in three sizes—with capacities varying from 3 to 12 cans per minute. Cans and covers come forth clean, sterile and dry. Usually, the washer is purchased with the R & A Cover-placer which uprights the cans and re-covers them, with perfect ease and precision—but this is optional.

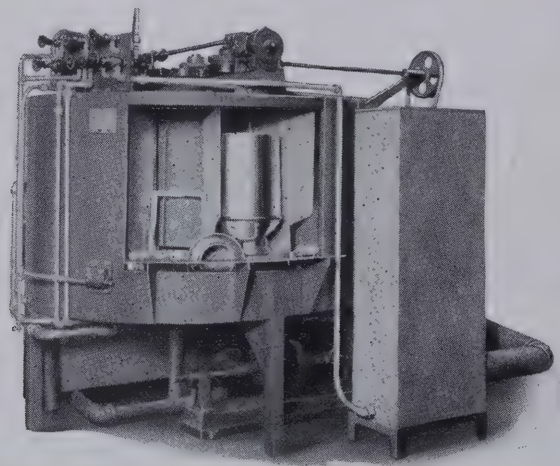
THE first thing any user of an R & A bot or can washer will tell you is that it d its work thoroughly; the second thi that it does its work tirelessly; the third thi that it does its work economically.

And, after all, aren't those the things you w most in the equipment you use: 1st, p formance—2nd, endurance—3rd, economy?

It's difficult, we admit, in these two pages, show you by word and picture how hones and efficiently these R & A machines serve; w gluttons they are for work—how indifferent abuse.

But, we shall try, in our brief descriptions make some of their good qualities very cl to you.

And if you will make the request, we will gladly send you complete literature on any or all of them; without obligating you in any way.



R&A Intermittent Rotary CAN WASHE

For years back R & A Rotary Can Washers have been giv excellent satisfaction in hundreds of dairies all over the co try. The R & A Rotaries of today embody the accumula experience of years. They are simple, strong and efficient.

Whether you choose the hand-operated model, or one of two power operated, you can depend upon it to produce cl sterile, dry cans. Its motor, pumps and fan are high-powe and trouble-proof. Jets are operated and drum is rotated the Geneva Intermittent Drive, the simplest and most depe able of all drives for rotary machines.

Three models: 1 hand operated; 2 power operated; with cap ities from 2 to 8 cans per minute.

Since 1895-America's Finest Dairy Equipmen

When writing to RICE & ADAMS CORP. *please mention The Milk Dealer.*

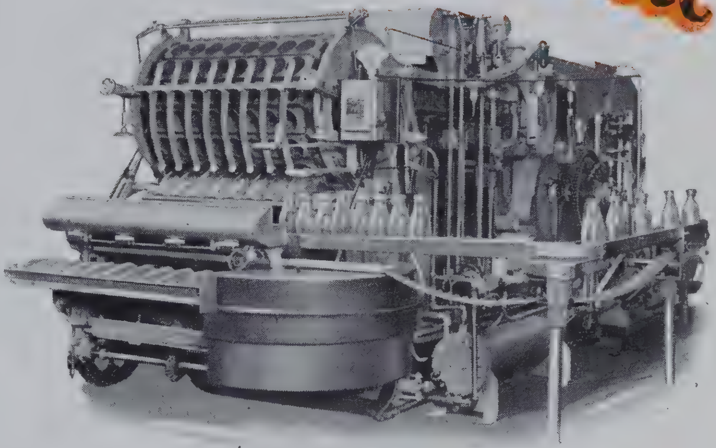
hatever the size of your pocketbook

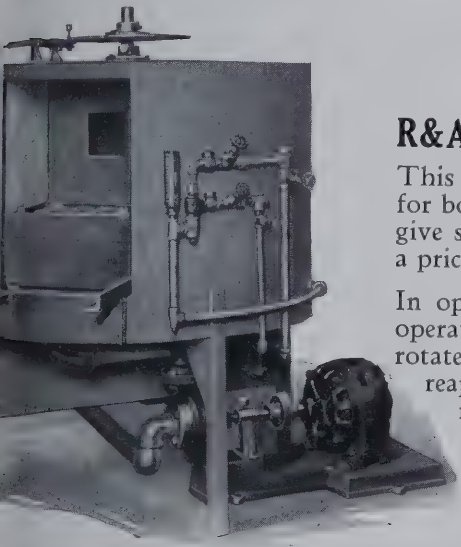
meet your needs!

A Three-way BOTTLE WASHER

ant bottle washer for big dairies. The standard el utilizes a highly efficient combination of soak- hydro and brushing methods of washing. It is available without the brushes if desired.

Three-way is built in all standard capacities— , 12 and 16 bottle widths. It is the first washer s type to be equipped with continuous automatic and automatic load and embodies numerous r features which equip it for long, hard service rger dairies.





R&A Combined BOTTLE & CAN WASHER

This washer, available as a bottle washer alone, or for both bottle and can washing, was developed to give small dairies a dependable, efficient washer at a price within their reach.

In operation, it is semi-automatic. All that the operator need do is to feed in the cases or cans, rotate the carrier, and unload them again as they reappear. With this washer, cases and cans do not have to be touched from the time they enter the machine until they are removed. Capacity — two cases or two cans per minute.

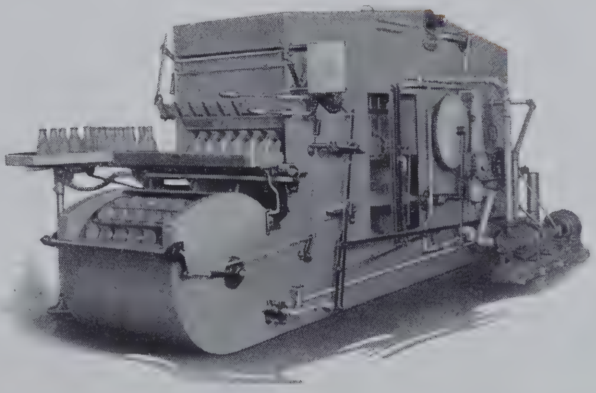
NOTE

All R & A Bottle Soakers are built under the basic patents of Charles E. Felt.

All R & A Bottle Washers can be equipped with hot-water sterilizers and coolers, if requested.

A Little Soaker-Hydro BOTTLE WASHERS

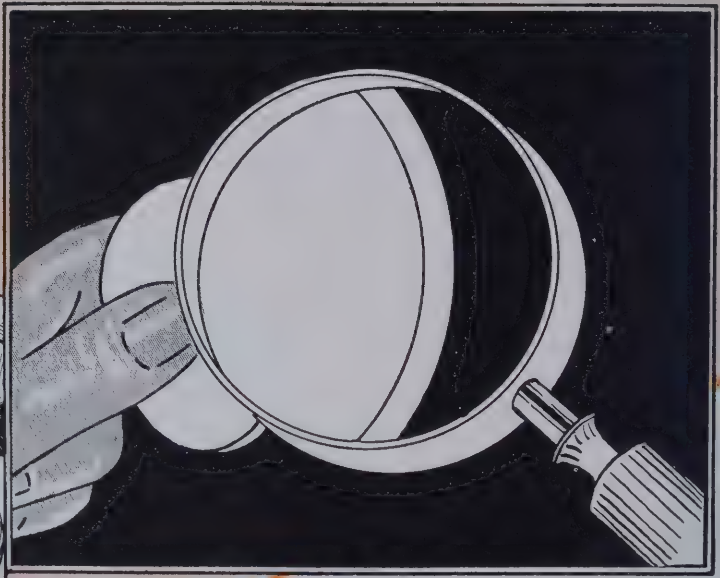
maller edition of the R & A Three-way in capacities ooth large and small dairies, embodying all that is best he soaking-hydro principle of washing. It does its k with an ease, thoroughness and economy that is ost startling to users of lesser machines. It is compact, to install, easy to operate, easy to care for. Every of metal—every mechanical unit in its construction e best that can be bought for the purpose. Three cities: 32, 48 and 64 bottles per minute.



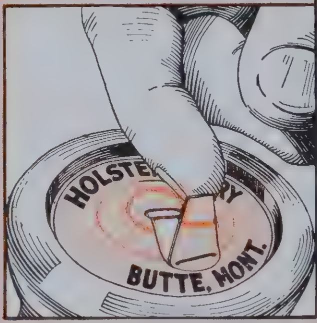
ice & Adams Corporation — Buffalo, N.Y.

When writing to RICE & ADAMS CORP. *please mention The Milk Dealer.*

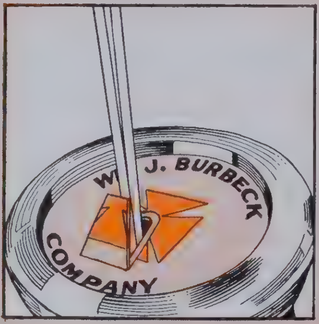
Clean Cut Edges Mean a Sure, Snug Fit



DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION, INC.

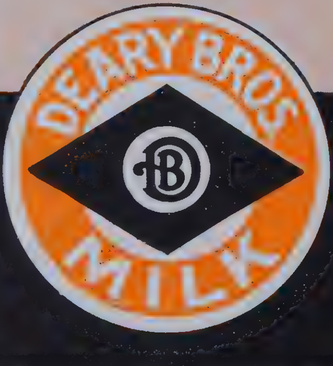


1 *The New Sealright Liftright Cap. Patented groove makes it easy as ABC to lift tab and remove cap in a jiffy.*



2 *The Improved Sealright Pouring-Pull Cap. Has same patented groove as new Liftright Cap. Opening in Cap for inserting straws or pouring. Ideal in home, school and restaurant.*

3 *Sealright Regular Standard Cap. The best and biggest selling "regular standard" cap in the world.*



Sealright Caps are Cu out Clean—they Fit—Alway

PUT a Sealright Cap under a magnifying glass and you w see why Sealrights fit the cap seat tightly, snugly. Tl uniform thickness and clean cut edges of Sealright Ca give a perfect, liquid-tight seat in bottles and insure perfe operation in capping machines.

Made from celebrated Fulton Board and scientifically waxe by a special process (which assures perfect sterilization), Sea right Caps are absolutely water-proof. They never becom "soggy" or "leathery" under ice or moisture. They always loo neat and attractive.

Sealright Caps print clear and bright and give you and you customers absolute satisfaction. And there is a Sealright Cap f every need. (See illustrations at left.)

Sealright Caps are nationally advertised and nationally know and preferred. Of course, it pays to use them. Write today f *Free Samples* of the three greatest caps in the dairy industr

SEALRIGHT CO., INC., *Dept. MD-7,* FULTON, N. Y.

Write today for Free Samples

"KEEP THE GOODNESS IN AND THE FINGERS OUT

SEALRIGHT
Milk Bottle Caps

When writing to SEALRIGHT COMPANY, INC., *please mention The Milk Dealer.*

"Yum, Yum that certainly tastes good"

Children love Morehealth Chocolate Milk

Increase Your Milk Sales

MOREHEALTH PREPARED CHOCOLATE

NET WEIGHT 1 LB.
MOREHEALTH
REG. U.S. PAT. OFF.
PREPARED
CHOCOLATE
FOR DELICIOUS BEVERAGES, FOODS CAKES, FROSTING, PIES, ETC.
Chocolated Milk
Chocolate Sundaes
CONTAINS NO PRESERVATIVES
MANUFACTURED BY
CHOCOLATE PRODUCTS CO.
CHICAGO, U.S.A.

A Specially Prepared Chocolate for making Chocolate Milk, for ice cream, frostings, puddings, cakes, etc. Packed in 1-pound glass jars, double sealed. Will not mold or ferment but keeps sweet and fresh. Stimulates consumption of milk and makes dairyman a splendid profit.

Every dairyman is interested in any plan that will increase the consumption of milk. Here is one that has proved eminently successful in hundreds of cases.

Children are the great consumers of milk but it is difficult for the parents to get them to drink enough of it. But these same children love chocolate—especially when it is made into a delicious, appetizing Chocolate Milk.

As a result dairymen everywhere are preparing and selling large quantities of Chocolate Milk and more than 600 of them have chosen our Morehealth Chocolate Syrup.

Morehealth Chocolate Syrup is of the highest quality and concentration and is prepared in plain and malted form. It is made from pure cane sugar and the finest grade chocolate ingredients by Dr. Pashkow's Special Process, giving it an exceedingly rich, mellow, delicious flavor. No artificial coloring or preservatives are used.

Our "Silent Salesman"—a unique plan of effectively advertising Morehealth Chocolate Milk to the housewife is furnished free with each order of syrup.

Send today for a liberal sample of our Prepared Chocolate and our plan for introducing it to your trade.

Send for Free Sample Today

CHOCOLATE PRODUCTS CO.,
415 Beethoven Place, Chicago.

Gentlemen:—Please send us:

☐ 1-pound sample jar Morehealth Prepared Chocolate.
☐ Sample Morehealth Straight Chocolate Syrup.
☐ Sample Morehealth Malted Chocolate Syrup.

Name . . . .
Street and No. . . . .
City . . . . State . . . .

When writing to CHOCOLATE PRODUCTS CO. *please mention The Milk Dealer.*

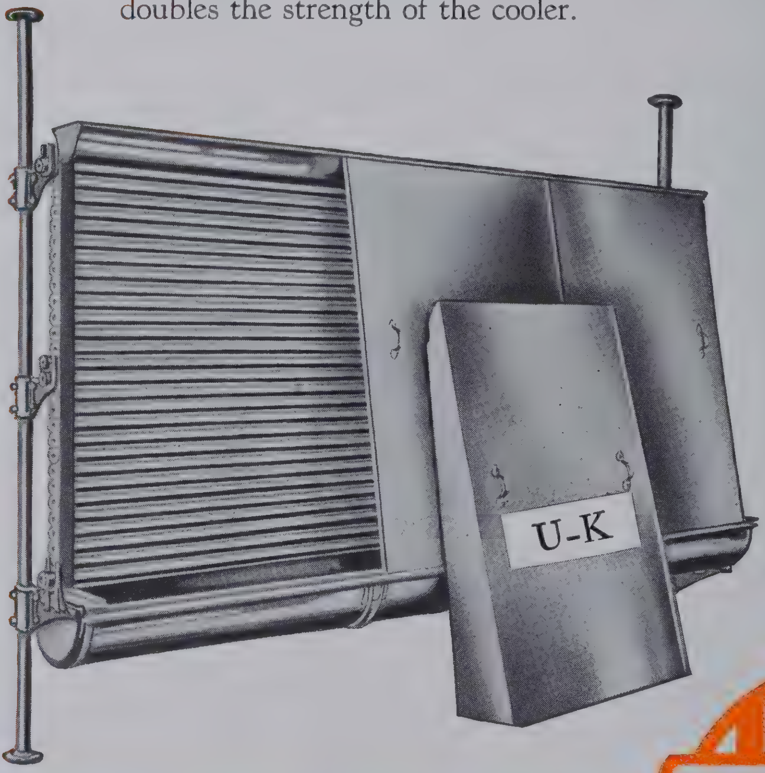
Uhlmann-Kinsey Co.
Incorporated
PHILADELPHIA, PENNA.

Milk Coolers

Lower Bacteria Count

U.K. COOLERS cool milk faster and have a more flexible capacity than any other cooler on the market. The rapid drop in temperature of the milk which the U.K. provides prevents further growth of bacteria which has survived the pasteurization process. The large manifolds or end-pieces allow a steady circulation of the cooling medium. This constant flow is absolutely necessary to get full benefit out of the brine or spring water used.

U. K. Cooler tubes are seamless, made of 18 gauge copper and heavily tinned inside and out. The method used in sweating the tubes to the end-pieces and the extra soldering doubles the strength of the cooler.



U. K. Coolers are made in a small size for farms, standard size for milk or ice cream plants, and a giant size for large dairies. Any size, any capacity, or any combination of sections can be built for your needs.

Uhlmann-Kinsey Co.
Incorporated
PHILADELPHIA, PENNA.

UHLMANN-KINSEY COMPANY
(INCORPORATED)
25 - 27 - 29 South 20th Street
Philadelphia - - - Pennsylvania

EMENT ON FOOT TO DEVELOP SOUTH.

ıg interests in the dairy industry now contem-
extensive investment program to develop the
dustry in the South and make that section an
instead of an importer of dairy products.

ert L. Dillon of Eastman, Dillon & Co., New
e outstanding figure in the banking group spon-
is project says, "Despite the fact that the 'Black
Alabama is one of the richest soil areas in
ld, with tremendous productiveness of forage
d year-round pasturage, the South now imports
m from New England and its milk from Wis-

local demand for dairy products is rapidly
, with the great influx of the textile and other
es into the South, which now has the last un-
labor supply in the country. The prospective de-
nt will cover a territory wtih 20,000,000 popula-

e boll weevil and the vicissitudes of cotton and
markets have weaned farmers from the one-crop
d truck and dairy farming are becoming more
than ever before."

AIRY CODE IN COLORADO SPRINGS, COL.

new milk ordinance of Colorado Springs, Col.,
known as the Dairy Code, and will tighten the
requirements for the sanitary production of
nd will empower the city council with authority
rce temporary pasteurization.

. Mowry, chairman; John W. Gilles and W. C.
submitted a list of recommendations to govern
ng of the proposed new law. These recommenda-
llow:

e recommend that the health department formu-
efinite policy and the city attorney be authorized
gthen the dairy code or draw up a new one, and
same to the council at the next regular meeting.
e new ordinance, or the revised one, will require
ns to be modern at all dairies, as defined by the
ce or rules and no permit is to be granted until
ments are complied with.
ading on A—B—C or AA*A—and B—system,
he one recommended by the health department.
milk on analysis plus or minus, and the sanitary
n found by the inspector to exist at the source of
ion and plant. Enforcing temporary pasteuriza-
milk when necessity requires it, but only as an
ncy measure, council can revoke any permit for
nt use of milk vessels other than the rightfully
and branded bottles and cans of the distributor."

WHAT IS VISCOLIZED MILK?

he so-called process of "viscolizing" as operated
am was separated from the milk, the fat globules
up under high pressure, thereby occupying a
volume and then was re-mixed with the skimmed
asteurized and put out as "viscolized pasteurized
This process extended the cream line approxi-
five inches on the neck of a quart bottle of milk
nsumers were led to believe that the milk so
actually contained twice as much fat, whereas,
ained no more fat and sometimes less than the
d as shown by a number of tests made.

James W. Kellogg, director-chief chemist, bureau
s and chemistry, states that viscolized milk has
eclared unlawful by the Dauphin county (Pa.)
nd the consumers of milk will now be fully pro-
The Pennsylvania department of agriculture
eir contention that viscolized milk was a fraud
iolation of the food law.

Jersey Can

Please note that we are equipped to make prompt shipments of all types of our cans.

K-W Milk Cans

To buy well is just as important as to sell well.

Buy your cans wisely —play safe and specify K-W cans.

K-W cans are made right even in the parts you can't see.

Their first cost is low and their extraordinary long life gives you maximum value for your money.

We make all types of metalware for the dairy industry.

Send for our catalog.

KEINER
WILLIAMS STAMPING
COMPANY
8746 123rd STREET
Richmond Hill, L. I., N. Y

New York Can

Keeping Posted on New Consumers

A Simple Method by Which the Milk Dealer Can Tell. No Milk Dealer Can Expect to Hold All His Customers But He Should Know Why He Loses Them

By E. J. CLARY*

THE expansion of any wholesale milk business or milk business catering likewise to the domestic retail trade, must depend in a great measure upon a careful study of sources for new milk outlets both as regards the domestic trade as well as the retail trade served. In addition, some method for an immediate follow-up when such information comes to hand is essential.

One of the most progressive milk dealers in the East recently had this to say: "The milk plant must expect a certain 'mortality' among its domestic and retail outlets each year and if progress is to be made in sales volume, enough new customers must be found and sold each year to offset these losses and to allow for a gain. In no other way can the milk business enjoy a healthy expansion........"

How can the milk plant set about to keep posted on new consumers in all groups and to line them up for trade?

Most of the milk dealers with whom the writer has contact recognize the importance of this job though very few of them have adequate "machinery" for accomplishing it as it should be done. Reliance is placed on mere chance and upon the eagle eye of the driver whose eye isn't always awake to new business on his route.

Something more dependable than mere chance is required to keep tabs on all the new milk outlets that are constantly popping up in our cities and towns. It is the purpose here to outline certain methods being utilized by progressive milk dealers in this work.

In the first place, where are the sources of new consumers? Most of them are found in every city and town. Once the channels for such information are opened up, the thing can be made a part of the office routine. Here they are:

Sources for Names of Consumers.

a—Retail licensing reports issued by the municipalities.
b—Reports of local retail trade associations.
c—Building permits, issued by the city or town.
d—Sales and leaseholds reported by realty boards and realtors.
e—Observations of drivers on route.

The above groups comprise:

1—Restaurant trade.
2—Hotel trade.
3—Domestic or consumer trade.
4—Retail outlet trades, groceries, food shops, etc.

Making contact with each source as outlined above, one person in the plant enters the names of new consumers on a card index, giving a duplicate in the form of a slip to the proper driver where it is merely a domestic account. Where it is a commercial account and of importance, a salesman is given the slip.

In each case, a report is required from the driver or the salesman. This must be made within 24 hours.

The cards are filed according to locality and then according to name, alphabetically. This prevents duplicated calls with their confusion and waste of time.

All tips that come from the above sources today are followed up the next morning. No time is lost.

If the driver on the route spots a new consumer, either in the form of a private home or a retail he makes an immediate report in detail that sam when he comes in.

This index serves more than one purpose; it b the nucleus of a first rate mailing list and also opportunities for follow-up until the business is se

The question naturally arises, can the house ge names without difficulty? Experience has prove the names of new hotel, store, restaurant or licensees are semi-public property and application license commissioner of your town or city will gi the freedom of the records. There usually is no though in some cities a typing or multigraphing is made; but this is only nominal.

The Trade Association Lists.

The chief value of local trade association lists the fact that they list changes of ownership withi membership body which in most cases offer a free for the house that refrains from pushing for its petitor's customer. The trade associations both away and sell this information. Their headqu usually are in the local phone book.

In addition to the general retail trade associ which takes in all merchants, there are in most associations comprising the individual trades whic offer more selective lists or bulletins.

In connection with the realty information, wh largely useful in locating new householders, for do consumer sales, this also is public property and th estate board in your city will, without doubt, giv access to their lists. In a city of 100,000 souls, the will find, as a rule, 2,500 retail outlets of direct in with a yearly increase (according to a late Washi report) of 10 per cent a year or 250 new outlets eve months. There will be, also, a mortality of some like 7 per cent which means there will be a net ga total outlets among retailers of 3 per cent or so,

The surest way to get the business of new ou domestic or commercial, is to get in on the ground Competition demands this—every one in the tra after new business and the early bird gets the wor

Ordinarily, the driver can be entrusted with fo up on domestic trade. He simply calls and asks fo business at the earlist possible moment. But wh comes to commercial tips, retailers, restaurants hotels, a salesman contact is worth while.

What is the best ammunition that can be use soliciting a new consumer?

What One Man Said.

In this connection, a leader in the Eastern trade "The best selling argument on new consumers in business is proof of satisfied customers served ov long period of time. * * Our men carry testimo which give them all the leverage they want. * *

Among the bigger operators in the trade, "new ness departments" have been established with the pose of doing just the very thing that the smaller op tor can do with as much success and profit.

But first of all it is vitally important to know the new consumer is, then, where he or she is. So

---

* Merchandising consultant.

FREE Enough Diversol To Make 100 Gallons *of sterilizing solution*

Mail this Coupon Today! DIVERSEY MFG. CO., 53 W. Jackson Blvd., Chicago Dept. B-266

See What This NEW Dairy Discovery Will Do for You!

If mailed today—this coupon entitles you to enough Diversol—FREE (Sent FREE and Postpaid) to make 100 Gallons of Sterilizing Solution.

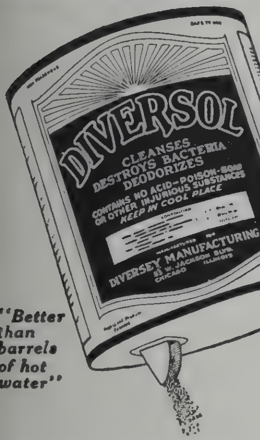
Name

Address

Sign—Cut Out—Mail This Coupon NOW!

Avoid Hot-Weather Milk Troubles!

DIVERSOL



"Better than barrels of hot water"

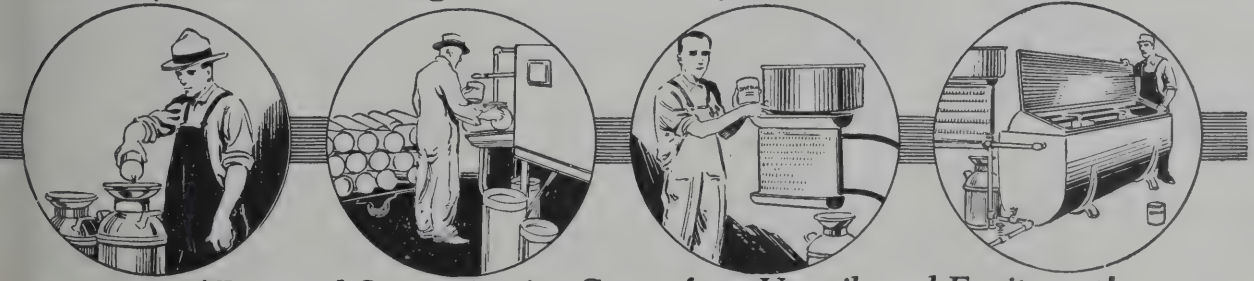
Destroys the bacteria that cause milk troubles!

[1]—Destroys "sour-milk" bacteria . . .
[2]—Destroys "ropy-milk" bacteria . . .
[3]—Prevents "off-flavors" . . . . . .
[4]—Overcomes "moulds" . . . . . .
with cold water

FARMERS, plants handling milk and milk products, everywhere, are *all* talking about this great new dairy discovery that now ends hot weather spoilage, sour-milk, and other milk bacteria troubles. You will be especially impressed with the *economy of* Diversol. One lb. makes 100 gallons of sterilizing solution. Keeps forever — never deteriorates. You make your own solution—quickly and easily, with cold water. You don't need steam or hot water—Diversol destroys bacteria with cold water that even steam misses. Non-poisonous. Never injures the hands.

Diversol is *more* than a washing compound, *more* than a sterilizer—it's both!—it destroys bacteria as it cleanses, and removes foul odors—instantly, with ONE warm or cold water wash or rinse. Think of the time and labor this saves you. Mail coupon above now for generous FREE quantity of Diversol and SEE what this great NEW dairy discovery will do for YOU! *You'll actually be amazed!*

Diversey Manufacturing Co., 53 West Jackson Blvd., Chicago, Ill.



85% of Bacterial Contamination Comes from Utensils and Equipment!

DIVERSOL ends all that trouble!

the constant tapping of sources becomes the most necessary part of the operation. Next, it is important to record all new prospects in a way that they will not be duplicated on the records.

One way is, check the batch of names from each source for a given period against those from each other source and thus prepare a single list which is then transferred to the card index.

Provision can be made on these cards for the first, second, third and fourth reports of contact people on each tip passed out for follow up.

It is particularly profitable to maintain this sy
connection with new retail outlets.

One Eastern dealer told the writer that 20 p
of his business increase in 1926 was strictly n
tomer business—owing to an aggressive and well
system of checking and following up.

Another claims that it is profitable to tra
domestic consumers through realty boards and
them up, their business in the long run more th
ing for the time and money spent in the job.

Putting Pep Into Your Drivers

A Promotion Week Every Month Builds Your Business and Good Will. Keeping Out of a Rut is Good Business

By FRANK H. WILLIAMS

WHEN dairies and drivers run along at the same consistent level of efforts all the time they naturally get a worth while volume of business. But when an extra special effort is made every now and then, business shows a decided spurt in most cases.

It is evident, then, that it is a valuable proposition for the dairy to every now and then do something extra in the effort to get business. And a particular effective method of putting on such an extra spurt consists in staging a promotion week every month during which all of the people connected with the concern redouble their efforts on their jobs and do everything they can to secure more business.

A good time to stage such a special promotion week is during the last week of the month. In fact, if the last week of each month is designated as a special promotion week over a period of time the results from this event will generally be found to be very satisfactory indeed.

During this special promotion week the dairy, of course, puts on a special advertising campaign in the daily newspapers and, perhaps, uses the mails, too, in the effort to get its message before the public. The trucks driven by the routemen are also specially decorated with banners for the week, perhaps, and all of the employees in the dairy can be specially "dolled up" with badges or something of that sort so as to make a particularly good impression on the visitors the dairy should try to get into its establishment during the week.

Special promotion stunts of various other kinds can be arranged for the week, too. Such, for instance, as staging special meetings of all the employees, offering prizes to the drivers who show the biggest percentages of increase during the week, offering prizes to the employees turning in the most worth while suggestions for doing things which will improve the business or operations of the concern. And so forth and so on.

All this sort of promotion work is, of course, as a sort of tie-up and help to the drivers on whom the main dependence for increasing business during the week must be placed. And, of course, the more the dairy can back up the efforts of its drivers by use of the promotion methods suggested and the more the dairy can pave the way for success when the drivers make their calls in the effort to secure more customers, the more successful the week will be.

It is evident, then, that if the dairy will provide the drivers with some sort of special cards or advertising matter for use during the week it will be of distinct help to the drivers. Such cards or advertising matter
should serve as a sort of introduction for the
when making their calls at new homes. On this
tising matter there should be information regard
week and information, of course, about the dai
about its products and prices.

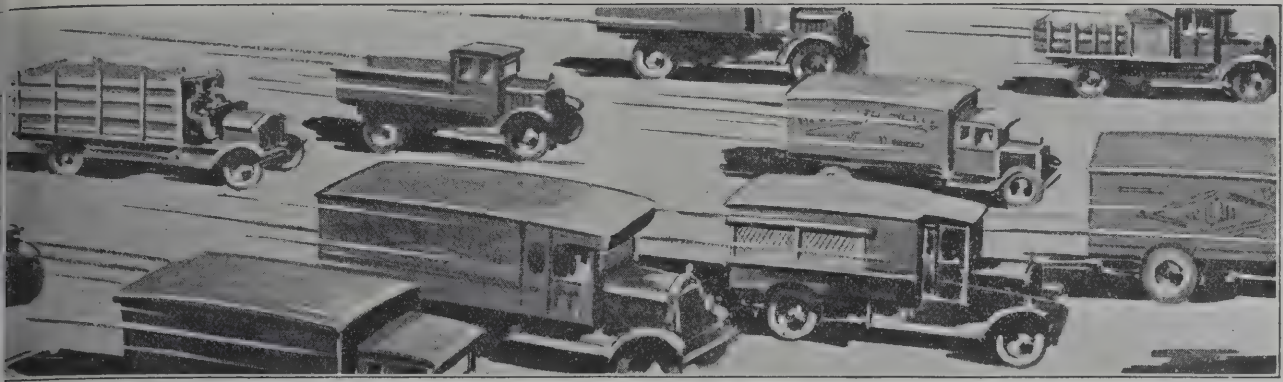
Then, armed with these cards, it is a compar
simple matter for the driver to introduce himse
new home in such way as this when he extends th
to the housewife:

"You've probably been reading something ab
in the newspapers. I represent the A. B. C. Dai
we are making a special drive for new custome
week. This card is a sort of introduction for me.
see, by this card, that we offer a splendid lot of pr
at prices which are extremely attractive. We
number of very good customers in this section
city. In fact, some of your neighbors have been
milk and cream from us for quite a long time.
we'd be glad to include you as one of our patrons

With this sort of an introduction the driver
be assured of a longer hearing than he might get
wise and, of course, the longer hearing the driver s
when calling on prospects, the more chance he
getting business from them.

During the week each driver should, of cours
to make double or three times the number of calls
dinarily makes during the course of a week, ar
the purpose of stimulating the drivers to make
calls, it is a mighty good thing for the dairy to
prize to the driver who makes the greatest num
bona fide calls during the week. For the purp
securing data on which to base the award of this
it is a good thing for the dairy to require each dri
turn in a completely filled out card for each call
—this card containing the name and address of th
scn on whom the call was made, the nature of the
view, whether or not the call was successful, and
mation as to what sort of a follow-up would be
able in trying to finally land the customer. In thi
the dairy would not only stimulate its drivers
would also secure a splendid amount of inform
which could be used to good advantage in circu
ing the prospects for business.

It is also a good thing for the dairy, during the
to stage a couple of special meetings for the driv
which there would be a distribution of cigars
drivers, thus making them feel more like attendi
meetings, and at which there would be snappy
of the kind most calculated to pep up the driver
make them step out and get more business. Many



Faster and Better!

You need quick-starting, fast-moving trucks today—trucks that make time through traffic and stay in service. That's why you find Federals in use by the biggest and best known firms in every city.

Every truck in the Federal line of Fours and Sixes is designed to meet the needs and conditions of today. Built in capacities from 1 to 7½ tons—with options in construction to suit every buyer and every business.

For 17 years, Federal has been foremost in providing the means of moving goods faster, better and at lower cost. See the sound values Federal offers — the many truck-saving features. Get the help of a specialist in the hauling problems of the milk business.

FEDERAL MOTOR TRUCK CO.
5816 FEDERAL AVENUE DETROIT, MICHIGAN

A & P CONDENSERY

One of a fleet of Federals owned by the A. & P. Co.

(112)

EDERAL

LL SIZES TRUCKS FOURS & SIXES

find that enthusiastic meetings of this sort are just about their best bets in inspiring drivers to do greater things and so such meetings are particularly appropriate and particularly successful at a time when the whole organization is keyed up to special efforts.

For the purpose of getting a continuity of interest into these promotion weeks it is a good plan for the dairy to offer some special prizes to be awarded at the end of a six months' period to the drivers who make the greatest increase in business during the six months and also to the driver who tops the list the most times in the number of calls made for the purpose of securing new customers.

By getting a continuity of interest into the promotion weeks in this way the drivers are made to see that the whole proposition wasn't a sporadic thing at all, but is a continuing proposition and they are also made to see that it is well worth their while to work hard on the affair so as to stand a good chance of winning the final prizes offered at the end of the period by the dairy.

With most dairies it will probably be found that the proposition of running these special weeks once a month for a period of six months is plenty long enough. In fact, some dairies might find that six months is too long a time to run the special promotion weeks and they might end the weeks after trying them out for four months. Then, at the end of the four months' or six months' period, it is a good plan for the dairy to lay off these special promotion weeks for a while at least. This is the case because no matter how good a promotion proposition may be it is bound to lose its punch when it is too long continued or when it is worked too strenuously. Then, after laying off the proposition for two or three months or even longer, the dairy could start in again with very excellent results.

Putting on these special promotion weeks in this way each month gives the dairy the chance for pepping up the whole organization into unusual activity. It gives the dairy the chance for getting out of the rut and injecting new spirit and enthusiasm into all of its employees. And that is the very thing which is most effective with many dairies in building more business.

Why not try this special promotion week plan in your plant?

SOME OF OUR TROUBLES.

Getting Out a Trade Magazine is no Picnic.

If we print jokes folks say we are silly.

If we don't, they say we are too serious.

If we publish original matter, they say we lack variety.

If we buy syndicated stuff, they say we should use items about our own people and our own plant.

If we stay in the office, we should be out rustling up news.

If we go out to rustle up a little news, we should stay in the office and not bother men at work.

If we don't print contributions, we are unappreciative.

If we print them all, the paper is filled with miscellaneous junk.

Like as not, some fellow will even say we swiped this from another paper.

And so we did!

⁂

If you want a Manager, Superintendent, Expert, Chemist, Bacteriologist, Buttermaker, Pasteurizer Man, or Ice Cream Maker—**or help of any kind**—"The Milk Dealer" can help you find the best available man.

FOUR OUT OF EVERY SEVEN DRUG S "FOUNTAINETTES" CALL FOR MILK DRIN

Four out of every seven people who order fo drink over the soda fountain counter at a Stat Randolph drug store in Chicago have a milk drin

This is the usual ratio, although some days more milk drinks are ordered, according to inforn secured during a National Dairy Council surve cently. In this one store alone, 125 gallons o teurized milk is used each day. That means 1,000 or 2,000 glasses of milk. The average number of served each day is 3,500, so that 2,000 out of every people ordering lunch or light afternoon refresh are milk drinkers.

Although malted milk sells for 20 cents and shakes for 15 cents, "malted" is ordered almost as much as milk shake. The favorite flavors of bo chocolate, strawberry in season, and pineapple. S berries are the only fresh fruit lending themsel use in milk drinks.

"The malted milk is the lazy man's meal," sa proprietor of the State Street soda fountain. " usually ordered with a sandwich during warm we A piece of pie accompanies the sandwich and the n during colder weather. The hotter the day, the the sandwich order falls off, but the malted still its popular place."

It is estimated that the amount of milk ordered is practically double that of two years ago for a soda fountains in Chicago. While the women children were the first milk patrons, the ratio of drinkers and women drinkers is about 50-50 now

The manager of the lunch service estimates tha gallons will be needed during the warm weather to care of the people ordering milk drinks. In rea weather this supply is only limited by the lack of co space, otherwise this one store could sell 300 gallo milk over the counter some days.

Acidophilus milk, the special culture-made bu milk, is becoming increasingly popular in drug s Five hundred bottles a month are sold at a single cago store, usually to steady patrons who are drin it for their health. That the trend of milk drinki soda counters has affected the soft drink busine evident on checking over any orders placed by m gers of soda fountains in various parts of the city is usually found, according to the dairy council su that the proportion of milk drinks over soft drink creases in the stores located in sections of the city w standards of living and general welfare are higher

WARSAW, POLAND, TO HAVE MUNICIPAL DA

The financial and budgetary committee of the saw, Poland, municipal council has approved a plan the construction of a municipal dairy in Warsaw, w capacity of about 350,000 liters (liter equals 1.1 qu of milk per day, to be operated by a joint stock com in which 51 per cent of the stock will be owned by city of Warsaw. This is the statement made by Assis Trade Commissioner L. J. Cochrane in a report to department of commerce. In the current year 1,50 zlotys (one zloty equals about 11.3 cents in U. S. rency) are to be expended for this purpose, and municipality will be authorized to contract a loan this amount, partially in long term bonds and part in short term drafts for the necessary equipment construction material.

so quickly cleaned —we do not have any trouble in removing casein deposits."

THE MOSS FARM DAIRY,
Chesterland, Ohio

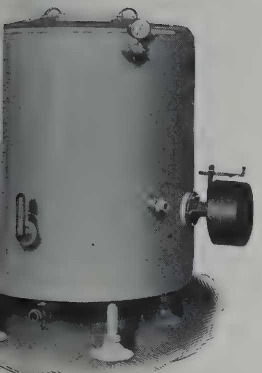
¶ Like thousands of others, the Moss Farm Dairy is completely sold on Pfaudler Glass-Lined Equipment.

¶ The ease of operating and cleaning is absolutely simple, yet the efficiency of Pfaudler Pasteurizers is the highest on the market.

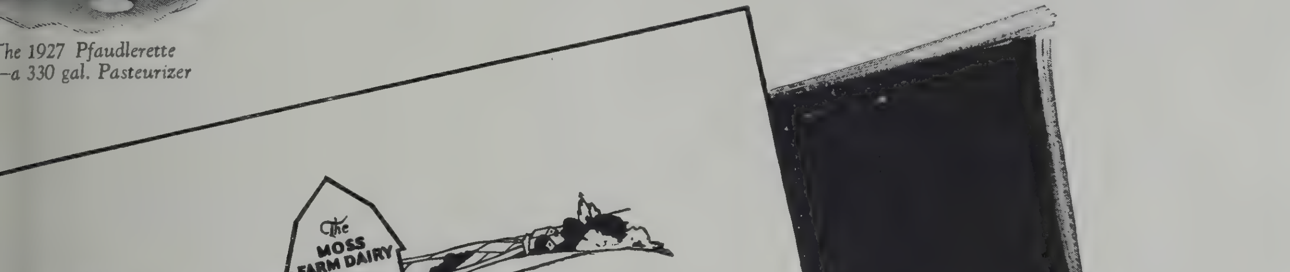
¶ Enjoy your business. Install Pfaudler equipment—simple, efficient, clean, durable and low priced!

(The ideal sought by many is produced by Pfaudler.)

!



he 1927 Pfaudlerette
—a 330 gal. Pasteurizer



The MOSS FARM DAIRY
Chesterland Ohio

May 12, 1927

The Pfaudler Co.,
Rochester, N.Y.

Gentlemen:-

To reply to your letter of the 8th, is a real pleasure. A year ago this spring we purchased one of your "C-Gals" for making buttermilk. It gave us such satisfactory service that we bought a 300-gallon "Pfaudlerette" last fall for pasteurizing purposes.

At the present time we are using both of these units for pasteurizing. Under no circumstances would we go back to the coil vat. Pfaudler glass-lined equipment is so easily and quickly cleaned that we do not have any trouble in removing casein deposits.

Even in sterilizing skim milk for use in buttermilk and which means heating it to 190°, we have had no trouble in cleaning the equipment.

Yours very truly,
THE MOSS FARM DAIRY
W.O. Moss
W. O. Moss.

PFAUDLER

E PFAUDLER COMPANY, *Dairy Division,* ROCHESTER, N. Y.

When writing to THE PFAUDLER COMPANY *please mention The Milk Dealer.*

Handling Customer Relationship

Is the Wagon Driver Qualified to Take on the Responsibility? What Else is Needed to Accomplish Proper Customer Contact?

By S. K. HARGIS*

TO THE milk plant customer, the driver is THE FIRM. He is the dealer. Whatever the driver may do, the customer considers that the milk plant management has done it and it is a very difficult matter to change this point of view. As the driver has most contact with the customer, it would seem that we have here a very vital problem in milk plant management and one that calls for every safeguard.

The experiences of leading milk dealers in this connection are both instructive and interesting. Perhaps a great many plants have overlooked and are overlooking this phase of management and have lost heavily as a result. The milk plant driver is perhaps no more and no less intelligent than drivers in other lines, yet, it is safe to say that in no line is customer relationship of greater importance than in the milk business.

While the milk salesman may create the customer, the driver is responsible for holding him and you can't sidestep this fact. If the milk dealer suffers a high "mortality" rate on his customer list, and if new customers merely fill the gaps, how is progress to be made, volume increased?

Undoubtedly, the average milk plant management feels it has done its best when drivers are selected with a reasonable amount of care and trained with a fair amount of trouble. But it is necessary to go a little further than that.

A large middlewestern milk dealer recently made the statement that the chief causes for injury in driver-customer relationship are:

(a) Tendency of drivers to alibi their own failures by "knocking" the plant management personnel.
(b) Failure of customers to explain grievances to the management.
(c) Utility by competition of isolated failures on the part of the plant.
(d) Inability of the average driver to rewin confidence when trouble arises.

Prevention Beats Cure.

It is true that the management of any well run plant stands ready to jump into the breach and save an account when it is threatened. But therein lies the trouble. The driver is inclined to protect himself and does so. I do not say that this tendency is universal in the trade but it is common enough to be serious.

Let me illustrate:

Herewith are actual remarks made by drivers to complaining customers as tabulated by one of the best known plant managers in the trade:

"It's none of my business—I'm here to deliver the stuff."

"You are not the only one kicking about our stuff. It's the guy down at the plant what does the routing."

"They give me ten times more than I can do with one truck—what do you expect? I'm going to jump this job if they load any more calls on me."

"I haven't got anything to do with it, Boss. You'll have to call up .... if you can find him in."

Now, the point is this. Only a percentage of drivers would deliberately adopt any such trade ruining as these. But it isn't any great matter to imagi effect of even a few drivers doing it.

Such drivers when discovered, are, of course, But that is only half the matter. A great many cou men on the trucks and wagons of the trade haven't the tact and experience necessary to m friend out of an angry or disgruntled patron. plant is compelled to send a salesman or an exe around to find out what's wrong and repair the tion, the cost becomes tolerable.

So, it would seem to be in the interest of good ness and progress to see that the driver is armed fair understanding of handling disgruntled patron that he recognizes the real importance of doing t properly.

It is a generally accepted principle in business —business that has a public relationship problem importance—that the very worst way to handle gruntled customer is to argue with him or her. Ye drivers out of ten will seek refuge in an argument only winds up with a wider breach.

How is an untrained driver to understan psychological side of this very vital matter—th customer has assumed a viewpoint and that all t gument in the world won't serve to change it?

Maybe These Will Help.

Instructions to drivers in connection with cus relationship come to me from a large plant in an line of business which would seem to apply very here:

To Drivers.

Next to getting new customers, it is vital th hold what we have. In no other way can this bu be built up to the advantage of everybody conn with it. You are on the "firing line." Disputes customers are sure to arise every now and then when you are there, you ARE the firm. Whateve do or say or fail to do or say will be charged up ag this business in the mind of the customer. You a effect, Mr. Blair himself when you are dealing w customer in our behalf. Therefore, we want you to and bear in mind how Mr. Blair handles kicks an gently request that you follow his formula as nea you can.

(a) Don't argue with a customer—ever.
(b) Take the stand that if we are wrong we wi right at once.
(c) Don't excuse failures to perform on the pl part. Excuses weaken your case.
(d) Promise rectification and then make them.
(e) If the customer gets excited, you will wi keeping your temper and being pleasant.
(f) Don't alibi your own failures on the jo knocking our plant or its management. If o here are wrong, we will alibi you at the p time and place.
(g) Only try and settle the simplest dispu where they appear serious, promise an imme

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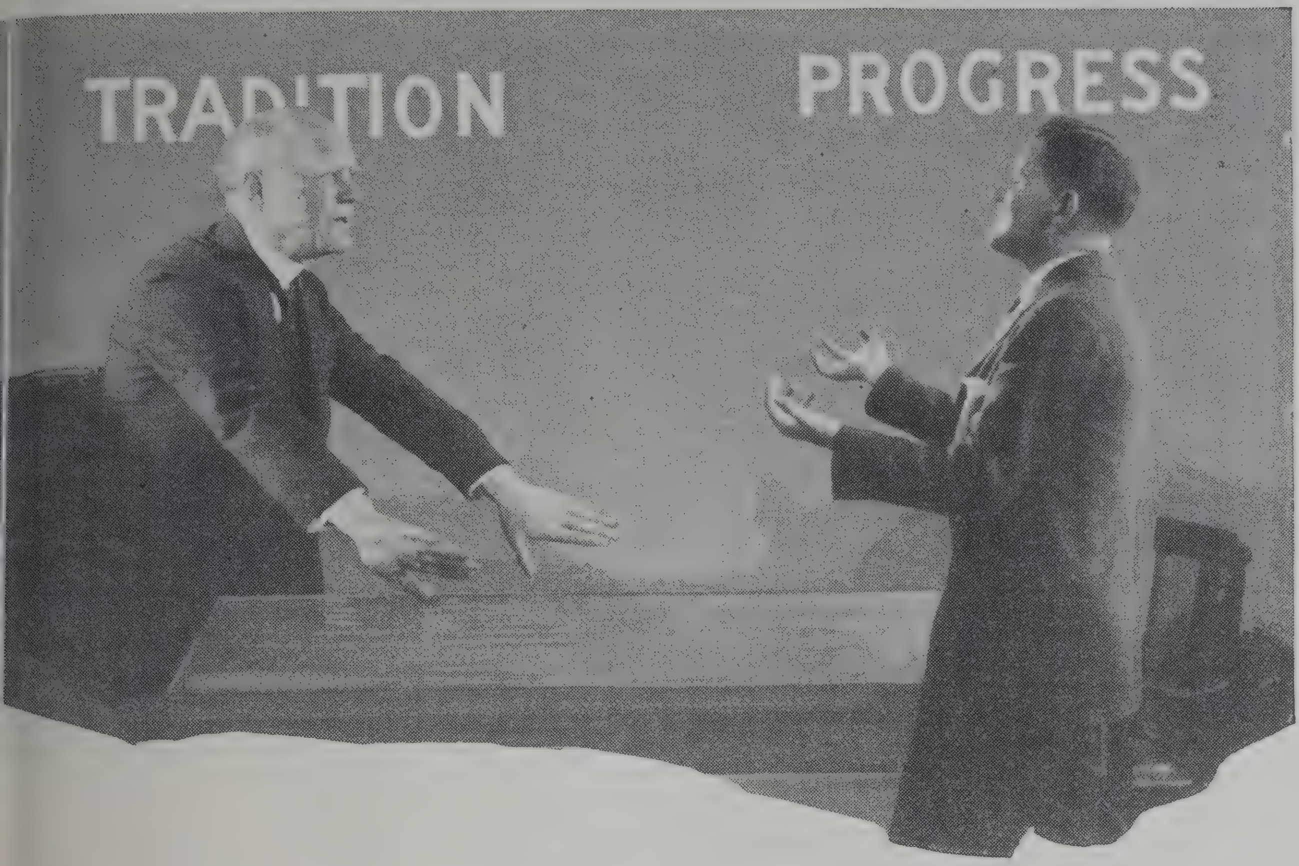
* Management consultant.

"investigates" a little



Look here, Lad—

I've listened to you so long haranguing that "Linc-Weld" motor as a cure for the ring troubles that we've been having that ot to investigating a little.

e asked representatives from different tor companies about this big shaft and rings on "Linc Weld" and without extion they've replied in the vernacular s the bunk'."

"Sure, Pop—

climb a little higher than the crowd and you're a target for the knockers.

The makers of this "Linc-Weld" motor had the temerity to kick manufacturing standards in the face—hide-bound, deep-rutted standards.

They focused all engineering on motors exclusively.

If any other manufacturer agrees that "Linc-Weld" is right—he's admitting that the method he's wedded to is all wrong.

And you know, Pop, that nothing makes a bride so upset as to admit that she might have done better.

Boy, how she'll defend her stuffed shirt!"

The Lincoln Electric Co., Dept. No. 25-7, Cleveland, Ohio

MA-*17*

"Linc-Weld"

LINCOLN MOTOR

When writing to THE LINCOLN ELECTRIC COMPANY *please mention The Milk Dealer.*

report to the office and we will call on your customer.

If the management of the plant can find some way to prevent the driver from disputing and arguing with the customer, it is on the road to success in solving customer relationship. Some drivers, perfectly loyal to the boss, operate under the mistaken notion that they should **defend** the business to the customer at a time when the latter has registered a kick on service or product.

Customer Has the Reins.

The customer is the judge. He or she can drop business relations with you at any time. Therefore, you must lose in any dispute. Where the kick is unfounded, it is the general belief of plant managers today that except in rare instances, the plant scores better by assuming the blame and making a settlement. The effect of a satisfactory settlement, even though entirely unfair to the plant, is excellent on the customer and will, nine times out of ten, win new respect and consideration.

Time was when public relations included a frame of mind that put the customer in the wrong when possible, that arbitrated on the basis of right and wrong. this policy won't hold water today.

I grant that in some lines of business there are lines drawn as to where the customer can be hun Losses would be too serious. But within the ever operations of the trade, it is fair to assume that th tomer always is right and act accordingly.

One plant manager said to me recently: "We found that our customers are the very strongest after they have made a kick and we have settled once and without argument or dispute of any kind have a special way of handling these matters. we sustain a loss through a false claim by the cust we charge it directly up to a good will account don't think that a dollar we spend on promotion is more profitably."

Will the driver restrain himself?

Will he keep his head and give the custome benefit of the doubt?

That is the big question. He will if he is train do it, but even then there is needed something more driver contact.

Prevention of Cottage Cheese Fermentatio

Tendency of Fermenting During Summer Months Can be Eliminated by Proper Methods

By H. W. VETTERLEIN

NEARLY everyone handling cottage cheese has had to throw some of it away on account of it souring or fermenting. Very often it is necessary to hold some of it over from Saturday until Monday, and in hot weather it is apt to spoil. I know of one concern that doesn't make any cottage cheese from June until October on account of this trouble. We have just found a method that will do away with this trouble to a great extent.

We now use a three hundred gallon cheese vat. Set the skim milk at 85 degrees F. about three o'clock in the afternoon, using twelve quarts of commercial buttermilk starter for three hundred gallons of skim milk. About nine o'clock the next morning it is firm so that it breaks cleanly, yet with no whey on top of the curd. We then cut into one-half inch cubes and heat slowly, stirring it gently so as not to break the cubes of curd. With very good skim milk it will be necessary to only heat it to 100 degrees F., but if the curd is gassy a higher temperature is necessary. We never use a thermometer while cooking because it is largely a matter of good judgment when to turn off the steam. If cooked too fast, or the curd is stirred too rapidly, the cheese will be dry and crumbly. If heated too much it will be hard and rubbery, so it naturally takes some practice to make a uniform cheese day after day. When cooked enough we drain off the whey with a common cheese strainer inserted into the inside of the faucet and inverting the vat when nearly drained and leave the curd in the vat. Then cover the curd with 70 degree water and add one and one-half pounds bicarbonate of soda and wash thoroughly. Drain again and cover curd with cold water. Wash the curd again. Drain off all of the water.

We take a common sprinkling can, put one gallon of real hot water into it and dissolve into this one-half pound of a cream acidity standardizer, and sprinkle the curd, thoroughly mixing it right away. I belie is the best plan to put it on cold. Mix the powder hot water the day before it is to be used and tra to a glass bottle. From three hundred gallons of milk we get about three hundred and sixty pounc cheese. For this amount we use three pounds of cl salt evenly mixed through the cheese. Then transf clean ten-gallon milk cans and ice it up in the co keeping the temperature about 38 degrees F. We a supply boxed up in three-quarter pounds paraf pasteboard boxes for the milk routes. Also sell the store either wholesale or retail. It makes a p able side line but cannot be used for baking, so we make a baker's cottage cheese.

We set the skim milk at 82 degrees F., using one-cunce cheese rennet and ten quarts starter for three dred gallons of skim milk, mixing thoroughly. We it in the afternoon and by morning it is ready to d We use muslin sacks a trifle smaller than flour sa We use a twelve quart pail and dip up whey and fill the sacks and pile them after tying securely draining rack. The drying or draining must be wat so that the curd doesn't get too dry. When dry eno we transfer to butter tubs, usually used ones, scrul and washed clean. Then we put the tubs in a co where we keep the temperature near freezing, and very good luck in keeping the cheese in good condi It is sold only for baking purposes and I think the re that it works out as it does is the fact that it is with rennet and is not cooked.

We have worked up a nice trade in cottage ch and try to hold it because if we didn't use up the milk it would go down the sewer at a loss.

The Sales Value of this Cottage Cheese Package cannot be overestimated.

It creates sales where other packages fail.

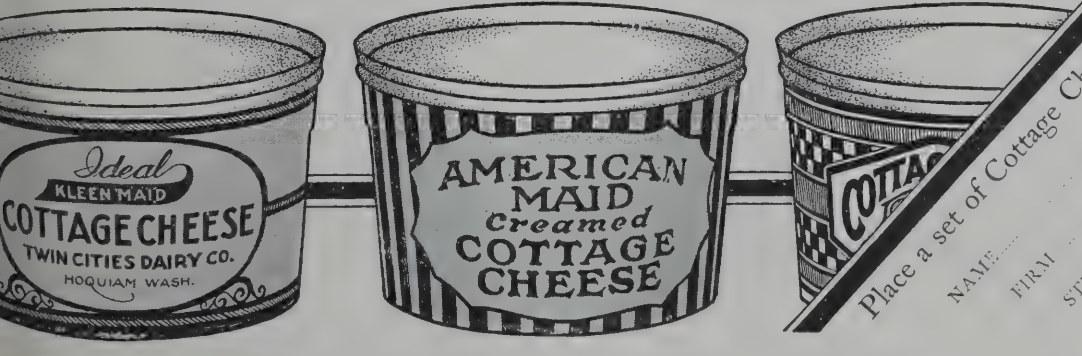
Tell us to place a set of samples on your desk.

Sizes one ounce to ten pounds.

Mono Service Co.
NEWARK NEW JERSEY

KLEEN KUP

The Package
That Sells
Its Contents


Ideal
KLEEN MAID
COTTAGE CHEESE
TWIN CITIES DAIRY CO.
HOQUIAM WASH.
AMERICAN MAID Creamed COTTAGE CHEESE
COTTAG

Place a set of Cottage Cheese Packages on my desk

NAME
FIRM
STREET
CITY
STATE

When writing to MONO SERVICE CO. *please mention The Milk Dealer.*

What Self Insurance Is Not

Fallacy of Self Insurance has Been Proven in Many Cases. Milk Plants Cannot Afford to be "Self Insured"*

INSURANCE, to be insurance at all, must involve a transfer of risk. Just as there can be no play of "Hamlet" without the Melancholy Dane stalking through it, so there can be no insurance of any kind where responsibility for loss does not pass to another.

This was true when the first policy was written, centuries ago, when English ships and their cargoes were "underwritten" by associated individuals who, for a consideration, each assumed part of the risk of loss by fire or storm. And it will be equally true when the last policy is written. Risk transference, while not all there is to insurance, does remain its one basic law.

For insurance there is, of course, no substitute—although a few short-visioned persons now and then have thought otherwise. But there is a scheme called Self-Insurance. The very word is plainly a misnomer when used in this connection, since it does not involve this essential transfer of risk. It is, in fact, merely a privately accumulated fund to cover fire losses; that, and only that. Such a fund is no more fire insurance than money in the bank is life insurance.

Self-Insurance is not popular in America. American business men as a class know that sound, regular insurance is indispensable to them and to their operations. They owe too much of their past and present prosperity to its beneficent protection ever to entertain, except in isolated instances, any fleeting thoughts of ca their own loss liability. They have witnessed th experience of most of the few who have tried to They have watched—and they have learned.

A SELF-INSURED FIRE.

The Flame Fiend made a pretty complete "job" of the plant of Thomas A. Edison at West Orange, N. J., some years ago. Because of Mr. Edison's personal prestige and resources he survived a blow which to anybody else almost certainly would have meant the end—for not one penny of insurance was carried.

Nevertheless, every so often some business m manufacturer, perhaps—wishing to reduce his ove sits him down and pores over his ledger. Eventua comes to the item of fire insurance premiums. " gosh!" he ejaculates, "can't I do something this?" Reaching for the 'phone he calls up his ance agent. Agent hot-fo over. He h difficulty in ing that th is right. He the assured inspectio through his and points o hazards. He him moppin forehead vinced.

But thou is convinced mains rebe He must cut Transportati can't do wi He's got to his goods a can't very w into the ra business. .. "Eureka suddenly claims, and tling a fresh on his penc draws a firm through the Fire Insu "I'll go int fire insuranc iness. I'll my own risk

And so, without misgiving cancels his icies and sta self-insur fund. "Star just the w Usually it do get much b that point, f sees before what is fa him. If he do then some friend who k what's what who has this

---

* From Safeguarding America Against Fire. By permission of The National Board of Fire Underwriters.

New Engine!

GRAHAM BROTHERS TRUCKS

This is the finest engine ever used in Graham Brothers Trucks and Commercial Cars . . . Every advanced engineering feature that is proven.

See this new engine! . . . See it today! . . . Compare it with *any* engine *ever* built into *any* truck!

$670
¾-TON
$885
1-TON
$1245
1½-TON
$1445
2-TON
Chassis prices, f. o. b. Detroit

GRAHAM BROTHERS
EVANSVILLE – DETROIT – STOCKTON
A DIVISION OF DODGE BROTHERS, INC
GRAHAM BROTHERS (CANADA) LIMITED, TORONTO, ONTARIO

MORE POWER—MORE SPEED
FASTER ACCELERATION
MORE ECONOMY—MORE VALUE

When writing to GRAHAM BROTHERS *please mention The Milk Dealer.*

ness man's best interests at heart, happens along. He corners him and sets him right. Says he:

"Now look here: In the first place, there is only one type of business which has even the faintest excuse for shouldering its own fire losses. This is the concern—a manufactory, perhaps—of normal hazard which has its own properties or units widely distributed throughout the country. For this reason the business is not likely to be seriously disrupted either by a single fire or by involvement in a conflagration. Yet even here there must be a pretty even distribution of values in these scattered plants; otherwise the experiment is likely to end fatally. For, suppose that the Blank Manufacturing Company operates three plants in as many cities. And suppose that these plants—we'll call them A, B, and C—have a sound valuation of $1,000,000, $200,000 and $100,000 respectively. Should a fire destroy plant A, the catastrophe would be virtually as staggering to the concern as if the three units had been merged in one, wouldn't it? Naturally!

THE EXPERIMENT THAT FAILED
Another view of the Edison plant ruins. The world rightly applauds Thomas A. Edison, who has done so much for the world. Yet, with many successful inventions to his credit, he failed signally in one experiment—the carrying of his own insurance.

"Hence, the mere segregation of units doesn't by any means imply safety nor does it give warrant for trying self-insurance. And remember—this type of business is, as I have said, the only one that could even attempt to bear its own losses with any justification.

"Even in these two cases, however, the justification is slight indeed. It requires time to accumulate an insurance fund. It can't be done over-night. If, at the moment you establish such a fund you drop all outside insurance there is great danger. Where is the guarantee that a disastrous fire will not occur at or shortly following the inauguration of the fund? There is no guarantee. And such a fire might wipe the fund out of existence in one fell blow. More, it might even lay such a drain upon the operating capital of the business as to embarrass it for years, provided it didn't put it out of running entirely and at once.

"On the other hand, if you retain outside insurance in decreasing amount while you build up your fund, why, the saving in premiums you make is bound to be relatively unimportant for a long period of years. Meanwhile you, as head of the business, sit in the office with your fingers crossed, hoping against hope that nothing
happens. Thus, before it is fairly begun, your s
defeats itself.

"Another thing to be considered is this: insu
proper is based on the law of averages. It wou
difficult to define what is meant by the law of av
except by saying that in order to obtain an avera
perience a large number of risks of a like kind m
considered for a period, the length of which deper
the number of risks written annually. Fire is
specter of risks. What is called a good risk may
less frequently than a poor one of the same clas
many of the best risks of every class burn. Obvi
therefore, any manufacturer who attempts to car
own insurance runs the chance of losing his best
erty or the property in which th
investment is found, and if he doe
such a property in the earlier p
his experience as a self-insurer, he
by creates an adverse experiment
the law of average from which it
and probably would take him
years to recover.

"Then there is the credit angle
considered. The self-insurer, at
until his fund has grown to ade
proportions, if it ever does, is bou
find his credit at the banks and
his business associates pretty
cramped—if not positively impair
don't have to tell you that ample
ance is invariably demanded by
lender of money or extender of cre
guarantee the continuity of proper
up as collateral for loans, mortgag
purchases of raw materials. You
that, well enough. You woul
cramped without credit, and then
be no credit without insurance.

"Furthermore, whether you kn
or not, underwriting profit in fire
ance is a myth. The truth is tha
business, as a whole, has shown an
underwriting deficit of 4.5 per cen
the past five years. If, with all their experience
do not make a profit out of insuring property,
chance have you?

"A self-insurance fund, too, must either be dep
in a bank or invested. Modern business does not
its funds in an old stocking or buried in the back
Yet you must have it instantly available for emerg
If you put it in a bank you will find that they
times require at least 30 days' notice when you
draw large sums. If you invest it, you must do
readily convertible securities, and even then, faced
the necessity of selling at once, there is a possi
that you'll have to do so at a heavy loss.

"And look here: In lean years there will be
most irresistible impulse to economize at the ex
of the accumulating self-insurance fund. Unlike
ance premiums which fall due and must be met
unlike bills for raw materials which must be se
such a fund is like a debt a man owes himself.
payable on demand, true enough, but you don't
jail for what you owe yourself! It's all too ea
cheat yourself out of it. Yet the same year in
you allow your contributions to the self-insurance
to lapse, for 'economy's' sake, may well be a tw
month of concentrated fire losses. Don't forget tha

⁂

Turn your old machinery into money; advert
for sale in "The Milk Dealer."

The part that United plays—

ISALY DAIRY, Youngstown, Ohio

AFTER the installation of Cold Storage Rooms, one is often inclined to forget that the permanent efficiency of the coolers is olely dependent upon the quality of insulation nd workmanship furnished. But, back of their Portland Cement Plaster or Crescent Sealtite Mas-ic finish, each sheet of Crescent 100% Pure Cork-oard, carefully installed, is daily blocking the transmission of heat into the rooms. This high quality insulation reduces your refrigeration costs! Saves you money on your perishable products! It is the back-bone of your plant! You could not operate successfully or efficiently without it.

With such a responsibility resting upon it—can you afford to take a chance on any other insulation, when you can quickly and economically obtain—

Crescent 100% Pure Corkboard
(Made in U. S. A.)
installed COMPLETE by
United's Service

Write to us today for literature and quotations on your requirements.

CRESCENT CORK INSULATION

UNITED'S SERVICE
Provides
"Insulation of the utmost efficiency"
Branch Office

CRESCENT CORK COVERING

New York
Philadelphia
Boston

Baltimore
Pittsburgh
Cleveland

Chicago
Cincinatti
Hartford, Conn.

UNITED CORK COMPANIES
LYNDHURST, N. J.

When writing to UNITED CORK COMPANIES *please mention The Milk Dealer.*

The Consumer Should Pay Gladly

He Doesn't Want Cheap Milk or Cheap Service When He Understands the Problems Concerned with the Handling and Distribution of the Product

WE HAVE repeatedly urged readers of The Milk Dealer to take their customers into their confidence and tell these customers all about the service that the modern milk distributor is rendering. It is the way to prove to the customer that he is not paying too much for his bottled milk.

We are glad to give space to an article by Dr. J. J. Frey, chief of the bureau of dairy control, California Department of Agriculture, in which the doctor gives the consumers in his state some valuable information about the milk bottling industry. These facts are applicable to the industry everywhere. Why not give them publicity in your community? Here is what Dr. Frey says:

"The nutritional value of good milk and its prime importance in the diet of all persons, growing children in particular, is now generally recognized by all nutritionists and, through the influence of the public press and educational workers in schools, is coming to be appreciated more and more by our entire population.

"Also, the quality of milk distributed to 90 per cent of the population of the state of California under the provisions of the pure milk law and bearing the state grade label is so fine that it is accepted without a thought of the very perishable nature of the product and the very great attention to sanitary precautions and the details of procedure in handling by dairymen and milk distributors, and the ceaseless vigilance exercised by scientifically-equipped laboratories and supervisory agencies.

"Without this supervision, milk, which is the most fundamentals and essential of all foods, could become deadly. Fortunately, we have progressed so far in the matter of quality milk production that the consumer has only to look for the grade designation on the bottle cap and thereafter accept without reserve and with confident assurance that it may be given to his children or consumed in liberal quantities by himself without fear of any bad effects therefrom.

Public's Price Attitude.

"On the other hand, I for one have never been able to understand the attitude of the public toward the matter of price. It is difficult for me to see why the same people who will accept one-third as much value in some other community at three times as high a price without comment or objection, will howl to the high heavens when milk advances one cent a quart.

"We often hear comments that there is too much spread between the price paid for milk to the producer and that paid by the consumer. Such statements may be glibly passed off the tongue and as easily accepted, but to those who hold a sense of justice and a high regard for truth and accuracy, such loose consideration to a matter of so great importance causes some resentment. If consumers were willing and if it were feasible for them to take quart cups and hold them under the farmers' cows while they draw milk into them, they could doubtless get milk at seven cents a quart, and the farmers would be glad to sell it for such a price if enough people were willing to do this.

"But, instead of that, the consumers demand more service in connection with their milk supply than any other commodity which is used in the home. I be delivered promptly every day at their do regardless of Sundays or holidays, in a sanitary, package of convenient size.

"Just what does this involve in the matter pense? Ask yourself this question. Presume moment that you are the milk distributor and th are jumping around from house to house and b block over a considerable portion of the city, an give courteous attention to all of the little delays may arise in connection with these deliveries. tions must be answered, matters of complaint exp empty bottles collected, delays explained, ar thousand and one little incidents which thwar progress throughout the day attended to.

"Perhaps you would say that under these stances you could make 20 deliveries an hour, deliveries in 10 hours, which is more time than y willing to work at your office or in the shop.

"Considering that some of these deliveries one pint and others may be more than one quar haps a quart to a stop is a fair average. Agains 200 bottles of milk which you deliver are the ex of operating an automobile, the motor of whic run continually for these ten hours, burning ga and, with the continuous wear and tear on the m would require shop attention about once a week. must be another automobile in service to take its in order that the regular delivery of your mill not be subject to interference.

Must Have Day Off.

"The man who drives the delivery truck mus a day off occasionally and is subject to the same other people. There must, therefore, be a certain ber of extra routemen who are familiar with all routes in order to replace those who are enjoy day off or absent for good cause. New drivers be broken in from time to time and, in addition expense of making deliveries, there is the cost of and of putting the milk through the plant and p it in the bottles. In the United States milk bottles only 17 trips on an average, and they cost seven to cents apiece.

"When all of the expense connected with the going has been charged against 200 quarts, it w found that you have a total of some $15 a day co delivering. Your milk distributor, through expe and efficient operation, is able to do somewhat than the calculations above indicated. He will ac deliver more than 200 quarts a day, but in so do is earning the small margin of profit to which he titled for so great a service."

AMERICANS LOVE MILK.

Milk consumption in the United States inc nearly 2,000,000,000 pounds during 1926, and m the fluid was consumed as a beverage, according agricultural department, Washington, D. C. Every and child in the United States consumed approxim 1,000 pounds of whole milk during 1925. The tota sumption was 116,505,395,000 pounds.

INVITING as these pictures are for a personal visit to the executive offices and customers' reception rooms of the new Wanzer Plant in Chicago, you will find here other illustrations with an interesting story of this Model Dairy Plant.

Where Science and Equipment Me

New Plant of Sidney Wanzer & Sons in Chicago Meets All the Requirements of the Milk Man's "Dream Plant"

The Wanzers Hold Open House to Celebrate Opening of New Plant and the 70th Anniversary of the Founding of the Business

MOST milk men have a "dream plant." They hope for the time when they can build and equip a plant that will meet all the requirements that science and experience has taught them.

The Wanzers have made their dream come true. Their "dream plant" is functioning and they are justly proud of their accomplishment. Their new "Sunlight Milk Plant" in Chicago is what might be termed the last word in plant building and equipment. It was thrown open to the public during the week of June 20th, and thousands of visitors enjoyed its magnificence.

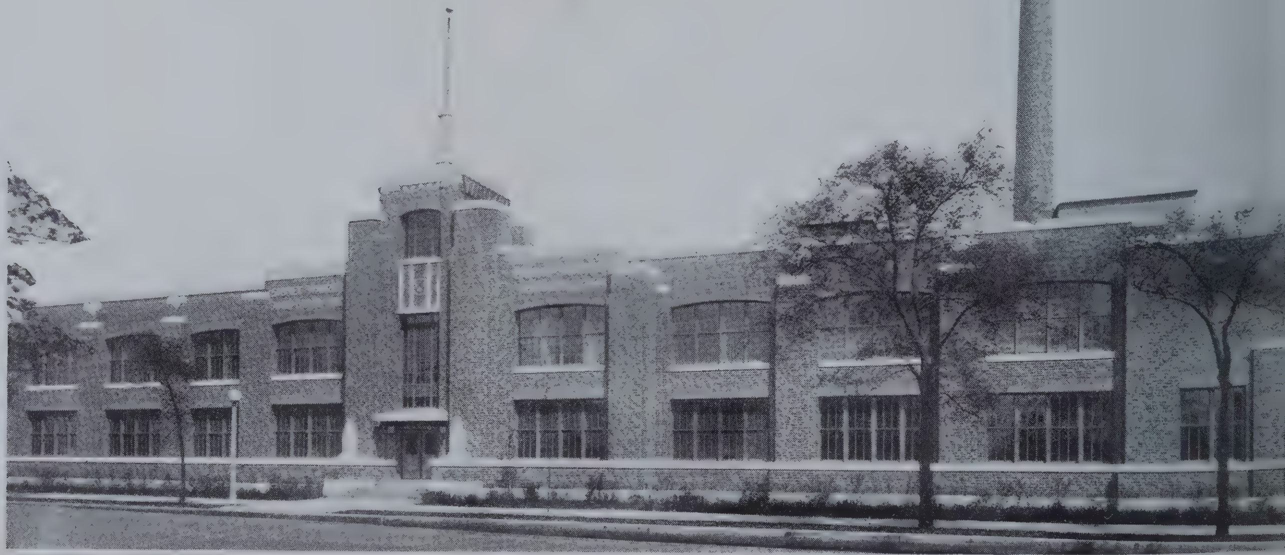
The site occupies a block of ground on the northeast corner of Garfield Boulevard and LaSalle Street, extending approximately 225 feet on Garfield Boulevard and 265 feet on LaSalle Street. The main dairy plant occupies the entire frontage on Garfield Boulevard, being set back twenty feet from the street line to provide for a grass plot with shrubs and flowers between the building line and the street sidewalk. It is approximately 215 feet in length along Garfield Boulevard, and ninety feet in depth with loading and unloading dockage across the entire rear. A fireproof barn provides for the wagons and horses. There is also space in the rear for a garage.

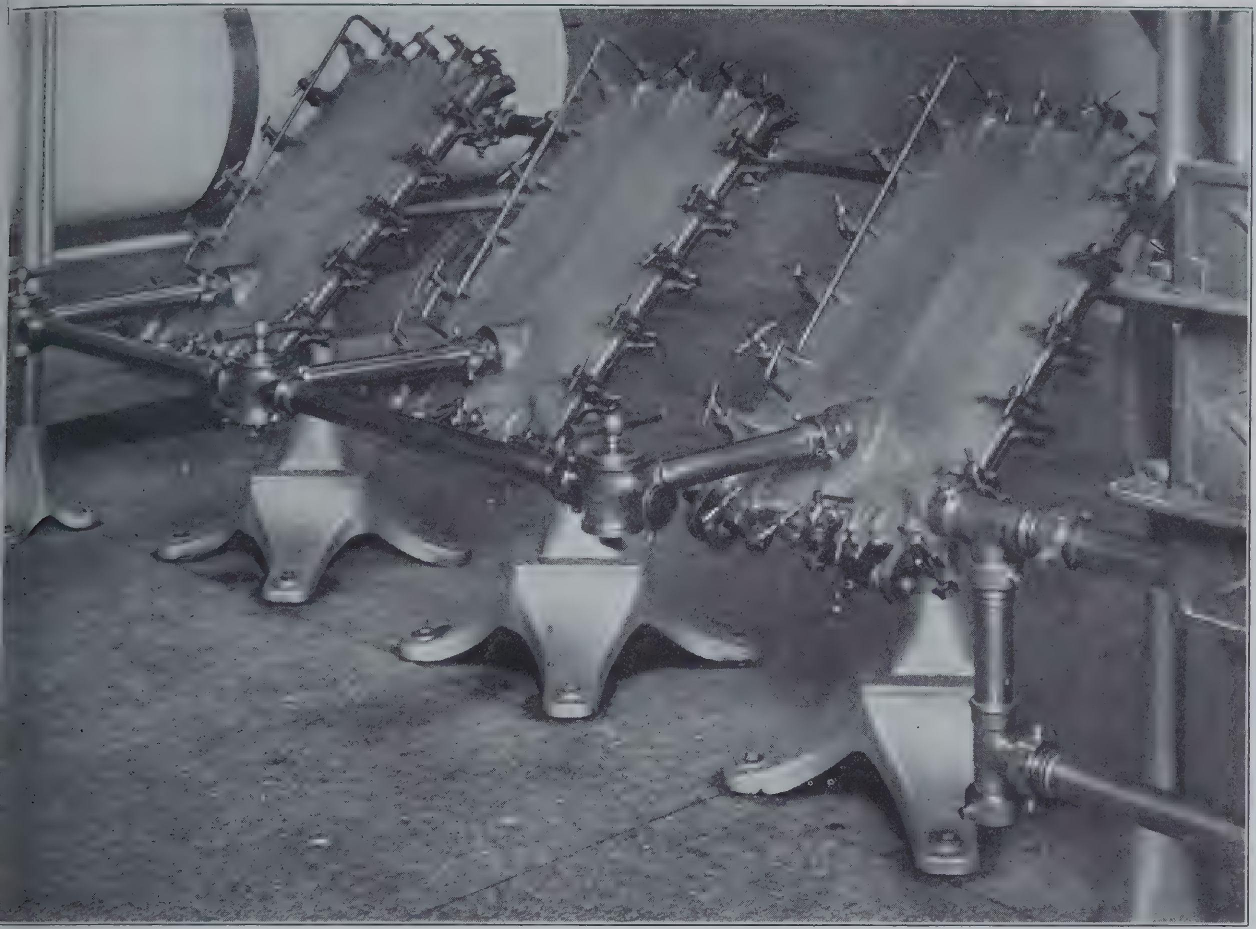
There being no truck or wagon entrance to the property from Garfield Boulevard, it has been possible to make this main frontage architecturally beautiful and this possibility has been well made use of by the architect, Mr. Hahn, through the attractive shape of the building and a unique arrangement of brick work and trimmings.

On the first floor toward the west is a large open
section approximately seventy-five feet square as
entirely to the storage, handling and washing of
Bottle washers are installed in this space with ca
worked out leads of conveyors, and are so placed
deliver the bottles directly into the filler room w
of a size to eventually accommodate at least six
The walls of the bottle washroom are lined thro
with an impervious vitrified brick of a light
shade. The floor and walls of the filler room are
and the room is so arranged that the line of fill
ceive milk from a glass-enclosed cooler chamb
gravity.

Directly back and to the left of the main entra
the milk refrigerator which covers about 3,500
feet, and which has been carefully arranged to
loading out to wagons across a dock frontage of
one hundred feet.

To the right of the main entrance is a sales
and a small but well-equipped lunch room. B
these are a refrigerating machine room on the fro
boiler room, the receiving and can washrooms,
dry storage room from which supplies required f
plant are checked out on requisition. In this sect
also an elevator communicating with the floors
The refrigerating machine room is approximately
55 feet in size and is also lined in vitrified br
neutral shade. The boiler room contains two 100





Von Gunten Nickel Filters

:: SELECTED BY ::

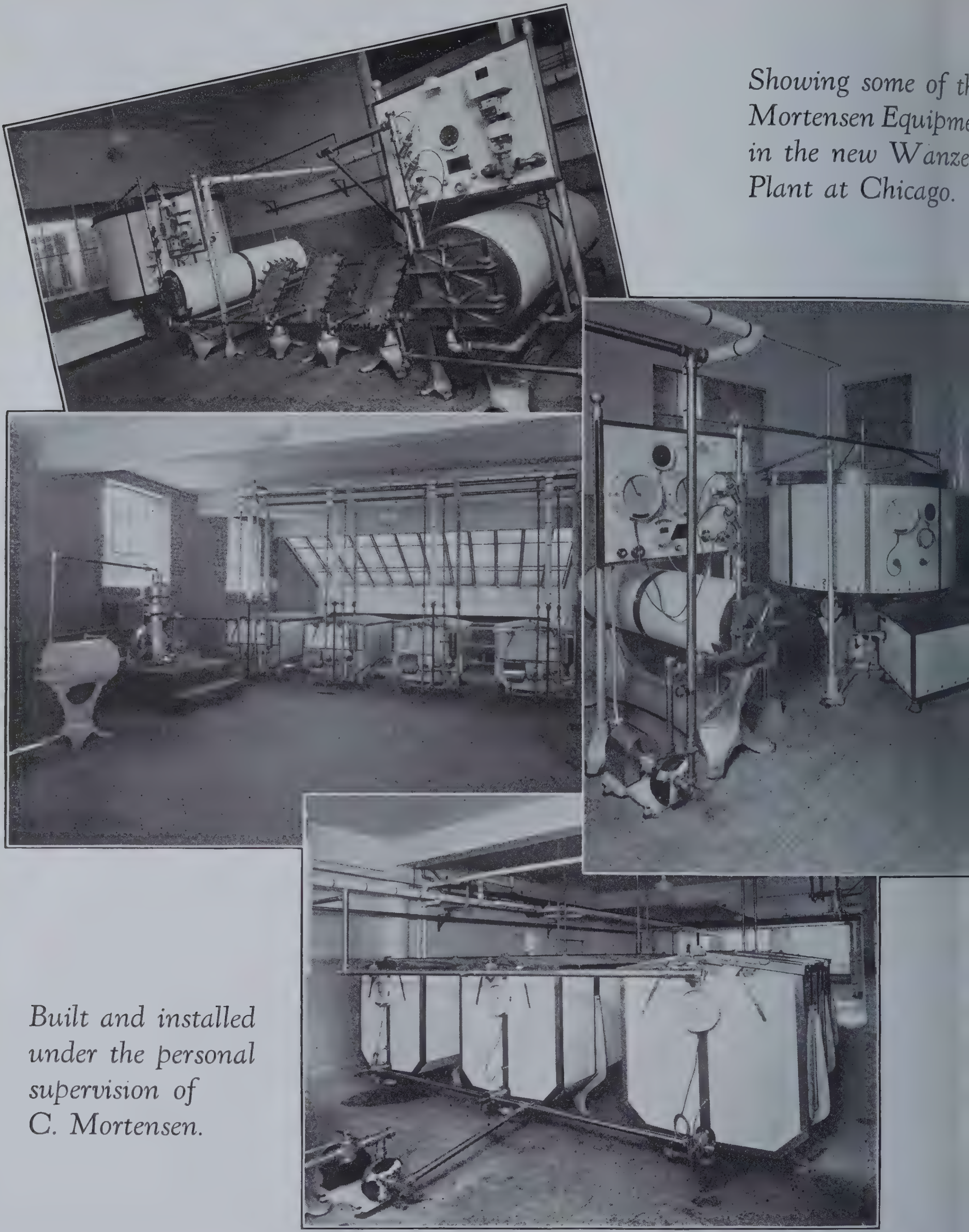
SIDNEY WANZER & SONS

STOUT MANUFACTURING CO.

610 Michigan Street • • Milwaukee, Wisconsin

When writing to STOUT MANUFACTURING CO. *please mention The Milk Dealer.*

Showing some of th
Mortensen Equipme
in the new Wanze
Plant at Chicago.



Built and installed
under the personal
supervision of
C. Mortensen.

Standard Milk Machine

When writing to STANDARD MILK MACHINERY CO. *please mention The Milk Dealer.*

A Progressive Plant *

that Demanded Progressive Pasteurizing Equipment

Mortensen

Automatic Positive Pasteurizers

with Automatic Electric Control

* **Sidney Wanzer & Sons**
CHICAGO, ILLINOIS

With a business built on Sanitary, quality products, in a highly competitive territory — it necessitated the installation of equipment that proved it could accomplish these results.

Complete assurance is now available that the Mortensen equipment in this new Wanzer plant has resulted in highly economical operation with the production of products of superior quality.

Submit your equipment or engineering problems to us.

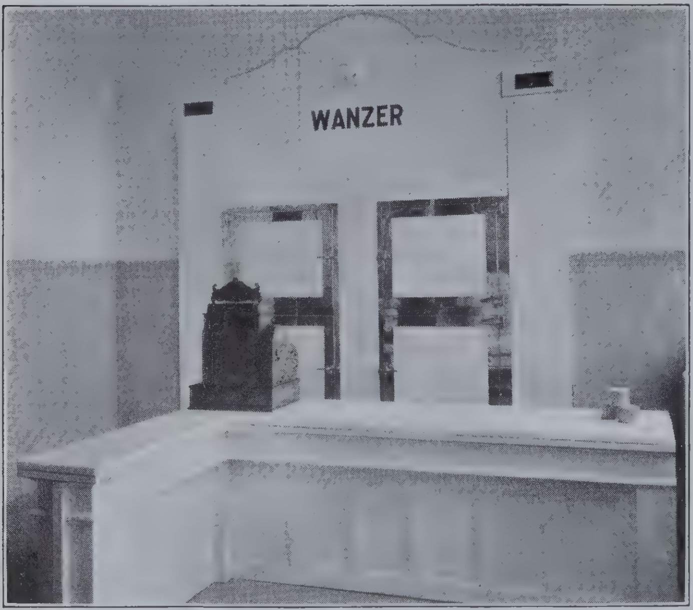
ompany, *Incorporated* • **LOUISVILLE KENTUCKY**

When writing to STANDARD MILK MACHINERY CO. *please mention The Milk Dealer.*

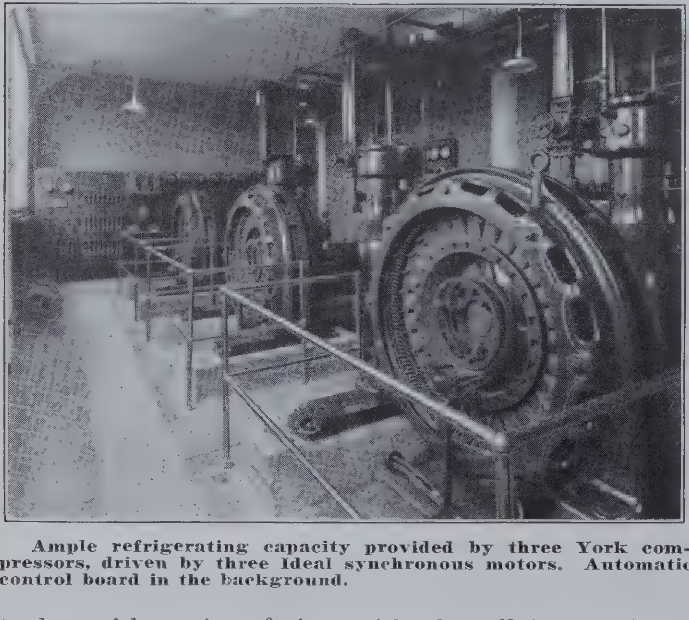
power boilers with automatic stoker feed and the best modern equipment for efficient service.

On the second floor is all provision for processing both whole milk and by-products while a mezzanine third floor holds the cream and buttermilk equipment. Directly below the third story level and toward the front, is the butter storage and butter cutting rooms.

All milk processing rooms have red tile floors and light tile wainscotes with all corners coved and particular attention paid to floor drainage. On the second floor level to the rear is an ice field of 25 tons capacity and an ample ice storage space in connection therewith. Ice is crushed at this level and delivered to the wagons at the dock below. In connection with the ice field are two large brine coolers which permit the use of the brine in the coolers, refrigerators, and ice freezing tanks, without interfering with the efficiency of the freezing plant.



Bright and inviting is the retail sales room to the right of the main entrance. Refrigerator is by McCray.



Ample refrigerating capacity provided by three York compressors, driven by three Ideal synchronous motors. Automatic control board in the background.

It has been the aim to arrange the operating spaces and equipment therein so that the entire process of preparing the milk and bottling it is in view of the public reception room on the second floor. For this purpose an elevated observation platform or logia has been provided from which point the entire line of milk appa from storage vat through to bottle fillers may be From the public entrance on Garfield Boulevar visitors enter a main hall from which the main sta leads to a well-furnished and appointed reception the observation logia, and a larger reception or le room on the second floor. These rooms are furn with distinction and comfort for the use of the p

The main reception hall on the second floor als nects directly with the general and executive which occupy the entire west end of the building second floor. The executive offices and a large c ence room comfortably equipped with a fireplace the boulevard. Provisions for washrooms, locker showers, etc., are very thorough throughout. One features of the design has been to eliminate expose unsightly piping as much as possible and yet so the work that these necessary pipes shall be acce in case of need for repair. Nearly all the main co in the building have risers cast in the center which care of floor drainage. Lateral pipe tunnels have provided of a size sufficient for repairs to be therein.

Three country plants, two in Wisconsin and Indiana, are sources of the milk supply. Glass tank cars bring the milk to the city where it is ferred to a tank truck and thence to the plant. T a temporary arrangement as a siding for the tank will soon be in operation.

Ice field with capacity of 25 tons daily. Pipe covering other insulation furnished by United Cork Companies.

At the plant the milk is transferred to the s floor by means of applying filtered air pressure to the milk through nickel pipe lines.

On the second floor there are located three large age vats, each lined throughout with pure nickel. the milk is cooled to 40 degrees by means of brin culating through stationery nickel coils. Pure tubing then carries the milk to the nickel milk capacity of which is 20,000 pounds per hour. A heater equipped with pure nickel tubes and havin same capacity, then heats it to 100 degrees Fahre The temperature in all processes is automatically trolled by means of thermostatically and electr operated valves, steam being employed to heat the

After leaving the heater, the milk passes th two nickel filters with a capacity of 10,000 pounc hour each. Three filter machines are installed and connected to enable the operator to disconnect an and insert new filter cloth without reducing the ca flow of 20,000 pounds per hour. Having passed th

THESE *pictures are scenes in Chicago's newest, wonder Milk Plant, WANZER'S*—

Here assembled under one roof is dairy equipment representing the highest human achievement. Naturally STODDARD CRATES [*formerly known as Foreman*] are used exclusively.

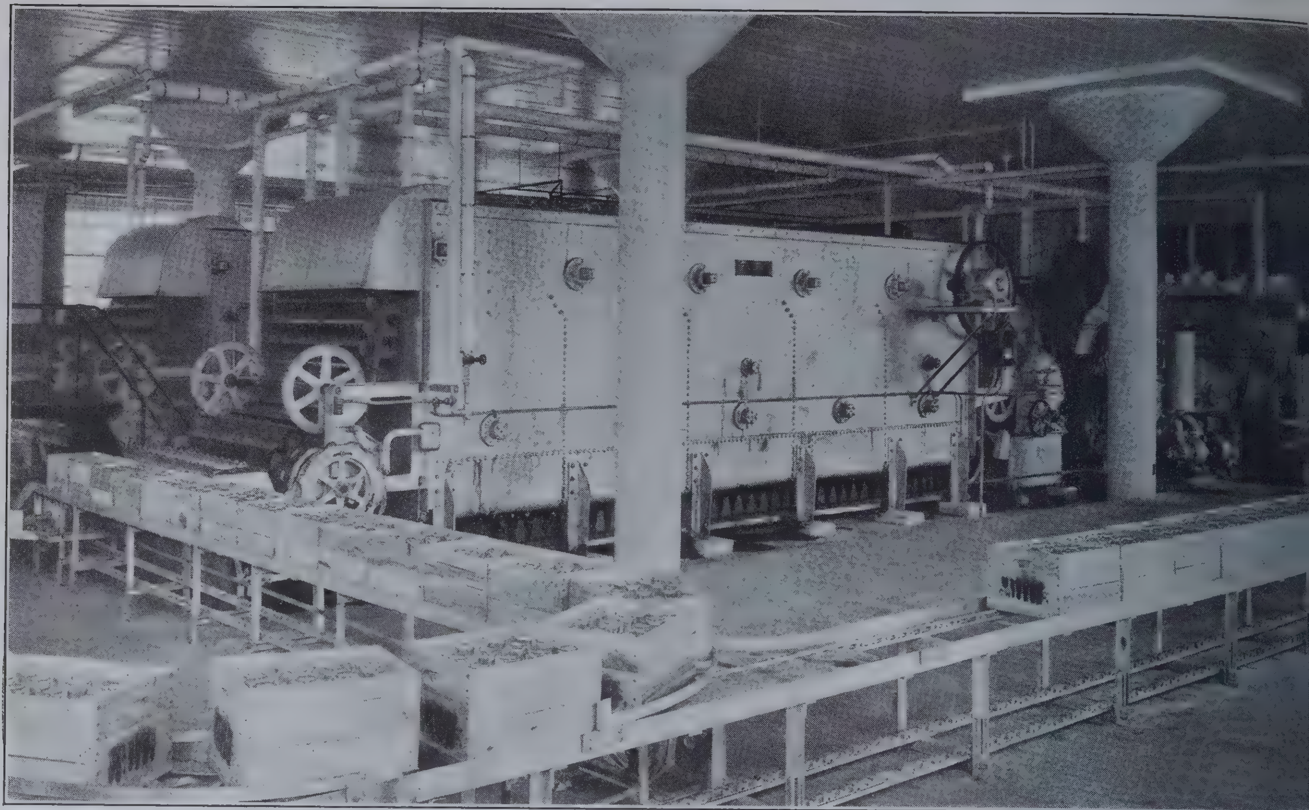
This is the second big Chicago milk plant story appearing recently in the MILK DEALER where these crates are 100% equipment.

Is it safe to follow successful leaders?

Milk Bottle Crate Co.

1543-45 Kingsbury Street CHICAGO, ILL.

ddard
ates
ade in a wide
y of styles.
are built to
the heart glad.



SIDNEY WANZER & SON

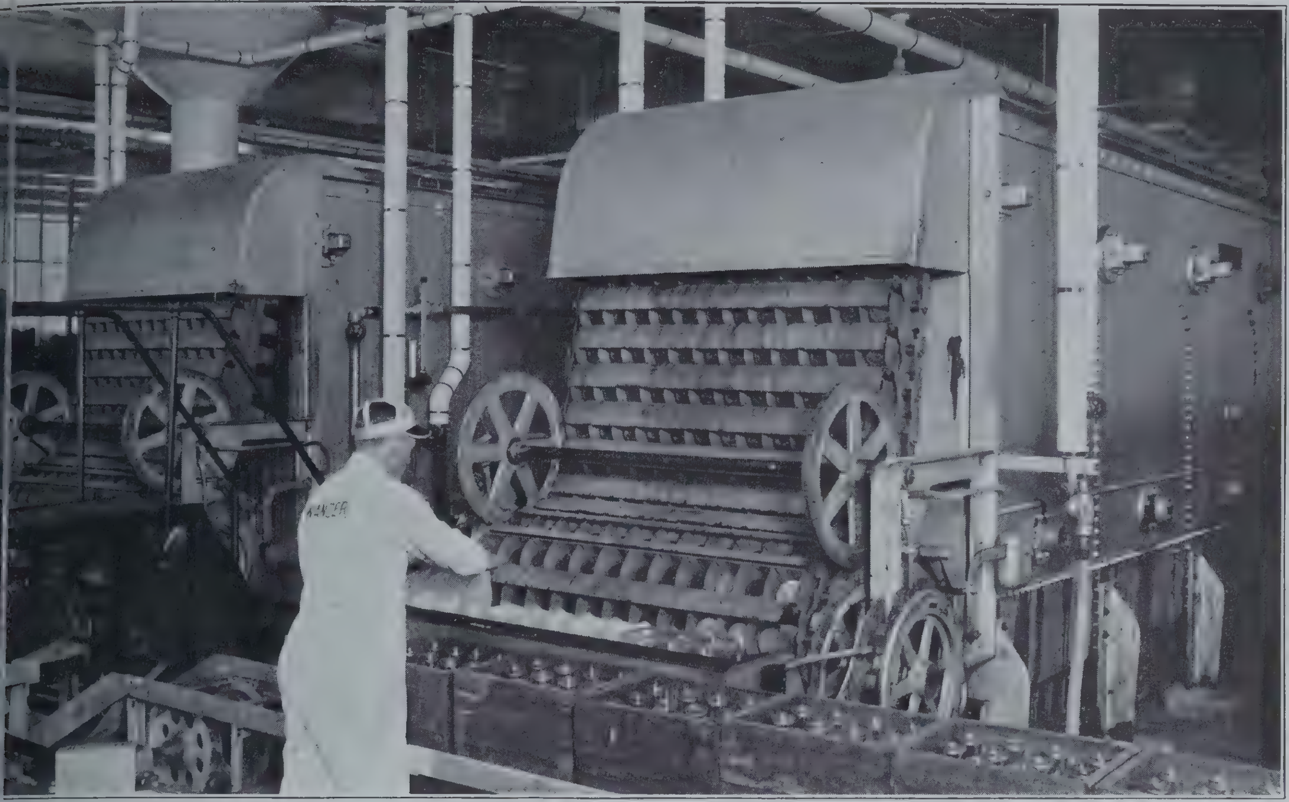
selected the

Aristocrat *of* Bottle Cleaners

to wash 100,000 bottles daily

BARRY - WEHMILLE

When writing to BARRY-WEHMILLER MACHINERY COMPANY *please mention The Milk Dealer.*



Because of These Features

Complete separation of caustic soda in Soaker from fresh water in Washer.

No contamination of Washer and sterilizer by caustic from Soaker.

Thorough cleaning of bottles by caustic solution.

Positive sterilization in Washer.

Maximum soaking volume in proportion to soaking tank space.

No destruction of building by steam and no cloudy bottling rooms.

Tanks set clear above all floors, keeping plant sanitary.

All tanks closed on top, prevent loss of steam.

Handling quarts, pints and half-pints with only one simple adjustment.

Capacity may be subsequently increased by additional compartments added to Soaker.

Mechanical motion of Soaker is continuous.

Patent soaker buckets operating without friction or breakage.

Soaker compartments completely divided making each compartment an independent soaker.

Mechanical Washer movement is intermittent.

Double main drives and no high speed operating parts.

Nine automatic safety devices insure continuous operation 365 days per year.

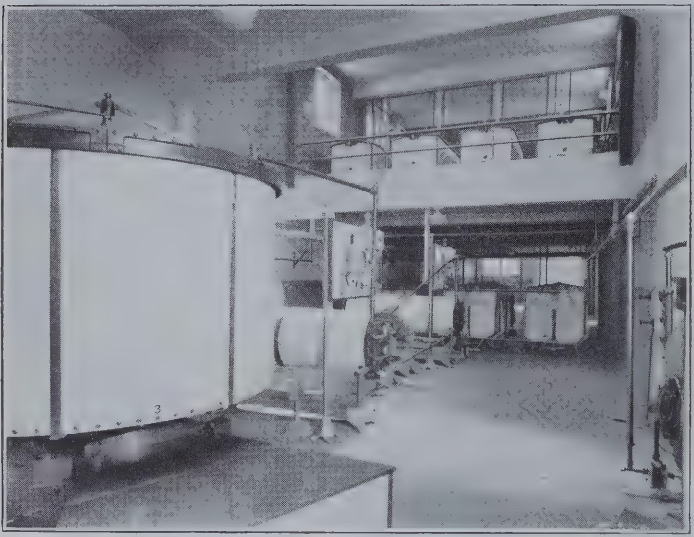
Eight complete GIANT units adopted and in operation at the Sheffield Farms Co., New York City.

Two complete GIANT units in operation by United Dairies, London.

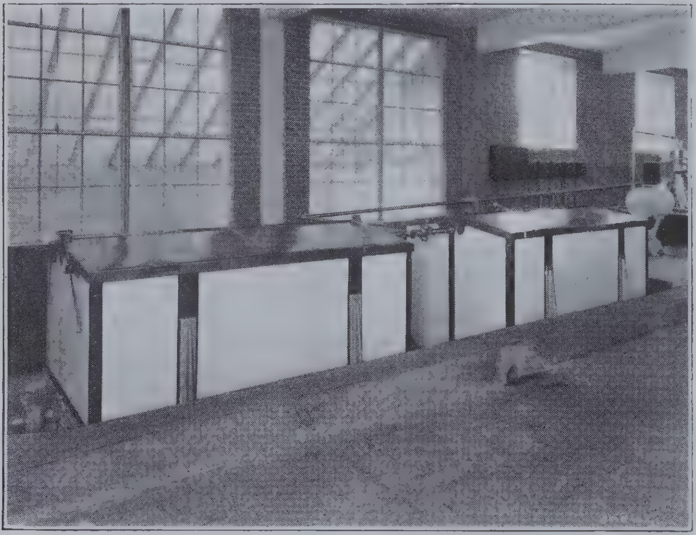
Backed up by 25 years continuous experience in building bottle soaking machines.

ACHINERY CO., St. Louis,
U. S. A.

the filter, the milk enters the final barrel heater of same construction as pre-heater, where it is brought up to a temperature of 145 degrees Fahrenheit. Leaving this heater, the milk passes through a sanitary flow meter which records the pounds of milk passing through the entire system per hour. A positive automatic holder, pure nickel lined, then retains the milk at an even temperature for a period of 30 minutes, and automatically discharges it over pure nickel surface coolers, from whence it flows by gravity to the four nickel bottle fillers and cappers on the first floor. This holder is the largest one ever built, we are told. Automatic nickel conveyors move the bottled milk outside of the filling room where it is placed in crates and further conveyed to the cold storage room, the temperature of which is kept at 35 degrees.



Pasteurizing and holding room. Mortensen buttermilk machines shown on balcony. Mortensen holder on extreme left, and part of cream holding unit on extreme right. Three VonGunten filters are on the milk line between the two Chester barrel heaters. Heating and holding under automatic control. Complete view of this department may be had from observation platform. Entire plant is finished with Barreled Sunlight.



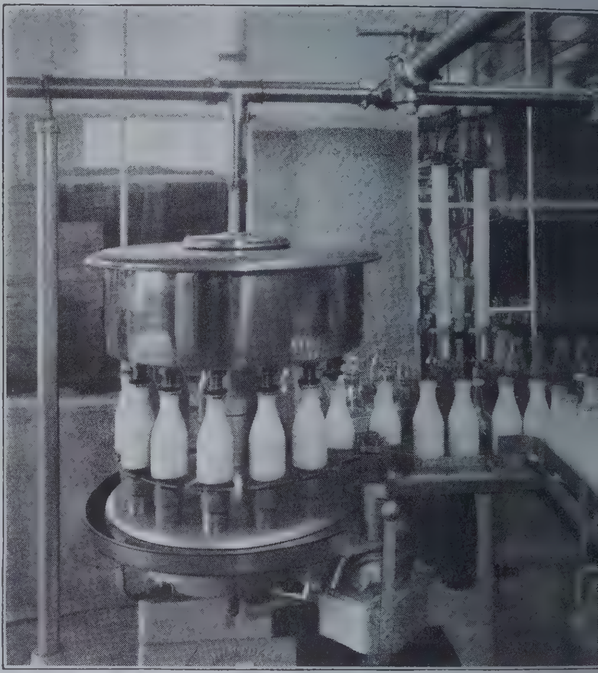
Cream pasteurizers and holders. Chester barrel heater and De Laval separator on the right, and to the right of that are the four Mortensen buttermilk machines. To the left of the cream vats are the Cherry churn and Stoelting vat for cottage cheese making.

Sweet cream is stored on the third floor in a battery of nickel-lined storage vats where it is cooled in the same manner as milk. From here it passes by gravity through pure nickel pipes to a pump with a capacity of 6,000 pounds per hour. The pump pushes the cream through a nine thousand pound per hour barrel
with pure nickel tubes. Here the cream is heate
trolled, and recorded in the same manner as mil
thereafter passes to a nickel lined holder of 6,000
capacity, which retains the cream for 30 minutes
even temperature, and then automatically discha
over the coolers. From the coolers it passes by
to the fillers where it is disposed of in the same
as milk.

Buttermilk is made on the third floor of the
four buttermilk machines, also nickel lined. Fron
machines it is passed directly through nickel p
the fillers by gravity and is then conveyed to the
room.

Sixteen tons of nickel enter into the construc
the equipment. Some one has calculated that
equivalent to 32 tons of five cent pieces. The milk
in the plant comes in contact with nothing bu
nickel and glass.

A double cross connection in the pipe lines m
impossible for the plant to be "stalled." A 2
whole milk line leads from the receiving room
second floor and a 2 inch cream line to the thir
Only whole milk is pumped through the 2½ inc
Twenty-eight pounds air pressure will deliver 1,5
lons of milk to the second floor in ten minutes.
whole milk receiving tanks, 1250 gallons each, ar
and emptied at the same time, thus insuring th
mixing. No standardizing is done at any time.



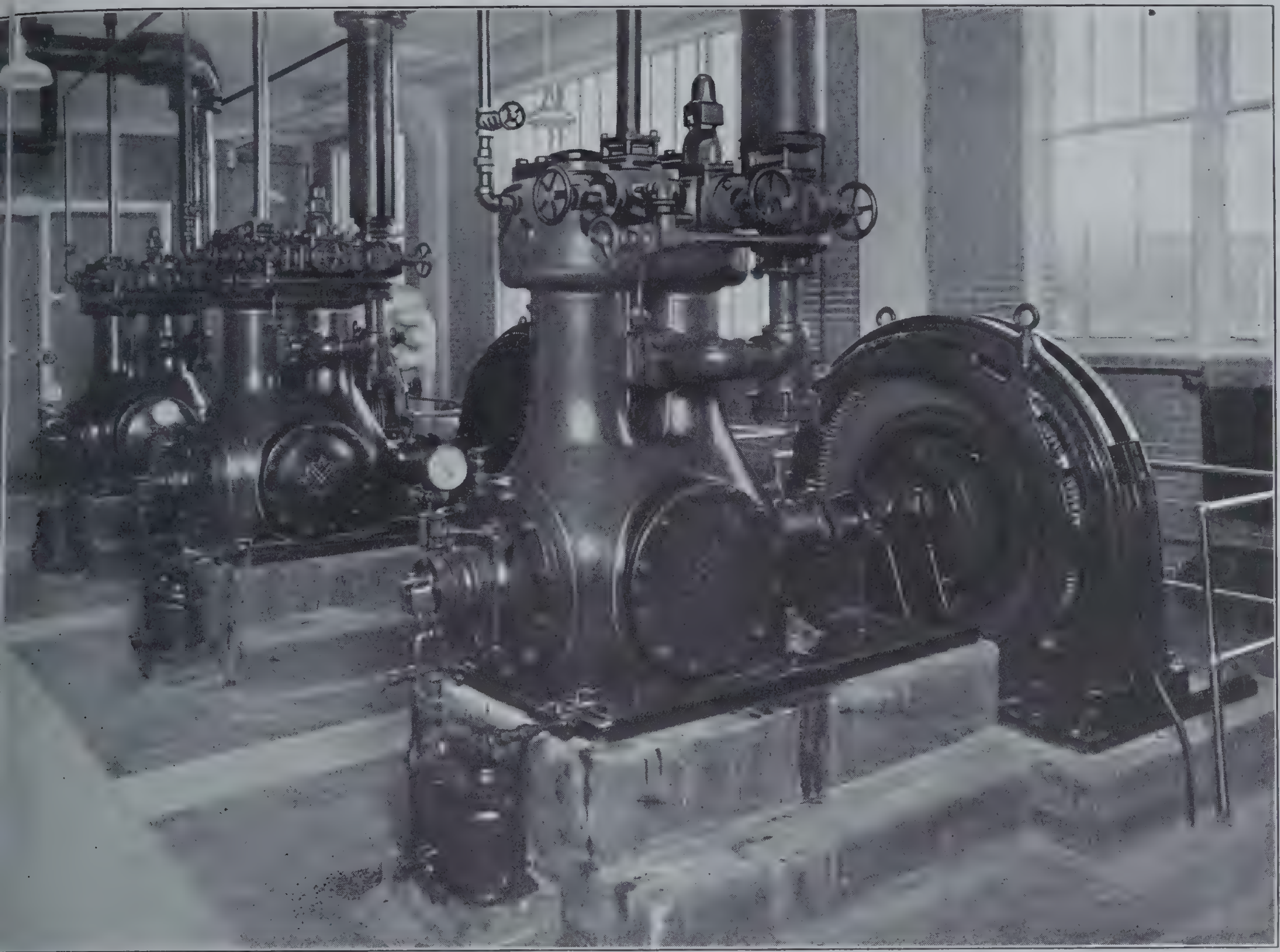
**Close-up view of Milwaukee filler showing bottles
from Barry-Wehmiller washer over conveyor to filler and**

What is termed the largest cooler ever built i
found in this plant. It is 18 feet long, with 32 tu
inches in diameter. Two small coolers each 8 fee
with 32 tubes each, complete the cooling facilitie

The fillers are special jobs, even the conveyors
of nickel.

All the equipment is based on filling bottles
rate of 240 per minute and the two big bottle w
weigh 60 tons each and hold 9,000 gallons of so
A double system of new type Mojonnier convey
feet long is a feature of the room where the bottl
cases are washed and again assembled.

The cooler is 55x55 feet with a 14 feet ceiling.
thousand three hundred feet of 2-inch brine pi
used and the temperature is automatically contro



ORK *of course!*

here *Dependability, Economy and* *rformance* are deciding factors

THE battery of three Y-26 Type York Compressors installed in the new Sidney Wanzer & Sons milk plant in Chicago represents the last word in mechanical efficiency and refrigerating engineering.

Forced automatic lubrication, dual oil filters, die cast bearings and forged steel crank shafts and other desirable refinements are outstanding features of these machines.

There is a York machine to meet every refrigerating requirement.

WRITE FOR ILLUSTRATED BULLETINS

ufactured by YORK MANUFACTURING COMPANY, York, Penna.

ESTERLIN & CAMPBELL CO., 1113 Cornelia Ave.
CHICAGO, ILLINOIS

LES AGENTS AND ENGINEERS

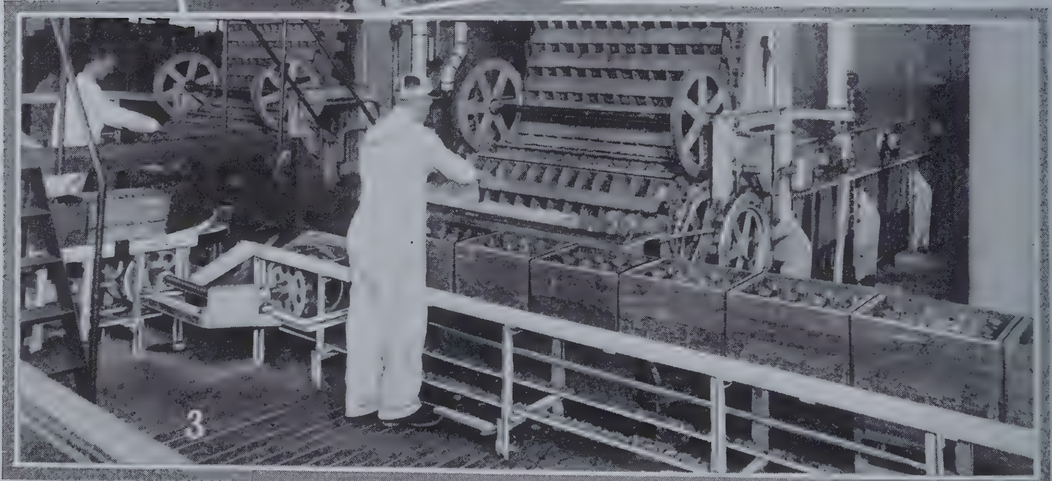
When writing to WESTERLIN & CAMPBELL CO. *please mention The Milk Dealer.*

Mojonnier Conveyor

Automatic Bottle Crate Conveyo

1

2

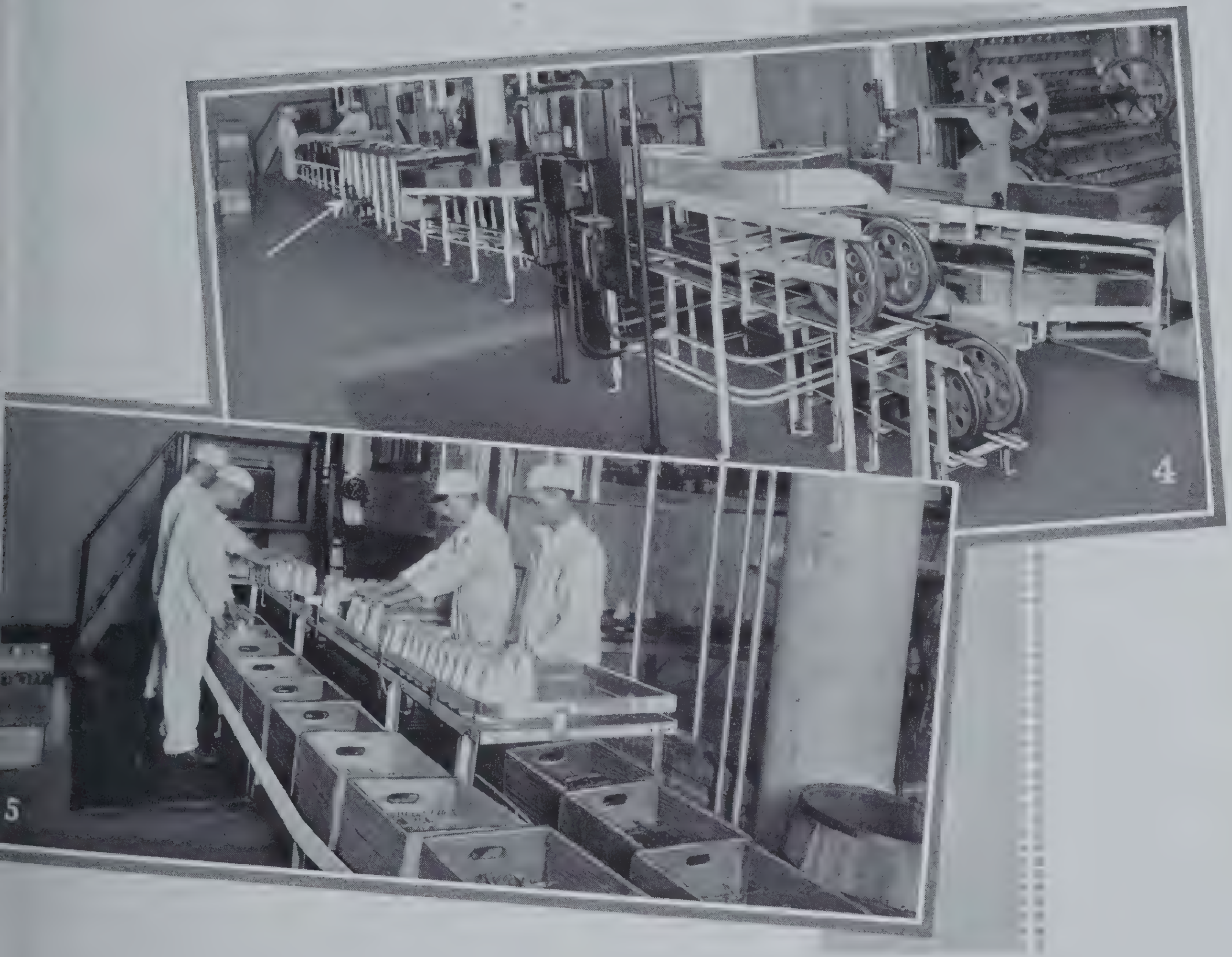


3

When writing to MOJONNIER BROS. CO. *please mention The Milk Dealer.*

educe Handling Costs

the New Wanzer Dairy, Chicago



1 Automatic Conveyors on loading platform convey crates of bottled milk to wagons, and crates of empties from wagons to bottle washers.

2 Double track system of conveyors from wagon platform to bottle washers, and to storage.

3 Conveyors bring crates of empty bottles automatically to hand of each operator. Operator does not have to touch crates. Slight pressure on foot pedal releases emptied crates.

4 Double track conveyor takes empty crates through enclosed 15 foot crate washer (indicated by arrow) where crates are thoroughly cleansed, cooled and then conveyed to filled bottle accumulating table.

5 Cleansed crates are conveyed automatically to accumulating tables. After being filled crates are released by foot pedal, and automatically pass through self-closing door into cold storage rooms.

There are 509 feet of Mojonnier Automatic onveyors in the fine new Wanzer plant; 140 eet on loading platform alone. (See illustration o. 1).

The conveyors are of sturdy and durable hain type used for several years in ice cream lant work and so designed that the conveyors eed not be stopped during operating hours. As he crates are stopped from time to time the hain harmlessly slides under the crates. When released the crates are carried positively forward.

The conveyors are low down, 20 inches from floor, heavily galvanized to resist rust, and each length of chain is lubricated underneath at one point.

Let us work with you on your conveyor problems. Just drop us a line and our sales representative will call on you on his next trip in your vicinity. Write for further information.

EAD OFFICE and FACTORY:
W. Ohio St., Chicago, Ill.

Mojonnier Bros. Co.
MILK ENGINEERS

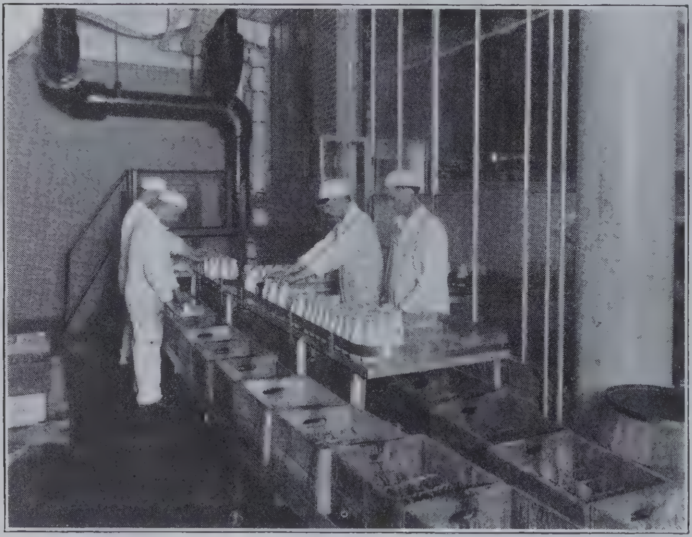
SALES BRANCHES:
New York (Mt. Vernon) Columbus, O.
St. Louis, Mo. Oakland, Calif.

When writing to MOJONNIER BROS. CO. *please mention The . Milk Dealer.*

35 degrees. Five pumps, three of them automatic, control the temperature.

In the ice field are 282 three hundred pound cans. The tank also holds 17,000 gallons of brine. Only two ammonia valves are used in the entire plant.

Only sweet water is used in cooling the milk. The cooling of raw milk, pasteurized milk, cream, etc., is automatically controlled throughout. The system will cool 4,000 gallons of milk at the rate of one degree a minute.



Filled bottles are brought by Mojonnier conveyor to accumulating tables, meeting conveyor bringing empty cases, and carrying filled cases to refrigerating room through automatically closing cold storage door.

The water from the mains comes in at a pressure of 12 pounds. Two pumps pick it up and hold it at a pressure of 50 pounds throughout the plant. Four hundred gallons of water are used per minute during operation.

Automatic control enters into the operation of this wonderful plant to a degree undreamed of even five years ago. No employee works over 8 hours and on Sunday 6 hours.

School desks, by American Seating Co., are used in the drivers' room where drivers check deliveries before turning their records over to bookkeeping department at the windows on the left.

One of the show places, if one is permitted to thus term a single room in a plant made up of show rooms, is the laboratory where it is possible to make any test or check known to dairy science. It is the plan of the management to soon install a small laboratory at each country receiving plant. The tests made at these small laboratories will be checked from time to time main laboratory.

This wonder plant is the outcome of severa planning and the expenditure of vast sums of No expense has been spared to make it ideal for pose. The men behind—W. B. Wanzer, preside H. Wanzer, vice-president and treasurer; L. M. H retary; H. Stanley Wanzer, Gordon B. Wanze Sidney Wanzer III, directors, all give unstinted to Neil Mortensen, of Louisville, Ky., for the hig ficient arrangement and installation of the entir equipment. Mr. Mortensen not only supplied a deal of the equipment, but he also had complete of all installations. He is a dairy plant engineer usual ability and is justly proud of his "j Wanzers.

HEAD OF MILK CONCERN DIES.

Funeral services for Ithamar M. Justice, pro Dayton, Ohio, business man, who died at the Mia ley Hospital on June 24th, 1927, were conducted residence, 3305 E. Third St.

Mr. Justice was prominent in Dayton industri for twenty-five years, being identified with a m turing concern which since has gone out of busin then became associated with the Manufacturers' ment Co., and in recent years he was able to devo tically all his attention to the Weaver Milk Co., o he was the head.

Mr. Justice was born in Waldo, Ohio, 64 yea passing his early life in that district. He is surv his widow, Mabel U. Justice, two daughters, Mrs. Weaver and Edith E. Allen of Dayton; one brothe H. Justice, Erie, Pa.; one sister, Mrs. Sally Faust, county, and three grandchildren.

SEE THAT YOUR EMPLOYEES READ TH

The following poem by Edgar Guest, and from the Detroit Free Press, contains some excell vice. It is directed to the young man, but it is good for all of us to read and heed:

NOT HIS JOB.

"I'm not supposed to do that," said he,
When an extra task he'd chance to see;
"That's not my job, and it's not my care,
So I'll pass it by and leave it there."
And the boss who gave him his weekly pay
Lost more than his wages on him that day.

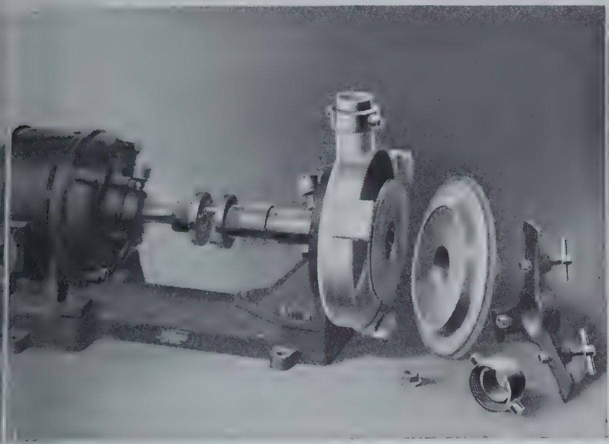
"I'm not supposed to do that," he said,
"That duty belongs to Jim or Fred."
So a little task that was in his way
That he could have handled without delay
Was left unfinished; the way was paved
For a heavy loss that he could have saved.

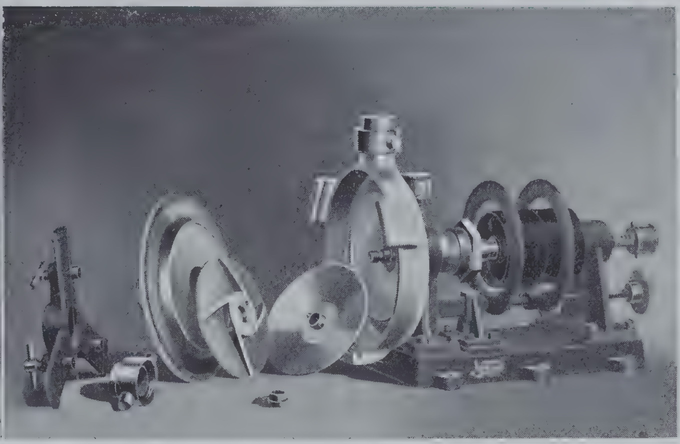
And time went on and he kept his place
But he never altered his easy pace,
And folks remarked how well he knew
The line of tasks he was hired to do;
For never once was he known to turn
His hand to things not of his concern.

But there in his foolish rut he stayed
And for all he did he was fairly paid,
But he never was worth a dollar more
Than he got for his toil when the week was o'er
For he knew too well when his work was throu
And he'd done all he was hired to do.

If you want to grow in this world, young man,
You must do every day all the work you can;
If you find a task, though it's not your bit,
And it should be done, take care of it!
And you'll never conquer or rise if you
Do only the things you're supposed to do.

Nofome Sanitary Milk Pumps



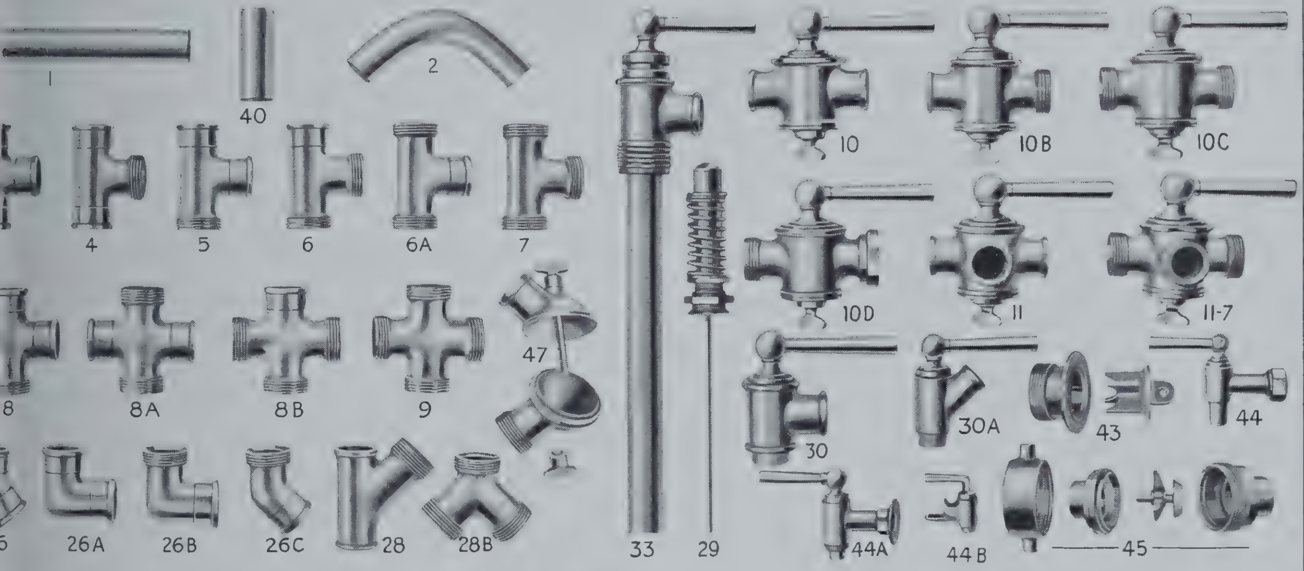


churning, because the enclosed impeller carries e milk to full periphial speed without the vanes ssing through the milk.

Milk passes through the impeller housing, but the vanes do not pass through the milk, which prevents churning and injury to the cream line.

Pumps and Fittings in all Sizes *"To Fit Your Needs"*. Let Us Solve Your Pump and Fitting Problems.

S-B SANITARY FITTINGS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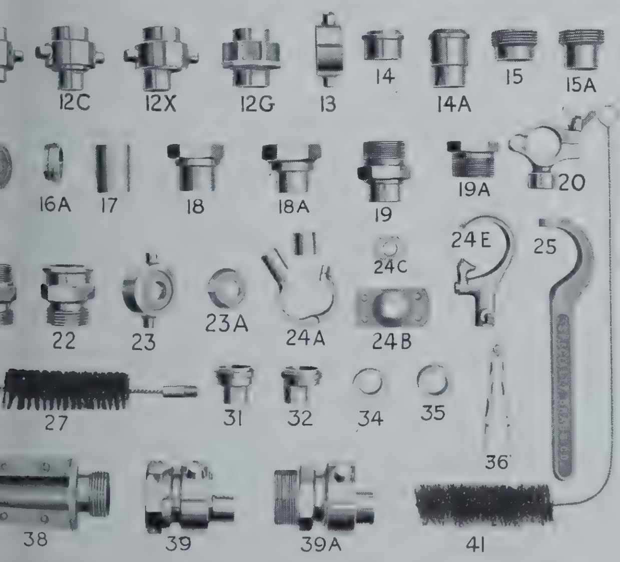
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Nofome Sanitary Milk Pumps
and
S-B Sanitary Fittings

used in the new
WANZER PLANT
in CHICAGO

Enough Said!

Literature and Prices Upon Request.

Specialty Brass Co.

KENOSHA, WIS. **ALBION, N. Y.**

When writing to SPECIALTY BRASS CO. *please mention The Milk Dealer.*

TIN coated brass castings were not good enough for the new Wanzer plant. They specified solid nickel alloy castings to be used in all the milk handling machinery. Nickel castings were used because of their properties to resist corrosion and the rough treatment which castings must stand in a milk plant. They are solid, have the same appearance as nickel plate, but are not plated; therefore, chipping and peeling of plate is eliminated and a sanitary surface is obtained permanently.

The Waukesha Foundry Co. was selected to furnish these castings because of their extensive experience in the manufacture of nickel alloy castings.

Such castings as are used in the Milwaukee Bottle Fillers and Conveyors, the Mortensen Pasteurizers, Holders and Cooling Equipment, and the Von Gunten Filters are typical of the class of castings regularly manufactured.

Waukesha Foundry Company

WAUKESHA Manufacturers of WISCONSIN

Waukesha
NICKEL
"The Lifetime Metal"

When writing to WAUKESHA FOUNDRY CO. *please mention The Milk Dealer.*

ow Much to Spend in Milk Advertising

Relation of Advertising to Prosperity of the Business. Shall Appropriations Be Made on Basis of Last Year's Sales or on Anticipated Sales?

By W. H. E. REID*

ERTISING, in the field of dairying, is not un-
ike advertising in any other field of endeavor,
a its purpose, and in its ultimate results. The
object of advertising milk and milk products
orm the consumer as to what you are offering
. Advertising is without question one of the
luable selling agencies that is known to the
world today. It is one of the oldest, most
and most extensively used methods of selling.
pay for it, but seldom do they realize that this
demanding a part of their dollar. Advertising
e average consumer, like most all of the other
rendered on a commodity, just one of the serv-
t must be paid for, but without it how could the
r, manufacturer and distributor of milk and
oducts dispose of the 110,000,000,000 pounds of
ilk produced annually in the United States?

anufacturer who makes something that is new
ot a necessity has a real merchandising problem
ting his sales department. Perhaps he must cre-
pular style, or a change in taste. He has a tre-
s job of advertising and selling. Perhaps he
ook upon a milk dealer's task as something too
keep him going.

many milk dealers look at the proposition in ex-
e same way. Milk is not a luxury, but it is the
ecessary food in the world. Few families fail
milk in some form on the table every day of
. Milk has been made clean, rich and safe. Rich,
ilk properly pasteurized certainly has a market.
e world at his door, and within his plant the
at the world wants, the milk dealer is prone to
ilk consumer walk in or stay out, as he pleases.

can be used merely to feed infants and grow-
dren, or it can be used in a multitude of ways
inds of occasions. One milk dealer may sell the
another milk dealer may sell milk and several
oducts.

ther milk is used only for infants and children,
her it is used more by children, or is used in
ude of ways, depends largely, in fact almost en-
pon the milk dealer and his associates. When
unity is educated to a greater use of milk and
er part of that business goes to his competitor,
dealer may know that he is at fault. It be-
self-evident fact that his competitor is the per-
educated the public by constructive and or-
advertising of milk and the milk products.

oncern ever becomes so strong that it can afford
telling the public about the good quality of its
. Milk, as milk, must be everlastingly sold to
lic, and the dealer's milk as exemplifying the
re is in milk, also must be preached continuously.
ings are absolutely necessary to prevent substi-
om being used many times where milk should
and to prevent an alert competitor from reaping
antages of intensive milk education.

But that is not all. Granted that these things are done, it remains for the milk dealer to show the consuming public the many uses to which milk can be put. He should tell the public in his advertising, specifically, how to use milk in various ways. If the public is pretty well sold on the good qualities of milk and its necessity for certain uses, the field that now is open to the dealer is to prove, absolutely to the public, the economy and wisdom of using milk in many new ways.

This should be the most interesting phase of milk merchandising, but it has been shamefully neglected with the exception of isolated instances. In the future, it will be one of the most profitable merchandising efforts ever made by dealers who go about it intelligently and persistently.

With due respect to those milk dealers who have proved themselves alert in modern merchandising methods, the ice cream manufacturers have gone far beyond the milk dealers in individual and co-operative merchandising. Ice cream has not been regarded as a necessity. Its makers have had to fight the luxury idea. They are still fighting it and it proves to be one of the outstanding enemies of that industry. The alertness of ice cream manufacturers is shown in their united effort through their national association to carry ice cream's fight to the public through the mediums that reach the public in a national way.

An ever present question that confronts the manufacturer and distributor of dairy products, as well as any other producer of a saleable commodity, is: How am I going to decide on the advertising appropriation of my company? The answer to this question will depend to a large extent upon the nature of the business, and somewhat upon the man directing the advertising. It also depends on the past business history as it affects the sales situation presented to the advertising department at the time new advertising is under consideration.

One method of building an advertising appropriation for the company is by taking out an insurance policy in the form of an advertising investment to protect the company's good will, much as the company insures its physical assets against fire or any other form of loss. That good will is subject to depreciation and destruction is a fact that has been proven by advertisers who have remained quiet over a period of years, relying on past advertising activities to insure continued success. Such a procedure ends in decreased sales and profits for the company.

Another method is to take a percentage of the sales as a basis for an advertising appropriation, using the sales figures for the past year, or the anticipated sales for the current year. It has been pointed out that this is the method most commonly used, but the percentage adopted by one industry should not be used as a criterion in some other industry where conditions are entirely different.

Another practical method is to levy an assessment on a certain unit of the product, namely, the number of units sold in the previous year or the number anticipated

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ciate Professor of Dairy Manufactures, University of
Columbia, Mo.

TRADE MARK REG. ESSEX GELATINE U. S. PAT. OFF.
ESTABLISHED 1903

Improve Your Buttermilk with ESSEX GELATINE

YOUR buttermilk will be improved by the wonderfully smooth and creamy flavor. It softens the curd, retards excessive acid flavor, prevents wheying-off, and imparts a new and delicious smoothness that will quickly increase your buttermilk sales.

For many years Essex Gelatine has been used in the highest grades of ice cream for body and velvety smoothness. You too can now take advantage of this stabilizer for your natural or cultured buttermilk.

Essex Gelatine is economical, you would use only 2 pounds in 100 gallons for a marked improvement. Write for working sample, instructions and prices.

Essex Gelatine Company
40 North Market Street
BOSTON - MASS.

Branch Offices:

NEW YORK CITY
54 Washington Street
PHILADELPHIA
708 So. Delaware Ave.
CHICAGO
323 West Polk Street
GRAND RAPIDS
135 Ionia Ave., S. W.
ATLANTA
169 Haynes Street

ST. LOUIS
400 So. Broadway
DALLAS, TEXAS
301 No. Market St.
LOS ANGELES
412 West Sixth Street
SAN FRANCISCO
Second & Brannon Street
PORTLAND, ORE.
403 Hoyt Street
SEATTLE
1018 4th Ave., South

to be sold during the current year. This is the n usually employed by the ice cream manufacture prepares his appropriation at so many cents pe lon of ice cream sold.

Another method, which appears to be more matter of speculation than any of the others, is to all of the money that can possibly be obtained in vertising as an investment in future sales without ence to any basic unit. The method is based on pations and is one that will appeal more partic to the organization newly launched in business.

Another method is the budget system, and need little explanation. Here the advertising appropr is made up at the same time as expenses for oth tivities are computed, the total being figured a estimated income. In arriving at a first estimate the size of the advertising appropriation, sales r or units sold may be kept in mind.

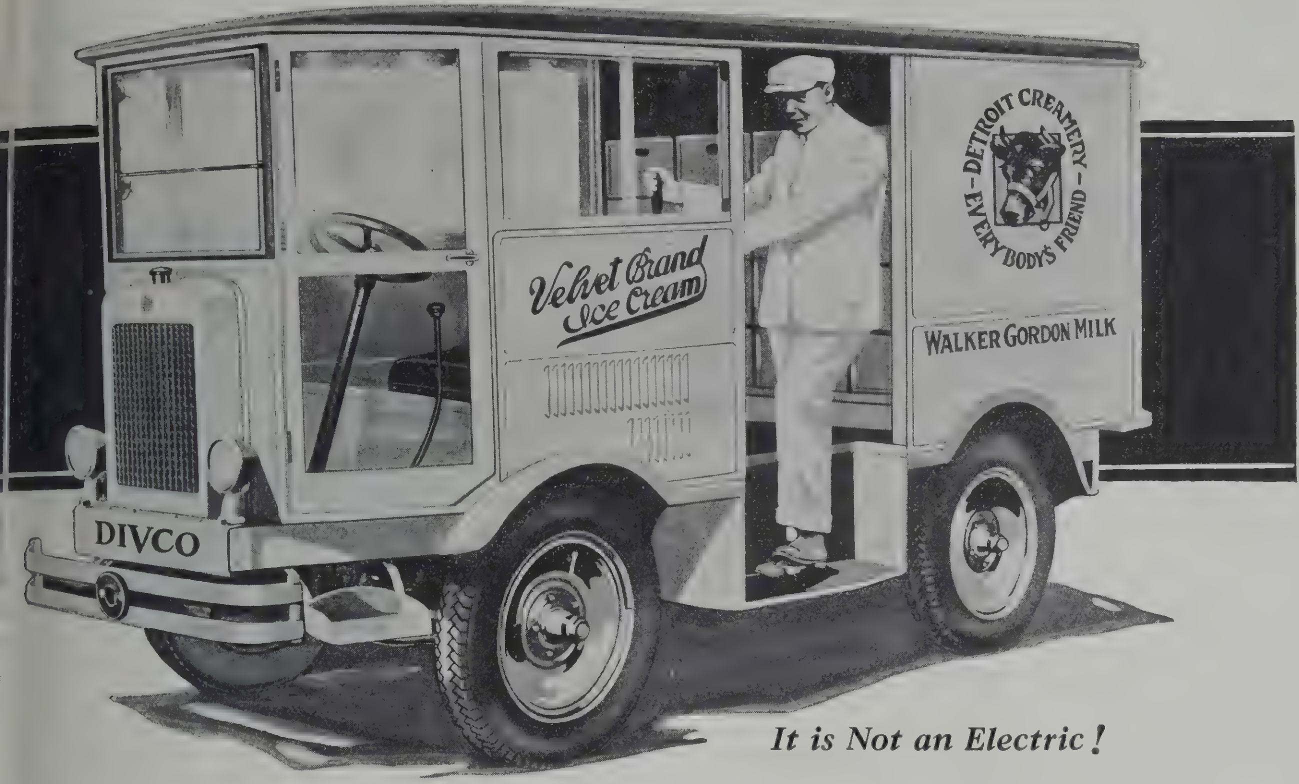
Another method is arrived at quite differently the others and has a limited application to the pr confronting the producer of dairy products. It c in finding out how much advertising it requires tain a new dealer for a given product and then priating sufficient funds so as to obtain as many needed that year. When this method is used, t vertiser endeavors to determine how much the new ness should yield in any given period; or he may determine how much business he can reasonably to acquire from a new market.

Another method consists in appropriating a percentage of the previous year's profits for ad ing, just as percentages of the profits may be app ated to plant expansion addition and repairs.

There is another method that might be called instead of scientific. This procedure consists in observing the activities of one's competitors and setting aside sufficient advertising funds to eq exceed their programs. Fortunately, many concern commence to advertise in this way soon discov true value of advertising and continue to advert gardless of what their competitors' programs m

The combining percentage of sales and the systems is a practice to be considered in the field vertising. A definite percentage of sales is each placed in the advertising fund and is termed the tising budget. This budget will vary according methods and practices of operating the business. the budget prove to be less than the amount d from the percentage of sales, the difference accum to meet the requirements of future years where advertising is needed than is provided for by th rent assessment on sales. However, should the exceed the percentage of sales fund, it must th drawn from past accumulations or from a reserve

The amount of money invested in advertising widely but on the average about three cents of dollar made in the dairy business is utilized in tising. In the course of a year's time this total sents hundreds of thousands of dollars. Adverti commodity such as milk, ice cream, butter, chees is a business in itself that is wide in its scope. T the name of each product constantly before th suming public is a tremendous asset to the sales d ment, resulting in a decided increase in the comp business. The advertisement must be attractive pearance, and should be artistic in design. People at an ordinary advertisement and it passes from mind as soon as it is out of sight, but if the des artistic in nature and causes a lasting impression made on the mind, the person concerned will having seen such on a picture when he purchase or one of its many by-products.



It is Not an Electric!

lere's a Truck that Builds New Business!

The Divco is the first practical truck built expressly for retail milk very—the result of more than 5 years of development in co-opera- with representative creameries. It actually does provide a better, ker, cheaper, and more sanitary method of retail milk delivery. But oes a lot more—it solves one of the most stubborn problems facing mery men today—the problem of building new business, of keeping it and equipment at full capacity.

ivco attracts the highest type driver-salesman—men who are live business getters. It saves to two hours per route per in delivery time; the Divco er has both the energy and to build up his route. Divco no equal as an attention getter; gressive dairy men have fig- its advertising value at up- ds of $50 a month. It carries r advertising message to the doors of the people you want each.

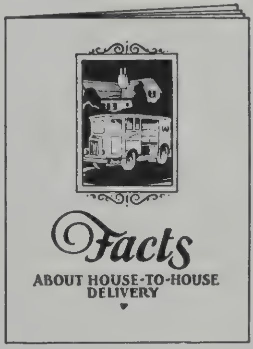
Divco with its great cruising radius and low operation cost enables you to extend your business to new and growing markets not profitably served with other methods of delivery.

There are many other ways in which Divco builds business at a fraction of the cost of former methods. You will find the whole story in the new Divco booklet "Facts About House to House Delivery."

Divco Features

1. *Divco drives from front seat or either running board.*
2. *Divco turns around in a 32 ft. street.*
3. *Divco's insulated body keeps milk in perfect condition.*
4. *Divco carries a bigger load—a load easier to get at, and loads from either side, or front or rear.*

Send for this free Booklet!



DIVCO DETROIT CORPORATION
2435 Merrick at Sixteenth - - DETROIT

DiVco Detroit Coporation,
2435 Merrick at Sixteenth, Detroit
Gentlemen:
Please send without obligation the new illustrated DiVco catalog.

Name________________

Firm________________

Address________________

City ________________

DIVCO
MOTOR TRUCKS

When writing to DIVCO-DETROIT CORPORATION *please mention The Milk Dealer.*

What the Courts Say:

By LEO T. PARKER. *Attorney at Law, Cincinnati, Ohio*

Facts That the Milk
Dealer Should Know

Parker's Important Higher Court Decisions Rep

THE majority of persons obtain insurance. But how many persons carefully read the policies? And what percentage of the holders of policies actually deprive themselves of the benefits therefrom by failing to abide by the contractual relations between the insured and insurer? How many persons study the contents of their insurance policies?

The law is well established that the holder of an insurance policy forfeits his rights to collect the specified insurance if he neglects to carefully act in accordance with the readable stipulations in the body of the policy.

For example, in the case of Meyer Dairy Equipment Co. vs. Connecticut Fire Ins. Co., 287 S. W. 663, the owner of an insured dairy automobile was held not entitled to recover the insurance money where it was shown that the owner failed to abide by the stipulations in the policy that the car was to be locked when it was left without an attendant.

The important provisions of the policy read, as follows:

"Name of assured: Meyer Dairy Equipment Company * * *

"In consideration of a reduction in premium, it is warranted by the assured that the automobile insured under this policy will be continuously equipped with a locking device known as Perry (approved by the Underwriters' Laboratories, Inc., and bearing their label). The assured undertakes during the currency of this policy to use all diligence and care in maintaining the efficiency of said locking device and in locking the automobile when leaving the same unattended.

The car was stolen at a time when it was left unlocked and standing in a street.

The insurance company refused to pay the amount of the insurance on the grounds that the Meyer Dairy Equipment Company did not carry out the agreement specified in the policy.

The dairy company instituted suit to recover the insurance money, contending that since the insurance company had accepted the premium it was liable irrespective whether the car has been stolen when it was locked or unlocked.

The lower court held that the dairy company was entitled to recover the amount of the insurance, but the higher court reversed the verdict and, in holding the insurance company not liable, said:

"It is conceded that the automobile insured was continuously equipped with a locking device, which was maintained in a suitable condition of efficiency, and was usually kept tended, during the currency of the policy, but that the device was left unlocked and the automobile unattended at the time it was stolen, and that thereby the plaintiff (dairy company) breached the condition or promissory warranty of the policy that he should use all diligence and care in locking the automobile when leaving the same unattended, and that such breach defeats recovery under the policy. * * It is conceded that
the defendant (insurance company) learned
breach shortly after the loss occurred and denied
ity on the ground, but failed to return or offer to
the premium, or any part of it, received upon th
ance of the policy. The plaintiff contends that d
ant by its failure to return the unearned premiu
waived or is estopped to assert as a defense the
of the condition or promissory warranty referred
It appears to be recognized as the general rule
return of the premium is not essential to the avo
of an insurance contract for the breach of a condit
warranty. * * If the automobile had been destro
damaged by fire, arising from any cause whatsoe
by stranding, sinking, collision, or derailment, wh
ing transported in any conveyance by land or wa
had been stolen under circumstances other than
it was left unlocked and unattended, at any time
the currency of the policy, the defendant woul
been liable."

However, in Carroll vs. Union Marine Ins. Co.,
W. 691, decided by the Kansas City Court of App
was disclosed that in that case the policy, insu
Ford automobile against loss, by theft, was condi
that the automobile be continuously equipped
Defender lock. The evidence showed that the a
bile was not so equipped at the time of the issua
the policy or at any time during its currency. In
was shown that it was impossible to equip the a
bile with such a lock. Clearly that was a case in
no risk ever attached.

Under these cicumstances, the higher court h
insurance company liable for the value of the car

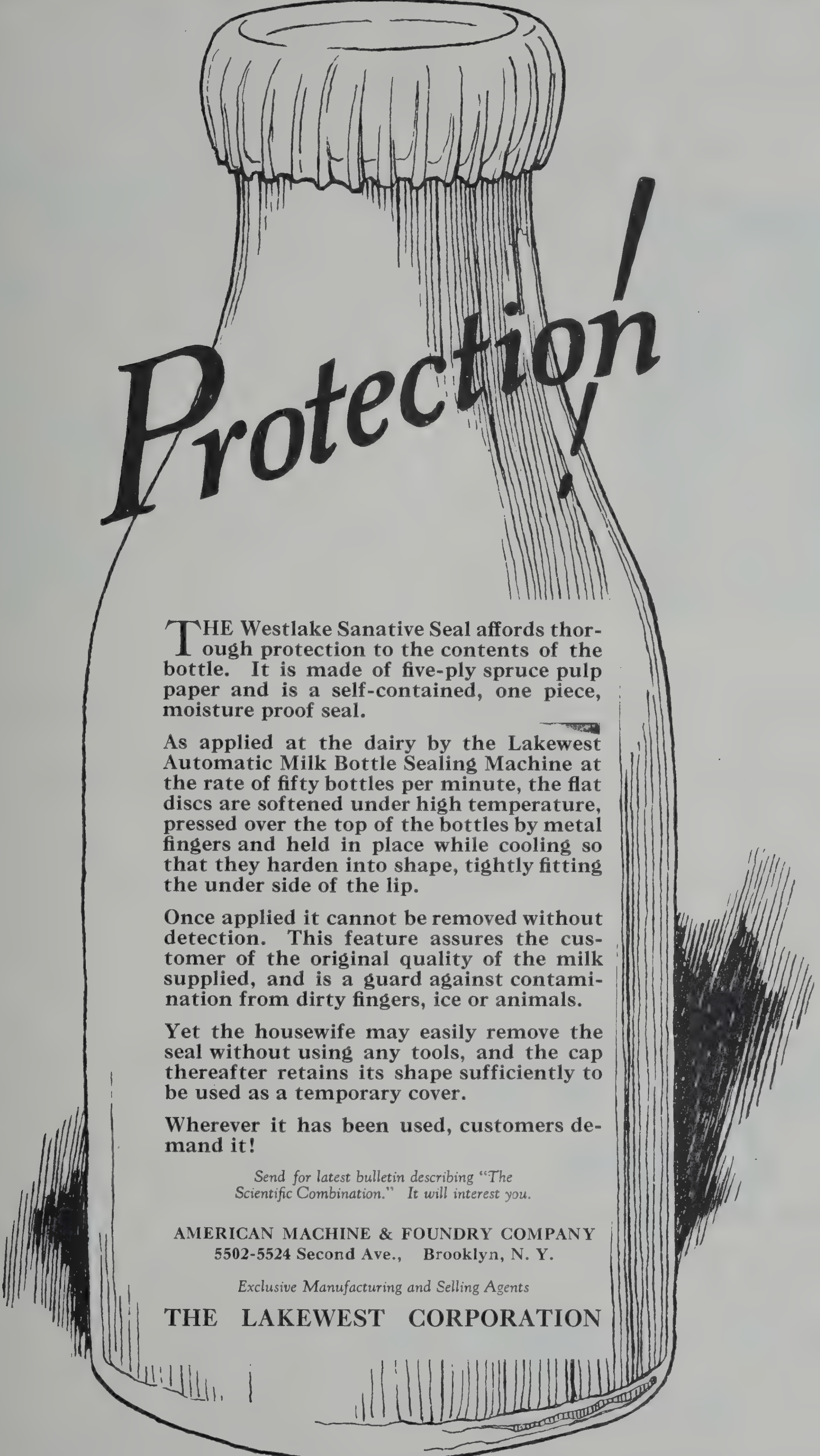
Dairy Company Prevented From Hiring Competitors' Employees.

In the case of French Bros. Bauer Co. vs. To
Bros. Milk Co., 152 N. E. 675, the higher court he
where a dairy company buys a firm and its nan
sons of the seller of the business may not lega
their names and engage in the business of deli
milk over the route of the purchaser of the f
business, where some of the purchasing com
drivers are hired by the new company.

The facts of the case are that in 1906, a corp
known as the French Bros. Dairy Company pur
the Townsend Milk Company, at that time own
operated by John Townsend, the father of Henry,
and Roy Townsend. Later the French Bros. Baue
pany was incorporated, and the Townsend dairy w
ducted as an independent branch of that compa

Later the French Bros. Bauer Company purcha
business of Charles I. West, and then conduct
Townsend business and the West business und
name of the Townsend-West Dairy.

The three sons of John Townsend were emplo
the business by the French Bros. Bauer Compan
continued to be so employed until January, 1924
Henry Townsend left and became identified wi


Protection!

THE Westlake Sanative Seal affords thorough protection to the contents of the bottle. It is made of five-ply spruce pulp paper and is a self-contained, one piece, moisture proof seal.

As applied at the dairy by the Lakewest Automatic Milk Bottle Sealing Machine at the rate of fifty bottles per minute, the flat discs are softened under high temperature, pressed over the top of the bottles by metal fingers and held in place while cooling so that they harden into shape, tightly fitting the under side of the lip.

Once applied it cannot be removed without detection. This feature assures the customer of the original quality of the milk supplied, and is a guard against contamination from dirty fingers, ice or animals.

Yet the housewife may easily remove the seal without using any tools, and the cap thereafter retains its shape sufficiently to be used as a temporary cover.

Wherever it has been used, customers demand it!

Send for latest bulletin describing "The Scientific Combination." It will interest you.

AMERICAN MACHINE & FOUNDRY COMPANY
5502-5524 Second Ave., Brooklyn, N. Y.

Exclusive Manufacturing and Selling Agents

THE LAKEWEST CORPORATION

Provoked Customers
Don't Stick

Pails have
HANDLES

—so have CERTIFIED
CAPS for Milk Bottles

Do you make your dairy customers pry and gouge old style caps off the bottles that carry your name? That is no way to hold customers. Give them bottle caps that are easy to lift.

Certified Caps for milk bottles have flaps made of tough, red fiber. They are easy to see and to grasp. They lift off the caps easily every time. They're stapled on to stay. Thy are distinctive. A mark of better service in hundreds of dairies that are making new customers every day.

The extra cost of Certified Caps with Red Flaps is small—far less than the extra profits they bring. Make us prove that.

Write us or ask your supply house for free samples, either for capping machines or for hand capping.

Certified
Caps
FOR MILK BOTTLES
THE CAP WITH THE RED FLAP

American Dairy Supply Co.
Dept. B-34 WASHINGTON, D. C.

London Factory, Waxed Papers, Ltd., Nunhead Lane, S. E. 15.
Canadian Factory, Purity Milk Cap Co., Ltd.,
76 Stafford Street, Toronto.

Niser Ice Cream Company, which was, in a m
competitor of the French Bros. Bauer Company

In June, 1925, Elmer and Roy Townsend lef
Bros. Bauer Company's employment and became
ted with Henry Townsend in a competing busine
the name of the Townsend Bros. Milk Company.

Elmer Townsend had been the manager in c
the Townsend-West branch, and had had the fu
tion and control of all advertising, and of the l
employees. During this time, while he was the e
head of the Townsend-West Dairy, he spent la
advertising the name Townsend, not using Wes
nection therewith, as desiginating brands of m
termilk, cream, butter, etc.

The evidence showed that it was planned t
in a competitive business under the name of th
send Bros. Milk Company, and that, in carrying
plan, old milk wagons were purchased of the T
West Company, partly through Elmer Towns
manager, to be used by the new company. T
was placed in the telephone book, and vario
plans were made to embark in the new business.

When Elmer Townsend resigned he immediat
into the new enterprise. Various drivers, skip
the chief route foreman of the French Bros. Ba
pany left at once, and became associated with
Townsend Bros. Milk Company.

A campaign was then started to secure custo
the new company, and the old employees of Fre
Bauer Company were employed to assist in carr
this plan, soliciting over the same routes as t
been employed to do by the French Bros. Ba
pany. Many of the former customers of the lat
pany and the Townsend-West Company were se
this method.

It is interesting to observe that the court i
injunction preventing the new Townsend Bros. M
pany from employing the employees of the Fre
Bauer Company, and said:

"The important question, it seems to us, is
ployment of plaintiff's (French Bros. Bauer C
former employees, route men, etc., in securing
new company the customers of the plaintiff com
a written list of the route customers was kept
tiff company (French Bros. Bauer Company),
employees or the defendant company (Townse
Company), took the list and used the same, it i
recognized rule that injunctive relief would be
While there is no written list of such custo
former employees knew and had in mind every
tomer, and the reason for the rule is just as
under these circumstances as though there ha
written list. There is ample authority for hol
such action should be enjoined.

"An injunction will be allowed to prevent
fendant company (Townsend Milk Compay) f
ploying any of the drivers, route foremen, or
of the plaintiff company, who were formerly,
present, employed by the Townsend-West Da
pany, to serve or work over the trade routes s
such employees at the time of leaving the empl
plaintiff company (French Bros. Bauer Compa
from employing such employees to solicit, to be
tomers of the defendants, the customers served
while employed by the plaintiff company."

Sale Not Valid Until Accepted.

In Doll & Smith vs. A. & S. Sanitary Dairy
N. W. 230, the question before the court was w

Hydraulic Mining—One of the famous ways engineers utilize the great frictional power of water under high pressure

ne Miller Hydro Successfully Applies e Principle of Hydrostatic Friction to eansing Dirty Milk Bottles---It does away with Brushes of Every Sort!

oduct of the 20th century has so completely revo-
ized bottle washing methods as the invention of
iller Hydro. No machine has saved so much for
ers in general overhead labor costs, bottle breakage
astage of goods.

is mechanically-perfect machine, every type of
unsighty brush as a means of friction is sup-
ed by swirling, scouring streams of caustic soda
terrific pressure.

Miller method of applying this force is most
e; and is entirely different from the attempts of
er manufacturers to produce hydro bottle washing
inery.

In the Miller Hydro the force of water is applied solely through a series of hollow fountain wheels, all of which contain vertical nozzles and sprocket teeth in which a cup chain of bottles are geared direct to the powerful blasts of caustic soda.

By this method alone are bottles subjected to the full power of the great force of hydrostatic friction for the length of time needed to complete the cleaning action, leaving off entirely the doubtful assistance of ill-smelling, unsanitary brushes.

No greater proof of Miller Hydro efficiency is needed than the opinions of more than 3,500 users. Write us today for catalogue and these letters from satisfied users the world over.

MILLER MANUFACTURING CO., Bainbridge, Ga.
Makers of

The MILLER-HYDRO
Bottle Washer and Sterilizer

Chicago Office:
1305 Monadnock Block

New York Office:
105 West 40th Street

THE LARGEST FACTORY IN THE WORLD DEVOTED EXCLUSIVELY TO THE MANUFACTURE OF BOTTLE WASHING MACHINERY

When writing to THE MILLER MANUFACTURING CO. *please mention The Milk Dealer.*

Friendly Talks on the Important Subject of Sterilization

Conducted by
J. W. YATES
formerly Dairy & Food Commissioner, Health Dept., Kansas City, Mo.

Talk No. 9

When B-K is Used as the Exclusive Sterilizing Agent
—Here is what happens

We have had under observation for some considerable time, MILK PLANTS that are using B-K as an exclusive sterilizing agency.

It is apparent that where B-K is used intelligently the cost is a decidedly negligible factor. It is more effective than flowing steam. It does not cause increased moisture on the walls and ceilings. The misty vapor is eliminated. The time involved in making the application is considerably less.

With only eight ounces of B-K properly applied with a compression sprayer, the following apparatus was effectively sterilized: Three 500 gallon holding vats; two coolers 16 feet long by 9 feet high; one 500 gallon reserve tank; two bottle fillers; two 500 gallon buttermilk vats; two 500 gallon cream vats; three 3,000 gallon storage vats; also the connected piping, clarifiers, separators, etc. The time required was less than one hour.

WRITE ME

for further details. Ask me your specific questions. Every plant or factory has its own particular sanitary problems. Our observations have been extensive. Send me a list of your equipment, stating present method of sterilization. I will then be able to give you the benefit of years of experience.

Will also be glad to mail our plan for promoting better care in production of milk by farmers.

J. W. Yates,

Consultant in Sanitation.

GENERAL LABORATORIES
Dept. 13G MADISON, WIS.

B-K
Bacili-Kil

buyer may cancel an order before the same is a in writing by the seller.

The facts of the case are that the Doll & Smi pany signed an order to have shipped by express New York, as soon as possible, certain material. language of the order, the dairy company agreed the price on stipulated terms. The order was a salesman and by him forwarded to the seller York.

The seller received the order on June 14, 19 proceeded to prepare the goods for shipment, not write the buyer. On June 16, 1924, the buye cancellation, and on June 19, 1924, wrote a l cancellation. On June 20, 1924, the seller wrote acknowledging receipt of the telegram and obje the cancellation.

Later the seller sued the buyer for damages the shipment was not accepted by the buyer.

The court held the buyer not liable because a the written order was properly signed, the sel failed to acknowledge receipt of the order and w acceptance of the same **before** the buyer sent t cellation.

* * *

BIGGEST FARM INDUSTRY IS DAIRYIN LARSON.

Dr. C. W. Larson, United States dairy chief ington, D. C., has compiled the following figures dairy industry:

Four and a half million farms in America hav cattle.

The total number of cows approximates 30,00

The annual farm value of dairy products is 000,000.

Population in the United States, potential so milk consumption increase, rises at the rate of 1 per year.

There are 837 active cow-testing associations United States, with an enrolled total of 360,00 each producing an average of 6,500 pounds of m nually.

“All of which means,” says Dr. Larson, ‘ every cow in the nation produced as much mill accredited cattle, the United States would not ne one additional dairy cow for a quarter of a cent

The conclusion is purely a scientific one. Dr. explains, and is true in possibility rather than bility.

“As a matter of fact,” he continues, “it's the of individual owners and not the cows that is dec The movement is toward a higher grade cow, a production herds are, as a rule, increased.

“Dairying is the biggest American farm i The prime issue now is economy in production. that the amount of milk a cow produces and its are the greatest factors in economy has led to t eral development of better herds. Owners rea overhead expense on a poor herd is as heavy good herd. It takes as much time, labor and fe cow that produces only 4,500 pounds of milk a for one that produces twice that amount.”

* * *

REPORT NOT TRUE.

Edward F. Perot, president of Southern Dairi says there is no foundation for the report of a of Southern Dairies with U. S. Dairy Product and Hershey Creamery Co.

No such proposal has ever been discussed, M said.

BESTOV—
Your guide—our pride

Every Bestov Product is guaranteed to fulfill in every way the specifications under which it is sold

The Lansdowne Milking Stool is a fine example of the quality of the Bestov Line. It is made of a single piece of galvanized malleable iron—cannot rust or crack. It weighs only three and one-half pounds and yet is extremely strong. These stools will last indefinitely. The price is low considering the satisfactory service rendered.

The Lansdowne Milking Stool

The Bestov Single Valve Bottle Filler

The Bestov Single Valve Bottle Filler is another member of the very popular Bestov family. The bowl is constructed of seamless spun steel (heavily tinned). A regular tested Bestov valve, with the valve and valve seat ground in is used. This eliminates wasteful dripping. The bottles are filled quickly and economically. The handles are hollow and are large enough to take a man-sized grip. This filler is well worth investigating.

COMPLETE EQUIPMENT FOR
HANDLING MILK AND
ITS PRODUCTS

CHERRY-BASSETT COMPANY
TRADE MARK
BESTOV
MILK PRODUCTS
EQUIPMENT

WE WILL CHEERFULLY MAIL
YOU ANY CATALOGS
YOU MAY DESIRE

PHILADELPHIA
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Cherry-Bassett Company

BALTIMORE
NEW YORK

SYRACUSE

Fluid Milk Market Report for United States for June, 19

By Bureau of Agricultural Economics, Market News Service, United States Department of Agriculture

Table I—Producers' Prices for Standard Grade Milk Testing 3.5% Butterfat, Delivered F. O. B. Local Ship Point or Country Plant.

Prices which appear in this report are secured through the co-operation of milk distributors, producers' assoc and municipal officers. Dealers' buying prices unless otherwise indicated, represent prices applying to all milk de by producers. For cities where a "surplus plan" is in effect, the prices reported in table III are for "basic" qua All per cwt. buying prices have been converted to a 3.5% butterfat basis for comparative purposes.

Sections	Range of June Prices		Prices Compared for Same Markets			
	Number Local Markets	Prices per Hundredweight	Number Local Markets	1927 Average for June	1927 Average for May	192 Aver for J
New England	9	$2.73–$3.95	9	$3.33	$3.33	$3.
Middle Atlantic	15	2.20– 3.00	15	2.76	2.78	2.
E. North Central	22	1.57– 3.10	20	2.45	2.51	2.
W. North Central	19	1.40– 3.10	18	2.11	2.12	2.
South Atlantic	14	2.55– 5.00	14	3.46	3.48	3.
E. South Central	4	1.78– 3.39	4	2.22	2.25	2.
W. South Central	6	1.70– 2.70	6	2.20	2.25	2.
Mountain	5	1.70– 3.20	5	2.39	2.42	2.
Pacific	10	1.46– 3.16	9	2.47	2.48	2.
United States	104	1.40– 5.00	100	2.63	2.67	2.

Above prices include "basic" prices where a surplus plan or cooling plan is in effect. Cities where prices are upon current butter quotations not included.

Table II—Prices for Special Grades of Milk and Certain Milk Products.

The following table shows the wholesale and retail prices reported for "special" and "certified" milk and certai products delivered at wholesale buyers' places of business and at the home of retail customers.

Cities	Special Milk	Certified Milk	Cultured Buttermilk		Cottage Cheese		Light Crear 18-25% B.	
	Retail Price per Quart	Retail Price per Quart	Wholesale Price per Gal.	Retail Price per Quart	Wholesale Price per Lb.	Retail Price per Lb.	Wholesale Price per Gal.	R Pri ½
	Cts	Cts	Cts	Cts	Cts	Cts.	$	(
Akron	15–18	20	20	8	7–8	10	1.30–1.70	
Albany	18	..	..	10	..	..	1.60	1
Albuquerque	..	..	..	..	18	..	1.75	
Allentown	18	..	36	13	9–12	..	2.00	
Altoona	15	22	25	10	12	15	1.35–1.50	1
Asheville	19	25	..	..	15	..	2.00	
Baltimore	..	30	44	14	10	15*	1.70	
Birmingham	..	25	20	6	18	25	1.50	
Boston	18½	26	..	10	..	..	1.17–1.79	
Buffalo	14	26	24	10	12	15	1.44–2.00	
Chicago	17–18	25	..	10–20	15	15*	1.26–1.80	
Cleveland	19–20	25	..	12–13	8–14	10–15	1.26–1.88	1
Colorado Springs	17	..	18	6	..	..	1.25	1
Columbus	17	..	..	7	..	10*–20*	1.45	
Dallas	24	..	15	5	..	..	1.20	1
Denver	14	..	20	8	..	10*	1.30	
Des Moines	14–20	..	20	9	10*	14*	1.45–1.55	1
Detroit	..	25	..	35	..	..	..	
Duluth	14	25	13	8	..	..	1.40	1
El Paso	17	..	20–25	10	15	20*	1.35	1
Harrisburg	..	..	36	12	..	..	1.50	
Hartford	20–25	25–35	..	..	..	..	1.40	1
Hoboken	25	28	24	11	18	30	1.60	2
Indianapolis	16	..	25–30	10–12	12*	15*	1.10–1.20	
Jacksonville	25	..	30–35	10–12	20	30	1.60–2.25	2
Kansas City	..	25	30	10	14	20	1.80	1
Lincoln	13	15	15	9	12	15	1.10	
Long Beach	16	28	25–45	8–10	10	15	1.60–1.80	
Los Angeles	..	28–30	25	10	14	..	1.60–1.80	
Louisville	16	24	..	13	..	..	1.08–1.73	
Miami	30	25–35	45	15–18	15–25	20–28	2.00–2.25	2
Milwaukee	14–18	25	16–18	6	7–8	9–10	1.30–1.65	1
Minneapolis	..	22	..	13	10*	12*	1.32–1.40	
New Orleans	18	31	40	14	..	..	1.20	
New York	30	28	..	..	..	..	..	
Omaha	15	15	15–20	10	10	..	1.25–1.30	
Philadelphia	15–16	30	..	9–13	..	..	1.56	
Pittsburgh	..	25	25	10	..	..	1.20–1.40	
Portland	14–15	..	35	12	10	15	1.40–1.50	
Richmond	16–18	..	25	8–14	..	..	1.20–1.30	
Rockford	..	18	..	6	..	14	1.40	
San Diego	20	30	20	9	12	15	1.80	
San Francisco	..	25	..	14	..	20	1.80–2.50	
Scranton	18	25	20–30	8–10	..	..	1.30–1.40	
Seattle	..	20	50	20–25	12*	15*	1.30	1
Sioux City	..	25	15	6	10	10*	1.20	
Spokane	..	..	..	..	..	..	1.40	
St. Louis	18	25	20	10–18	13	15	1.26–1.75	
Trenton	14	26	38	13	..	..	1.76	1
Trinidad	20	25	..	..	..	..	1.65	1
Washington	18–20	30	60	15	15–20	15–20	1.80	
Wheeling	18	..	30	..	..	..	1.40	
Wilmington	20	..	..	10	..	13*	..	

* 12 oz. package

GLASCOTE

THIS is the only Vat that has a glass coated coil. No metal is exposed in the liquid area. High glaze glass lining is continuous and smooth over the entire inner surface.

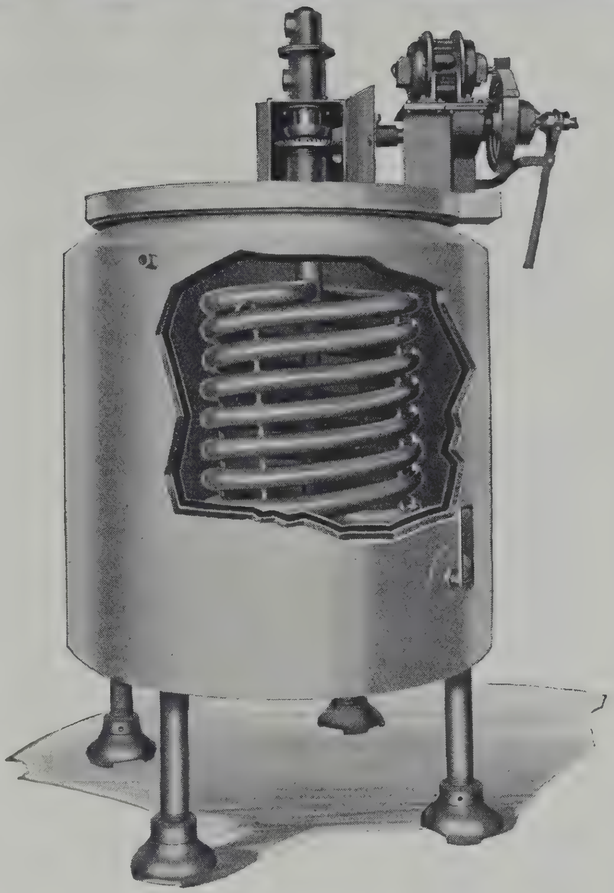
Coil revolves off-center, from the bottom to the top. No swirling or foaming. Air and gases are removed and contents are exposed to maximum heating or cooling area.

All working parts outside of Vat. Leakage of oil, water, steam or brine is impossible. Ball bearings throughout.

Two inch corkboard insulation covered with finished plate steel. Both jacket and coil can be used for heating or cooling. Coil used for brine alone prevents corrosion of steam jacket and prolongs life of unit indefinitely. With ice water, both coil and jacket can be used for rapid cooling.

THE IDEAL UNIT as a Butter Starter, Buttermilk Tank, Pasteurizer, Forewarmer or Ripening Tank. Fastest cooler for condensed milk. Perfect results in making Acidophilus Buttermilk and other lactic or non-lactic cultures. Adopted by largest plants in the Dairy Industries.

Send for new Bulletin and attractive prices. Capacities 350, 550, 750 and 1050 gallons.



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Glass Coated Coil

The Finest Piece of
Engineering Design
in the History of
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When writing to THE GLASCOTE COMPANY *please mention The Milk Dealer.*

Table III—June Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices — Wholesale Trade — Per Gal. in Lots of 5–20 Gal. in Bulk	Dealers' Selling Prices — Wholesale Trade — Per Qt. Bottled (Cases of 12)	Dealers' Selling Prices — Retail Trade — Per Qt. Bottled to Family Trade	Dealers' Selling Prices — Retail Trade — Store Prices per Qt. Bottled	Prevailing Butterfat
	$	Cts.	Cts.	Cts.	Cts.	Cts.	
ALABAMA—							
Birmingham	3.49–3.91	Varies	45	12	17	12	3.6
Mobile	..	..	40–60	10–15	15–18	15–18	3.
ARIZONA—							
Phoenix	..	..	30–32	8–9	10–15	10–15	
CALIFORNIA—							
Fresno	Butter Market Basis		35	11	13	12–13	3
Long Beach	3.15*–3.33*	9–9.5	43.33	13	15	..	3.5
Los Angeles	3.15*–3.33*	9–9.5	43.33	13	15	15	3.6
Oakland	2.82–2.94	2.9+	35	9	13	11	3.5
San Diego	..	..	41.66	13	15	15	3.6
San Francisco	3.11–3.21	2.9+	41.3–41.6	12	14	13–14	3.6
Santa Barbara	3.15	9	..	..	15	15	
COLORADO—							
Colorado Springs	2.45*	6	30	9	11	10–12	3.4
Denver	1.92	5.5	35	10	12	12	3
Pueblo	2.38	6.8	32	9	12	10–12	3
Trinidad	..	..	35–40	8–12	10–13	10–13	3.0
CONNECTICUT—							
Bridgeport	4.22*	4	48	14	16	..	3
Hartford	4.22*	4	46–56	13–14	16	14–16	3.8
New Haven	4.22*	4	50	14	16	16	3
DELAWARE—							
Wilmington	..	..	44	13	13	14–15	3.6
DIST. OF COLUMBIA—							
Washington	3.37*	7	44	12	15	13–15	
FLORIDA—							
Jacksonville	3.37*	10 to 4.2%	50–55	15–16	17–20	17–18	4.0
Miami	5.75*–5.80*	Varies	60–70	18–20	22	17–25	3.8
Tampa	4.67*–4.77*	Varies	50–60	15–18	18–21	18–21	3.5
IDAHO—							
Wallace	..	..	50	12½	15	12½	3.5
ILLINOIS—							
Chicago	2.93½	4	32–38	12–13	14	14	3
Quincy	..	..	30	8	10	10	3
Rockford	2.55	6	28	9	11	11	3
Springfield	2.00	4	33	11	12½	12–14	3.8
INDIANA—							
Elkhart	..	..	30	7½	11–12	11–12	4
Fort Wayne	2.15	5	36	11	13	11–13	3
Indianapolis	1.92–2.10	5.5–6	28–32	9–10½	12	10–12	3.6
South Bend	2.43*	4	32–35	9–10	12	11–12	3.8
IOWA—							
Cedar Rapids	..	..	40	10	12	12	3
Clinton	Butter Market Basis		30–32	9	11	11	3.6
Davenport	2.35*	5	28	7–9	10–11	8–11	3
Des Moines	2.55*	5	32	8–9	12	10–12	3.5
Fort Dodge	2.30*	5	36–38	9½	11	11	3.8
Iowa City	2.45*	7	30	9	12	11	
Ottumwa	2.25*	5	35	10	12	12	3
Sioux City	2.10	5	30	8	10	10	3
KANSAS—							
Kansas City	..	..	35	8	10	10	3
Topeka	2.00–2.10	4–5	30–35	8–9	10–11	9–11	3.8
Wichita	1.90*–2.15*	3	35	10	12	12	3
KENTUCKY—							
Lexington	2.00	5	35	10–12	14	10–14	4
Louisville	1.96–2.01	4–5	28	10	12	12	3.8
LOUISIANA—							
New Orleans	2.81*	4	35	12	14	14	4
MARYLAND—							
Baltimore	3.55*	5.8	44	14	14	15–16	3
Cumberland	3.25*	7 to 4%	35	11	13	13	4.0
MASSACHUSETTS—							
Boston	3.64*	B. M. Basis	39	11½	14	12	3
Easthampton	..	..	46	12	14	14	3
Fall River	..	..	..	12	14	13–14	3
Lawrence	3.72	Flat	44	12	14	12–14	
Lynn	3.95	Flat	..	11½	14	..	
Springfield	3.25	Flat	40	12	15	11–15	3

* Basic prices for fluid milk.

STANDARDIZATION PAYS!

That Victor Refrigeration products are the accepted standard is best evidenced by the universal demand for this equipment, on the part of recognized engineers, architects and contractors.

Victor Doors are made in all the standard sizes—specified by architects and engineers wherever refrigeration—either ice or mechanical—is used.

During the past score of years we have endeavored to—and have successfully standardized the sizes of each of our products. The Victor Standard equipment includes sizes and pieces that are special with most other manufacturers. This is possible because of our policy to have what you want—when you want it. You will find both economy and dependability in using Victor Refrigeration Products.

Of course, we make doors and other Refrigeration products to order from your specifications—or our own—but they are made of Victor Standard materials.

A postcard will bring you complete information as to the possibilities of Ice-Conservation in your plant, by the use of Victor Standard Refrigeration Products. Address all correspondence to Hagerstown office.

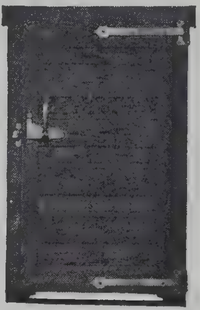
VICTOR COOLER DOOR CO., Inc.

Main Office and Plant: HAGERSTOWN, MD., U. S. A.

NEW YORK, N. Y. CHICAGO, ILL.

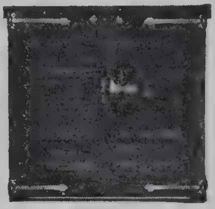
A FEW VICTOR STANDARD REFRIGERATION PRODUCTS

FIRE-PROOF DOOR

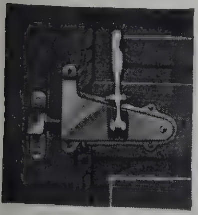


STANDARD DOOR

AUTO-CLOSE VESTIBULE DOOR



STANDARD DOUBLE DOOR



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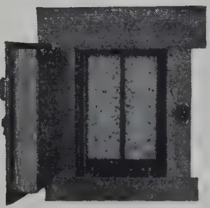


CAN PASSING DOOR

When writing to VICTOR COOLER DOOR COMPANY, INC., *please mention The Milk Dealer.*

Table III—June Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5–20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	
MICHIGAN—							
Battle Creek	2.80*	4	36–40	10	12	12	
Detroit	3.00*	5	..	..	14	13	
Grand Rapids	2.48*	4	26–30	8–9	9–12	9–12	
Kalamazoo	3.00*–3.20*	4 to 4%	38	11	13	13	
MINNESOTA—							
Duluth	Not determined		30	10	12	11–12	
Minneapolis	2.60*	5	32–34	8½–9½	11	10–11	3.
St. Paul	2.60*	5	34	9½	11	..	
Winona	3.10	Flat	35	9.58	11	11	
MISSOURI—							
Kansas City	2.15	3.5	40	10–11	13	10–13	
St. Louis	2.20	4	35	11	13	13	
MONTANA—							
Butte	2.60	10	30	11	13	13	3.
Lewistown	..	..	30	10	12½	12½	
NEBRASKA—							
Lincoln	1.75	5	24	7½	9	9	
Omaha	1.95–2.00	5	25–28	8	10	10	3.
NEW HAMPSHIRE—							
Concord	2.73	5	37½	11–12	11–14	11–14	3.
Portsmouth	..	..	42	10½	13	13	
NEW JERSEY—							
Atlantic City	..	..	48	..	15	..	
Camden	..	..	38	..	13	..	
Hoboken	3.95*	4	34	11	15	15	
Trenton	3.41*	4	38	12	13	14–15	3.
NEW MEXICO—							
Albuquerque	3.20	5.8	40	12–12½	15	15	
NEW YORK—							
Albany	3.02*	4	38	15	15–17	16–19	
Buffalo	2.90*	4	36–40	11½	13	11½–13	3.
New York	See Table II		..	..	15	15	
Rochester	2.83–2.85	4	40	11	12½	13	
Troy	..	..	40	11	13	13	
Utica	2.92*–2.97*	4	34	10	12	12	3.
NO. CAROLINA—							
Asheville	3.80*	4	48	14	17	17	
Greensboro	3.70*	6	50	14	17	20	
Winston-Salem	3.30	4	50	12½	16.15–17	17–18	4.
NO. DAKOTA—							
Jamestown	2.25	4	30	8	10	10	
Mandan	2.75	Flat	35	8	..	10	3.
OHIO—							
Akron	3.20*	5	38	10	12	12	
Cincinnati	Not determined		38	12½	14	12	
Cleveland	3.24*	5	40–44	11–12	13–15	12	
Columbus	2.43	5	38	11	12	11–13	3.
Toledo	2.45–2.50	3	36–40	10–10½	12	12	
OKLAHOMA—							
Oklahoma City	1.75	5	..	10	12½–16	10–14	3.
Tulsa	2.10–2.45	6–7	40	11	12½–20	10–15	
OREGON—							
Portland	2.00	5	30–35	9	12	10–11	
Salem	1.71–1.81	5	32	9½	12	12	
PENNSYLVANIA—							
Allentown	3.16*	4	36	11	13	13	
Altoona	3.16*	4	38–42	11	13	13	3.
Harrisburg	2.45	4	36	11	12	12	
Philadelphia	3.49*–3.52*	4	38–40	12	13	..	
Pittsburgh	3.45*	5	35–40	13½	14	..	3.
Scranton	2.85	4	38–40	12	12	12	3.
RHODE ISLAND—							
Newport	..	..	..	13	15	15	
Providence	3.64*	B. M. Basis	42	11½	14½	..	
SOUTH DAKOTA—							
Sioux Falls	2.50*	5	30	10	12	12	
TENNESSEE—							
Chattanooga	2.27*	6.5	45	12	18	16	
Nashville	Butter Market Basis		35	12	14	14	

* Basic prices for fluid milk.

The Dairymen's Slide Rule

A Little History Pertaining to the Invention of the Slide Rule

By B. I. MASUROVSKY. Consulting Dairy
Chemist and Technologist

The Dairymen's Slide Rule is a derivative of the engineer's side rule and the history of the latter will apply in so far as the logarithmic scales are concerned.

Modern computation owes largely to John Napier (1550-1617), Baron of Merchiston, Scotland, who invented a table of logarithms and gave it to the world in 1614. This invention was welcomed by England and the European countries on the continent. The invention of the engineer's slide rule is based upon logarithms and the first interpretation of logarithms to the slide rule was made by Edmund Gunter (1581-1626), Professor of Astronomy in Gresham College, London. In the year 1620 he designed the logarithmic "line of numbers" which is simply a straight line with the digits 1, 2, 3...10 arranged upon it from one extremity to the other and in such a way that the distance on the line from the end marked 1, to the figure 2, is to the distance from 1, to any other number as the logarithm of 2 is to the logarithm of that other number. In other words, distances along the line were not taken proportional to the numbers on it but to the logarithms of those numbers.

The first invention of the straight edge slide rule was made by Edmund Wingate and explained by him in several publications, the earliest of which appeared in 1630.

The slide rule was used much more in England, during the 18th century, than in Germany or France.

It is not generally known that Sir Isaac Newton ever referred to the slide rule or discovered how it could be used in the solution of numerical equations. For that reason the following translation of an extract from a letter of Oldenburg to Leibnitz, dated June 24, 1675, may be of interest:

> "Mr. Newton, with the help of logarithms, graduated upon scales by placing them parallel at equal distances, or with the help of concentric circles graduated in the same way, finds the roots of equations. Three rules suffice for cubics, four for biquadratics."

The "runner" is claimed to be the idea of Newton, as the first to have thought of such an attachment to the slide rule.

It was not until about 1850 that a French army officer in Metz, then only about nineteen years old, designed a straight slide rule with a "runner" and with a disposition of the logarithmic scales, such as experience has shown to be admirably suited to the ordinary everyday uses of a slide rule. This officer was Amedee Mannheim (1831-1906) and his slide rules are known everywhere as Mannheim rules. Not until 30 or 40 years after its invention did it come to be used in England and the United States.

Great activity has been shown during the last forty years in the direction of perfecting the mechanical execution of slide rules. In America celluloid rules were introduced and being sold by Keuffel and Esser as early as 1888. The Keuffel and Esser are still improving on the slide rule and stimulate the use of same in high schools as well as in colleges.

The Dairymen's Slide Rule has logarithmic scales adapted for figuring dairy problems. It also bears an interpretation of the American Standard Babcock Formula on a straight edge rule. This makes the Dairymen's Slide Rule a standard device for computations and its history is that of the Mannheim Slide Rule described above, except the additional dairy scales which will be described in a later article.

The Dairymen's Slide Rule is patented by B. I. Masurovsky, Consulting Dairy Chemist and Technologist. It is manufactured by the largest manufacturers of high grade slide rules, to be sure of uniform accuracy.

THE DAIRYMEN'S SLIDE RULE IS
DISTRIBUTED BY

THE OLSEN PUBLISHING CO.
501-515 CHERRY STREET MILWAUKEE, WIS.

AND WILL BE SHIPPED ANYWHERE
POSTPAID ON RECEIPT OF $5.50

ONCE A USER BECOMES FAMILIAR WITH MAKING THE CALCULATIONS BY THIS SLIDE RULE MUCH TIME IS SAVED AND THE HIGHEST DEGREE OF ACCURACY RESULTS.

Notice:—In a subsequent article a description of the Dairymen's Slide Rule will be given so far as its development and uses are concerned

Table III—June Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices: Wholesale Trade: Per Gal. in Lots of 5–20 Gal. in Bulk	Wholesale Trade: Per Qt. Bottled (Cases of 12)	Retail Trade: Per Qt. Bottled to Family Trade	Retail Trade: Store Prices per Qt. Bottled	Prevailing Butterfat
	$	Cts.	Cts.	Cts.	Cts.	Cts.	
TEXAS—							
Dallas	2.60	4	..	9	11	7–10	4
El Paso	2.85–3.00	5	35	11	14	13–14	3
Houston	2.80	8	..	..	15	..	
VIRGINIA—							
Newport News	4.01*	6	50	15	17	18	3
Richmond	3.93*–4.05*	5	44	13	14	..	3.8
WASHINGTON—							
Everett	..	..	30	8	10	10	3
Seattle	2.49	7.1	32	9½	12	11–12	4
Spokane	2.15*	5	30	8	10	10	4
Tacoma	2.20*	5	32	8	10	9–10	3
WEST VIRGINIA—							
Clarksburg	2.55*	5	35	13	14	15	3.8
Wheeling	3.26*	5	40	12	14	14	3
WISCONSIN—							
Beloit	2.40*	5	30	8	10	10	3
Kenosha	3.00	4	40	11	12	12–13	
Madison	Butter Market Basis		32	8	9	9	
Milwaukee	2.85*–2.90*	4	30	9–10	11	10–11	3.
Oshkosh	Butter & Cheese M'kt Basis		..	9	10	10	4
Racine	2.50	4	38	10	11	11	
Superior	2.57–2.59	5	32	10	12	12	3.
Wausau	1.90	3	..	8½	10	10	

* Basic prices for fluid milk.

Table IV—June Cost Prices of "Standard Grade Milk" 3.5% B. F. for Cities Where Part of the Supply Purchased Through Country Stations.

Cities	Prices Paid Producers per cwt. raw Milk (Flat prices of 3.5% B.F. basis): F. O. B. City	At Country Stations	Freight Zones to Which Country Statio Prices Apply
New Haven, Conn	$4.22*	$3.70*	28c rate.
Washington, D. C.	3.37*	2.79*	35c 10-gal. can.
Chicago, Ill.	2.93½	2.40	All.
Baltimore, Md.	3.55*	2.97*	35c rate.
Boston, Mass.	3.64*	2.88*	181-200 mile zone.
St. Louis, Mo.	2.20	1.70	34c rate.
Trenton, N. J.	3.41*	2.85*	41-50 mile zone.
Buffalo, N. Y.	2.90*	2.62*	28c rate.
New York, N. Y.	Unavailable	2.95*–3.00*	201-210 mile zone (53c rate).
Cleveland, O.	3.24*	2.86*–2.93*	All.
Philadelphia, Pa.	3.49*–3.52*	2.91*–2.95*	51-60 mile zone.
Pittsburgh, Pa.	3.45*	2.70*	All.
Scranton, Pa.	2.85	2.55	30c rate.
Dallas, Tex.	2.60	1.90–2.10	All.

* Basic prices for fluid milk.

NOTE: At all places in the above tables where prices are not shown, the information was either not reported o available.

NEW MILK PLANT FOR FOSTORIA, O.

Work on the erection of the new milk plant, which the Ohio Co-operative Milk Association is erecting at Fostoria, O., is progressing rapidly. The plant will be in operation the latter part of this summer. C. E. Young, local representative of the association, will have active charge of the plant.

Milk will be received and cooled at the local plant and then will be transported in glass tank trucks to Cleveland. No milk will be distributed locally at the start but may be a development of the future, according to Mr. Young.

HIGHEST PRICE PAID FOR MILK IN MA SINCE 1920.

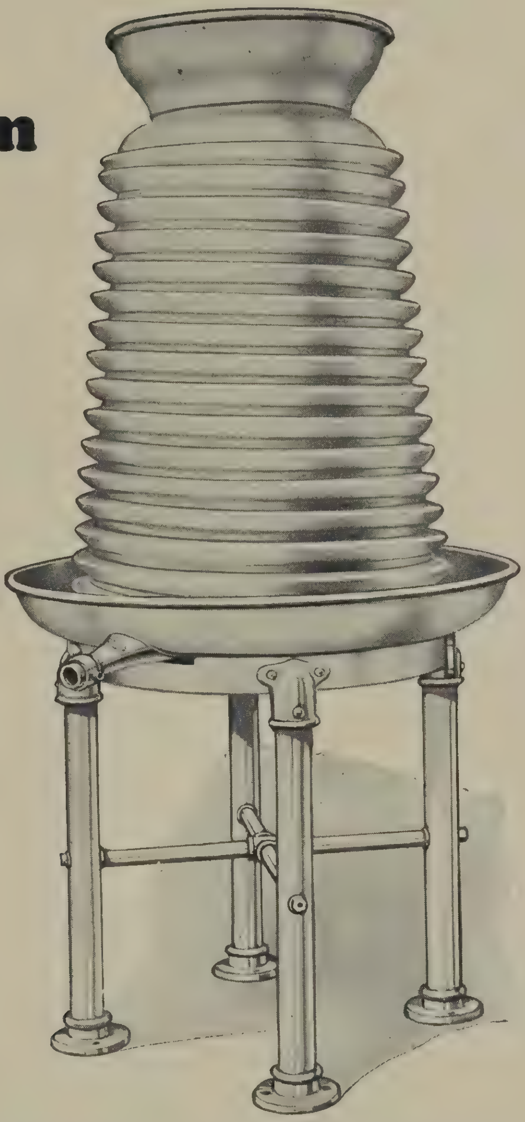
The average Wisconsin farm milk price fo 1927, was $1.98 per hundredweight. This is the price paid for milk in the month of May, since 19 cording to the Wisconsin Crop and Livestock Re Service.

The May price this year was 18c above the May price and 15c above May, 1925. It was 34c per hu weight above the May average price of the last six These figures indicate that milk prices which ha relatively stable during the past winter are still h

THE
H·H·MILLER INDUSTRIES CO.
CANTON, OHIO.

Chilly King Milk and Cream Coolers

Unexcelled for the cooling of Fluid Milk, Heavy Cream and Pasteurized or Homogenized Ice Cream Mix.



Made in sizes 1,000 to 10,000 lbs. per hour.

Also manufacturers of MILLER BRINE ICE CREAM FREEZERS, MILLER PASTEURIZERS, AUTOMATIC MILK HOLDING MACHINES, VATS, TANKS, M&M BOTTLE WASHERS, ETC.

Please Ask for Bulletin and Prices

When writing to THE H. H. MILLER INDUSTRIES CO. *please mention The Milk Dealer.*

PACIFIC DAIRY SHOW WILL NEED MORE ROOM.

The Seventh Annual Pacific Slope Dairy Show promises to strain the capacity of the Oakland Municipal Auditorium itself and all the adjacent space for livestock show circus tents. This situation developed at the June meeting of the executive committee, called by Acting President W. E. Haley of San Francisco.

President Haley was given reports of the various superintendents. Superintendent of Livestock Arthur Folger of Davis stated that it promised to be the largest showing of dairy cattle on the Pacific Slope. This opinion was based on a visit to the Northwest by Professor William Regan of the dairy cattle committee, and also a canvass of breeders in California by Secretary-Manager Robert E. Jones. Mr. Regan judged at the Spring shows in Oregon and reported much interest among the breeders there in the Oakland show. Mr. Regan has now gone East to select the judges of dairy cattle for the Pacific Slope Dairy Show.

Plans are being made by Ferdinand R. Bain of Los Angeles to exhibit his Jerseys at Oakland. When interviewed recently by Manager Jones he had just returned from the Isle of Jersey where he purchased twenty animals to augment his already famous herd. One of the bulls purchased was a gold medal winner at the Spring show on the Island of Jersey.

Applications for exhibit space within the main auditorium are coming in more rapidly than ever before, according to Superintendent J. J. O'Neil. Kings county, through W. L. Landsborough, secretary of the chamber of commerce, and Yolo county, through W. F. Mixon, secretary of the board of trade, have already made space reservations. The following other organizations have already signed contracts for space: Dominion Chemical Company, Pfaudler Sales Company, Jensen Creamery Machinery Company, Chr. Hansen's Laboratory, Inc., Creamery Package Manufacturing Co., Wells & Richardson Co., Inc., Corbett & Langenheim, Inc., Nizer Corporation, Pacific Coast Glass Co., E. M. O'Donnell Copper Works, and Menasha Printing and Carton Company, also George W. Prising and O. J. Weber Companies, Inc.

Secretary Jay Kugler of the California and Southwestern States Ice Cream Manufacturers' Association has returned from a six-weeks' trip throughout the East, during which he "sold" the Oakland show to Eastern equipment and machinery manufacturers. Mr. Kugler states that the East is more and more turning to the ditional market and that all Wisconsin dairymen will be the gainers on account of these extra markets. West with the expectation of a gigantic growth dairy industry.

This is the fifth year of the Pacific Slope Dairy in Oakland. While it has grown steadily each yea outlook this year, following the meeting of the exe committee, promises an increase of 100 per cent ov year. Those who attended the meeting were: Haley, J. N. Gilman, F. X. McGuire, T. E. Day a A. Green of San Francisco, and S. H. Green, J. J. and Roberts E. Jones of Oakland, California.

⚜

WISCONSIN DEPARTMENT TO ENCOURAGE DISTANCE MILK SHIPMENTS.

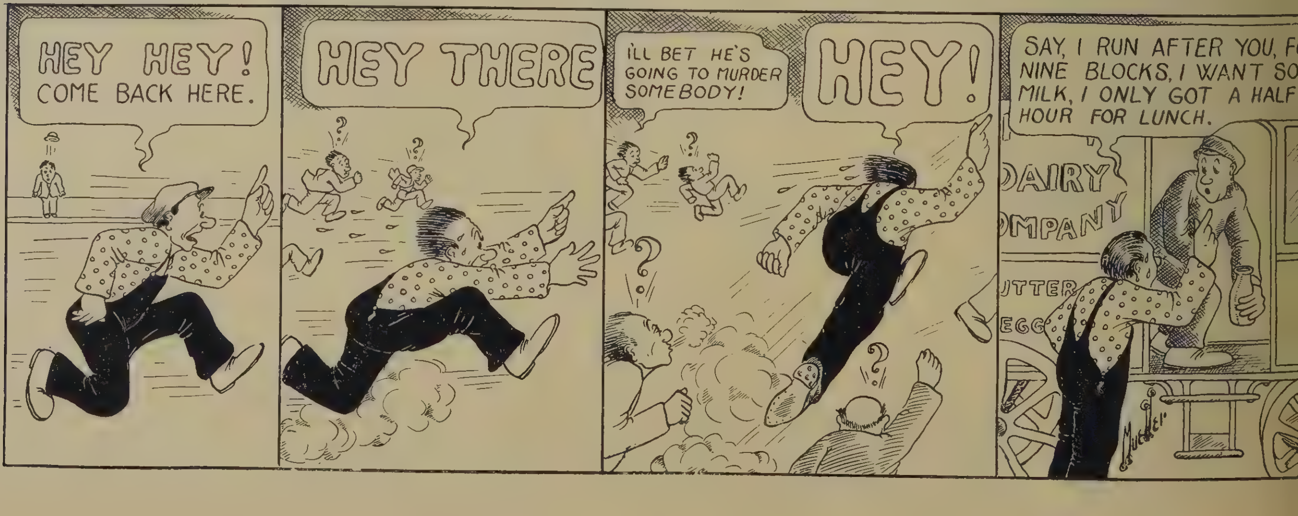
The department of markets is about to engag milk grading venture that promises to supply Wis farmers with a market for millions of dollars wo milk each year, which they do not now possess, a ing to Edward Nordman, commissioner of marke

It is a well known fact that Eastern cities, whic a large proportion of the country's population, a ing a hard time of it to keep their people supplie an adequate supply of good grade milk, but they nevertheless exercise due precautions in regard supply lest it harbors disease germs that will caus ness and death among those who use it, esp children.

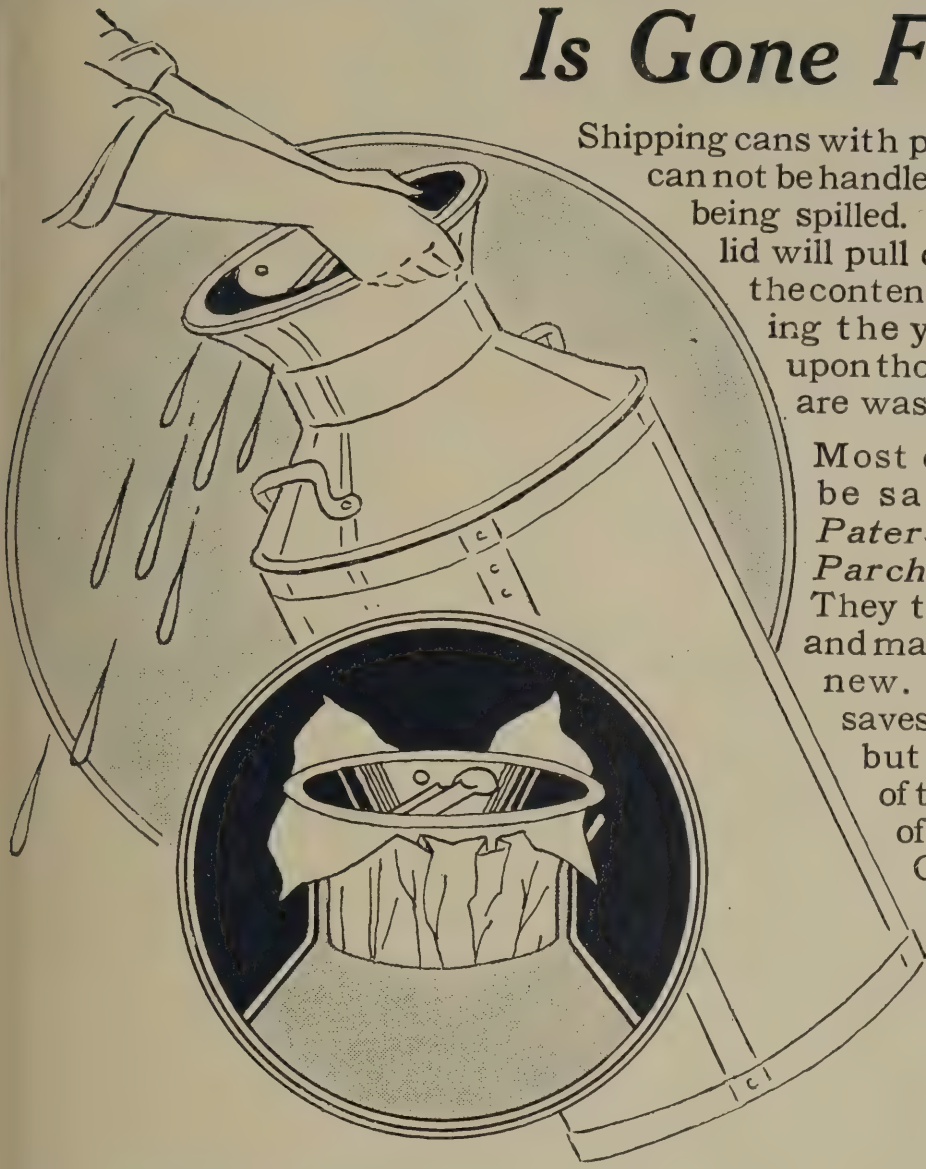
Modern methods have made it possible to shi long distances without deterioration but Eastern have been loath to let Western milk into their m because of the inconvenience and expense of est ing an adequate inspection system at such long dis Recently, however, the department set in moti machinery for establishing a milk grading system same plan as a number of other farm produc graded. The plan was submitted to the official large Eastern city containing a population of a or more and the department of markets was in by them that milk produced under such grading lations and coming up to the proper standards wo admitted into its markets. This means an out great quantities of milk in this one city alone, b only a forerunner of the other markets that will veloped in other Eastern cities. Of course, as ha frequently pointed out, this does not mean that t ducers of fluid milk will get substantially higher for their milk than is received by the producers used for manufacturing purposes, extra labor an expense considered. What it does mean is that a produced in this territory will be benefited by t ditional market and that all Wisconsin dairym be the gainers on account of these extra market

THE MILK MAN

By E. S. Mueller


HEY HEY! COME BACK HERE.
HEY THERE
I'LL BET HE'S GOING TO MURDER SOMEBODY!
HEY!
SAY, I RUN AFTER YOU, F
NINE BLOCKS, I WANT SO
MILK, I ONLY GOT A HALF
HOUR FOR LUNCH.
DAIRY
OMPANY
UTTER
EGG
Mueller

Cream Lost Here— Is Gone Forever



Shipping cans with poorly fitting lids can not be handled without cream being spilled. Frequently a lid will pull out and most of the contents are lost. During the year thousands upon thousands of dollars are wasted.

Most of this loss can be saved by using *Paterson Vegetable Parchment Gaskets.* They take up the slack and make all lids fit like new. This not only saves milk and cream but prolongs the life of the can. The cost of the Parchment Gasket is nothing compared to what it saves. That's why millions are used every year.

Special Offer

Send us One Dollar in coin, stamps, check or Money Order and we will send you, Postage paid, 250 Parchment Milk Can Gaskets made from heavy fifty pound stock cut to standard size 11″ x 11″. If you are not satisfied that their constant use will save you money, the amount you paid us will be cheerfully refunded.

The Paterson Parchment Paper Co.

Chicago San Francisco
Passaic :-: New Jersey

You can save money, too!

You may handle only a few cans a day, or week, or you may handle hundreds. But in either case Parchment Gaskets will save many times their cost. Fill out the coupon below and send for the free samples and instructions how to use them.

THE PATERSON PARCHMENT PAPER CO.
35 Eighth Street, Passaic, N. J.

Gentlemen:

Please send us free samples of Paterson Vegetable Parchment Milk Can Gaskets and leaflet called "Making Milk Shipments Pay".

We handle about.................... cans of milk / cream a day.

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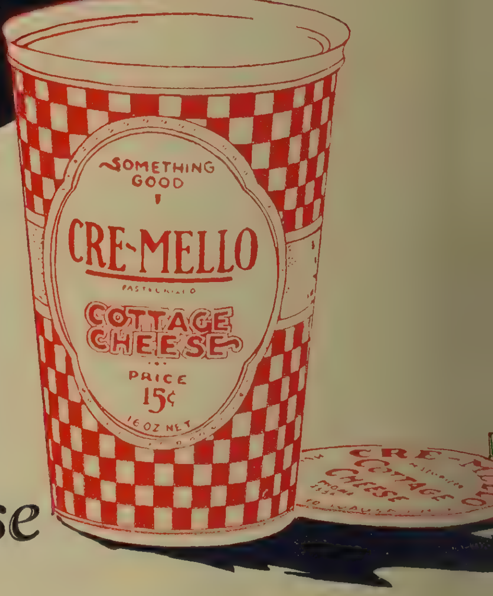
When writing to THE PATERSON PARCHMENT PAPER CO. *please mention The Milk Dealer.*

TULIP
NESTRITE
CONTAINERS


SOMETHING GOOD
CRE-MELLO
PASTEURIZED
COTTAGE CHEESE
PRICE 15¢
16 OZ NET

The perfect container for packaging cottage cheese

A Few of the Reasons why You Should use Tulip "NESTRITES":

- Most practical method of packaging.
- Low cost.
- More sanitary.
- Bright attractive finish.
- Permits of individuality and originality in package.
- Keeps contents in perfect condition.
- Any style or type of printing in any combination of colors.
- Patented wire pull lid.
- Pleasing shape.
- Made in all sizes from 2 oz. to 32 oz.

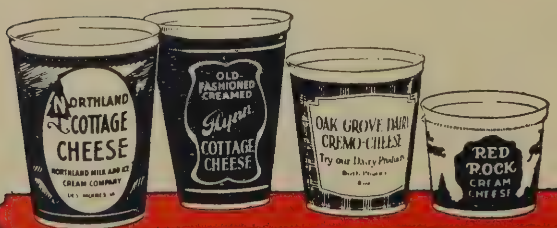
MODERNIZE the packaging of your cottag
cheese, by using Tulip "Nestrite" Container
It is the proven, practical method of pac
aging and its cost is slight.

A "Nestrite" packaged cottage cheese gains immedia
consumer acceptance because it is sanitary, clean, a
tractive in shape, bright in finish, and permits th
manufacturer to give originality and individuality
his package. Any style or type of printing can be fu
nished and in any combination of colors.

The bright gloss finish, an exclusive feature of "Nestrite" co
tainers, not only makes a more attractive and pleasing packag
but it likewise keeps the contents in perfect condition.

Tulip "Nestrite" Container lids are press fit, and have our e
clusive and patented wire pull feature, making them the mo
convenient, easy, simple and positive yet devised.

Tulip "Nestrite" Containers are made in all sizes from 2 oz. to the 32 oz. Let us quote you on your container requirements. Write for samples and prices. No obligation involved.


NORTHLAND COTTAGE CHEESE
NORTHLAND MILK AND ICE CREAM COMPANY
OLD-FASHIONED CREAMED
Flynn
COTTAGE CHEESE
OAK GROVE DAIRY
CREMO-CHEESE
Try our Dairy Products
RED ROCK
CREAM CHEESE

Tulip Cup Corporatio

College Point , , New York C

When writing to TULIP CUP CORPORATION *please mention The Milk Dealer.*

ILK PUBLICITY IN THE HOME TOWN.

(Continued from page 23)

her had laid the foundation for this business 1847. The farm on which the present H. W. lives was called "Castanea" after the Latin r chestnut, as there were many trees of the Numbo variety on the farm. The firm was first at Perry and Montgomery Sts., but moved to oad St. across the street from the present plant. berts, who is now deceased, was one of the of the company, and it was largely through his aat the company grew so rapidly. In 1910 the manager and treasurer, B. M. Woodward, joined , consolidating his own business with the Casairy Company. In 1912, H. R. Hurley, owner reameries, joined the company and is the present ident. He is in charge of the milk supply. r. Roberts died in 1923, A. M. Woodward was made secretary and assistant treasurer.

The Laboratory.

The growth of the company has been rapid. During the period 1919-1926 additions were made to the plant each year under the direction of Wm. A. Klemann, architect, and they are still going on. The company still employs horses as the best of distributing their supplies as it allows the o keep going. The horses are intelligent and op while the driver is serving.

he date of the company's incorporation in 1905, iveries covered the entire city while there are routes. Seven were then employed, now over employed by this company. The company has n garage, blacksmith shop, paint shop and carhop. There is a fine spirit of friendship and con between the employees and the company. The y insures all the employees in a group insurance They have a special savings fund which was about to encourage saving. There is also a relief ion which is doing a splendid work among their

y of the state and city institutions and hospitals ed by Castanea. Also the schools of Trenton the individual half-pint milk service, which has so great a part in the health program of the

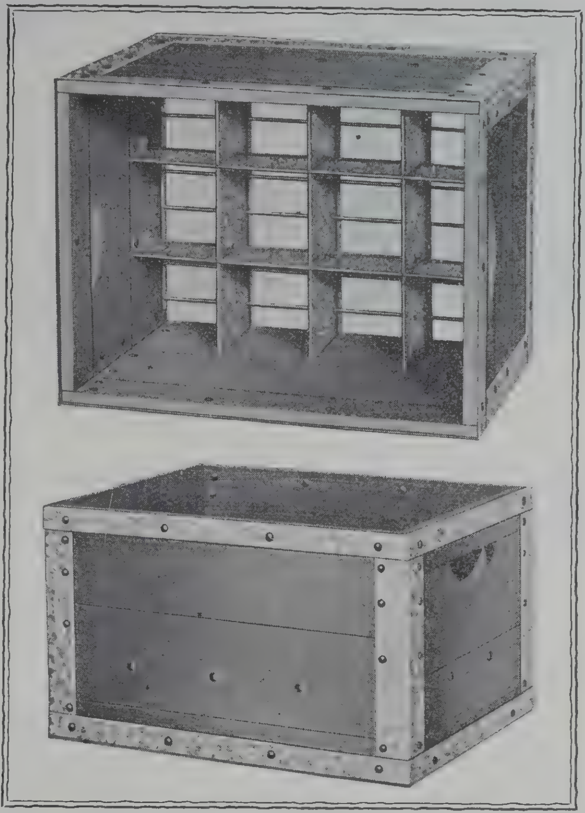
me morning early you are troubled with insom- when trying to go to sleep you hear the tramp announcing that the Castanea wagon is coming e street, why not change from sheep and count 0 to 7,000 cows that graze over the meadows of sey and Bucks county to keep the customers of anea Dairy Company supplied with "the essen- ."

⚜

MALTED MILK MANUFACTURING CO.

Lehighton Bottling Company, Lehighton, Pa., lled new equipment and will begin the manufacmalted milk. At the present time the nearest ture of that product is in Philadelphia.

Dunlap, the manager, states that he has orders resent time for five carloads of chocolate malted



DEFIANCE
SEMI-STEEL
MILK BOTTLE CASES

IF COST were no object, you could not build a stronger or longer lasting case than the Defiance. From top to bottom, and end to end it is built like a steel structure, re-inforced with strong galvanized steel bands, securely riveted into place. The partitions are virtually indestructible. Defiance cases will outlast two ordinary cases, and they cost no more. Write for quantity prices and specifications.

Thompson-Bremer & Co.
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The Old Way—*Dragging*

The *Nutting* Way—*Rolling*

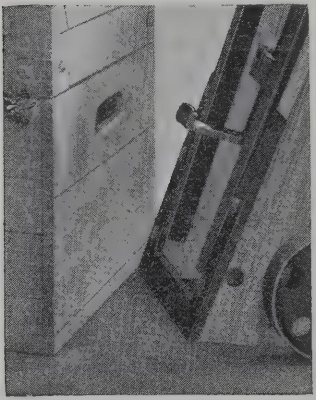
Quick Handling—the Key to Greater Profits

By far the quickest, easiest way to move milk cases short distances about the plant **is with the Nutting Milk Case Truck.**

It's the key to greater profits. While a man drags one stack of cases across the floor he can roll two or three stacks with this milk case truck. It does away with delays at the bottle washer; ends "traffic jams" at the inclined runways. Saves wear on case bottoms. No other truck is like the patented

Nutting Milk Case Truck

You simply grab and go! No nose to pry under a stack. An adjustable hook slips into the hand-hole of the bottom case. The rack supports and balances the load. Easily moves 6 to 8 cases of quart bottles.



Fits any milk case made. Thousands in use. Ask your jobber or write us for catalog C showing this and other floor trucks for the dairy industry.

Nutting Truck Company
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FARIBAULT, MINN.

Nutting Floor Truck Specialists Since 1891

MUNICIPAL STERILIZATION REQUIREMENT DAIRY EQUIPMENT.

Previous letters in this series have given res studies made of 250 municipal milk ordinances were reported as being in effect in 1925. The da tained in this letter were likewise derived from same regulations.

The table below gives the sterilization require of the 250 cities grouped according to popu A study of the table shows that the most common prescribed by ordinance is sterilization by either water or steam. This holds true for both dairy and milk plants. A majority of the cities re "moist heat plus chemicals" are under a state reg which prescribes this method for sterilization. The icals used must be approved by the health officer.

Those cities which have no requirements sta their respective ordinances are mainly cities o population.

The differences in requirements for steriliza the country and in the city plants are very sl most cases, although some ordinances make no r of country requirements, whereas city requireme prescribed.

Sterilization Requirements of 250 Cities for Dairy Equ

Requirements	500,001 and over	100,001 to 500,000	75,001 to 100,000	50,001 to 75,000	25,001 to 50,000	10,001 to 25,000
At Farms:						
Boiling water..	0	0	1	1	0	3
Steam	0	6	1	4	4	3
Boiling water or steam	7	13	7	8	18	31
Moist heat plus chemicals	1	2	3	1	5	15
Sterilization ...	2	1	0	0	1	3
Approved by health officer..	0	4	1	0	3	4
No requirements stated	0	7	1	4	18	21
At City Plants:						
Boiling water..	0	0	0	0	0	2
Steam	0	6	2	3	4	5
Boiling water or steam	6	13	6	7	18	32
Moist heat plus chemicals	1	2	2	1	5	10
Sterilization ...	2	1	0	0	1	2
Approved by health officer..	1	4	1	3	6	5
No requirements stated	0	7	2	4	11	23

—Milk Inspection Letter by U. S. Bu Dairy Industry.

⁂

ANNUAL MEETING OF ASSOCIATION TO BE IN WISCONSIN.

The next annual meeting of the National Co tive Milk Producers' Federation will be held waukee, Wis., on November 15 and 16.

This will be the first annual meeting which t eration has ever held in Wisconsin. The invitati sponsored by the Milwaukee Co-operative Milk ers' and the Wisconsin Cheese Producers' Federa

The president of the federation is John D. M Susquehanna, Pa. On the board of directors ar Swoboda, G. H. Benkendorf and C. F. Dineen.

Tycos

WITH THE BENEFIT OF PUBLIC APPROVAL

Just a Few Plain Facts

NO enterprise—or the product of its effort—can long survive without the benefit of public approval.

The instruments known by the identifying name of *Tycos* Instruments. for indicating, recording, and controlling temperature in all its varied applications, industrial and domestic—have been manufactured by the *Taylor Instrument Companies* for seventy-five years.

The consistently increasing demand for these instruments, now numbering more than 8,000 distinct units for industrial and home use, is proof positive that they have the fullest endorsement of public approval.

To indicate and control record temperature honestly, faithfully, and with scientific accuracy is the chief function of all *Taylor* Instruments, from the humblest home thermometer to the most delicately calibrated industrial calorimeter.

The same policy of honesty is translated into our relations with our customers, in a sincere endeavor to serve you faithfully and well.

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Tycos

Taylor Instrument Companies

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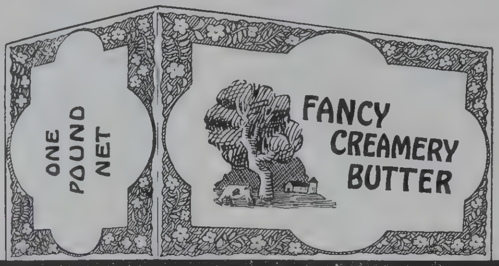
MANUFACTURING DISTRIBUTORS IN GREAT
BRITAIN, SHORT & MASON, LTD., LONDON

Tycos

When writing to TAYLOR INSTRUMENT COMPANIES *please mention The Milk Dealer.*



BUTTER
CARTONS
by

THE Richardson-Taylor Printing Company announces complete service to Butter Carton users.

¶ Twenty-nine years of experience; an efficiently designed fireproof factory in a favorable location; the most modern paraffining equipment obtainable, with a capacity of 2,000,000 cartons daily; an entire department devoted to designing and planning your cartons. All these combine to give you the best made, most attractive, sanitary carton at the lowest possible figure.

¶ *Our stock designs are unusually distinctive and attractive.*

¶ Write for samples and prices.

2,000,000 cartons Daily

The Richardson-Taylor Printing Co.
STATION "B"
Cincinnati - - - Ohio
"Taylor Made" Cartons since 1898

A FOREIGN TRADE QUIZ.

The department of foreign commerce of the C of Commerce of the United States issues ever months "Our World Trade," a cumulative ana the export and import trade of the United States. it are based the following questions. How ma you answer?

1. What is the total value of the foreign t the United States?
2. Do we export as much as we import?
3. What is our chief export?
4. What is our chief manufactured export?
5. What continent takes nearly half of our e
6. What foreign country is our chief custom
7. What is our principal import?
8. What continent is our chief source of
9. What country is our chief foreign suppl
10. In what season of the year are our heaviest?
11. In what season of the year are our heaviest?
12. What per cent of our imports are free o
13. Is the volume of our foreign trade large than before the war?
14. What commodity represents our greatest tonnage?
15. What imported commodity far exceeds al in tonnage?
16. How do our exports of finished manu compare with our exports of foodstuffs?
17. How do our imports of raw materials with our exports of finished manufactures?

Here are the Answers.

1. The total value of the foreign trade of the States (exports plus imports) in 1926 was $9,239,
2. Since 1893 U. S. exports of merchandise h ceeded imports.
3. Unmanufactured cotton; value in 1926, $8 000, or 17 per cent of our exports.
4. Automobiles, parts and accessories; value $320,166,000.
5. Europe, which took 48 per cent of our in 1926.
6. Great Britain; in 1926 Great Britain to fifth of our exports, valued at $972,385,000.
7. Crude rubber, with an import value in $505,818,000.
8. Imports from Asia in recent years ha larger than those from any other continent, with second.
9. Canada, supplying 11 per cent of U. S. in 1926, value $475,886,000.
10. U. S. exports are heaviest during the f early winter months.
11. U. S imports are heaviest during the win early spring.
12. In 1926 almost two-thirds (64.4 per cent) imports were free of duty.
13. Yes. The volume of exports is about 46 greater and imports about 78 per cent larger 1913.
14. Coal and coke, our exports in 1926 amou 35,972,000 long tons.
15. Crude petroleum, of which we importe than two and one-half billion gallons in 1926.
16. In 1926 our exports of finished manu were 42 per cent of the total exports, while ex crude foodstuffs were only 7 per cent of the tota
17. Imports of raw materials represented 41 of our total imports in 1926; finished manufactu nearly 20 per cent of the total.

SANS, Meaning *Without!*

Without

Extra Advertising
Extra Salesmen
Extra Manufacturing Expense
Extra Packaging Expense
Or Better Milk

You can secure a 50 per cent increase in your cottage cheese sales. Learn our method of making *flaky, creamy, low-in-acid* cottage cheese.

The largest and best dairy companies report a 50 per cent increase after learning our method.

Without obligation to you, we will be glad to send full details.

Write us about it TODAY!

Flake Cream Cottage Cheese Co.

100 SO. CLINTON ST. CHICAGO, ILLS.

se Globe Milk Tickets

for easier, safer collections

Specialists for half a century

Milk tickets are a convenience to customers and a safeguard to drivers. They simplify every accounting operation. They represent cash in advance, eliminating bad debt losses.

Globe Milk Tickets will satisfy you on every count, starting with the all-important matter of *accurate serial numbering.* Let us send you samples of our standard and special designs—with prices.

Globe
TICKET COMPANY
112 North Twelfth Street
PHILADELPHIA

NEW YORK BOSTON BALTIMORE CLEVELAND LOS ANGELES

Building Confidence by Increasing Efficien

How Far Should We Go With Our Milk Regulations? Unnecessary Equipment and Labor in Producing and Distributing Milk Means Unnecessary Tax on Consumer

By W. W. SCOFIELD*

IN FRAMING regulations covering milk control by a state department as a code which will be effective throughout the state certain underlying principles should be considered. The regulations should cover essential and necessary points but should not include requirements which may be desirable but which are not absolutely necessary for the production of clean and wholesome milk. If dairymen or distributors are required to spend time or money for unnecessary equipment or for unnecessary labor, the consumer must bear the cost directly by increased price of milk. If milk control officials attempt to enforce a complicated system of milk supervision which necessitates the employment of a large force, the consumer must bear this force indirectly by increased taxation. The regulations should be drawn, therefore, with a view of obtaining maximum results with the expenditure of a minimum sum by the producer, the distributor and the milk control official. The provisions of the code should be limited to requirements which the average local board of health can enforce and should not include methods of control which are highly scientific in nature. As far as possible the codes of neighboring states should be in harmony.

The revision of the sanitary code of New York state forms a basis for discussion. This code recognizes three classes of milk: Certified, raw milk from tuberculin tested cows, and pasteurized milk.

The regulations covering the production of certified milk as adopted by the American Association of Medical Milk Commissions have been used as the standard in the proposed New York State code. In order to arrive at uniformity in the different states it seems wise to follow the standards of the national association but, in New Jersey, we did make certain additions to these standards and the standards were adopted in detail by the state department of health rather than to bind ourselves to any changes which might be adopted by the American Association of Medical Milk Commissions and which might not be proper. This procedure does not alter the work of the medical milk commissions but does give a legal foundation to this class of milk and also gives the state and local boards of health supervision over the production and distribution of this milk.

According to the New York State code, raw milk may be sold from cows which have not been tuberculin tested providing an application for a tuberculin test has been made to the state department of agriculture. Consequently, in reality, but one grade of milk other than certified is established. All persons engaged in handling milk are required to submit, previous to employment, such specimens as the health officer shall prescribe and these specimens are to be examined in a laboratory approved for this work by the state commissioner of health. The importance of eliminating persons from handling raw milk who give off germs of communicable disease cannot be over-estimated. However, most states have not provided adequate laboratories for the conduct of this work and competent bacteriologists must be employed if this work is to be of value. A suggestion has recently been made to our state department of health that persons who give a history
ing had typhoid fever should not be employed to
raw milk until three specimens of feces and urin
at intervals of one week have been examined and
to be negative by a competent bacteriologist. I
that such a procedure would reduce the volume
oratory work greatly and the work would be c
to those cases which are worthy of careful exami
Of course the histories may be very inaccurate a
persons will not tell the truth about such matte
furthermore, certain cases may have been unrec
and, consequently, persons would not know th
had ever had typhoid fever. In spite of the sh
ings of such a system, it seems worthy of a fair tr

In the New York State code pasteurized
divided into two grades, A and B. These grade
in that Grade A milk is to have a colony count
more than 100,000 per c.c. if pasteurized at p
production and 200,000 per c.c. if shipped by ra
pasteurizing plant and not more than 30,000 per
the time of delivery to the consumer. The em
in plants handling Grade A milk are to submit spe
for laboratory examination before employment.
case of Grade B the count is fixed at 300,000 pe
pasteurized at place of production and 1,000,000
if shipped by rail to a pasteurizing plant and at
delivery to the consumer not more than 50,000
A time limit of 36 hours is fixed for delivery of G
after pasteurization and 48 hours for Grade B aft
teurization. Different colored printing is requi
the bottle caps of the two grades.

Such a system which is based upon bacteria
counts before and after pasteurization cannot
forced by the average local health department a
tainly cannot be enforced by a state health depa
because of the enormous amount of work and c
volved. For example, a large amount of milk r
in New Jersey is pasteurized in New York and P
vania. To enforce such a requirement it would be
sary for the state of New Jersey to send men ove
two neighboring states and then there would be
ally insurmountable obstacles in finding laborator
ities for the plating of the bacterial samples.
state there are great dairy sections which hav
lutely no official laboratory facilities and it is
to make plate counts at a distant point. Where
system is attempted, the consumer can seldom n
difference between the two grades and the incr
sales can usually be attributed to the recomme
of the health officer or sales promotion by the d
tor, coupled with the desire on the part of ma
sumers to buy only the most expensive article w
represented to them as the best. The establishn
such a system implies that separate pasteurizing
and equipment are to be required and maintai
each grade of milk. Such a requirement works
mendous disadvantage to the small distributor
overhead charges are doubled. Investigation
shown that much milk received at Grade A p
paid for on the basis of Grade B prices because
tory counts show the milk to have too high a b
count. However, by the time these determinatio
been made the milk has been sold and consu

---

* Chief, Bureau of Foods and Drugs, New Jersey State Department of Health. Paper read at meeting of Central Atlantic States Dairy, Food and Drug Officials' Association, Rochester, N. Y., June 9, 1927.

"Moldiness in butter is absolutely preventable, and can be done with comparative ease by any operator who is willing to apply diligent effort."

H. MACY, *Asst. Professor, Dairy Bacteriology,*
University of Minnesota.

Moreover, Professor Macy in sixteen rules for prevention of moldiness in butter reiterates again nd again the need of sanitary cleanliness throughout the entire process of butter making.

Wyandotte
Dairyman's
Cleaner and Cleanser

as proved itself over a period of twenty-five years and is proving today the complete answer to the uttermaker's demand for an efficient, dependable, and economical cleaner.

As a valuable ally in the prevention of moldiness in butter, this cleaner can make profits for you as it has for thousands of others.

Ask your supply man for "WYANDOTTE"

Are you using Wyandotte C. A. S.
[cream acidity standardizer]
for standardizing the acidity of
your cream?

The J. B. Ford Company *Sole Manufacturers* Wyandotte, Mich.

AMERICO" THE PASTEURIZER WITH A PURPOSE

The "AMERICO" embodies the most advanced principles in design and construction.

It has no stuffing boxes to gather bacteria and contaminate the batch.

The agitation is gentle. This prevents foaming, churning and breaking of fat globules.

Heating is done with water below 160° F. There is no burning on the coils nor scorching of the product.

The flush type outlet valve is standard on all vats.

Thorough cleaning of all parts is accomplished with ease as the coils can be raised out of the vat.

What an "AMERICO" User Says:
"We consider that 'AMERICO' is nearer perfection than any pasteurizer we have ever used."

e new "AMERICO" with improved coil control

ERICAN COPPER & BRASS WORKS
Manufacturers of Dairy Equipment

610-616 E. FRONT STREET
CINCINNATI, OHIO

Grade A milk. It also happens that at Grade B plants much milk is received of Grade A quality as improved methods are used by dairymen.

From the standpoint of public health it is vastly more important that all milk sold for human consumption be free from pathogenic bacteria insofar as this is possible, and that all milk sold as pasteurized has in reality been properly pasteurized, than it is to attempt supervision of a system calling for a distinction between two grades of pasteurized milk, either one of which should be wholesome.

In this connection I desire to emphasize the importance of the checking of the details of pasteurization by a trained employee of the state. While some local boards of health may have competent men for this type of work, the average local board of health is unable to employ a specialist and this work should be under the direct supervision of the state, in my opinion. Certain details of this work are worthy of notice. Checking the accuracy of thermometers and the holding period of milk passing through an equipment of the continuous-flow type is most important. The question of the cleansing of bottles and equipment should receive careful attention at frequent intervals by the inspector in order that regular habits which are correct in detail may be followed as a matter of routine by the operator of the plant. The elimination of dead ends or faulty valves in pasteurizing equipment should be insisted upon to prevent improperly pasteurized milk from being offered for sale.

Regulation 19 of the New York State code provides that all bottling plants should be provided with and use mechanical bottle fillers and cappers for the filling and capping of milk bottles. This is an excellent requirement which should be generally adopted.

The provision of the New York State code requiring the submission of specimens from employees of Grade A pasteurizing plants for the purpose of detecting "carriers" is most commendable but there seems no justification in not requiring the same safe-guard in the case of employees of the Grade B pasteurizing plants as both grades of milk should be safe for human consumption. Again, the limited laboratory facilities and even more limited number of bacteriologists to perform this work is a serious obstacle. As in the case of raw milk, it may be possible to accomplish something along this line by securing the histories of workers in all pasteurizing plants as to whether or not they have ever had typhoid fever and to limit the examination of specimens to those who give positive histories.

It is also important to encourage the exchange of information between officials in neighboring territories in order to reduce the amount of travel and ex necessary for each official to secure the informati dependently. In New Jersey, we request and appr information from officials having jurisdiction ove production of foods shipped to our state from states and stand ready to reciprocate by supplyi formation to our neighboring officials in matters are of interest to them. Recently, we have been m a study of the condition of sweet cream as it a in New Jersey from Mid-western states. In ord have more specific information we requested an ceived reports from the officials of those states rega conditions at the points of shipment. These reports been of great value to us. Such information of tions at the source coupled with an examination product at the time of delivery seems to be ampl to result in the distribution of wholesome food reasonable price and without working a hardship the shipper, the distributor or the food official. adoption and use of such a system will do much crease the confidence between officials and wil strengthen the control which each of us hopes to tain over the industries within his jurisdiction.

* * *

DAIRY MOVES INTO NEW HOME.

S. H. Keith & Sons Dairy is making ready for mal opening to be held in the near future to cele the opening of their new plant. They are now lo at 710 and 712 Fifteenth St., Altoona, Pa.

Nearly all new equipment has been installed a new location, including two 350-gallon pasteurizers new coolers, an automatic bottle filler and capper, ceiving tank, a new filter and a new separator. A tral heating unit has been installed. This meth heating is the very latest on the market and guara better flavored milk. The Babcock system of te will be used in the new plant and will insure stan ized milk.

Among the features of the Keith dairy is a nev chanical refrigerating plant, including a milk co room 22 by 12.5 feet, and a freezing room 10 feet sq The six trucks used for delivering milk insure service to the Keith customers. Owners of the are S. H. Keith and his two sons, S. Norman and Keith.

* * *

You cannot afford to miss a single copy of "The Dealer." If you have not done so, be sure to se your renewal today.

THE CLEAN MILKY WAY
Thru a Perfection Filter Disc

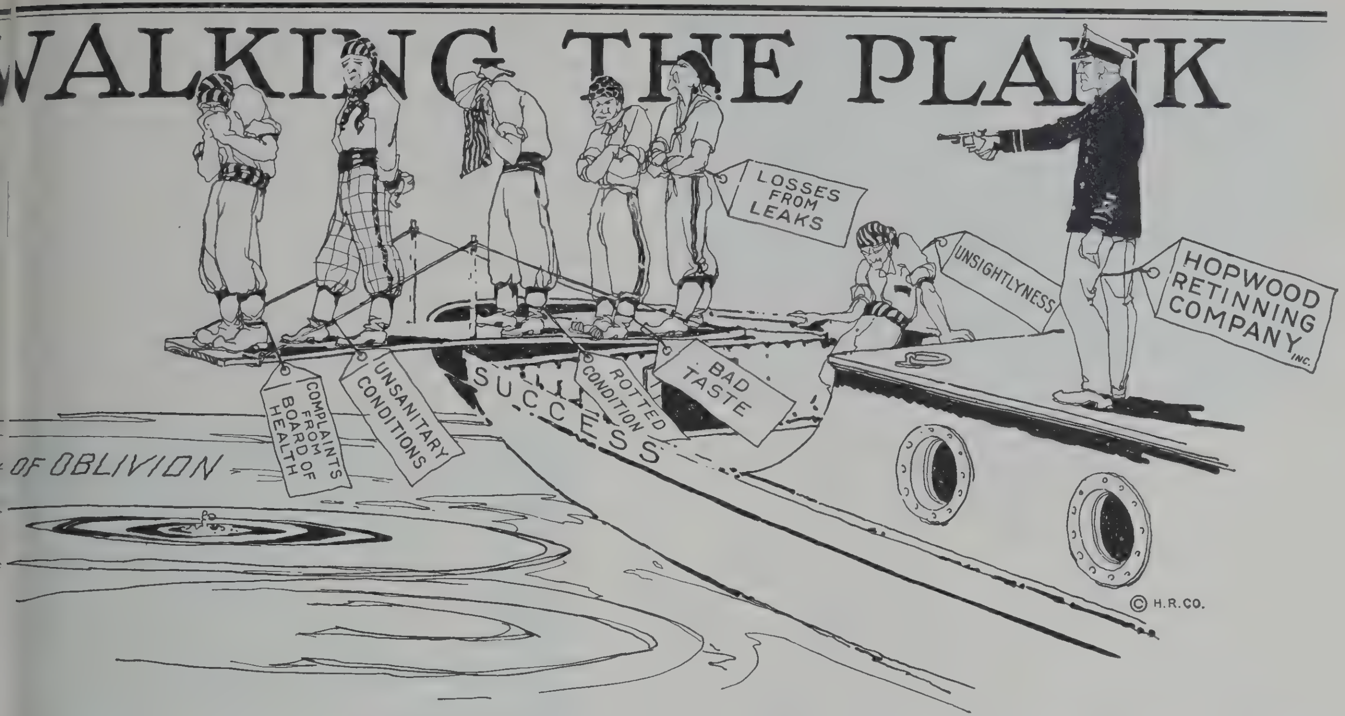
Look for this Trade Mark

Now—Your Patrons Will Bring Clean Milk

THOUSANDS of creameries, today, take no chances with the quality of their products—by insisting that their patrons filter their raw milk—ON THE FARM. The new Perfection cloth faced disc is making it particularly easy to get the dairy farmer to co-operate. We make filtering products for every requirement. See your jobber about prices and particulars about our special co-operative plan. Or write us direct.

The Schwartz Mfg. Company - Two Rivers, Wisconsi

PERFECTION FILTERING PRODUCTS


ALKING THE PLANK
LOSSES FROM LEAKS
UNSIGHTLYNESS
HOPWOOD RETINNING COMPANY INC.
COMPLAINTS FROM BOARD OF HEALTH
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BAD TASTE
SUCCESS
OF OBLIVION
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been connected with
'acture and re-manu-
Milk Cans and
Cans since - - 1898

These Can-Troubles are pirates in your business and cause loss of trade.

Our Re-tinning Process will put your cans in good condition and save money for you.

"GOOD LOOKING CANS ARE A BIG ASSET TO YOU"

Ship Your Rusty or Leaky Cans to Us for Re-tinning

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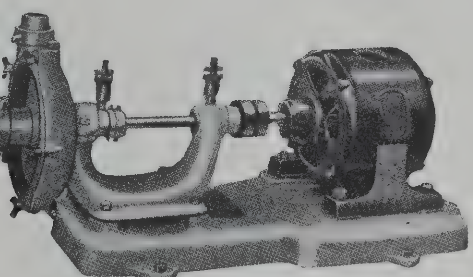


Answer to a Vexing Pumping Problem

Class "B" Sanitary

MILK PUMPS

normous Capacity **A Really Sanitary Pump**

Simple in Construction **Easily and Quickly Cleaned**

Operates with minimum power. Thoroughly cleaned by simply removing two parts.

No opportunity for worn metal particles to combine with the liquid, thereby causing metallic flavors; there are no wearing parts.

The "Class B" is a long life pump and some have operated 20 hours a day for sixteen years.

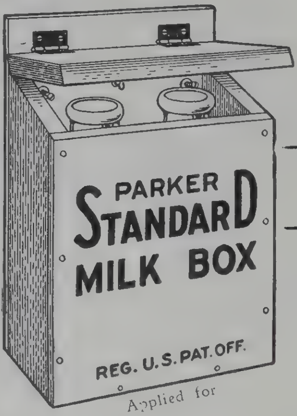
All contact liquid parts made of BRONZE heavily tinned.

WRITE FOR BULLETIN No. 21-B

Jensen Creamery Machinery Company

LOOMFIELD, N. J.
OAKLAND, CALIF.

Clean, Pure Milk
Right to the Customer's Table in a —



Parker Standard
MILK BOX

THIS sanitary method of delivering your milk is an extra precaution against contamination, and is a splendid help to your driver in building up his route. The Parker Box is a positive guarantee that your milk will be delivered to your patrons in a perfect condition. It keeps milk cool in summer and prevents it from freezing in the winter. Prowling animals cannot tip the bottles and break them or spill the contents.

The Parker Standard Milk Box will build up good will business, help your drivers, eliminate losses through broken bottles and insure the return of empties. Strong and well-constructed, it will last a life-time.

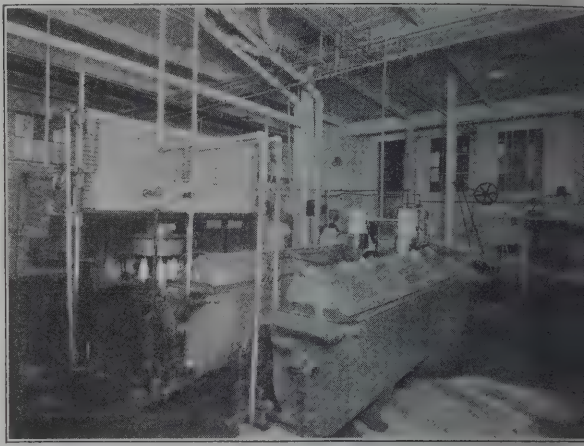
Write now for prices and quantity discounts.

Parker Standard Milk Box Co.
228 WARREN AVE. : : SAGINAW, MICH.

AN IDEA FROM A VERMONTER.

In the city of Burlington, Vt., populated by 2 inhabitants, and located picturesquely on the shor Lake Champlain, in the Green Mountains of gr marble and Christmas trees, is a most progressive milk plant co-operatively owned by the Vermont fa and called the Burlington Co-operative Milk Pro Co., Inc. B. I. Newton is manager.

Mr. Newton has solved the ticket problem fo co-operative milk plant in a most efficient manner. plant has been located in its new daylight hom the past 18 months. Every inch of floor space is ut to some good profit for the company. The front building is rented on the second floor to offices; o ground floor is a most progressive little grocery run by the co-ops; the store next door is also rente Offices and plant of the milk plant are handily lo in the back of the building.



Burlington Co-operative Milk Products Company.

The milk wagon drivers do not sell tickets. tickets are sold at the store and customers drop i buy any amount of tickets up to a $12 book. Pay at the store. The sale is run up on a National cash ter having a marked compartment for the office showing it was a ticket sale for milk. The rest store sales are rung up on the same register but sh they were store sales. In this manner, they ge for their tickets, do not have to go out collectin have an accurate account for their bookkeepin partment of tickets sold for milk from the store. do, of course, have charge accounts with some cust and this is a condition impossible to do away with they are comparatively few and are with peopl settle bills in the store once a month. They get tickets and have them charged to the grocery a and pay it with the regular monthly bill. The d handle only the tickets turned in to them by th tomers. These they turn in with their cash, and records are kept accordingly. In this way the can tell at all times how many tickets are out an many turned in. They sell more milk for cash a away with the collections which most milk dealers

The accompanying photograph shows how w little milk plant is laid out. By-products are which enable the farmers to get the most out o investment. Butter is made and sold in Burli Cottage cheese is put up in half-pound parchment pers and large quantities of this product are sold Casein is also another of their by-products.

The company has a very capable manager i Newton.

⚜

If you read a "Dealer" Want Ad that appeals answer it—today.

OL'S RECORDING (DAIRY) THERMOMETERS

Records of Temperature Guide Pasteurizer Operation

When operatives have ready access to the continuous chart records made by Recording Thermometers they can maintain pasteurization temperatures at exactly the right degree, from the moment heat is turned on until the batch is run off to the cooler. At no time do they have to guess at conditions; a complete story of what is happening is faithfully written into the record line on the chart.

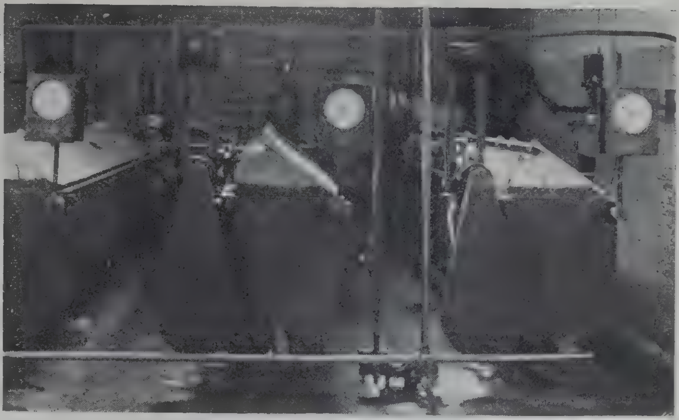
Such records not only help to prevent the bad effects of over- or under-heating, but are *acceptable proof of thorough pasteurization*, where such evidence is required.

The Bristol's Thermometer is simply and ruggedly constructed; in fact there's nothing to get out of order, and they are absolutely foolproof.

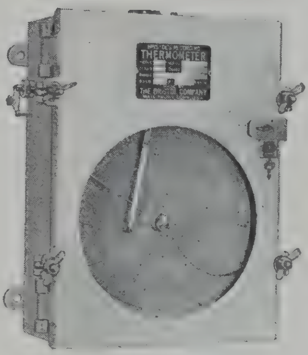
Write for Bulletin 349. It gives complete details.

The Bristol Company *Waterbury, Connecticut*

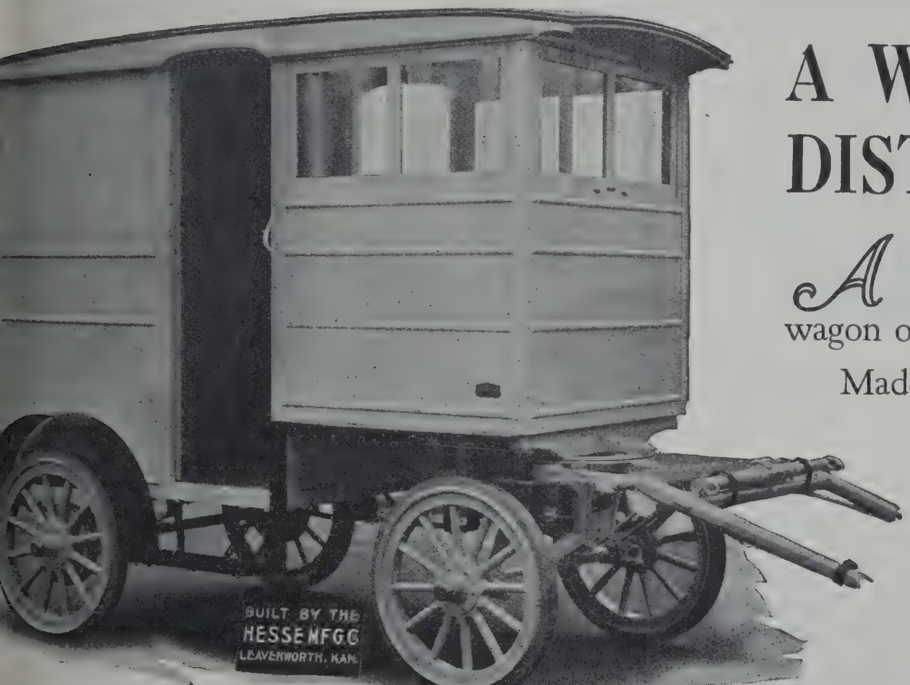
FOR 38 YEARS MAKERS OF
Ask Any Technical Engineer
BRISTOL'S RECORDING INSTRUMENTS



Three Bristol's Recording Thermometers in the City of Philadelphia used in connection with Simplex Spray Pasteurizers.



Bristol's Recording (Dairy) Thermometer, Model 40; with inverted pen arm. Moisture proof case, finished in white enamel.



A WAGON OF DISTINCTION!!

A low down-comfortable-quiet-smooth running wagon of good appearance.

Made of seasoned oak thruout and Met-L-Wood Panels, jointed with white lead thruout to retard rotting and thoroughly ironed and braced.

And withal—

Light in Weight and Light in Draft.

Write for full information and prices

THE HESSE MANUFACTURING CO.
LEAVENWORTH, KANSAS
WAGON BUILDERS FOR 70 YEARS

SUPER MILK BOTTLE

Speaks for itself, and is recognized by all as the achievement of **The Lamb Glass Co.,** who specializes in its manufacture—**independently.**

The Lamb Glass Co.

Factories and General Offices:
Chicago Mt. Vernon, Ohio New York

AN EFFICIENT MONTHLY ACCOUNT PAGE DRIVER-SALESMEN.

On toward 25,000 retail milk charge account Windsor Farm Dairy, Denver, ‘‘books are kept’’ by driver-salesmen themselves. The plan has been for years, and is a demonstrated success. One of reasons is the convenient charge account page f used for books of driver-salesmen.

In the record book, carried by the driver as he livers, each customer has a single page, and all p are numbered. The page size is 10¾ by 4 inches. the top of the page are two blank lines for name address. A rectangle with a heavy border has at the ‘‘Collect Check.’’ At the right is ‘‘Front, Rear, Si

The days of the month, 31, are down the left Columns are of varying width, in consideration of ar and also of index information at top, which pres from left to right: balance and debits, cash cre

M ______________________________

Address ______________________________

COLLECT CHECK ☐ FRONT—REAR—SI

Date	Bal. and Debits	Cash Credits	Qts. M.	Pts. M.	Qts. B. M.	Qts. Sk.	Qts. 400	½ Pts. 400	But.	C.C.	Qts. Cr.	½ Pts. Cr.	½ Pts. W.C.
1													
2													
3													
30													
31													

Balance ______________________________

quarts milk, pints, quarts of buttermilk, quarts of sk quarts of 400, ½-pints of 400, butter, cottage che quarts of cream, ½-pints of whipping cream, pints cream, pints of goat milk.

At the foot of the page is a blank line after the si word, balance.

Some of the Windsor Farm Dairy charge accou are on a weekly basis, and still others on a semi-mont basis. Most are monthly, however. The salesmen the collectors. They get out all statements to tomers. Keeping the account record from day to pencils are used. The account books are substanti bound to stand milk delivery handling.

The experience of Windsor Farm Dairy is that drivers—this company invariably refers to them as sa men—can take care of charge account books in an cient, accurate, and dependable way. As the men paid a commission, which is upon collections instead sales, there is maximum incentive to keep interested the accounts.

In the general offices of the company are special cilities for the salesmen, engaged with their account work, and there is, too, a special rack for the custo books. The entire system was developed by Tom ington.

Better Horses at Lower Feeding Costs

BOWMAN DAIRY COMPANY
BOWMAN

Bowman Dairy Co. of Chicago have proved it. They are feeding to more than 1200 horses crushed oats made with

GIBSON OAT CRUSHERS

There is a minimum guaranteed saving of 15% in crushed oats over whole oats or mixed feeds. A 30 day free trial of a complete machine will prove it. There are 7 different sizes of Gibson Oat Crushers with direct connected electric motors or with pulley for belt drive.

Write today for further information. Tell us how many horses you are feeding and we'll tell you how to buy a Gibson out of your present wasted oats.

Ask any of these about us:—

heffield Farms Dairy, New York General Baking Co., New York
upplee-Wills-Jones, Philadelphia Rieck-McJunkin, Pittsburgh
Western Maryland Dairy, Baltimore Ira J. Mix, Chicago
nited Dairy Co., Chicago Moores Ross Milk Co., Columbus

GIBSON OAT CRUSHER CO. Patentees and Sole Manufacturers **332 S. Michigan Ave., CHICAGO**

Von Gunten

Continuous
Sediment Eliminating

Milk and Cream Filter

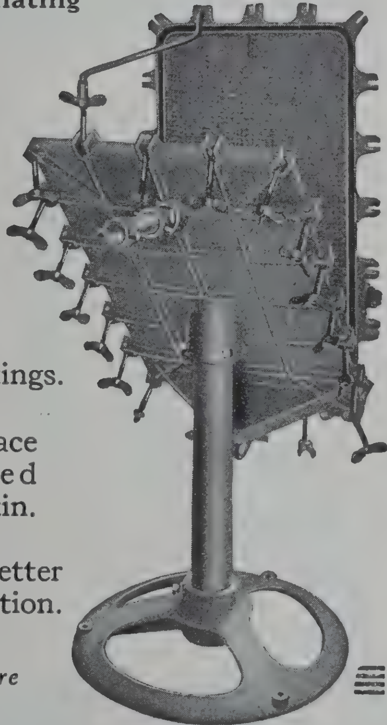
—Improved.

olid bronze Castings.

The Milk Surface heavily coated with pure block tin.

Different and Better
Method of Filtration.

Send for Literature



TOUT MFG. CO.
0 Sycamore St. Milwaukee, Wis.

Jacobs Barrels

— FOR —

Powdered Milk

STRONG
CLEAN
TIGHT

They stand shipping abuse.

They are a clean, attractive package for powdered milk.

They are tight and stay tight because only selected kiln dried staves are used—and held in place by sturdy beaded steel hoops.

Our quotations will interest you
WRITE OR WIRE

K. W. Jacobs Cooperage Co.
19th and St. Paul Ave.
MILWAUKEE, WIS.

A MILK ORDINANCE THAT HAS STOOD THE TEST IN THE COURTS.

Lancaster, Pennsylvania, boasts of a city milk ordinance that has "weathered" 54 injunctions, the last of which was dissolved on May 25th, last.

The Pennsylvania State Supreme Court even had its "say," and now the Lancaster bureau of health plans to rigidly enforce the ordinance.

For the information of readers of The Milk Dealer we are publishing it in full, as follows:

AN ORDINANCE.

To Regulate the Sale of Milk in the City of Lancaster, Pa., and Providing Penalties for the Violation of the Same, as Amended to August 24, 1926.

Section 1. Be it ordained by the Council of the City of Lancaster, Pa., and it is hereby ordained by authority of the same, that no person, himself or by his servant or agent, or as the servant or agent or another, shall sell or deliver, or have in his possession or custody with the intent to sell or deliver:

(1) Milk to which any water or any foreign substance has been added or is visible therein.

(2) Milk which has been wholly or partially skimmed.

(3) Milk not of standard quality.

(4) Milk concerning which any misrepresentation has been made.

(5) Milk produced by diseased cows or by cows which have been fed unwholesome food or contaminated water.

(6) Milk or cream containing, or which has been exposed to any disease producing bacteria.

(7) Milk which has been produced, stored, handled or transported in an improper, unclean or unsanitary manner.

(8) Milk from dairy herds containing cows which have not been tuberculin tested in accordance with the rules, regulations and practices of the Bureau of Animal Industry of the United States Department of Agriculture and the Bureau of Animal Industry of the Pennsylvania Department of Agriculture.

Section 2. That for the purpose and within the meaning of this ordinance, the term:

(a) "Milk" is the lacteal secretion obtained from the complete milking of cows.

(b) "Skimmed Milk" is milk from which substantially all of the milk fat has been removed.

(c) "Certified Milk" is milk produced and handled in conformity with the "Methods and Standards for the Production and Distribution of Certified Milk" adopted by the American Association of Medical Milk Commissioners, May 1, 1912, and amendments thereto, in effect at the time of production, and certified to by a milk commission in compliance therewith.

(d) "Pasteurized Milk" is milk which has been heated to, and for at least 30 minutes held at a temperature of never less than 145 degrees F.

(e) "Cream" is that portion of the milk, rich in fat, which rises to the surface of the milk on standing, or is separated from it by centrifugal force, and containing not less than 18 per cent of milk fat.

(f) "Homogenized" or "Emulsified" milk or cream is milk or cream which has been subjected to the mechanical process of homogenization, or of emulsification, as the case may be.

(g) "Unsterilized Containers" are containers which either have not been subjected to moist heat at a temperature as high as 205 degrees F. for two minutes or lo
or do not comply with such alternative requirements,
prescribed by the regulations made pursuant to this
nance as may be necessary to effect sterilization thereo

(h) "Person" imports both the plural and singula
the case demands and includes corporations, partners
societies and associations.

(i) "Milk not of Standard Quality" shall mean
having less than 8.5 per cent of solids, not fat, and less
3.25 per cent of milk fat, and cream having less tha
per cent of milk fat. Skimmed milk having less than
per cent of milk solids exclusive of fat shall be consi
adulterated.

Nothing in this ordinance shall be construed to pro
the sale when labeled so as to show its true charact
pure skim milk or of any under-standard milk in which
be included: (a) sour milk or sour cream; (b) butte
or any similar product made from pasteurized milk or c
The aforesaid label bearing the words and figures sha
distinct and conspicuous; they shall be always attach
the aforesaid container. When glass bottles are use
required marks shall be distinctly printed on the c
cover of the same.

Nothing in this ordinance shall be construed to pr
the sale of modified milk in bottles, each holding a s
feeding, into the side of which the name of the person
manufactured or prepared the aforesaid milk has been
or whose name appears on the cap or cover of the sam
gether with the words "Modified Milk."

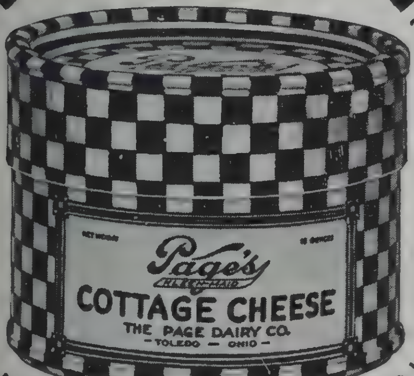
Nothing in this ordinance shall apply to evaporat
condensed milk contained in hermetically sealed pac
labeled distinctly with the name of the manufactur
person who prepared or put it up, and the brand under
it is made or sold. Certified milk, modified milk and
orated or condensed milk shall mean milk produced
the regulations and supervision of the Bureau of A
Industry of the United States Department of Agricultu
through a committee or commissions, which has certifie
its requirements have been complied with.

For the purpose of this ordinance cows which rea
the tuberculin test shall be considered diseased. Milk
duced at a dairy which scores on the national dairy di
scorecard below 65, and milk sold by or from a city
plant which scores on the national dairy scorecard
80 shall be considered as produced and handled in a
proper, unclean and unsanitary manner. Milk from a
15 days before calving and seven days after, or for such
thereafter as the milk is abnormal, shall be regarded a
sanitary. For the purpose of this ordinance milk w
temperature above 50 degrees F. when leaving plant or
or having more than 100,000 bacteria per cubic centi
when innoculated into standard agar, or more than 50
bacteria per cubic centimeter when counted by direc
servation under a microscope, shall be regarded as u
itary. When milk is bought or sold by the quart or g
the gallon of 231 cubic inches and a quart of 57.75
inches shall be standard and shall be so understood.

Section 3. That every person before selling mi
offering it for sale, or before conveying milk in carria
otherwise for the purpose of selling or delivering it t
city of Lancaster, Pa., for consumption therein, sha
licensed by the board of health of the said city to sell
within the limits thereof, for each and every conve
used in said city from which is sold, exchanged or deli
milk or cream or both. Licenses shall be issued only
name of the owners of carriages or other vehicles,
stores or booths. They shall, for the purpose of this
nance, be conclusive evidence of ownership of the bus

WILLIAM H. TIMM
CONSULTING ENGINEER AND ARCHITECT
PERRY BUILDING
Chestnut & 16th Sts.
PHILADELPHIA
PENNSYLVANIA
DAIRY AND ICE CREAM PLANT SPECIALIST
Consulting Service for By-Product Processes

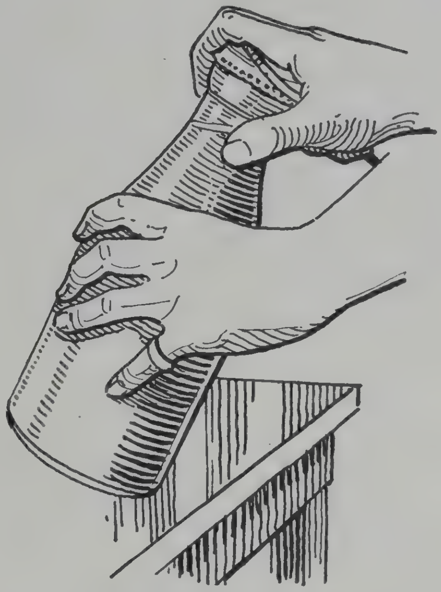
NAPACANS
FOR
COTTAGE CHEESE



MANUFACTURED BY
W.C.RITCHIE & COMPANY
831 W. VAN BUREN ST.
CHICAGO, ILL.

THE
DACRO
METAL CAP

Here at last is the perfect package of Milk or Cream, pure and sweet pasteurized IN the bottle! Made possible by a mechanically perfect closure.



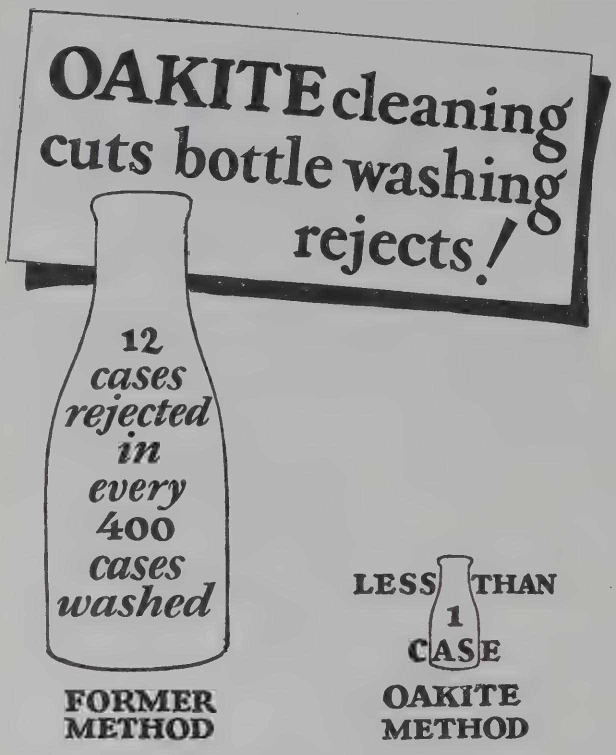
Pure, sweet MILK—delivered under hermetic seal to the home. Handy openers supplied at small cost.

The Dacro Metal Crown—This remarkable cap is made on exactly the same principle as the famous Crown Cork which revolutionized the bottled beverage industry. The Dacro Crown is a hermetic seal. It automatically locks under the glass rim of the bottle. It is scientifically a perfect closure. Sealed with the Dacro Crown, Milk or Cream can be pasteurized in the bottle, an exclusive advantage of this seal. The Dacro Crown covers and protects the pouring lip. It KEEPS clean milk clean! No danger of contamination or tampering with pure contents. And the Dacro Crown can be replaced for temporary covering and seal after opening bottle.

PASTEURIZE YOUR MILK
IN-THE-BOTTLE

THE
Crown Cork & Seal Co.
BALTIMORE, U. S. A.

Inventors and originators of the famous "Crown Cork"


OAKITE cleaning cuts bottle washing rejects!
12 cases rejected in every 400 cases washed
FORMER METHOD
LESS THAN 1 CASE
OAKITE METHOD

HERE is another instance of the effectiveness of Oakite in improving bottle washing results.

A certain dairyman was getting an average of 12 cases of rejects out of 400 cases washed daily. He adopted the Oakite method and now washes the same number of bottles with less than a single case of rejects a day; only one-twelfth as many as formerly!

But that is not all! His bottles *look* cleaner and *are* cleaner; they have a brilliance and sparkle never before attainable when washed by the old method.

Oakite users everywhere find that Oakite cleaning is most economical—both for washing bottles and for cleaning dairy equipment.

Our booklet "Oakite in Dairies" outlines these advantages. Send for a copy.

OAKITE IS MANUFACTURED ONLY BY
OAKITE PRODUCTS, INC., 34A Thames St., NEW YORK
(*Formerly OAKLEY CHEMICAL CO.*)

Oakite Service Men, cleaning specialists, are located at

Albany, Allentown, Pa., Altoona, Pa., *Atlanta, Ga., Baltimore, *Birmingham, Ala., *Boston, Bridgeport, *Brooklyn, Buffalo, *Camden, Charlotte, N. C., Chattanooga, Tenn., *Chicago, *Cincinnati, *Cleveland, *Columbus, O., *Dallas, *Davenport, *Dayton, Decatur, Ill., *Denver, *Des Moines, *Detroit, Erie, Pa., Flint, Mich., Fresno, Cal., *Grand Rapids, Harrisburg, Hartford, *Indianapolis, *Jacksonville, Fla., *Kansas City, *Los Angeles, Louisville, Ky., *Memphis, Tenn., *Milwaukee, *Minneapolis, *Montreal, Newark, Newburgh, N. Y., New Haven, *New York, *Oakland, Cal., *Omaha, Neb., *Philadelphia, *Pittsburgh, Portland, Me., *Portland, Ore., Providence, Reading, *Rochester, Rockford, Rock Island, *San Francisco, *Seattle, *St. Louis, South Bend, Ind., Syracuse, *Toledo, *Toronto, Trenton, N. J., *Tulsa, Okla., Utica, *Vancouver, B. C., Williamsport, Pa., Worcester.

*Stocks of Oakite materials are carried in these cities.

OAKITE

TRADE MARK REG. U.S. PAT. OFF.

Industrial Cleaning Materials and Methods

and shall not be sold, assigned or transferred. Each
shall contain a serial number and the name, residen
place of business of the licensee. Each licensee befc
gaging in the sale of milk shall cause his name and the
ber of his license to be conspicuously posted in his pl
business and shall cause his name, the number of his
and his place of business to be legibly placed on the c
of all carriages or vehicles used by him in the conv
and sale of milk. The application for license shall
writing and on a blank furnished by the board of
The application shall give the names of all drivers a
other persons employed by the applicant in conveyin
selling milk. It shall also give the names of all person
whom the applicant is at the time purchasing or rec
milk, their residence and post office address and such
information as to the condition of their cows and pr
and their methods as the aforesaid board may require
application shall contain an agreement that the bo
health, its deputies and assistants, shall have the ri
inspect the cows, premises and methods of said produc
holders of licenses shall promptly notify in writing the
of health of any change in drivers or other employees,
change in the source of their milk supply. Each
shall be granted on the condition that it is subject t
pension for violation of any provision of this ordinar
of any regulation thereunder, and all licenses shall
newed on or before the first day of July in each and
year.

Section 4. That the Board of Health of the City o
caster, Pa., in addition to its other powers and dut
hereby constituted a milk inspection bureau and shal
power to appoint a competent person who shall be
as the chief of the bureau, and said chief shall recon
and the board of health appoint such assistants as the
of the bureau may need, for the purpose of carrying o
provisions of this ordinance and the regulations pas
pursuance thereof, with such compensation as may be a
ized by the Council of the City of Lancaster, Pa. The
said chief shall enforce the provisions of this ordinan
all regulations passed in connection therewith, und
general direction of the board of health, and be resp
to said board for the conduct of his office. The chief
milk inspection bureau, by himself or a duly auth
deputy or assistant, shall, at least four times each ye
spect all animals, stables, milk rooms, places of bu
shipping stations and other buildings or places used
production, hauling, transportation and storage of mi
sale in the city of Lancaster, using the scoreboards
dairy division of the Bureau of Animal Industry of the
States Department of Agriculture, and rating the dairi
city plants thereon. He shall from time to time inve
the health of employees and attendants handling sai
supply, and the said chief of bureau or the agent or
shall take samples of milk for chemical and bacterio
examination. For the purpose of enforcing this ordi
and all regulations passed in connection therewith, the
said chief and assistants may enter all aforesaid plac
buildings used in the production and handling of mil
or offered for sale in the city of Lancaster, Pa.; he
have access to all animals producing milk for said ci
to all vessels and utensils used in the production, pr
tion for market, and sale of such milk; and he shall
lowed to take samples of milk on offering payment
for; and the aforesaid chief of the milk inspection
shall annually cause to be tested with tuberculin, al
furnishing milk for the city of Lancaster, Pa., such
tuberculin test shall be made by an official of the m
spection bureau, qualified to make same, by a veteri
approved by the bureau of health, by an official veteri
of the Bureau of Animal Industry of the United Stat
partment of Agriculture or by an official veterinarian
Bureau of Animal Industry of the Pennsylvania Depa
of Agriculture. In cases where the owner of a dair
supplying milk to the city of Lancaster elects, for th
of the federal and state indemnity for cows condemned
the tuberculin test, to have his herd come under t
dividual accredited herd plan or the modified accredite
plan of the Bureau of Animal Industry of the Pennsy
Department of Agriculture, the chief of the milk insp
bureau may accept the annual or triennial tuberculin
said herd, made under the provisions of the individua
plan or the modified accredited area plan as meeti
requirements of this fourth section of the ordinanc
he may revoke or suspend the licenses heretofore pr
for, for violation of this ordinance and the regulations
thereunder.

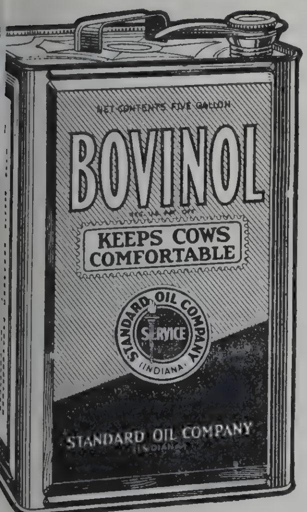
Section 5. Be it Enacted and Ordained, That any
suffering from any contagious or infectious disease, or
whose residence, or among whose associates any con
or infectious disease exits, must keep away from cow
or milk utensils. When any person engaged in the prod

Directions For ncreasing Your Dairy Profits 10%

Spray your cows morning and evening with Bovinol, using the compressed air type of sprayer in which the oil is forced out by air pressure and is further atomized by an air blast. Every square inch of the hide should be covered. It is best to spray against the direction of the hair, so that Bovinol will penetrate the coat.

BOVINOL
REG U S PAT OFF

should be applied freely the first two or three times to build up a protective film of oil on the hair. After the first two or three applications a lighter coating may be used.



Follow these directions and you'll make more money from your cows. Agricultural experiments and practical dairy tests have shown that milk production is increased *at least 10%* by the consistent use of Bovinol.

You'll notice a difference immediately in the behavior of your cows. Twitching, tortured animals become quiet and restful when they are sprayed with Bovinol. Flies light on them but they cannot sting. Cows sprayed with Bovinol are able to produce more milk because they are not wasting energy in fighting flies.

Bovinol is not poisonous. It has no taste or odor. It cannot discolor the hair and therefore is ideal for use on show animals.

If you want to increase your dairy profits, spray your cows night and morning with Bovinol.

BOVINOL
REG. U.S. PAT. OFF.

Sold in Cans and Barrels

Tasteless • Odorless • Colorless

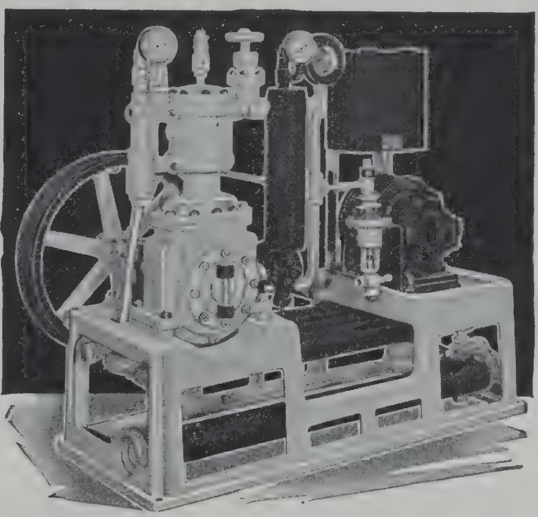
A Scientific Product Characterized By All the Efficiency Customary in Products of the

ANDARD OIL COMPANY
(Indiana)
10 So. Michigan Avenue, Chicago

k the Nearest Standard Oil Agent

4702B

ROME
FULL AUTOMATIC REFRIGERATION



Installed Easily and Economically

A wise old Milk Dealer once said, "You can't beat our milk, BUT you CAN whip our cream."

Without doubt the above remark was made because the Milk Dealer had already installed a Mechanical Refrigerating Machine.

The ROME FULL AUTOMATIC is quickly, easily and economically installed and on such reasonable terms that no Milk Dealer need be without a Rome. Fill in your name and address below and mail today for the complete facts.

Rome Manufacturing Company
Refrigeration Dept. • Rome N. Y., U. S. A.

ROME MFG. CO.
Gentlemen:—
The undersigned would like to learn the facts about Rome Full Automatic Refrigerating Machine.

Name______________________________

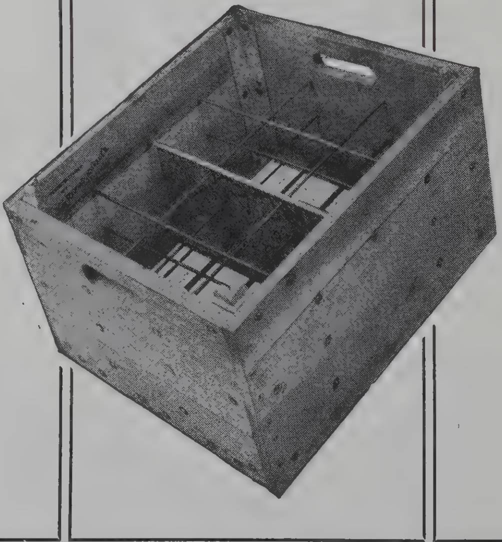
MD ______________________________

Republic
Bottle Crates
"as strong as the Republic"

REPUBLIC Bottle Crates are strong, shock-proof, and enduring. Heavy supporting irons riveted through the sides and ends, long stacking irons from top to bottom reinforce each corner, a galvanized sheet partition holds the supports in position, and all of these are made of "Toncan," the highest grade of galvanized metal obtainable. This metal costs more than other grades, but it lasts longer, resists rust, and adds strength. A high grade crate at a price you can afford. ∴

Let us show you how Republic Crates save money for you. Write for prices and quantity discounts.

THE REPUBLIC BOX CO.
1693-1711 Merwin Street
CLEVELAND, OHIO



storage or distribution of milk is suffering from any
gious or infectious disease, or when such disease exists
his employees or their immediate associates, or with
building used in any way in the milk business, no mil
be sold or delivered from such dairy or milk establis
except by permission of and in the manner prescribed
board of health. No person who has anything to do
production or handling of milk shall enter any place
exists any contagious or infectious disease, or have an
munication with any person who is an occupant of s
fected place. Every producer who sells milk directly
consumer shall promptly notify the board of health
case of a communicable disease among his employees
immediate associates or members of his family. Ever
producer who sells his product to a middleman for
shall notify said dealer of the existence of any commu
disease as aforesaid and said dealer shall at once not
board of health.

No milk shall be dipped from cans or poured int
vessels except in the regular milk room of a dairy pla
milk shall be bottled on any wagon.

Milk tickets shall be used but once.

No person shall remove any empty bottle or rec
from a building where any contagious disease exist
authorized by the board of health, in the manner pre
by the board.

No person shall place, or permit to be placed, in an
or utensil used in the production, sale or delivery of m
offal, swill, kerosene oil, or other offensive material; n
any person return, or cause to be returned any milk
bottle which is in an unclean or offensive condition.

The presence of a diseased animal in a herd from
milk is sold shall be prima facie evidence that the
the diseased animal is sold contrary to law.

The board of health may make all necessary reg
for enforcing this ordinance, which are not inconsiste
the provisions contained herein.

Section 6. Be it Enacted and Ordained, That any
violating or failing to comply with this ordinance, or
tion or provision thereof, or any regulation made u
authority, and any person who hinders, obstructs o
feres with the chief of the milk inspection bureau, or
his inspectors or assistants, in the discharge of their
shall, on conviction, forfeit and pay a fine of not mo
one hundred dollars ($100.00), nor less than one
($1.00), and upon failure or refusal of the party c
thereof to pay such fine and costs, he shall be comm
the jail of the county of Lancaster, Pennsylvania, for
not exceeding ninety days, unless the person convict
pay such fine and costs before the day limited in the
ment, in which case he shall be released.

Section 7. All ordinances or parts of ordinance
sistent herewith are hereby repealed.

Section 8. This ordinance shall take effect an
force on and after January 1, 1926.

⁂

FIRST CHAIN-STORE ORGANIZATION IN
TO OPERATE DAIRY FARM.

The Handy-Andy Community Stores, Inc., be
distinction of being the first chain-store organiza
the state to operate a dairy farm, D. W. Webb
dent of the company said. The company ope
model dairy farm on Pembroke road, just west o
wood, Florida.

The plant is equipped with the late model
sanitary rotary filler and capping device, with
proved vitrified container; new type aerated ic
cooling system, and is now installing a new elec
refrigerated cooling room.

"With the completion of this installation," s
Webb, "our plant will be one of the best equip
the Miami district. I can truthfully say that
hands never touch our milk supply from the
leaves the cow until it reaches the consumers' ki

⁂

If you want a position "The Milk Dealer" c
you, as it has helped hundreds of others to secure
position.

gain Guedelhoefer Wagons Have Scored!

Nº 153
SIDNEY WANZER & SONS MILK CO.

ohn Guedelhoefer Wagon Co., Inc.
2-220 KENTUCKY AVE. : INDIANAPOLIS, INDIANA

NO FINER tribute can be paid to Guedelhoefer Wagons than that they were selected as standard equipment by one of the country's foremost milk plants—Sidney Wanzer & Sons.

Any morning as dawn peeps over the skyline of Chicago, you may see an almost endless fleet of Guedelhoefer Wagons drawn up at their loading platforms, ready for the grueling service of the day.

Nor will Sidney Wanzer & Sons' faith and confidence in Guedelhoefer Wagons ever be jeopardized. For into these honestly built vehicles has gone the experience of 47 years in building wagons and trucks for the Dairy Industries.

You, too, may well follow the judgment of Chicago's great Dairy Plant by selecting Guedelhoefer Wagons to deliver your milk.

ARCUS COUPON BOOKS

sed All Over America!

herever Milk and its Products are sold. And everybody's satisfied!

The great size of our plant and volume of our business permits us to use equipment and maintain a highly-trained organization all tuned to quantity-production in record time.

It's pleasant to deal with Arcus.
Everybody says so.

Send samples for quotations.

e Arcus Ticket Company
N. Ashland Avenue CHICAGO, ILL.

The Buyer of BROWNELL BOILERS

Expects and Gets—

1. *The exact type required.*
2. *Most up-to-date design.*
3. *RIVETED STEEL CONSTRUCTION.*
4. *Accurately known strength.*
5. *Superior workmanship.*
6. *Economy of operation.*
7. *Low maintenance costs.*
8. *Quality at fair price.*

Brownell Boilers comply with ASME and all state codes.

Representatives near you ready to consult. Bulletin B-1 ready to mail.

THE BROWNELL COMPANY, Dayton, Ohio

Indians Gather for Spring Pow Wow

Members of the National Dairy Playgrounds Association
Play, Fish and Eat at their Famous Resort
Near Boulder Junction, Wis.

MEMBERS and friends of the National Playgrounds Association opened up the season at the club grounds in northern Wisconsin with a big stag party known as a "pow-wow." This large tract of timberland and lakes is known as the playground for the people of the dairy industries and all of those that attended this year's spring pow-wow certainly had an enjoyable time.

A big special ten-coach train, with a couple of diners, left Chicago on Friday night, June 17, and the crowd landed at the playgrounds the next morning.

So many things started to happen the minute the pow-wow became organized that the reporter on the job for this paper could not get in on all of them, so he will just struggle through with this story mentioning the highlights.

About ten minutes after the party got on to the grounds the club's largest prize muskie was brought in.

Mr. Art. Galagher and Francis Coleman, Jr., of Chicago got into a boat the first minute they arrived and paddled out about 50 feet and dropped their hook and line in front of a great big 28.5-lb. muskie. And, of course, the muskie proceeded to swallow the hook. Then excitement started, the muskie began to pull th
around the lake. In about 30 minutes the fisherm
ceeded in putting a bullet through the muskie
quieted him down. The fishermen, with their
trophy, are shown in the accompanying cut.

Well, that was a good opener for the pow-wo
soon everybody was on the lake with a line and h
a bent safety-pin, trying to catch a fish.

Later, everybody ate the biggest meal ever con

Then, the improvements on the club grounds w
spected by the entire ensemble. There are ten
new log cabins that were put up last winter. Eve
has, besides the bedrooms, a large living room a
place. They are very comfortable and pleasant
Casino was enlarged 100 per cent and the impro
rangements make it an excellent north woods lod
dining hall was also made twice its original size
kitchen was enlarged and new equipment put in
say, the **eats are good!**

There were baseball games, horseshoe pitchi
other sorts of contests, boat races, casting, et
prizes were awarded to the winners.

Oh, of course, there was a golf tournament

AT THE PLAYGROUNDS.

No. 1—The Losing Ball Team. No. 2—In the Primeval Forest. No. 3—The Winning Ball Team. No. 4—The Boat Hous
5—In the Dining Room. No. 6—On the Club House Veranda. No. 7—One of the Cabins. No. 8—Officers of the Associatio
9—Looking Out Over Big Crooked Lake.

ent to the Minocqua Golf Club about 20 miles They say this golf party was a grand success.

, what else could a poor reporter who spent most ime enjoying himself write except to say that don't know what a real pow-wow is, join the t the close of the season when another pow-wow put on." The date will be announced in this iter.

of the "playfulest" Indians at the pow-wow ward and Jack Greene, editors of "The Brook ll," and here is the way they expressed thembout the big doings in the last issue of their

OW-WOW AT THE NATIONAL PLAYGROUNDS.

editor was recently among those privileged to reid to the Pow-wow at the N. P. A.

e," sez we. "Now I can take my feet off my desk or two. I had about decided to buy a pair of spurs 'em from slipping off—but this better still."

e went.

l say one thing. Brook Hill is going to have a real

The Evidence.

iake the picnic anything like the splendid entertainfered by the Tach-it-ta-wina. From the moment we the train at Milwaukee we were on the greatest f solid, simon-pure, unadulterated, 14-karat pleasure nown. That the special train was still on its wheels end of the return journey was due only to the fact b Walker has a damn good railroad.

ve pen these words we carefully thrust out our arm an from the aching muscles. Baseball, tennis, tugshorseshoe pitching, foot racing, tossing the medicine wing, paddling and horseback riding—little matters these have made us walk at a snail's pace and eat our rom the mantle ever since. Was it worth it?—And

, we could go into rhapsodies over the place, but we did, our most glowing description would be pale arison to the real thing. Virgin timber, lakes all to s—deer nosing their inquisitive way to the very or of camp—clear, bracing air—sound, restful, ung sleep at night—and appetites on which the asso- nust lose money.

than that—28-lb. muskies—Ask Mr. Galagher.

when's the next one?

⁂

OHIO DISTRIBUTOR OF DAIRY PRODUCTS NTINUALLY INCREASING BUSINESS.

Ohio-Clover Leaf Dairy Co. operates a large milk am distributing plant at 1820-24 Vermont Ave., Ohio.

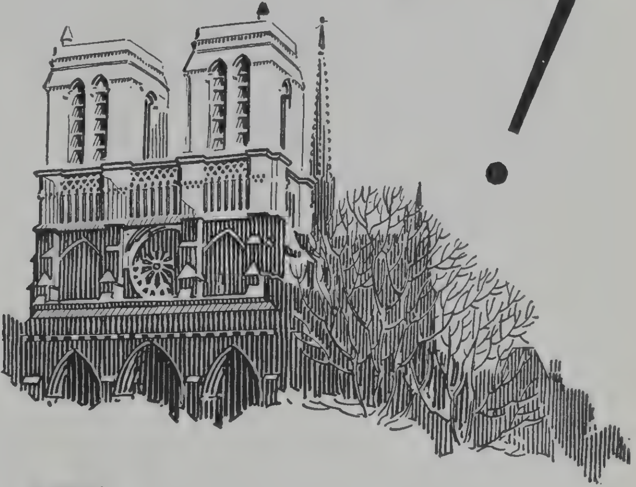
company distributes principally milk and cream the homes in a huge fleet of wagons, early each of the year. Manufacture of creamery butter is on by the company but in a limited way.

company's plant is one of the most modern of its the United States, according to D. A. Yoder, t, and E. L. Jamison, vice-president. The utmost conditions prevail from the time the milk and re received until the filled bottles are placed on steps of the consumer.

MAKE YOUR CONGRESS

a Pleasure Trip of

Europe!



IN the annals of the Dairy Industry the date "June 9, 1928," will be written in red ink! For that is the day on which American dairymen, their families and friends, will embark on a great adventure, which for many spells the realization of life-long dreams. From New York, the magnificent, luxurious steamer, the S. S. Leviathan, will carry us across the Atlantic to Cherbourg.

Our main mission in Europe is, of course, to attend The World's Dairy Congress, the greatest international convention in the history of dairying, which will be held in London, England, from June 26th until July 4th. Having crossed the ocean, we shall not want to return home without a glimpse of those lands we have read and studied about.

To this end the Congress has been arranged so as to allow time for a ten day tour before it opens, on June 26th. A glorious itinerary has been prepared by the American Express Company, which begins immediately upon our arrival at Cherbourg, France, on June 15th.

Paris? Paris—of course! That is our first stop. Then all through the smiling land of France. We visit historical Brussels. A trip of exceptional interest to us dairy men will be taken by steamer from Amsterdam, Holland, to the quaint Isle of Marken, and through Volendam, Edam and Monnikendam, the dairy and cheese-making country. This pre-convention tour terminates upon arrival in London, just in time for the first meeting of the Congress.

Interesting post-convention tours have been arranged, all moderately priced, with an eye to giving us the best in travel, in comfort, in enjoyment, and the most for our money.

There is one post-convention tour to Germany and the Scandinavian countries. Many of us have long wanted to visit there.

Another tour takes in Switzerland, the lofty Alps; sunny Italy; bewitching Venice; Florence, the city of art; ancient historical Rome; Nice, the heart of the Riviera, where nobility and celebrities gather; Lake Geneva; and the dazzling, gay metropolis of Paris!

All information you may desire, such as dates, prices, etc., will gladly be sent you if you write to

The Olsen Publishing Company
501-515 Cherry Street Milwaukee, Wis.

AMERICAN EXPRESS

TRAVEL DEPARTMENT

William Springs the Big Trip

One of Our Readers Sells His Wife on the Idea of Joining the World's Congress Tour

‘‘WELL,’’ says I kind of casual to the wife the other evening, ‘‘I guess maybe we're goin' to Europe.’’

The wife looked up at me sort of suspicious. ‘‘William,’’ she says severely, ‘‘what are you talking about? Why are we going to Europe? And who says we're going—maybe?’’

Just like my wife—always asking three questions at once, and me not answering any one of them.

‘‘Yes,’’ I says, still easin' around a bit so as not to spill the beans all at once. ‘‘I guess we're goin' to Europe next Spring, my dear.’’ I always call her ‘‘my dear’’ when I ask off to go to lodge, or when I have to sit up with a sick friend.

‘‘Now, William,’’ she says, cuttin' off the words like she meant business, ‘‘sit down here and tell me what you're talking about. Who put this foolish notion into your head about going to Europe next Spring? What do we want to go to Europe for? Tell me, William, have you signed any papers? For two years I've been begging you to take me to Swedink so I could visit my Uncle Theodore, who's been sickly, as you know well enough for a long time. But what did you say? ‘I'm too busy.’ So now you want to go to Europe. Ha! ha!’’ She laughed kind of funny. ‘‘Do you think I'm going to go on one of those big boats and get sick to my stomach? No! Not on your life! William! Why don't you say something?’’

‘‘Well, my dear,’’ I says calm-like, havin' had both ears open so's nothin' could catch and bother me, ‘‘you see, it's this way: Next Spring all the dairy folks in the country are goin' to Europe, or I guess London, to a convention—’’

‘‘Convention!’’ my wife busts in sarcastically. ‘‘I should say not. I don't think by the way you act that you're over the last one yet!’’

My wife is sarcastic like that, especially when it comes to me, and what I've done. But, anyway, I made believe that what she said didn't make no difference at all and said: ‘‘Well, maybe I didn't feel so good, but that was on account of some lobsters that I ate on the train home from Detroit. Lobsters never did agree with me. But like I was telling you, there's goin' to be a World's Dairy Congress in London next June, and you and I are goin' to be in it. The King—’’

‘‘Bah! Who cares for the King—’’

‘‘The King,’’ I said important like, ‘‘is goin' to welcome us. Wouldn't is be nice if you could tell all the neighbors about how you shook hands with the King's wife, and talked to the Prince of Wales?’’

I am clever sometimes, I admit, and that last idea I sprung was a ‘‘wow.’’ She fell for it like a ton of bricks.

‘‘You mean,’’ asks the wife all excited now, ‘‘that I could talk to Queen Marie of Roumania and all that?’’

Poor Elsie. She thinks that there is only one queen in the world. So, to get back at her, I get kind of sarcastic myself. ‘‘Elsie, you surprise me. Ain't you ever gone to school? Queen Marie don't live in England. Roumania is a different country. But I guess I could round up a couple of queens and jukes just the same if you want to do any handshaking.’’

‘‘Well,’’ cuts in the wife, changing around again so things don't look so good after all. ‘‘You ain't s yourself. Besides, this trip is going to cost a money, and you know we can't afford it right no

‘‘Who says we can't afford it, I would like to k says I coming back strong. ‘‘Ain't we both work all these years?’’ Then I lowers my voice, sort o like. ‘‘Elsie, my dear, you need a trip like this think of seeing London and Buckingham Pala Scotland, and—and Sweden, and Norway, a Paree—’’

‘‘Paree? You mean that Paree is in Europ Where they have got all those styles and things

‘‘Sure, Paree is in Europe. For instance, yo buy a regular Paris gown, with a genuine label s somewhere, where it would show easy, and wea every church supper so as to make the other jealous. Wouldn't that be a knockout? And t could see the battle fiends—’’

‘‘We have battle fields enough at home here going away.’’

‘‘And the Eifel Tower,’’ I kept on saying, pa attention to Elsie, 'cause she gets that way som ‘‘And Rome, and the Vatican—’’

‘‘William,’’ says the wife like I had been stealing a drink, ‘‘are you stringing me? All them ain't in Europe at all.’’

I shrugs my shoulders superior-like. ‘‘Listen there's lots more places I haven't told you abo For instance, Copenhagen, where the snuff comes Holland, where they make gin; Amsterdam, whe invented the first dam—’’

‘‘Now, William—’’

‘‘—and Berlin, where all the long streets hav names, and the short street have long names.’’

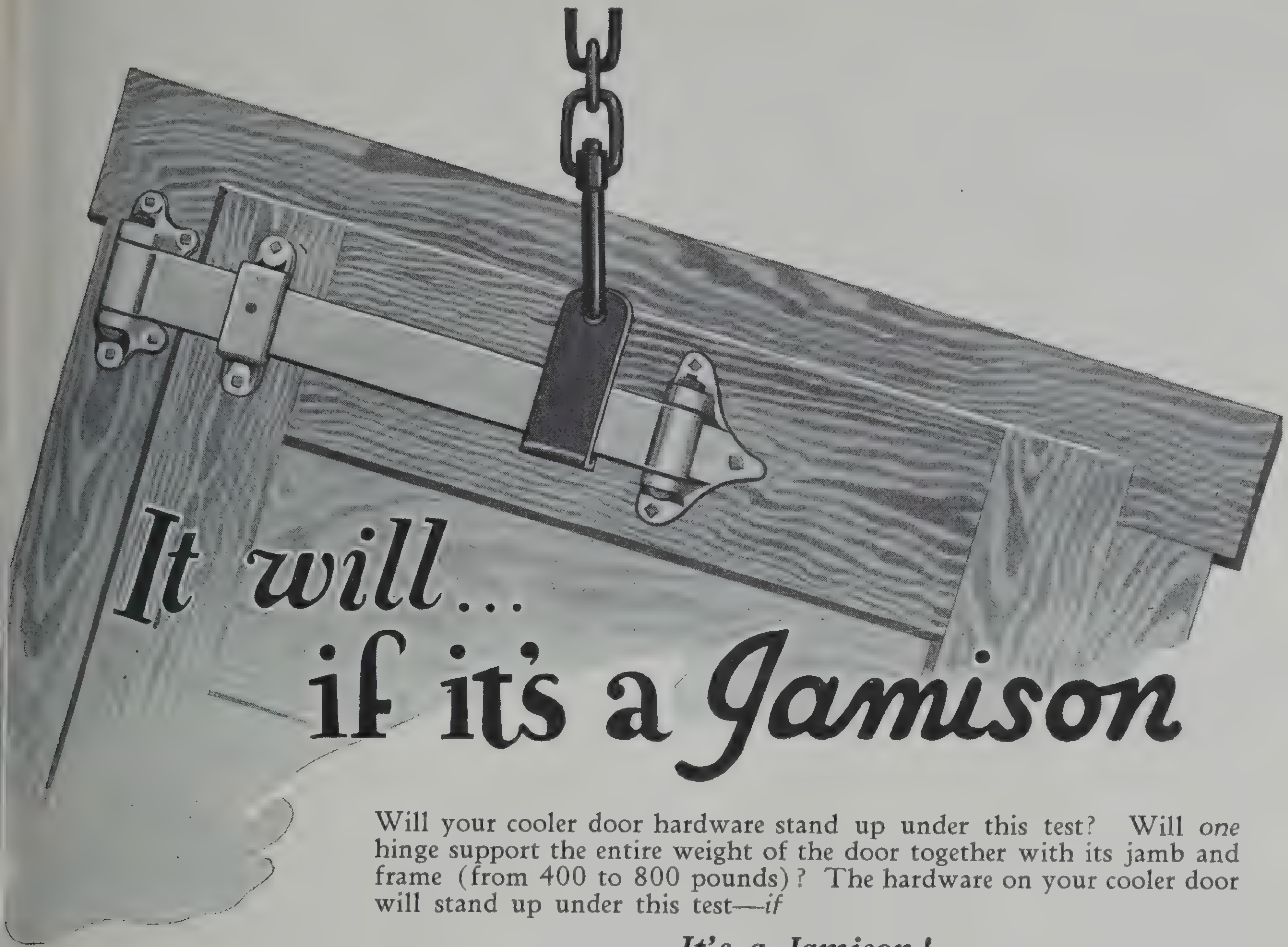
‘‘Why, William; that's where the war started. we could see the Kaiser's palace and everythin woman across the street was just telling me that a cousin in Berlin who is a shoemaker with on Maybe we could tell him that we know his cousi and he would take us around some.’’

‘‘Sure. Europe is full of lots of places. For in we coul see the Coliseum at Rome, where Nero the lions on the poor slaves, and we could see ab place where Julius Caesar was stabbed. I tell you, I says, working up to a climax, ‘‘we got this trip to us. You, anyway, need a vacation.’’

‘‘But it will cost lots of money,’’ says the w ways squeezing the sock, ‘‘maybe we should wai few years.’’

‘‘Wait nothing. This World's Dairy Congres congress every year. There'll be lots of people w going along, and before the trip is over, we wil a whole lot more. And, besides, this trip and con is going to help me in my business. Travelling li is good for a man, and at the convention there w bunch of good speakers tellin' this and tellin' th maybe we can get over some of our troubles plant.’’

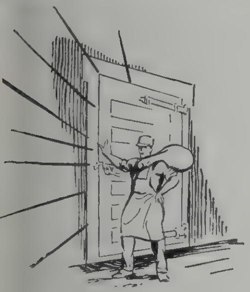
I guess by this time that the wife must hav pretty well sold on the idea, for she sighed kind o like. ‘‘Well,’’ she says in a voice that I kno enough, meaning that she's going to give in, ‘‘so I see the King, and maybe get a hat or dress fron



It will... if it's a Jamison

Will your cooler door hardware stand up under this test? Will *one* hinge support the entire weight of the door together with its jamb and frame (from 400 to 800 pounds)? The hardware on your cooler door will stand up under this test—*if*

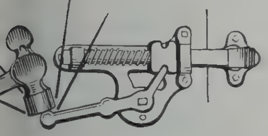
It's a Jamison!



> Note: This is not a stunt performed for demonstrating purposes. It is the way *each* Jamison Door is transported through the plant after it is completed. Step into our plant any time and you will see every Jamison Door carried from the hanging, through the testing, through the crating department into the cars in just this manner.

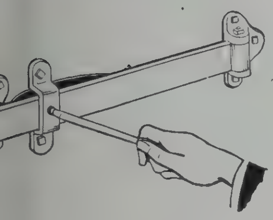
Will your cooler door open almost at a touch and yet stay tightly closed and positively sealed no matter how hard it is slammed? Is the latch on your cooler door fully automatic—self-tightening and of simple, sturdy construction which permits absolutely no rebound? Will it stay on the job doing its work—efficiently—year after year? It will—*if*

It's a Jamison!



Will your cooler door latch stand this sort of treatment? Without breaking? Will it—under severe shock or strain—bend but refuse to break? Will it stand up—as shown here—under pounding with a sledge hammer? It will—*if*

It's a Jamison!



Will your cooler door hardware by its design permit you to instantly and easily adjust it for a constant air tight seal? Will a few turns of a screw driver quickly adjust the tension so as to keep the door tightly and positively sealed? It will—*if*

It's a Jamison!

Send for catalog number 13. It will give you full details about Jamison Cooler and Freezer Doors and other Jamison products.

Jamison Doors

Jamison Cold Storage Door Company
Hagerstown, Maryland, U. S. A.

When writing to JAMISON COLD STORAGE DOOR COMPANY *please mention The Milk Dealer.*

with a label in it, you can go to the convention occasionally to see that it's running right. But, mind you William, there'll be no shenanigans like the last time. You know that your stomach isn't so good any more, and that when you stay up late, you always feel bad the next morning."

So I promised to be good, like I always do, and then don't, and gets up real quick to mail a letter to Mr. Olsen for our reservations on the Leviathan before Elsie could change her mind, because I know her pretty well by this time. Sometimes a change in the weather or a touch of lumbago makes all the difference in the world to what she says one day, and then says the next. But, anyway, here's hoping you can put things across as slick as I did.

EDITOR'S NOTE:—Of course, the "Mr. Olsen" referred to by William is H. P. Olsen, president of the Olsen Publishing Company, Milwaukee. This company is sponsoring the only Official Tour to the World's Dairy Congress, and reservations for space on the S. S. Leviathan are being booked. Join the leaders and send in your reservations now.

⁂

THE LADIES ARE GOING TO EUROPE.

At the meeting in Chicago recently where E. A. Evans of London gave an address on the World's Dairy Congress Tour, there were many ladies present. We are told that Mr. Evans "sold" the ladies 100 per cent on the idea of going along and that they have resolved so. "Our husbands are going to be invited to g us, and they are going to be invited hard," one e astic wife declared as she discussed Mr. Evans'

⁂

SEATTLE SHIPS MILK TO PHILIPPINE ISL

Seattle's milk market has been extend the Philippine Islands. The Royal Dairy, loca 5428 Leary St., that city, is shipping 400 gallons to Manila every two weeks for human consumpt R. Schain, manager of the dairy, has announced company has been exporting milk for the past months

The product, according to Schain, is pasteuriz shipped in the refrigeration department of the s When it arrives at its destination it is said to b perfect condition as on the day of shipment.

Schain explained that due to climatic con there are few milk cows in the Philippines, and t limited milk product of the islands is lacking butter content for which the milk of western W ton is noted.

This state, he declared, produces some of the milk of any in the Union, due to uniformly ideal c conditions.

HORSE SUPREME ON THE MILK ROUTE

Horses used by 15 large dairy companies in Chicago increased 534 head during 1925 and 1926.

Delivery of $1,000,000 worth of milk by horse and wagon instead of by electric truck in Chicago saves $94,100; by horse and wagon instead of gasoline truck, $112,000.

In order to equal horse-wagon efficiency on a milk route an electric truck must deliever 6.412 quarts while the horse-wagon delivers five quarts; and a gasoline truck must deliver 7.43 quarts.

On three delivery routes surveyed, one salesman did not drive his horse a single time after arriving delivery territory, another drove his horse onl while salesman driving electric truck sat down t 75 times during the two hours, 39.3 minutes, he delivery territory.

Average weekly cost of operating a horse-wa livery unit in Chicago, salesman's compensati cluded, is $66.82; for electric truck it is $84.82; gasoline truck $97.23.—Extracts from a circular by the Horse Association of America.

QUALITY SER
MILK
795
LIVE ST
PHOT
CO

"Faithful Grover," who for 22 years and 2 months traveled the same milk delivery route. On his thirtieth birthday, in Grover was retired to a life of ease. He had drawn a milk wagon more than 40,000 miles and had delivered more than 12,0 quarts of milk and cream during the period of his usefulness.

World's Dairy Congress Official Liner—S. S. Leviathan

All Aboard!

Who's Going to Europe Next June?

LONDON, Paris, Berlin—magic words. How many times have you promised yourself that some day you would go there? Now comes your opportunity—the World's Dairy Congress Tour, made up exclusively of dairy folks and their friends, all going to Europe for the World's Dairy Congress, and later, to tour continental Europe.

Just imagine yourself in a comfortable deck chair on one of the broad decks of this largest and most luxurious liner, dozing away pleasant hours, or reading, or talking and making new friendships.

Imagine yourself sitting down to dinner before an immaculate, snowy white table glittering with fine silver and glass, and eating the tastiest of foods in the palatial Leviathan dining room.

For luxurious appointments and furnishings, the Leviathan is unequalled. It is the world's most beautiful steamship, and all former discomforts of ocean travel are entirely eliminated. Make up your mind now to enjoy this never-to-be-forgotten trip. The coupon will bring you further information. All reservations are made through THE OLSEN PUBLISHING COMPANY
501-515 Cherry Street Milwaukee, Wisconsin

UNITED
STATES
LINES

THE OLSEN PUBLISHING COMPANY,
501 Cherry Street, Milwaukee, Wis.

Please send me further information about the World's Dairy Congress Tour to Europe, in June, 1928.

Name________________________________
Address______________________________
City and State_________________________

In the Southern Field

North Mississippi.

The Aberdeen (Miss.) condensing plant, opened a few days ago with many visitors present from Memphis and Mississippi towns, was designed by Memphis engineers, Thos. H. Allen designed the plant. It represents an investment of approximately $100,000. The plant from the very start is paying out $1,500 a day for cream. Five milk routes have been started and a total of fourteen planned. It was financed by Mississippi capital and erected by Aberdeen builders.

East Tennessee.

L. L. Hunt, field representative of the Pet Milk Co., announces that the site for the Greeneville, Tenn., condensing plant has been definitely selected. After a few details are worked out active construction will begin.

Middle Tennessee.

A creamery is being planned for Wayne county, in middle Tennessee. Tests on 82 head of Wayne county cattle were made by a state tester. M. B. McCall's herd of 42, including all milk cows; 12 from Geo. Roberts' herd at Clifton, Tenn., and others were examined and found free of all disease. P. Butler had 23 head tested and there were five milk cows in Waynesboro given the regulation test.

At Murfreesboro, Tenn., Friday, Aug. 5, has been set apart as a day of welcome and rejoicing for the Carnation Milk Products Co. entering that city. The committees from various civic and commercial organizations were selected at a meeting held at the Murfreesboro Bank and Trust Co. in July. A. J. Brandon acted as chairman, John N. Bagwell as secretary. Stanley McNees of the Carnation company met with the local committees.

Burton Wilkerson, president of the Nashville Pure Milk Company, Nashville, Tenn., was elected director of the Fourth and First National Bank, the Nashville Trust Co., and the First National Trust Co. by the board in July. He was named to fill the vacancy caused by the death of Percy Warner, eminent electric traction man of Nashville. Mr. Wilkerson is one of the most successful of the young business men of Nashville and he has been president of the Nashville Pure Milk Co. since its organization. The company of his own that he heads has witnessed a wonderful growth. Today it has agents scattered throughout Tennessee and it handles approximately 2,000,000 gallons of milk and 2,500,000 pounds of butter per annum. It has 52 retail and wholesale routes in Nashville and 150 cream stations in Tennessee. Last year the company paid out a million and one-half dollars to milk and cream producers.

Northwestern Kentucky.

The Evansville Pure Milk Co., Inc., held a formal opening of its new and modern dairy products plant at 11th and Locust St., Owensboro, Ky., on June 27-28, hours 3 to 5 P. M. and 7 to 10 P. M. For several years the company has had a place in Owensboro and the demand in that city and Daviess county has grown so an enlargement was necessary. The new place will give about equal attention to milk products and ice cream, with a capacity for 1,000 gallons daily of each. At the present time about 300 gallons of pasteurized milk products are being delivered by three drivers. A. C. Rose has been general manager for the last five years. R. L. Wible is assistant manager; Miss Bess Hart is office manager. The plant has a 22-ton refrigeration unit, m
ical bottle cleaning facilities, and it spends about $
a year with the Daviess county farmers for the mi
nished. The new plant represents an investment o
000 and is one of the finest equipped and largest in
Kentucky.

Central Kentucky.

The Moore Milk Co. of Logan, W. Va., has pur
the plant of the Sanitary Milk Co. at Frankfort
operated for the last two years by T. A. Bramm
assumed charge July 1. The Frankfort concern a
votes some attention to ice cream. Ben Campb
original Frankfort county boy, but more recentl
nected with the West Virginia plant, will be ma
Central Kentucky ships much pasteurized milk p
to West Virginia, the mountainous terrains not
so advantageous for grazing as central Kentuck
adjoining states draw on the latter for much
product.

Louisville, Ky.

The stables of the Kentucky and Indiana D
414-420 Marshall St., Louisville, Ky., were com
burned Thursday night, July 7. The origin of t
was not known. Three alarms were sent in and
Ed. McHugh and the fire department resp
promptly. Twenty-five horses were kept in the
and 23 were brought out safely. The damage wa
mated at $20,000. Twenty streams of water were
on the building but the hay and feedstuffs in the
made the fire a hard one to fight. The location
central and closely built up section and other pr
was saved.

Memphis, Tenn., and Northern Mississippi.

A conference was held in Lexington, Miss., or
6 between the business folks of Durant and Lexi
Miss., to gather united support for the new Kraft
factory which promises to be in full operation at D
Miss., within a few weeks. Milk will be purcha
large quantities. The plant will have a large ca
at the start.

Ground was broken in July for the $20,000 ad
to the Automobile Bldg. at the Tri-State Fair Gr
Memphis, which will be used to house the dairy ex
at the National Dairy Show in October. Constr
work will be supervised by the Memphis Park Co
sion. Hanker and Cairns, Memphis, are the arch
The present building is 65 feet wide and 330 feet
The new building will be 118 by 330 feet, or a tota
space of 38,940 square feet. It will be of wood con
tion and painted white. The National Dairy As
tion will have entire charge of the building durin
dairy show.

Klink Bros. Ice Cream Co., Memphis, Tenn
made large improvements and additions at its dair
ice cream plant in the northern part of the city
cent months. The corporation mentioned began
ness Jan. 1, 1927. There are two ice cream rooms
a capacity of 5,000 gallons and freezing capaci
1,000 gallons per day. The room has sunlit wi
on all sides. Two hundred retailers are now usin
cream in Memphis. Eight years ago W. B. Klin
and sons W. B., Jr., and R. H. started the dairy
one truck.

It now operates 15 trucks to deliver ice crear
milk. Klink Bros. have outgrown their own herd
cows and milk is bought from many farmers in S
Co., Tenn. "Have a Heart" ice cream and "Cremo
tage cheese products are handled exclusively by
Bros. The entire interior of the plant is covered
white enamel, all bottles are inspected before the
filled and the purity and excellence of the produ
made for its advance in Memphis.

SAVE

25% Fire and Tornado INSURANCE

20% Workmen's Compensation Automobile, Teams and Other Liability Insurance

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,036,000.00 *Savings Returned to Policyholders*

$4,311,000.00 *Surplus and Reserve*

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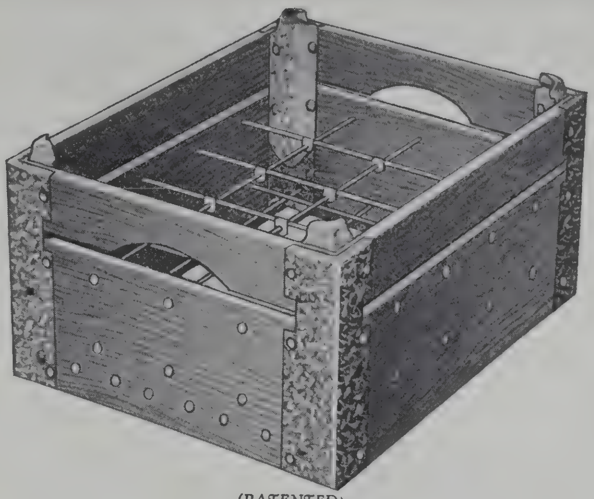
Bruce Dodson and Company
Established 1900
8 & Wyandotte **Kansas City, Mo.**



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Heavy galv. corner irons overlapped at top and bottom.
Long galv. stacking irons riveted through corner irons.
Strong — Durable — Yet light in weight.
Bottom runners if desired.
Will stack on any standard size cases.
Simplest and strongest construction — lowest in price.

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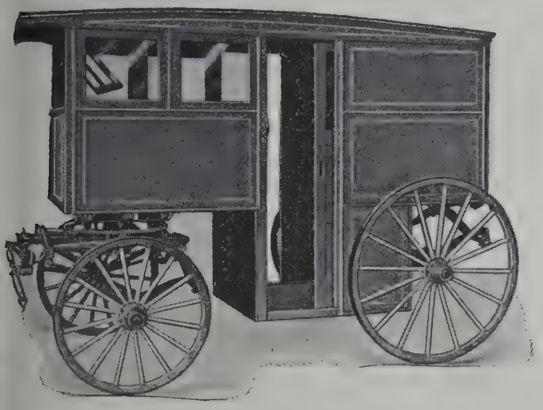
Front, Second and Lawrence Sts. **CINCINNATI, OHIO**

Sturdy Construction MEANS ECONOMY



e have built milk wagons for over 25 years and fully nderstand the needs of the dairyman in this line. We ake a specialty of installing equipment for carrying cases any of our wagons.

Send for our No. 48 free catalog showing eight styles and many sizes of gear from which to make selections

Special Wagons Built to Order.

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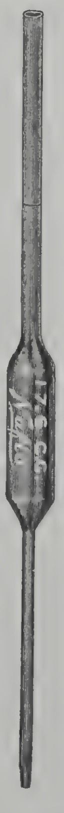
The Accuracy Of Your Babcock Tests

Depends upon you when you use

NAFIS TEST BOTTLES AND PIPETTES



Superior quality of glass.
Proper annealing for strength.
Accurate graduations.

Durable enamel in test bottle scales.

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Do not accept substitutes.

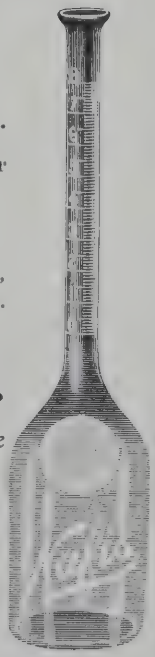
Write for our instructive catalog, containing directions for many tests.

LOUIS F. NAFIS, Inc.

Manufacturers of Scientific Glassware for Testing Milk and its Products

17-23 North Desplaines St.
CHICAGO

Ask the Men Who Use It



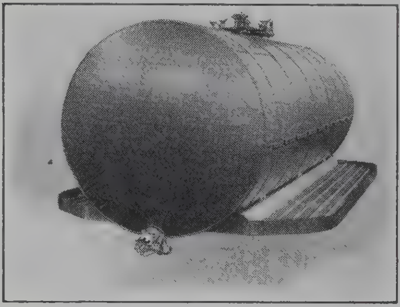
Please Mention The Milk Dealer.

NOTES OF THE TRADE

News of Interest Concerning What Our Readers and Advertisers are Doing to Develop the Industry. We Invite Correspondence Relative to New Products and New Equipment.

PFAUDLER ANNOUNCES NEW "PFEATHERWATE" MILK TRUCK TANK.

The Pfaudler Co. has placed on the market a new lightweight truck tank model which is said to be the lightest lightweight construction being offered to the trade. It has the continuous operation of over a year in the field as the guarantee of its durability. A number of companies have contributed their experience in the actual operation of the equipment, which is offered as a guarantee of its proper construction.



At the present time it is unfortunate, although not uncommon, for the dairy operator to equip his truck with a special body construction, or tank, only to find that after the unit goes into service it exceeds the allowable road weight when completely loaded.

Then one of two things happen—either the unit must be operated at only partial capacity, or part of the special body must be dismounted to meet the governing conditions. Particularly in the spring, when the restrictions are increased in some states, a definite hardship has been worked upon operators whose truck capacities have been greatly limited.

The new Pfaudler "Pfeatherwate" truck tank offers to every dairy product manufacturer an opportunity to use the bulk method irrespective of the stringency of the laws prevailing in his state.

But in addition to these special cases, the "Pfeatherwate" truck tank may well be used by any operator. Its light construction means that a heavier net pay load may be carried with the same gross weight; lower operating costs result, and longer life for all equipment involved.

For those operators facing seasonal fluctuations in demand, means have been provided for hauling extra cans on the platform.

Right along this line, the "Pfeatherwate" truck tank meets a new set of conditions which have arisen in the dairy industry.

The "Pfeatherwate" truck tank is manufactured in four sizes—600, 750, 1,000 and 1,250-gallons. It is described in detail in catalog No. 686, issued by The Pfaudler Co., Dairy Division, Rochester, N. Y.

* * *

NEW CORK COVERING.

In response to continual requests received from many buyers of insulation, United Cork Companies, Lyndhurst, N. J., have developed their latest product—Crescent Cork Covering, for cold pipe lines.

Crescent Cork Covering is an efficient and economical insulation for brine lines, ammonia lines, ice water lines, and special cold lines of every kind. It is manufactured of pure, clean granulated cork, compressed and molded in sectional forms, to fit the various sizes of pipe; and the fitting covers are molded to conform to the shape and size of the various fittings in ordinary use. It is finished with a coating of mineral rubber that provides a waterproof covering for all lines and fittings.

It is manufactured in three thicknesses—standard brine thickness—for lines where the refrigerant ranges from 0 degrees F. to 25 degrees F.

Ice water thickness—for lines where temperature of 25 degrees F. and higher are carried.

Special heavy brine thickness—for lines where the refrigerant ranges below 0 degrees F.

The same high uniform quality of product will be found in Crescent Cork Covering as has been maintained cent 100 per cent pure corkboard for more than 20

A service organization for the installation of this is ready to handle complete pipe covering contracts point in the country. Economical and effective co covering is thereby assured. Specifications and pri gladly be submitted on application. Refrigerating manufacturers and contractors are especially reque secure figures on Crescent cork covering. Prompt de and satisfactory service are promised.

A new folder containing helpful data, prices, and information about Crescent cork covering, has just be lished. Copies will gladly be sent upon request.

* * *

NEW MULTI-PURPOSE MACHINE.

If you are interested in a general utility machine to many uses in the modern dairy products manufa plant, you will want to write for descriptive bulletin No. 2114 on the new 200-gallon Cherry upright pasteurizer, being introduced to the trade by the J. G. Cherry Company, dairy equipment manufacturers, Cedar Rapids, Ia.

This machine can be used for pasteurizing special milk or cream. Certified milk producers are adopting it as a storage tank. It serves equally well as a buttermilk machine, as a starter can or as an ice cream batch mixer.

It is water-jacketed, the outer jacket being of copper. It is reported that this is an entirely new feature in this class machine. The drive is enclosed and runs The outlet is designed for a "flush valve." It is dri a ½-h.p. motor.

* * *

HEATING UNITS FOR SMALL PLANTS.

The American Blower Company of Detroit, Michig recently announced to the trade that they are now p to install their "Venturafin" method of unit heating in plants. Heretofore it has been suitable only for la stallations.

Venturafin is **"the radiator with the blower behi** In its more than 15,000 installations, it has set amazi ords for fuel economy, improved working conditions, around efficiency. It has so far surpassed the "regu cast-iron or pipe coil radiator that it is now the a standard for the heating of large spaces.

Quite naturally, this success has brought with it a ing demand for application of the same principle heating of smaller spaces. Owners of smaller building the same economies that great industrial plants, audit etc., have been enjoying with the **Venturafin** method. fronted by high fuel costs and ever-increasing operatin they too are ready to put **positive heat circulation** to their buildings.

Venturafin Number 2 is the answer to this deman

It is like the big **Venturafin** units in every respect, size. Working parts, construction and operating pri are the same; only, instead of providing circulatin equivalent to 500 or 2,000 square feet of radiation (t

effel

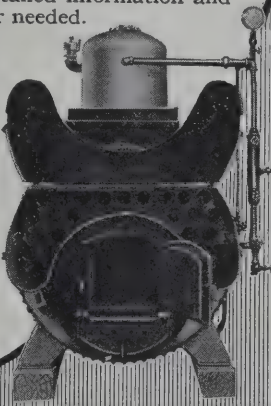
CREAMERY BOILERS

Notice how easy it is to get at and clean a Leffel Creamery Boiler—the entire front opens like a door, there are generous hand holes at sides and bottom, and a large door at the rear. That's another reason why so many creameries prefer Leffel Creamery Boilers—designed and manufactured especially to meet the needs of the trade.

Easy to install, easy to operate, easy to clean—Leffel Creamery Boilers require less attention than other boilers, and yield more steam from less fuel than any other boilers of corresponding size. Write to us for detailed information and prices, stating horsepower needed.

Leffel Creamery Boilers re made in 14 sizes, from 6 o 150 H.P. No matter what ize plant you operate, there s a Leffel Creamery Boiler hich will save money for ou. Furnished complete, n skids, with fire brick aid in at the factory.

All Leffel Creamery Boilers conform to All State Boiler Laws



e James Leffel & Co. BOX 330 SPRINGFIELD OHIO, U. S. A.

ALLOVA WORK SUITS

Advertise Your Business

Put Your Men In ALLOVA UNIFORMS at Wholesale!

$3.25 Each

Less In Quantities

MISSOURI
DAIRY

Allova Work Suits, Work Coats and Caps are made of heavy cloths, closely woven, and stronger, heavier, longer wearing. In order to guard against the inevitable shrinkage, we cut all garments over-size, and make them two inches longer than ordinary work clothes.

Snappy uniforms, lettered with the individual name, trademark or monogram of the wearer, give an air of "class" to any place of business—and yet cost but little more than nondescript, shabby overalls.

Every seam is stitched to stay. Pockets reinforced with double thickness of material. All buttons covered. Your choice of many colors: Solid blue; solid white; solid khaki; blue and white striped; blue and khaki striped. Sizes 34 to 56.

Your dry goods, department or clothing store can supply you ALLOVA suits at the prices named. If not, order direct from the Motor Suit Mfg. Co.

We embroider names, trademarks or monograms in fast colors for 25c per garment. Choice of any color embroidery. 24 to 72 hour service.

12 Suits or Coats	**$3.00** each
25 Suits or Coats	**2.88** each
50 Suits or Coats	**2.75** each
Sizes 46 to 56 are 10% additional.	
Caps	**.40** each

One Suit or Coat FREE with each dozen lettered all alike.

Motor Suit Manufacturing Co., Dept. 292

PLANTS: Manufacturers Exchange Bldg., Kansas City, Mo.
107 N. Austin, Dallas, Tex. 327 S. Market St., Chicago, Ill.
53-55 Walton St., Atlanta, Ga.

OWLES
LEANER
for

thorough cleaning of bottles and all dairy equipment.

HE COWLES DETERGENT CO.

565 Commonwealth Building
Euclid Avenue at East 102nd Street
Cleveland, Ohio.

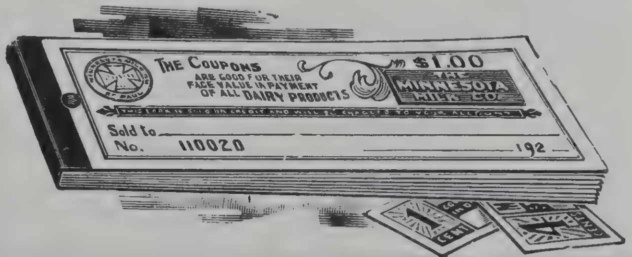
NATIONAL
Coupon Books

GET THE CASH;
GET IT IN ADVANCE;
REDUCE CLERICAL COSTS;
ELIMINATE LOSSES;

Are used by leading successful concerns, large and small; are priced right.

For Detailed Information—Write

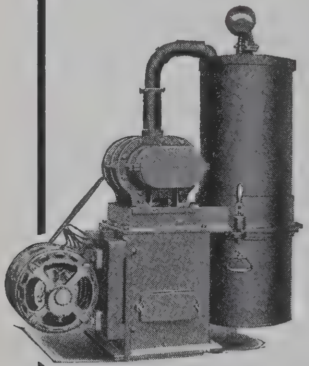
NATIONAL CHECKING COMPANY
ST. PAUL • • • MINN.


THE COUPONS ARE GOOD FOR THEIR FACE VALUE IN PAYMENT OF ALL DAIRY PRODUCTS
$1.00
THE MINNESOTA MILK CO.
Sold to
No. 110020
192

Cut Your Costs with CURRY-VACS

Cow Cleaning with a Curry-Vac

Tests, conducted in dairy barns with Curry-Vacs, show a minimum time saving of 45%. Help costs decrease in direct proportion to the time saved. Cows are kept cleaner with fewer employees by using Curry-Vacs. A cut in labor cost will result in more profits. In addition to that, the cows will be cleaner and healthier.



Curry-Vacs are built in two types, either stationary or portable. The stationary type is for permanent installation where the horses and cows are brought to be cleaned. The portable type may be easily taken to any place in the stable.

Mail the Coupon Today!

United Vacuum Appliance Corp.
CONNERSVILLE Dept. M-7 INDIANA

Please send information on ( ) Stationary, ( ) Truck Curry-Vacs for cleaning ( ) Cows, ( ) Horses.

NAME ....

ADDRESS ....

CITY AND STATE..

original sizes) Number 2 yields an equivalent of from 200 square feet.

Like the older method that has served for most steam heating of the past, Venturafin is a steam ra But here the resemblance of the old method and th stops. For the radiator is of a very different, more e type, and carries with it the new element—a fan and for air circulation. The fan—back of the radiator— all the heat out into the space it is intended to warm opening in the bottom of the heater draws the cold from the lower part of the room and carries it back o radiator. Result—a constant, positively controlled c tion that evens the temperature in all parts of the roo maintains the desired temperature at a lower fuel co

* * *

DIVERSOL.

"Diversol," manufactured by the Diversey Manufa Co., Chicago, is being introduced to the dairy trade. D is principally a combination of an alkaline sodium pho and sodium hypochlorite in solid solution.

DIVERSO
CLEANSES
DESTROYS BACTER
DEODORIZES
CONTAINS NO ACID—POISON
OR OTHER INJURIOUS SUBSTANC
KEEP IN COOL PLACE
DIVERSEY MANUFACTURING
CHICAGO

Diversol is used by dissolving the crystals in water. The strength of the solution should depend on the amount of contamination to be removed. For general cleaning add one-half ounce Diversol for each gallon of water used. If the contamination is unusually heavy, three-quarters of an ounce or one ounce per gallon may be used. If a scouring action is desired, the dry crystal can be directly applied with a wet brush, followed with a rinse. When used for sterilizing purposes only add one-quarter to one-third ounce for each gallon of water. At this strength Diversol solutions will s and at the same time remove invisible films which hav left by washing powders previously employed. It is im that these films be removed, for beneath them quite fr ly bacteria thrive and subsequently contaminate milk. ing and sterilizing with solutions made of Diversol carried on either in cold or warm water—not hotte the hand can stand. Solutions that have been us cleansing pasteurizers, homogenizers, coolers, vats and equipment should be saved for further duties in cl and deodorizing floors.

* * *

PASTEURIZER VALVE BULLETIN READY.

The movement toward complete safety in the opera pasteurizing milk is proceeding rapidly.

In step with this movement, The Creamery Packa Company announces publication of a catalog bulletin ing the various protective devices for existing ma which the company has perfected to date.

The Wizard "Safety" outlet valve for Wizard paste of which many are already in use, is fully described. item is a vertical "Safety" outlet valve for use on glas tanks and other pasteurizers having vertical outlet op Other items are inlet valves and foam reducing inlet all of which are applicable to machines now in use.

Copies of Bulletin 1162, which is the publication r to, may be had by addressing the company at Chica

* * *

MICHAEL YUNDT COMPANY ESTABLISHES EAS OFFICE.

E. H. Goldacker, Eastern representative of the Yundt Co., Milwaukee, manufacturers of air brush mi tle washers, is now permanently established at 6957 Cedar Park Ave., Philadelphia, Pa. Mr. Goldacker h many years of experience as an erector and sales engi

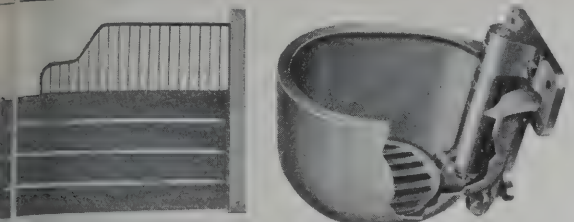
Officials of the company advise that this move wa necesary because of the increased volume of busines enjoyed by the company in the Eastern territory. The lishing of an office in Philadelphia wil enable the com give their customers the best service possible, we are

* * *

COCHRANE JOINS COWLES DETERGENT CO

Paul J. Cochrane, for many years connected w Elyria Enameled Products Co. and the Pfaudler Co., associated with The Cowles Detergent Co. at the hom in Cleveland, Ohio.

Mr. Cochrane's duties include co-operation betwe clearing problems of the industry and the research



IORSE STABLE FIXTURES
ow and Stall Guards—Oat and Hay Mangers, Steel Stall Posts
AUTOMATIC DRINKING CUPS
anufacture a complete line of horse and dairy barn equipment—Get our prices—Save 20-30 per cent.
DEAL BARN EQUIPMENT COMPANY
BARSTOW STREET HORICON, WISCONSIN

DAIRYWEAVE
Means OBLONG Weave
MILK-FILTERING FABRICS

In Bolts, Bags, Tubes, Flats, Discs, or Special Shapes and Any Yardage.

SUPER-FILTERGAUZE —
(width 36 inches)
SUPER-FILTERFLANNEL
(Two widths—27 and 36 inches)

Ask our Service Department to send you a Dairyweave working sample to fit your filter. It is FREE.

Prickett Manufacturing Co., Hampden, Mass.

HANDYCAP
Milk Bottle Opener and Cover
TWO IN ONE
The Old Way
REVERSE SIDE
The Handy Cap Way

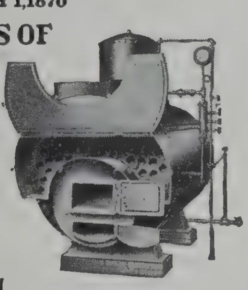
Good Housekeeping has approved the Handycap. It's a real convenience to the housewife and an excellent means of advertising for the milk dealer.

Ask Your Advertising Specialty Dealer to Show You Samples.

HANDYCAP CO. *Sales Office* Irvington, N. J.

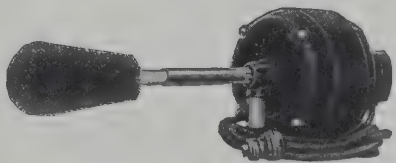
RETINNING
Ice Cream and Milk Cans
HOT GALVANIZING

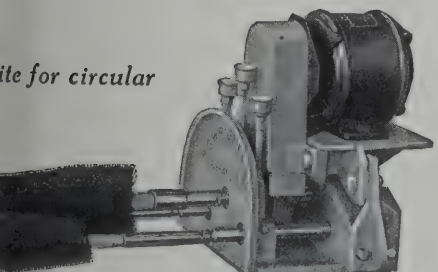
Sanitary Tinning Co.
3753-63 E. 93rd St. Cleveland, Ohio



URRAY IRON WORKS COMPANY
BURLINGTON, IOWA
INCORPORATED FEBY 1,1870
STEAM BOILERS OF ALL STYLES AND SIZES
The cuts show vertical and horizontal boilers requiring no brick work
uild also Water-Tube and lar Boilers to be set in Masonry

MOND MALLEABLE NICKEL 99%+
FREE-FROM-COBALT
The Ideal~Metal~for DAIRY Equipment
American Mond Nickel Company, Pittsburgh, Pa.





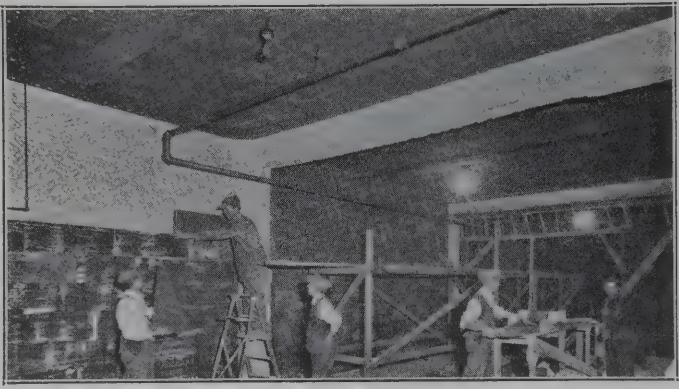
lectric Drive Bottle Washers

ite for circular

Single Brush - $30.00
Three Brush - $70.00

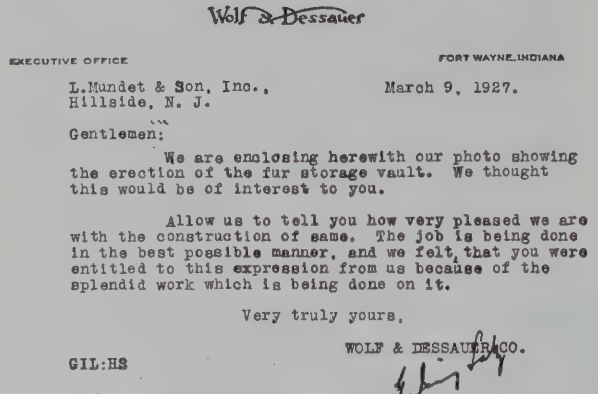
With ¼ H. P. Motor, 1 phase, 60 cycle, 110 volt. Motors of other specifications can be supplied at small extra charge.

MANUFACTURED BY
R. G. WRIGHT & COMPANY
BUFFALO, N. Y.



Fur storage vault of Wolf & Dessauer Company, progressive leading dry goods concern of Fort Wayne, Ind., being insulated by Mundet men with MUNDET JOINTITE CORK BOARD. Read Mr. Latz's letter below.

Mundet Service Throughout



Wolf & Dessauer

EXECUTIVE OFFICE FORT WAYNE, INDIANA

L.Mundet & Son, Inc.,
Hillside, N. J.

March 9, 1927.

Gentlemen:

We are enclosing herewith our photo showing the erection of the fur storage vault. We thought this would be of interest to you.

Allow us to tell you how very pleased we are with the construction of same. The job is being done in the best possible manner, and we felt that you were entitled to this expression from us because of the splendid work which is being done on it.

Very truly yours,

WOLF & DESSAUER CO.

GIL:HS

Read the above letter

Manufacturing and selling Mundet Jointite Cork Board is only a PART of the insulation service performed by the House of Mundet. Our contract department installs it, complete. They do their work "in the best possible manner," as expressed by Mr. Latz in his letter.

Mundet Jointite Cork Board
TRADE MARK

No matter what the nature of your business may be—Milk, Fur Storage, Ice Cream, Butter, Ice Making, Meat Storage, etc.—you NEED refrigeration, and you therefore NEED cork insulation.

You know that PURE BAKED CORK is superior insulating material, but do you know that UNLESS CORK IS PROPERLY INSTALLED ITS INSULATING VALUE WILL DECREASE?

Cork MUST be installed properly if maximum insulating value is wanted continuously thereafter. To insure correct installation therefore, put it in the hands of Mundet's contract department.

We cover the entire United States. Mundet has trained engineers everywhere who gladly help with insulation problems without the least obligation.

L. MUNDET & SON, Inc.
Hillside - New Jersey
Established 1865

New York Office:
461 EIGHTH AVE.
New York City

Also manufacturers of Jointite Pure Cork Pipe Covering for all Cold Lines.

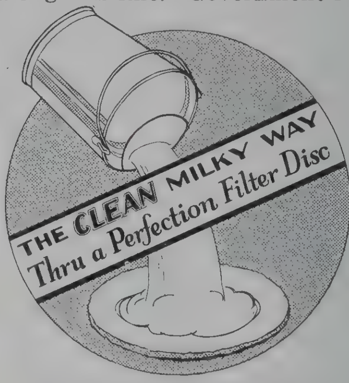
tories which have been instrumental in building up th
products and service. His many friends will wish h
in his new connection.

* * *

SCHWARTZ COMPANY INAUGURATES CAMPAIG CLEANER MILK ON THE FARM.

In the interests of creamery men in particular
dairy industry in general, the Schwartz Mfg. Com
Two Rivers, Wis., has undertaken a campaign havin
ultimate object the education of the farmer to the ad
and necessity for the proper filtering of milk at its s
on the farm.

There has long been a need for an educationa
along this line. Government reports estimate that th
losses in unsanitary
—and the losses inv
the lowering of the
and value of the com
products of raw
amounts to millions
lars each year.


THE CLEAN MILKY WAY
Thru a Perfection Filter Disc

The Schwartz Trade-mark.

The Schwartz Mf
pany proposes to di
attention of the in
elements entering
ultimate production
dairy product with
towards arousing a c
tion along the line
bound to result in
more healthful, mo
tary and more p
dairy products.

It proposes to do
two ways—(1) through a direct appeal to the fa
means of circulars, inserts, placards at delivery stati
ultimately magazine ads, which will not only brin
attention the advantages actually inherent in keepi
clean—but also educate him up to the necessity
method of making his milk more valuable commerci

Secondly: To bring to the attention of dairy
manufacturers the necessity for demanding and getti
milk from their patrons—and suggesting a plan wh
make it simple and practical for them to get their
to insure the delivery of clean milk.

The Schwartz Company are pioneers in the field
ing material. They produce every type of cloth pro
the dairy trade such as filtering discs, filter bags
squares, tubes, cheese and butter tub circles, etc. Th
every type of filtering disc including the natural finis
finish, No. 10 bleached and No. 16 unbleached filteri
They have developed the Schwartz cloth faced filter
a special type which is becoming standard with ma
dealers.

This disc is made of specially long thread cotton
faced with a cheese cloth covering which is actuall
into the cotton. This cheese cloth "facing" not onl
a stronger and more easily handled disc but it is

Home of Schwartz Mfg. Co., Two Rivers, Wis.

efficient because the cloth not only holds out the la
ticles but it prevents the disc from disintegrating and
apart—which would result in milk flowing through
being filtered.

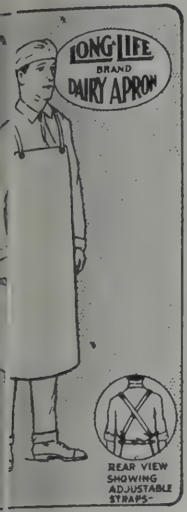
Myron E. Schwartz, the man behind the educatio
has been prominently identified with the developme
ering material for almost a decade. He tells us that
through the plan not only to benefit his organization
industry as a whole—for, in reality, the basic proble
problem of the entire industry rather than that of
vidual firm—and its results will naturally react acc

* * *

ANNOUNCE NEW VENTILATOR.

The Burt Manufacturing Company of Akron, O., a
a new direct connected fan ventilator, for dairy
plants and offices, and other establishments.

The equipment consists of a motor, with a fan c



CTUAL USAGE

Proves this IS

A

Long-Life

Dairy Apron

Special fabric, scientifically treated to resist the disintegrating effects of fats and acids about dairy plants, gives the Long-Life dairy apron an ability to render continued useful service long after other aprons have been discarded

A TRIAL ORDER WILL PROVE IT!

You Will Learn a New Item on Which to Save Money.

he M. F. Murdock Company
RUBBERIZED FABRICS
6 So. Main Street AKRON, OHIO

The Famous Flueless — Boiler —

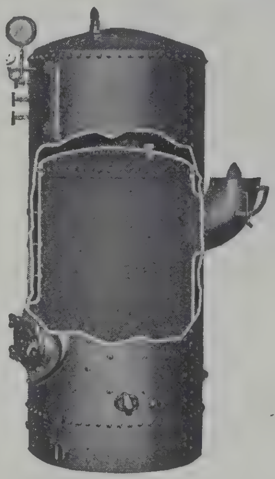
Famous as a Quick Steam Producer.
Famous as a Fuel and Repair Economizer.

BOILER is regularly constructed with extension to form ash pit, but can be furnished with cast iron base, in all sizes up to and including 48 in. diameter, **without extra charge.** Boiler comes complete with fire door and frame, ash door, grates, elbow and damper, hand hole plates complete. Steam trimmings include safety valve, steam gauge and syphon, water gauge, gauge cocks, blow-off valve, injector complete with check and feed valve. All constructed to comply with the A. S. M. E. code for 100 lbs. working pressure and tested to 150 lbs. hydrostatic pressure.

Boilers carried in stock at all times.

See your nearest jobber for further particulars.

Schwab Boiler & Machine Company
16th & Canal Streets
MILWAUKEE, WIS.



NORTH AMERICAN
CREAMERY CO.
BETTER
MILK AND CREAM

Roomy, Convenient
Light of Draft

Hoiby
Vagons

Substantially built with plenty of room for large loads. Convenient for drivers and easy on the horse.

Let us send you list of styles and prices

. HOIBY Company
o North Washington Ave., Minneapolis, Minn.

To Preserve

Chocolate Milk

Or Similar Products Packed
— IN —
Glass Bottles or Tins

USE THE

FORT WAYNE
AGITATING TYPE
STERILIZER

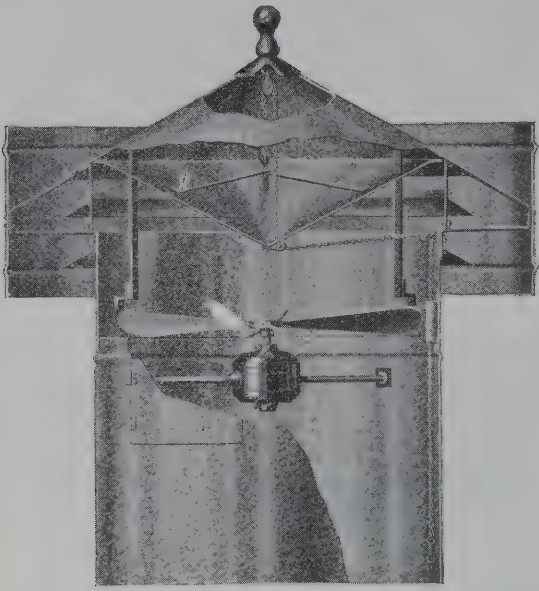
Backed by
TWENTY YEARS OF EXPERIENCE

Built to Meet Any Requirements as to Capacity or Type of Container

Fort Wayne Dairy Equipment Co.
1600 WINTER ST. FORT WAYNE, IND.

of the Burt cone damper ventilator. Noise and vibration is direct on the shaft, both being suspended in the air shafting eliminated by means of composition fiber absorbers, as illustrated.

This system of ventilation accelerates the movement of the hot air fumes and steam upward. At times the natural movement of the warm air and steam upward may be sufficient, but when this normal condition does not exist, the motor fan may be put in operation, to provide forced ventilation.



These ventilators are provided with an extra wide band, making them storm-proof and increasing the efficiency of the ventilator when the motor and fan are not in operation. The inverted cone which is used for a damper does away with the possibility of any eddying currents of air forming in the top of the ventilator, and insures that no abrupt angles will be encountered in expelling the air. The damper is equipped with fusible links which automatically close in case of fire.

Fully enclosed Emerson motors are used. The enclosed motor feature makes the ventilator especially adaptable under such conditions as exist in dairy products plants. The ventilators are furnished with air shafting from 12 inches to 48 inches in diameter, with capacities ranging from 1,350 to 14,725 cubic feet of air per minute. The ventilators are furnished complete with square base made to fit the pitch of the roof. They are the result of a four year period of experimentation, and will be furnished to any responsible firm for two weeks on trial, subject to return at no cost if it does not handle the ventilating problem satisfactorily.

* * *

CORK IMPORT CORPORATION ESTABLISHES NEW CHICAGO OFFICE.

The Cork Import Corporation, manufacturer of Novoid corkboard, cork covering and cork tile, has established new offices at 1112 Conway Bldg., 111 W. Washington St., Chicago, Ill. W. J. Takes is the Chicago district manager.

WASHINGTON — MA

Notes From Far and Near

CALIFORNIA — FLOR

Hillsdale, Mich.—Hillsdale county farmers who
ducing Jersey milk have organized to produce and
the milk. The organization expects to place its prod
a Detroit creamery.

Moberly, Mo.—The industrial committee of the
Chamber of Commerce met with a representative of
milk concern in the chamber of commerce rooms
cussed the possibility of the company locating on
plants in Moberly and one of the absolute require
a certain number of cows and the assurance of a
amount of milk. Another meeting will be held soon
definite action will be taken.

Mexia, Tex.—E. G. Franke, city sanitary officer, ha
a notice to all dairies selling milk in Mexia defining
plaining different provisions of the standard milk o
adopted by the city council at a recent meeting.

New York, N. Y.—Edward F. Perot, president of
Dairies, Inc., says there is no foundation for the r
a merger of Southern Dairies with U. S. Dairy
Corp. and Hershey Creamery Co.

Ranger, Tex.—The G. & H. Dairy, owned and
by R. E. Herrell, is the largest dairy in the Rang
tory with the herd of cattle numbering between 80
head.

Chicago, Ill.—The Silverleaf Dairy and Garfiel
will open a new plant under the name of Midland Dai
W. 47th St.

San Diego, Calif.—Construction has begun on
$100,000 home of the Qualitee Dairy Products Co.
and J Sts., according to Douglas Young, general ma

Merrill, Wis.—The Lincoln Co-operative Dairy C
of the town of Schley held a meeting of its stockho
cently for the purpose of devising ways and means t
their additional business. The company will now
close to 10,000 pounds of milk daily and faces the m
perous period in its history.

Minden, La.—An effort will be made in Septembe
centrate all the efforts of all the parish and city ass
on one end, namely to make this a dairying parish, a
to Prof. E. S. Richardson, the parish superinten
schools.

Marshall, Tex.—Marvin Turney, prominent busine
said in discussing the survey the Harrison County Da
Association and the chamber of commerce is makin
duce national milk condensing and canning comp
estabalish plants here: "The establishment of a sta
ket by the dairymen of Harrison county is the bigge
that they can do. A market for the products of this
would be equal to the building of a large factory in o

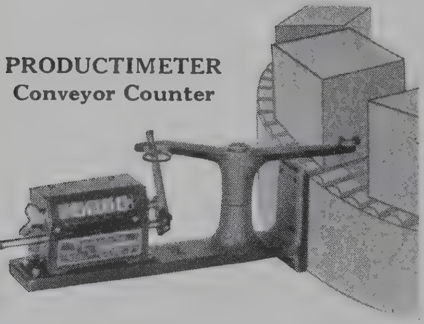
Hudson, Mich.—Ames Brothers have sold thei
business to Harold Lemon of north of the city, w
take possession of the same by October 1. The dai
is a modern one.

Findlay, O.—The Findlay Dairy Co. has the healt
public at heart and sells only certified milk.

Bowling Green, Ky.—According to a survey

COUNT 'EM ACCURATELY—BOTTLE or CA

PRODUCTIMETER
Conveyor Counter



Productimeters recording daily volume on important machines or operations give you an accurate count, in plain figures, quickly and dependably. They tell you at a glance just what has been done in a given period of time; make it easy to figure costs, bottle and case requirements, etc.

Built in various models—to fit washing, filling, sealing machines, conveyors, and to tally bottles, cases, packages, boxes. Our Service Department advises you which model is best for particular applications. Write for the Productimeter Catalog, telling us what you wish to count.

Durant Mfg. Co., 663 Buffum St., Milwaukee, Wis.

Productimeter Bottle Cou

Our Whole Effort

—so far as the Dairy Industry is concerned, is directed toward one purpose—the production of high grade

Powdered Milk Barrels

—and our relations with the trade attests the that we are producing barrels which fully t the exacting requirements of this industry.

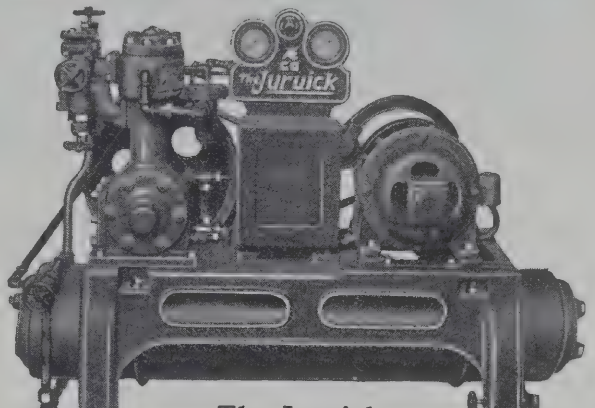
ALL STANDARD SIZES

inois Cooperage Mfg. Co.

General Office: 220 S. State St.
CHICAGO

FACTORIES IN SEVEN STATES

Juruick
REFRIGERATION



The Juruick Refrigerating Unit

"Just Turn the Switch" and the JURUICK REFRIGERATING UNIT will start working for you, stopping spoilage, increasing profits. Automatic control keeps it on the job day and night, always ready, but never using a bit of power or water except when necessary. That's electric refrigeration at its best.

Send for Juruick Folder.

American Engineering Company
2417 Aramingo Ave., Philadelphia, Pa.

The
Care and Handling
of MILK

By HAROLD E. ROSS

¶ The newest book on the subject. Over 400 pages. Many illustrations.

¶ A guide for all interested in the care and handling of milk and its use as a food.

SENT ANYWHERE POST-PAID ON RECEIPT OF

$3.00

The Olsen Publishing Co.
01-515 Cherry St. Milwaukee, Wisconsin

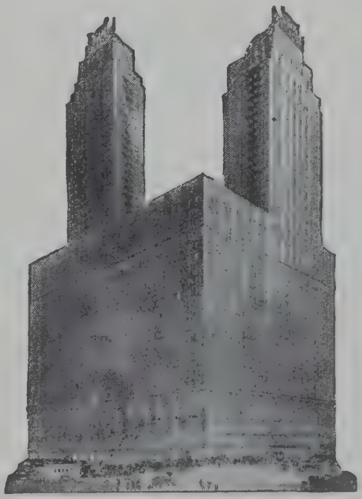
When in CHICAGO

Enjoy your stay—at the superb new

MORRISON HOTEL

Cor. Madison and Clark Streets

The Tallest Hotel in the World
Forty-six Stories High



The New Morrison, when completed, will be the largest and tallest hotel in the world, containing 3,400 rooms

Closest in the city to offices, theatres, stores and railroad stations

1,944 Rooms $2.50 Up

—all outside, each with bath, running ice water, bed-head reading lamp and Servidor.

Home of the
TERRACE GARDEN

freight rates, practically the entire output of the local Pet milk plant will go to consumers in the South.

Massena, N. Y.—About $300 worth of damage was done to the H. and H. Dairy plant on Center Street a week ago due to an overheated smokestack.

Brier Hill, N. Y.—The new plant of the Dairymen's League Co-operative Association will open shortly at Brier Hill with facilities to accommodate 300 cans of milk daily. The plant is equipped with the latest modern facilities for the cooling, sanitary handling and shipping of fluid milk. It is 100 feet long by 36 feet wide and is located facing the state road between the railroad station and the J. H. Muller milk stataion.

Plattsburg, N. Y.—Ground was broken this week for the preliminary construction work for the erection of six modernly equipped milk receiving plants in Clinton and Essex counties by the Dairymen's League Co-operative Association, Inc. The plants will be located at Beekmantown, Essex, West Chazy, Crown Point, Ticonderoga and one in the vicinity of Westport.

Waterloo, Ill.—The Waterloo Milk Company is building an addition to their plant.

Beaver, Pa.—L. L. Chaffee, who for the past six years has been affiliated with the Dairymen's Association of Beaver, announces the opening of the Valley Dairy Company at 620 Third St. A policy of high quality and good service will be carried out.

Brooklyn, N. Y.—Goldie Goffin is the proprietress of the White House Dairy, 265 Tompkins Ave.

Brooklyn, N. Y.—Morris Goldberg is the proprietor of the Bushkick Dairy and Grocery located at 90 Moore St.

Beaumont, Tex.—A new dairy near Rosedale was opened recently by E. K. Williams, on the J. C. DeMary's place.

Beaumont, Tex.—The H. L. Crislip & Son Dairy will install machinery costing $1,400, and the Weber Dairy Company has ordered equipment valued at $2,500, the new equipment including pasteurizers, boilers and coolers.

Willard, O.—Jay P. Cook, proprietor of the Willard Dairy, is constantly improving the service of his dairy. He has recently added a brine tank of large capacity. Henry M. Cook, formerly of the Norwalk Dairy, has joined the Willard dairy and is in charge of trucks and deliveries. Raymond Kipp, Attica, is in charge of the pasteurizing and bottling, Louis Schwenn the laboratory work, and Louis Kilper, who took a dairy manufacturing course in the University of Missouri, is in charge of the cream department.

Janesville, Wis.—Plans for several meetings in various sections of the county for the re-organization of the Rock county unit of the Pure Milk Association were laid at a meeting of 25 represenatives. In its plans for the future, the Pure Milk Association is looking toward co-operative promotion of milk sales, through an educational campaign, and possibly a national advertising policy under a co-operative trade mark. It intends to affiliate with several of the well known dairy associations in various sections of the country, for the production of a high grade of milk of uniform quality.

Pittsburgh, Pa.—The dramatic department of the Pittsburgh District Dairy Council is giving a health play called "The Milk Fairies" on July 1 at the Leetsdale High School Auditorium. The coaches are Miss C. Rutledge, Miss O. Kelly and Miss V. Sullivan.

Orlando, Fla.—The Milk Produce Association has been organized here.

Delmar, Pa.—The Interstate Milk Producers' Association has agreed to have a cooling station costing $30,000 established here, provided the farmers raise half the cost. They will return the money to the farmers as soon as their product reaches 150 cans a day.

Stockton, Calif.—R. W. Randell, manager of the Union Ice Company, announces improvements to the extent of $300,000 in the construction of additional facilities.

Sioux Falls, S. D.—Opening of a modern pasteurizing plant at Seventh St. and Blauvelt Ave., with distribution of their product in the city, was announced recently by Wartenhurst & Sons, who operate Glen Dairy Farm six miles northeast of the city, and will operate in the city as the Dairy Glen Milk Co. The products will be distributed direct from the producer in refrigerated motor trucks.

Seattle, Wash.—C. B. Ruffcorn, manager of the Milk Transportation Co., which has a contract to transport 33,000 pounds of milk daily from the Arlington condensery to Seattle, announces that the company is preparing to replace the present trucks with new ones. The condensery is turning out one and one-half tons of milk powder daily.

Cushing, Okla.—A. H. Burkey of Stillwater is moving into the building formerly occupied by the Home Dairy Products Company and plans to open the Cushing Creamery Company there.

Oswosso, Mich.—John J. McDonald of Detroit, formerly general manager of the Arctic Dairy Products Company but more recently with the Detroit Creamery Company, has purchased the controlling interest in the Freeman Dai
pany and has been made vice-president and general

Milwaukee, Wis.—The average price during May
consin farm milk, the state's leading agricultural
was $1.98 a cwt., the highest price paid in that mor
1920, according to the Wisconsin crop and live s
porting service, Madison.

Jamestown, N. Y.—Chautauqua county dairym
two important meetings at Sherman and Sinclairvil
17 and 18, to choose delegates to the statewide mi
keting meeting at Utica, June 27.

Whitefish, Mont.—Winfield Scott of the Lone Pi
has sold his interest in the dairy to Barnes Broth
Howard Hune, all the young men having had cons
experience in the dairy business. Mr. Scott will loo
for a new location more suitable to his health.

Milwaukee, Wis.—The annual meeting of the C
tive Milk Producers' Federation—the national associ
dairymen marketing through the pool system, or by
ing associations—will be held in this city on Nover
and 16. An attempt will be made during the se
merge the co-operative butter interests of Iowa, M
and Wisconsin into a gigantic tri-state butter pool.
ilar pool for marketing cheese is also favored by ma
consin dairymen.

Eugene, Ore.—Southern Oregon headquarters for
tribution of Alpine milk are now permanently est
in this city, according to L. H. Garrod, general sal
ager of the company.

Grange Halle, Ore.—D. Hutchinson, who has be
ning the Bonnie View Dairy at Jundel farm, has
business and moved to La Grande. He has purch
interest in the Mt. Emily Dairy.

Cleveland, O.—The Horton Dairy Co. has a ca
$10,000. The incorporators are J. L. Goldberg, Ida
man and J. G. Lipkin.

Toronto, O.—With warm weather again comes the
summer compaint of local milk dealers regarding
of bottles. It is possible that charging for milk bot
result. The bottles, of course, will be credited w
turned.

Elgin, Ill.—R. P. Ames attended the meeting of m
ducers to talk over and consider many problems pe
to the milk business.

St. George, S. I., New York City—The Puritan Da
Inc., has been chartered at Albany with $25,000 ca
wholesale and retail dairy and farm products. Wil
Smith, S. McGovern, A. Singer, 36 Richmond Terr
George, are directors and subscribers.

Brooklyn, N. Y.—Norah Dairy Stores, Inc., this
been chartered with $5,000 capital to deal in dairy p
Leah Trachtenberg, 401 Stone Ave.; Alexander Car
Stone Ave., and Isaac Trachtenberg, 559 Stone Ave.,
rectors and subscribers.

Ames, Ia.—Architects were instructed to hasten t
on the plans for the $500,000 dairy building, autho
the recent legislature, and it is expected that contra
be let in time to start construction by July 15.

El Paso, Tex.—The Fort Bliss Dairy Company h
incorporated here with a capital stock of $15,000.
corporators are W. W. Hawkins, A. A. Ross and R.

Chisholm, Minn.—Incorporation of Balkan t
farmers into a creamery association for a period of
to be known as the Chisholm Co-operative Pure Mi
ciation, with a capitalization of $20,000, has been p
and the following officers have been elected: A. T
president; Matt Krogerus, vice-president; E. Ahone
tary, and Paul Armistadi, treasurer.

Benton Harbor, Mich.—Warren G. Smith, gener
manager of the Creamery Package Mfg. Co. of Chic
dressed Rotarians here recently, giving them much
tion about the milk and creamery business.

McFarland, Wis.—Larson Bros. have installed
plant for local milk trade. The plant consists of pas
50 gallon capacity; sanitary tubular cooler, filler and
and bottle washer. At the present time the output
100 quarts daily.

Pleasanton, Tex.—J. J. Tollett and family have
cently moved to this village from Poteet, and lease
R. Daughtrey home, where Mr. Tollett and two s
operate a dairy business. Mr. Tollett has made e
improvements preparatory to operating a perfectly
dairy in strict accordance with government regulati

Wichita Falls, Tex.—W. D. Curtis, manager of
ducers' Creamery of this city, has consented to do
much as 100 gallons of milk daily through the su
The Record News Milk and Ice Cream Fund, who
turn distribute it to destitute and needy families.

Mexia, Tex.—Adoption of a standard milk ordin
this city is surely a drastic, progressive, forward ste
ordinance is severe, exacting and revolutionary,
authorities will give dairymen plenty of time to g

shape to comply with the new ordinance. After nance is fully in effect the consumption of milk crease 50 per cent, and Grade "A" milk will soon be ly sold.

son, Wis.—J. Q. Emery, former dairy and food com- who resigned recently to resume educational work tkinson, has been appointed a consulting assistant iry and food commissioner, C. J. Kremer.

Lansing, Mich.—The annual summer meeting of the Dairy Association was held at Michigan State Col- 23 and 24. Many dairy and technical experts from the country attended.

anooga, Tenn.—The Stone Fort Land Co., King St., will erect a milk depot here at a cost of $11,000.

lairsville, O.—Roy S. Smith, owner of "Ten Acres" m, has the honor of being the premier dairyman of county, according to the report of Dr. L. H. Lud- y inspector of the health commission office.

ona Beach, Fla.—Another up-to-the-minute Florida joins the Florida-Georgia Farm. It is known as the Dairy. The owner is W. J. Elgie, from Sault Ste. anada, who came to Florida in 1925 and bought res, of which 1,100 acres are in cultivation.

Pasqual, Calif.—The annual meeting and election of Diego County Milk Producers' Association was held iego recently. George Wood and Everett Peet were d directors. Work has been begun on the new to be erected for the Qualitie Dairy Products Co.

leston, W. Va.—A charter has been granted to the Dairy Company which has a capitalization of $25,-

ngton, Ky.—The Lexington Dairymen's Association, has appointed a committee to confer with health to get a definite ruling as to the equipment required work. Members of the committee are C. W. Ballen- A. McCaw and Berry Clark.

ksburg, W. Va.—The Weber Dairy Company, this making extensive improvements in their business. modern and up-to-date machinery is being installed, g pasteurizing apparatus, sterilizing machinery, new and a complete refrigeration plant. Some changes ethod of delivery will also be made.

alo, N. Y.—Harry S. Nobel, representing the Buffalo rage Company, recently returned from the Northwest e has been at work among the farmers, lining up oducts for shipment to this city.

rkana, Tex.—Twenty-nine dairies here out of the 35 d during May were reported Grade "A", Dr. Hubert spector, reported.

twood, La.—The Kent Dairy Products Corp., Inc., has ven a charter, the capitalization being $50,000. The ed parties are Chas. A. Kent, Thos. P. Hogan, and . Kent, Jr.

s Point, Tex.—A milk route has been established and ments made for a turck to gather the whole milk Edgewood, Fruitvale, Grand Saline, Colfax, Canton, Springs and Wills Point. The milk will be mar- Dallas.

man, Tex.—Establishment of an immense milk plant city, to begin operation by the first of next October, manufacture of condensed milk, powdered milk, but- other milk products, was announced recently at a n meeting of the board of directors of the Sherman r of Commerce. The new enterprise will require om 5,000 dairy cows from the start and within a of five years should handle the production of almost nited number of cows, but would expect not less than luction of 30,000 to 50,000 cows.

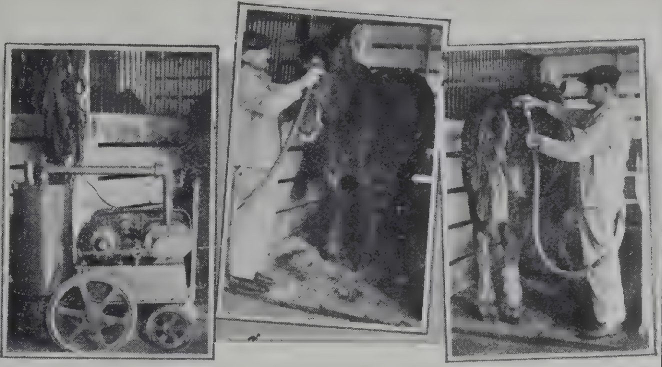
Antonio, Tex.—A recent survey by San Antonio Ex- ows that dairying in the vicinity of this city is adding 00 yearly to farmers' incomes.

ton, Pa.—The announcement was recently made that Milk Company has sold its plants in Tioga and Pot- ties to the Borden Condensed Milk Company of New he formal transfer of which properties will be made er 1.

eling, W. Va.—Ground was broken recently for the me of the Producers' Milk Products Company which located on the south side of the National Highway est Alexander. The new building, with full line of quipment, will cost approximately $100,000 and it ted to have it in operation by early autumn.

lleport, O.—So many people are taking the milk diet at the demand for milk is unprecedented. It takes of milk for each foot of the patient in height, which he average run about five quarts per day. No other nourishment is taken for four weeks, with the ex- of possibly a little orange or lemon juice.

ingham, Wash.—Matters pertaining to the dairy in- all over the state were discussed, including the new law which went into effect June 10, at the annual



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FIRST IN THE FIELD—and many years of experience since, has made the Atwood vacuum machine for horse grooming perfect in every detail. Substantial, strong, and rugged, it will last a lifetime. The tool will get down to the skin and loosen every particle of dandruff, dirt and dust. This dirt is not only dislodged, but completely removed, and with it go all vermin, to a sealed container where they die. It eliminates skin diseases and other horse ailments, and requires less than one-fourth the time to do a more perfect job of grooming. Let us show you how other dairies have found the Atwood a profitable investment.

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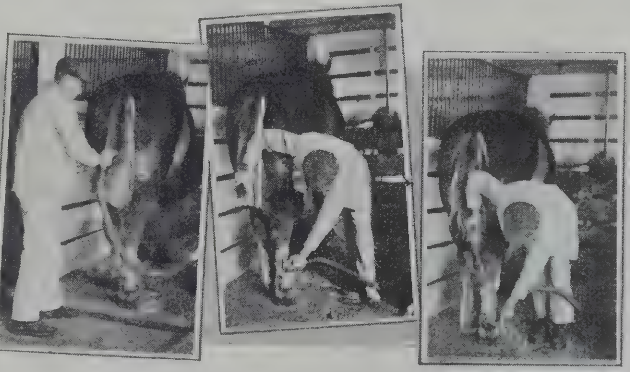
Horse Grooming Equipment
6467 Ravenswood Ave. Chicago, Illinois



Atwood-Stewart Vacuum Machine Co.,
Horse Grooming Equipment,
6467 Ravenswood Ave., Chicago, Ill.

Please send us bulletin regarding the proper cleaning of horses and cattle. We have ..... horses and .... cows.

Firm ....

Street ....

City.................................. State............

joint session of the Washington State Chamber of Commerce and the Washington Creamery Operators' Association held here recently. They were the guests of the Whatcom County Dairymen's Association, of which Clay C. Davis is the general manager.

Oakland, Calif.—The Alameda County Board of Supervisors is going into the dairy business, $54,000 being appropriated in next year's budget for the purchase of 40 cows, it being estimated that the county can thus produce milk for 23.7 cents per gallon. The board recently learned that the milk supply for the Arrow Sanitarium is purchased at 35 cents per gallon, and milk purchased for the Highland Hospital costs 29 cents.

Fort Worth, Tex.—Thirty-four years ago the Shaw Brothers, five in number, established a milk and ice plant. Today the Shaw Brothers' Creamery and Ice Plant has grown to where 165 persons are employed in all departments and 70 delivery vehicles are operated. The territory the firm serves extends from Longview on the east, to Midland on the southwest, Clarendon in the Panhandle and Ryan in Oklahoma.

Wichita Falls, Tex.—A group of Wilbarger county farmers drove up to Childress county recently to make a first-hand study of the dairying industry in the gate-way county, that county having developed dairying further than any other county in that state.

Brooklyn, N. Y.—Mayer Feld has patented a device for the distribution of loose milk, for which he claims the advantages of increased sanitary conditions and a possible lower price to the consumer. He is now seeking a permit from the health department to give a demonstration of his invention.

Pittsburgh, Pa.—William L. Fuher died recently at his home, 6041 Stanton Ave. For more than 30 years he was in the wholesale milk business under the firm name of the Diamond Milk Co.

New York, N. Y.—A dairy merger approximating $50,000,000 is in the process of formation. It is expected to include United States Dairy Products Corporation, Southern Dairies, Inc., and the recently organized Hershey Creamery Company.

Georgetown, Del.—Plans are under way to make the eastern portion of lower Delaware one of the largest dairy sections in the United States, and if present activities are carried on the Sussex County Extension Department
a long way in making it an accomplished fact.

Sandusky, O.—Health Commissioner Houghtalin
Cedar Point recently attending the outing of the
Ohio Dairy Inspectors' Association. The organization
posed of dairymen, county agents, milk dealers, he
cials, and representatives of the Ohio Farmers' Ass
Dr. J. E. Monger, state health commissioner, and D
Becker, a member of the Chicago Board of Health,
speakers.

St. Louis, Mo.—The Pevely Dairy Company has p
about 600 feet of ground through the Giraldin Brothe
Estate Co. on La Salle St. It is the intention of t
company to erect a building on this property to ta
of its increasing business.

Sioux Falls, S. D.—Opening of a modern past
plant at Seventh St. and Blauvelt Ave., with distrib
their product in the city, was announced today by
hurst & Sons, who operate Dairy Glen Farm six mile
east of the city, as the Dairy Glen Milk Co.

Chino, Calif.—Murdo and Donald Campbell, lon
inent dairy ranchers of Chino Valley, have sold th
holdings here and have purchased the great 2,000-
& G. Ranch, 44 miles from Santa Barbara. M. C
will manage the ranch for the new owners and ope
dairy business which he and his brother have built

Shady Springs, W. Va.—Raleigh Dairy Company
which recently burned will be rebuilt at once.

Fostoria, O.—The Ohio Co-operative Milk Associ
Cleveland has bought a tract of land at the city lin
will build a modern milk plant. Work is to start im
ly on the plant.

New York, N. Y.—The E. & R. Dairy and Grocery
been established at 67 West 44th St., this city, wit
shares.

Lewiston, Ida.—The Riverview Dairy Products, f
located at 1117 Main St., this city, is now located in
plant on Eighteenth St., just south of Main, which the
is urged to inspect. The equipment is of the most
type and the arrangement of the plant is such as to
cleanly and orderly operation.

Glendale, Calif.—The establishment of a factory
of the Kurz-Stout Crate Co. of Chicago marks the a
of another industrial plant to those that are already
eration in this city. I. E. Strouffer is manager of th
dale branch of the company and it is planned to manu
hickory milk crates and also to handle dairy supplies.

Chisholm, Minn.—The Co-operative Pure Milk
tion is capitalized at $20,000 and is incorporated for a
of 20 years. The following officers were recently
A. T. Haley, president; Matt Krogerus, vice-preside
Ahonen, secretary; Paul Armistadi, treasurer. The b
directors will include the above officers together
Magnusson, John Warto and John Hall.

Starksville, Miss.—Reports are to the effect that mi
duction as shown by deliveries to the Borden con
and the College creamery for the month of May sho
other remarkable increase and the amount paid out
trons on June 15 approximated $160,000, of which $1
was paid by the Borden plant.

Binghamton, N. Y.—The Dairymen's League Co-op
Association recently met here and drew up resoluti
pertaining to the best methods of meeting competitio
the West.

Stanley, Wis.—The Amacker Milk Products Com
sending a car of sweet cream to Chicago daily, the car
ing Chicago about 10:30 in the evening, at which tim
immediately unloaded at practically the same tempera
which it left Stanley, then bottled and delivered in ti
Chicago's breakfast.

Buffalo, N. Y.—The Frontier Dairy Corporation ha
incorporated here with a capital of 1,000 shares of
value to carry on a business in dairy products, cattl
stock, etc. The stockholders are: Theodore G. Ke
841 Delaware Ave.; George M. Appleton, 88 Lincoln
Frederic D. Townsend, 977 Delaware Ave., Buffalo.

Ames, Ia.—A two-story brick dairy building
erected on the college campus of the Iowa State Col
Agriculture. Plans are being drawn at the present ti

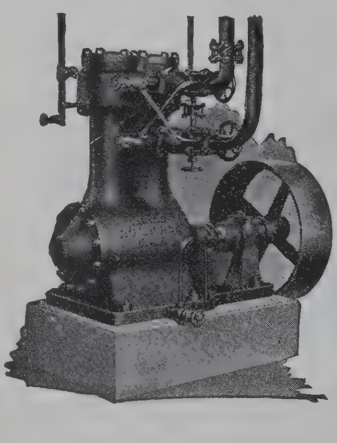
Davenport, Ia.—Construction of a model dairy barn
estimated cost of $30,000 and additional farm buildi
a total outlay of $50,000 have been begun at the
Soldiers' Orphans' Home, according to the announcem
Superintendent R. E. Zerwekh. The improvements
pected to be completed by September 1.

Pittsburgh, Pa.—The Producers' Milk Products Co
National Road, Liberty district, was incorporated
capital of $100,000. The incorporators are E. W.
J. A. Chambers, David A. McKee, L. J. Quinn and E. A

Dayton, O.—Speakers at the conference of milk pro
and distributors and health commissioners of 14

Vilter

Enclosed Type Ammonia Compressor



An ideal ice machine for the moderate size plant. Modern in design, made of high grade materials and thoroughly inspected and tested. Let us send a copy of our Bulletin No. 29R to you. It tells of the force feed lubrication to the piston pins, the easily operated Vilter plate valves, the oil sealed stuffing box and gives other information of value.

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Vilter Manufacturing Company
ESTABLISHED 1867
875 Clinton Street Milwaukee, Wis.

Ohio counties held here recently included J. E. state health director; Prof. R. B. Stoltz, Ohio State y, and W. A. Wentworth, secretary of the Ohio oducts Association.

ridge, Pa.—A visit to the dairy farm of Louis Dreyer ig Sewickley Creek Road, is an interesting and en- g treat. It is one of the most sanitary in the state er delivers 200 quarts of milk daily in the city.

peake, W. Va.—Twenty-five years ago it took Boster exacty a day to deliver from five to six milk and today that amount may be delivered in on to the same customers in a little more than an

ille, O.—Gail Cline of Mansfield recently became the f the Bellville Pure Milk Company plant, having purchase from Frank J. Engner. It is the inten- Mr. and Mrs. Cline to give this city at least just as nilk plant or even better, if possible, than that ex- l in the past few months.

ville, N. C.—The Pure Milk Company has been cap- at $100,000.

ria, O.—The Fostoria Dairy Products Company was ated recently by J. F. Freese and associates for The incorporators are J. F. Freese, L. J. Spell- H. Reeder and H. L. Zemer.

klyn, N. Y.—The Blue Star Dairy, 4023 Church Ave., incorporated here. Moses Kaplan, 1003 Newport le owner.

Pasadena, Calif.—The Harris Dairy, which for sev- s has had its home in the Arroyo, has been moved to location at the corner of Arden Rd. and Azusa Blvd.

o, N. Y.—John W. Dodds, founder and head of Dodds' Dairy, has been elected president of the Queen City o., Inc., and thus becomes active director of both es. The combined resources of both companies, their management and complete city-wide distribution wide range of new facilities that makes possible an dairy service to the entire city by what thus becomes he largest as well as oldest dairy units in the state.

n Bay, Wis.—The first tank car of milk ever to be out of this city was shipped to Chicago, attached to ger train, on July 9, and is said to have arrived in in record time.

ah, Tex.—Hardeman county farmers are finding profitable. They are selling more than $52,000 f dairy products a year.

dress, Tex.—J. H. Hedgecoxe is another Childress armer who is making a success in the dairying busi- e.

sville, Tex.—Croxen's Dairy of this city has the distinction of being one of three dairies in the state s that has installed a centrifugal milk clarifier, one ery latest and most improved devices for taking the es out of milk.

mbus Grove, O.—Ninety days of hard labor on the the average dairy cow will keep one person in milk ear, according to the Larrowe Institute of Animal ics. At least it takes three months for her to turn 1,004 pounds of milk necessary to provide the fluid ned milk, cheese, butter and ice cream consumed per er year.

valk, O.—C. A. Bauman of the Wisconsin Food Prod- mpany of Jefferson, Wis., has written H. S. Bowen, y of the Kiwanis Club, that he will outline in a let- details of the proposed establishment of a big milk s plant here.

tington, W. Va.—Miss Evelyn C. Moore, new milk ry inspector, assumed her duties on July 1.

a, O.—The Pet Milk Co. here paid dairymen $42,000 during May. James Sanderson is general manager.

ingham, Wash.—The dairying and egg industries in n county have increased 80 per cent in the past two t was announced by Harry Carroll, county agricul- ent.

ett, Ind.—The Ira J. Mix Dairy Company, this city, pital stock of $37,500 and manufactures, buys, sells ls in all kinds of dairy products.

nce, O.—The Eskay Dairy Company of Hicksville is nding a large thermos tank truck to the Defiance Product Company plant here, loaded with milk for ing. The tank has a capacity of 18,000 pounds of

Francisco, Calif.—The Dairy Dale Co. has been in- ed in Delaware with 10,000 shares as capital.

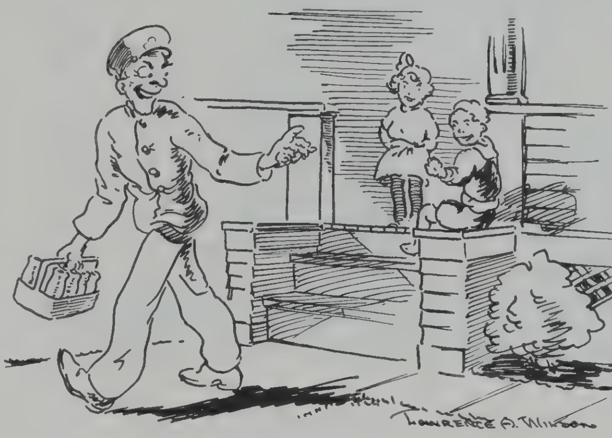
eland, O.—The Ohio Farmers' Co-operative Milk As- held its second annual membership picnic in Edge- ark at which a large number were present.

tington, W. Va.—The milk and dairy inspection ordi- ecently passed by the board of commissioners, was d by the citizens' board at the monthly meeting. A logist from Kentucky has been employed.

MIKE THE MILKMAN

IMPROVING THE CHILDREN

The Jenkins family down on Reeves have plump and healthy kids, they're just a fine as baby beeves from shoestrings to their lids! They wear a bright and ruddy glow, their arms and legs are round; each day I notice how they grow, they're full of pep and bound! I take much credit for that growth, that skin, and hair of silk; 'twas due to me, upon my oath, they started drinking milk! When they were younger, I declare, they were such puny mites, their parents simply didn't dare to let them play with kites, because the kites might fly away and take the kids along; they did not grow from day to day; they were not well and strong! In those old days, as I recall, a pint of milk, or less, was ordered there, but that was all, for little Hal and Bess! One day the mother said to me when I was at the door, "I really, really, can not see why they're not growing more!" That was my chance to say my say; said I, "Don't think me gruff when I make bold to state today they don't drink milk enough! If I may leave you three full quarts each morning for a spell you'll soon be giving out reports with better tales to tell! I tell you, Mrs. Jenkins, now, my plain advice is this: Trade off your doctor for a cow, you can not go amiss! I'll leave three quarts of milk with you for two full months, each day, then I'll be glad to hear your view and hark to what you say! If when two months are up you think no changes have been wrought, I'll then refund for every drink of milk you ever bought!" She took me up! She started in three quarts at every splash! I knew full well that I would win,—I knew I'd keep the cash! Right from the start those children gained; they grew like noxious plants; they grew full-limbed and stronger grained, began to run and dance! My, how that mother praises me! I banished her distress! "Mike is the doctor here," says she, "who treats our Hal and Bess!"



—J. Edw. Tufft, Grand Forks, N. D.

⁂

CANADIAN DAIRY MERGER.

The Quebec Dairies Co., Ltd., has acquired all the capital stock of the Mount Royal Creameries, Ltd., whose sales increased from $505,935 in 1923, to $1,311,768 in 1926. It is understood that new financing for the company is shortly to be undertaken by a Montreal syndicate.

ELIMINATING ICE IN THE MILK PLANT.

"THERE is just as much sales resistance in the dairy business as in any other business which retails quantities of a low priced product," according to H. A. Hescock, one of the owners of a New England model dairy located near Westfield, Mass., a few miles from Springfield.

"Successful building of a dairy business involves just as careful selling as the marketing of any other product selling in the 10-25 cent price range. The dairyman who tries to market 'just milk' is up against a competition that is bound to restrict his number of customers.

"The dairyman who sells the public on the quality of his milk, its cleanliness, and his own unvarying standard of real service, is the man who is getting above the dead level of routine 'milk peddling.' That's the man who is tackling his business from a 'milk selling' angle instead, and he is the man who will find his market is not restricted by any competition, no matter how many other dairies may be operating in his territory."

Mr. Hescock, in partnership with E. C. Johnson, owns Meadow View Farm, a 100-acre dairy plant one mile southeast of Westfield. A herd of 50 Guernseys and Jerseys is maintained, and in addition milk is purchased from other herds nearby. Practically the entire output of the dairy is sold direct to consumers in Westfield.

Meadow View Farm dairy, with its roomy and spotless buildings, is one of the show places in the dairy industry of New England. Mr. Hescock, a dairyman for almost his entire lifetime, has been in his present location for 17 years. The dairy's constantly increasing business gives evidence of the manner in which
ing theory of Mr. Hescock and Mr. Johnson is
out in actual practice.

"Getting new customers is largely a matter o
ing the ice' which the public has formed arou
in the form of sales resistance. And one method
in 'breaking the ice' around the public was
away from the ice right in our own dairy.

"We believe that getting down to fundam
the best way to build milk business. Better milk,
milk, colder milk, is the best advertising that
can get. That's the sort of advertising that reall
Mrs. Henry Jones want our milk when she fi
Mrs. John Smith next door is getting it and find
ter that the kind Mrs. Jones is using.

"Therefore, we believe that successful buildi
route list begins right in the dairy itself—in its
ery and methods.

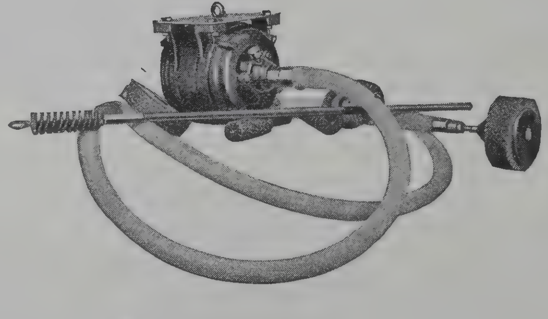
"So, when I say that we broke away from ic
dairy in order to 'break the ice' around the p
wanted to reach, I mean it literally. We disca
use of ice in the dairy, and adopted electric refri
instead, as the best means of convincing our pro
buyers that Meadow View Farm milk was the m
wanted.

"I have been in this vicinity for 17 years, a
engaged in the dairy business all my life. In t
I have learned the importance of making my
bond among the people with whom I deal. I ha
them realize that milk is just as good a milk
give them.

"Early in 1927, after I had been studying ele
frigeration, I began to wonder if the milk I wa
really was just as good a milk as I could produ
was not giving satisfactory temperatures. The
count was low—but not as low as it would be wit
temperatures. The bottles were not as cold
should be when they were placed on the cu
porches. Our dairy was up to date in every res
one—I decided that ice refrigeration was obsol

"In March of this year we abandoned use of
installed Frigidaire. The equipment, which co
was installed in the big walk-in cooling roo
aerator is used, as the milk is cooled entirely in t
ing room.

"The decision to abandon ice was, on the fa
a rather radical step, for immediately adjoining t
cooling room was an ice house, filled with ice.
winter we had filled the ice house with pond ice
in milk cooling. But we had been convinced
was not doing the sort of job we required in bu



The King Cleaner *vs.* Steel Wool an
Harsh Brushes

RESULTS—Both will keep Sanitary Piping an
tubular pasteurizing equipment perfectl
clean,—but—the King Cleaner will not rui
the tubing, and requires far less time an
effort for the work.

Send us diameters and lengths of tubing in your
equipment and we will advise you size
and price of Cleaner needed.

King Sanitary Pipe Cleaner Co., In
SANDY HOOK, CONN.

milk business, so there was no question about dis- ing its use.

here is still a lot of ice in the ice house. We are it at wholesale prices to anyone who wants it— ice is going into our dairy operations.

ur primary aim was to produce better milk with c refrigeration. Our plant is giving us tempera- from 12 to 20 degrees colder without ice. It has d us to immediately increase our output, since we ndle 250 quarts more a day than we could when s used, due to quicker chilling.

n hour a day was required in moving ice from the use to the dairy, washing it, and preparing it for Rapid increases in business makes every hour of rking day valuable, and in the time formerly re- each day to move ice and get it ready for use in iry, we can now sell 50 quarts of milk.

. Hescock explained that the primary purpose in ing electric refrigeration was the improvement in ilk. But the dairy has also found marked econo- vhen comparing the cost of operating electric re- ation with ice costs.

f course, when we used ice we were able to get it ch less cost than if we had to buy it. At retail , the ice we used would cost at least $500 a year. lectric current will not amount to more than $135 . It cost that much to put up the ice, and the sav- labor required for handling ice day after day en a big item.

avings over ice will pay for the electric refrigera- quipment in at least two years. And in the mean- we are handling a steadily increasing volume of ss and are satisfying our customers."

⚜

THE WORKER TAKES HOLD.

e growing interest of the worker in the manage- and responsibilities of industry is reflected in a t on Employee Representation or Works Councils by the Department of Manufacture of the Cham- Commerce of the United States.

When the whistle signals the shut down of power, mechanical and human, in a plant," says E. W. llough, manager of the department, in his fore- "it becomes useless until activity is again re- . For it is the well balanced relations of both have given us low cost production on which our nt industrial success rests.

The relations of management with those who guide inery and production is of greater importance than quipment itself and it has been the awakening of mployer and employee to this which has brought esults now mutually enjoyed.

Practically unknown before the World War, there 1,369,078 workers under employee representation United States in 1926—operating under more than orks Councils in about 432 separate companies—a kable growth of a movement in ten years.

⚜

RCHASE OF EVAPORATED MILK FOR THE NAVY.

e navy is calling for bids on 8,000,000 pounds of rated wilk, in multiples of 100,000 pounds, for de- to both east and west coast yards and stations, Schedule 7070, opening June 1, 1927. Bidding s, which include specifications, may be obtained by sted producers upon application to the Bureau of ies and Accounts, Navy Department, Washington.

STATE OF IOWA WINS.

The charitable and penal institutions of Iowa and Michigan were pitted against each other during 1926 in a friendly competition arranged by the boards of control and Iowa came in ahead by showing a milk production of 10,161 pounds per cow on state farms, against a production of 10,081 for every bossy in the pastures of Wolverine institutions.

What pure-bred herds and scientific care can do in milk production is shown by comparison of institutional figures with those for milk cows on farms in general. The average milk production for Iowa cows outside institutions in 1926, was but 4,051 pounds, not half that of institutional herds; while the per cow production in Michigan was 3,918 pounds.

Iowa's best showing was at the Clarinda state hospital where each milk cow averaged 13,526 pounds. Leader in Michigan was the Traverse City state hospital herd with an average of 12,939 pounds. The victory of Iowa is credited to A. McColl, member of the board of control, who has directed the institutional farms and has made them show a profit in every year since the war.

⚜

SHORT COURSES FOR SALESMEN.

More than a score of members of the Salesmen's Club of the Dairy and Ice Cream Machinery and Supplies Association begin at Penn State College, on Aug. 15, the short course for salesmen of dairy products equipment and supplies which the college for the fourth consecutive year is offering, in co-operation with the club.

The course will be presented under the direction of Prof. C. D. Dahle, associate professor of dairy manufacture of the department of dairy husbandry. A number of salesmen will be accompanied by their wives. Convenient living quarters will be utilized at the Center Hills Country Club and at the University Club. The course will be concluded August 27.

Almost immediately following, a course of similar nature, and primarily for salesmen of machinery and supply houses, enrollments for which the salesmen's club has been entering for some time, will begin at the University of Illinois at Urbana.

There, from September 5 to 17 inclusive, an intensive succession of class room, laboratory and work room hours will be spent under the direction of Prof. H. A. Ruehe, head of the department of dairy husbandry.

⚜

WHISTLE AGAIN ACTIVE.

After being silent since early August, 1924, the familiar low, far-reaching tone of the condensery whistle again regularly announces the beginning of a new day, the noon hour and finally the close of another day.

The plant of the Nestles Food Co. was re-opened at Menomonie, Wis., on June 15, and a very satisfactory quantity of milk was received. Prospects are good for receipts to gradually increase until it is believed this plant will become one of the leading plants the company operates in Wisconsin.

W. F. Baily, construction engineer for the Nestles Food Company, supervised the installation of thousands of dollars worth of equipment which had to be replaced, and Axel Thorson, plant engineer, revived the life of dozens of pumps and motors. Many former employees are back on the job.

John Sparks, manager of the manufacturing department of the company, and C. B. Mallory, district manager, have spent considerable time at the factory and are more than pleased with the possibilities of the plant.

SOUTHERN CITY TAKING WELL TO PASTEURIZED MILK.

J. S. Gangstad advises that he purchased a half interest in the Monroe Milk Station, Inc., of Monroe, La. Since taking over the management last April business has progressed beyond anticipation. This growth is remarkable in view of the high water conditions that prevailed in that section for the past two months. A churn and a refrigerating plant will be installed soon, Mr. Gangstad advises and he adds that Monroe is taking well to pasteurized milk and cultured buttermilk.

Mr. Gangstad has had twenty years' experience in the milk and creamery business but feels that there is still a great deal to learn, and for that reason entered his subscription to The Milk Dealer, stating that he "cannot overlook such a valuable magazine when it comes to vital information and keeping abreast with the progress of the industry."

⚜

DAIRY FARMERS ADVISED HOW TO SAVE ICE.

E. R. Gross, agricultural engineer at the New Jersey State College of Agriculture, New Brunswick, N. J., claims that great savings of ice can be made by dairy farmers through the use of cork-filled cooling tanks.

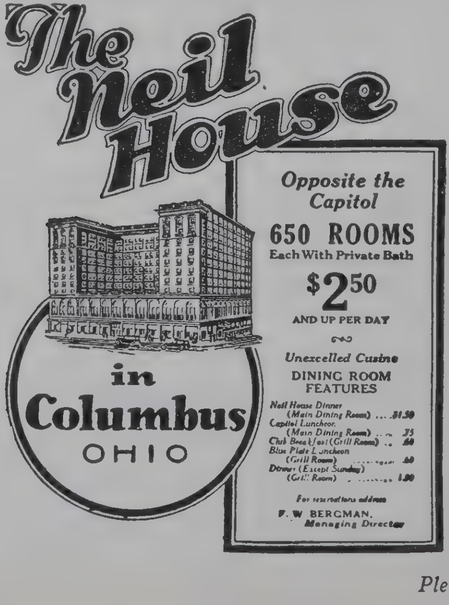
The construction of such a tank is comparatively simple and the additional expense is quickly offset by the saving of ice. When finished, the tank is really three boxes fitting snugly into each other. The outer of concrete, the middle of cork and the inner of concrete.

First a pit of the necessary depth is dug. A three-inch floor of concrete is then laid and over that is placed the corkboard. The sides are then built up of corkboard, leaving space enough between the side of the pit and the cork so that three inches of concrete can be poured to form the outer shell. Thus the cork acts as the inside form. All the corkboard should be painted with tar before it is placed.

To place the inside shell of concrete an inside form is built, leaving a three-inch clearance from the cork. The sides and bottom are then poured. When the concrete sets the tank is finished.

A good tight lid will complete the tank which will save about one-half the ice ordinarily used for milk cooling. Such a lid may be filled with ground cork or a layer of corkboard and should fit snugly on the tank. A strip of felt between the lid and the tank makes an airtight job.

Exceptional strength can be given the tank by placing reinforcing rods in the outside concrete shell at the time of pouring.


The Neil House
in Columbus
OHIO

Opposite the Capitol
650 ROOMS
Each With Private Bath
$2.50
AND UP PER DAY

Unexcelled Cuisine
DINING ROOM FEATURES
Neil House Dinner (Main Dining Room) $1.50
Capitol Luncheon (Main Dining Room) .... .75
Club Breakfast (Grill Room) .... .60
Blue Plate Luncheon (Grill Room) .... .60
Dinner (Except Sunday) (Grill Room) 1.00

For reservations address
F. W. BERGMAN,
Managing Director

DAIRY INDUSTRY SERVICE BEING EXPAN

Greater assistance to dairy farmers to help solv
keting problems in meeting consumer demand is
developed by the bureau of agricultural economics,
Department of Agriculture. Methods are being w
out for making monthly estimates of milk produ
the expansion of market news services, and the co
tion of detailed price and market cost analyses.

The bureau has been trying for many years to d
a method of estimating milk production. Most
material gathered by the latest method tried is s
the raw state, although for a few states some an
have been made which indicate this method will
reasonably accurate indication of the quantity of
produced per cow. It also seems to furnish a bas
making monthly estimates of milk production.

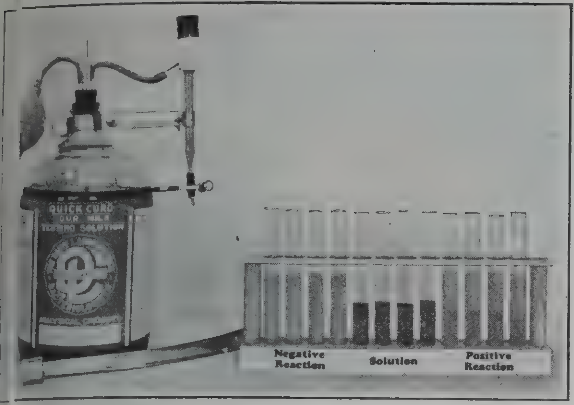
Lack of dependable figures showing changes i
numbers of milk cows in the United States durin
century has resulted in the development of an estim
system which will give figures for "cows and heifer
years old and over, January 1, kept for milk."
mates by the use of this system show that there
about 15,900,000 head of such animals in 1900; 18,6
had in 1910; 21,427,000 head in 1920, and 22,481,000
in 1925.

The figures give increases of 17 per cent in the
1900 to 1910; 14 per cent between 1910 and 192
five per cent between 1920 and 1925. An esti
decrease of one per cent a year in 1925 and 1926
the estimated number January 1, 1927, to only thre
cent above the number January 1, 1920.

Between 1900 and 1925, it is estimated, milk pr
tion per cow increased materially due to the incre
proportion of strictly dairy type cows milked and
proved methods of care and feeding. With p
(1927) cow numbers only three per cent larger th
1920 and population nearly 10 per cent greater, it i
sible that milk production per capita in 1927 will b
than in 1920. There is need for more statistical inf
tion relating to fluid milk and cream, as well as
dairy products for cities where the market rep
service has not been established and where vast q
ties of dairy products are utilized for direct cons
tion.

For a number of years statistical compilations
been made of figures on production, consumption,
national trade and kindred topics relative to the
industry. The general statistical information fur
is now to be enlarged in scope, and the bureau will
detailed price and market price and market cost an
of each of the dairy products involving a conside
of general supply and demand conditions for the
try as a whole, and a detailed study of price beha
important market centers. Response of price to s
will be studied and, if possible, measured; conve
response of supply to price. The influence of dema
price and of price on demand will be studied also.

The present program calls for continued develo
of the service in collecting foreign dairy inform
dairy farm management research, research in fo
competition and prices, co-operative marketing of
products, and standardization and inspection.
spread dissemination of the results of these activit
behalf of the dairy industry, by means of teleg
radio, the press and by mail, is regarded as of grea
portance by the bureau, so that individual farmer
organizations may utilize the information in the co
of their business.



QUICK-KURD

Sour Milk Testing Solution

RAPID ECONOMICAL CONVINCING

imple and reliable test for high-acid and Garget milk that can be **formed by anyone in a few seconds.**

acing a dipper of milk in the test tube containing solution and shak- ndesirable milk will produce an unmistakable **curd** at once.

.8. Supplied for eliminating milk over 0.18% acidity and Garget milk.
One Gallon (sufficient for 375 tests), $2.50.

2. Supplied for eliminating milk over 0.22% acidity (milk that will curdle on heating), and Garget milk.
One Gallon (sufficient for 375 tests), $2.50.

it Complete, tubes, dippers, etc., without solution $5.00

HE DAIRY LABORATORIES

LOCUST STREET PHILADELPHIA, PA.

New York Baltimore Washington

"The Home of Flav-O-Lac Liquid Cultures"

At Last!

Dallinger's "Garden of Allah" Concentrated Coffee

A strictly pure high grade coffee in concentrated form.

A coffee milk shake or coffee soda which has a true flavor is a *big seller.* This fact has been an astonishing surprise to our customers who dispense these drinks at dairy counters and soda fountains.

Coffee Milk is also ideal to bottle for supplying factories, stores, restaurants and the home. It is not only nutritious but invigorating.

Packed in quarts and gallons. Samples, prices and formulas on request.

Brokers and jobbers desired in large distributing points

Frank W. Dallinger Co.

Manufacturers

78-80 Beverly Street, Boston, Mass., U. S. A.

The

BARLASS

Quality Line

DEPENDABILITY *and* EFFICIENCY !

We can give you this in the following lines which we represent:

MANTON-GAULIN HOMOGENIZERS
PFAUDLER GLASS LINED EQUIPMENT
CHESTER BARREL HEATERS
CHESTER COOLERS
OAKES & BURGER PASTEURIZERS
OAKES & BURGER CAN WASHERS
MID-WEST BOTTLE CAPS
BERNEY-BOND MILK BOTTLES

We also carry a complete stock of Dairy Supplies which have been carefully selected for quality and service.

Arthur T. Barlass Co.

WEST AUSTIN AVE. CHICAGO, ILL.

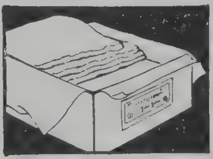
High Bacteria Count?

Here is an easy way to reduce it. Sell farmers and dairymen these two filtering aids. Coupon brings free samples

ONE way to reduce the bacteria in milk is to keep them out of the milk at the start. That is what a J & J Filter Cloth does. Stretched over the pail at milking time, it catches the bacteria-laden dirt particles before the bacteria have a chance to multiply.

Our advertising is teaching farmers and dairymen everywhere to use this precaution—and to use J & J Cotton Discs whenever they put their milk through strainers.

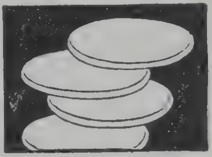
You can profit by this advertising. Sell *your* supply men these two filtering aids. Then watch the grading of your milk. You may be surprised at the improvement!



FILTER CLOTH

Mail the coupon

We will send prices and free samples. Test these samples — put them into actual service. Prove to yourself that they make your milk better.



COTTON DISCS

Johnson & Johnson

Johnson & Johnson, Inc., New Brunswick, N. J.
Gentlemen:
Please send me free samples of your Filter Cloth and Cotton Discs.
*Name*________________________
Address ________________________
*City*________________*State*__________

JOSEPH WILLMANN TRANSLATES INTERESTING BOOK FOR AMERICAN DAIRY INDUSTRY.

After a long, industrious and interesting life, working toward advancement of the American milk industry, Joseph Willmann has turned his efforts toward disseminating some facts, no doubt unknown to many, about pasteurization and pasteurizing equipment of years gone by.

During a visit to Germany he discovered a book, now long out of print, full of illustrations and information about early equipment and experiments in pasteurization. This work he has translated; the illustrations he has had reproduced and all printed and bound into a very attractive book which is being distributed to the leaders of the dairy industry. Those who receive this book will find it a worthy addition to their library of dairy literature, as it is of particular value to one tracing the history of milk pasteurization.

Mr. Willmann first entered the dairy equipment field in this country about 1903, since which time he has invented and introduced a long list of practical machinery for milk dealers and ice cream men. He is, however, no longer interested in the production of dairy equipment. Right now he is spending some time in continental Europe visiting old friends and making notes on dairy conditions in countries to which his travels take him.

He will visit France, Belgium, Holland, Germany and other countries, and while there he will make tentative arrangements for entertaining American delegates to the World's Dairy Congress next year. Mr. Willmann has kindly agreed to act as our representative in Europe in connection with the big tour. He is enthusiastic about it and is spending real money and effort to insure its success.

AN ENTERPRISING CERTIFIED MILK FARM.

Charles Cahill and Son are operating at Cedar Hill Farm in the outskirts of Waltham, Mass., one of the finest certified dairy establishments in New England. Ayrshires comprise the principal part of the herd.

The barns are particularly impressive to the visitors who are always welcome at this show place for certified milk production. Each employee must pass a rigid test of cleanliness and healthfulness before he is hired and allowed to enter the barn. No one is allowed in the barn at milking time except the accredited help who do the milking. All doors are carefully screened and not a fly is seen about the place. The barn is a marvel of cleanliness and light and the stalls are kept immaculately clean at all times. Uniformed helpers move noiselessly about taking care throughout the day that this absolute cleanliness is maintained. The buildings are picturesque and are erected with shingle covering of dark brown color.

In the fine large white residence of the farm, the employees have a real home, the best living advantages and finest cooking.

Mr. Cahill has recently started the manufacture of ice cream and a freezer has been installed. On June 27 the grand opening of the little store on the premises was held with great success upon the opening day. Many motorists from Massachusetts and other states pass this busy location and the future of the enterprising little store, of which the principal commodity sold is ice cream, of the Cedar Hill Farm is assured.

An impressive large white full blooded bull dog, which has captured many a blue ribbon at dog shows, makes a picturesque white guard stationed in the center of the spacious green lawn.

A CORRECTION.

In our June issue we published the address b Webb, Chicago, at the Detroit convention of I tional Association of Milk Dealers, on "Use of Driven Vehicles in Milk Deliveries." In illustrating the article we inadvertently used the wrong cut of the delivery unit. Borden Farm Products Company, with which firm Mr. Webb is connected, have purchased 76 electric trucks of the manufacture herewith illustrated. Thirty of the drop frame type of truck are in service at Ev Ill., and one at their Chester branch, outside Ne City. Thirty-one will soon be in service at the Chicago branch. In addition to the drop frame milk delivery trucks the firm has 14 three and o ton trucks, of the same manufacture, in use for sale milk delivery at their 138th street branch York City.

PARK HOME DAIRY CO.

During the twenty years of existence of the Home Dairy, Elyria, O., their best efforts have bee to give their customers the very best quality of m tainable. As conditions changed, the plant was eled and the company was always in advance of th lic needs.

All herds from which milk is received are under supervision of the research department of the co who work in conjunction with the Elyria board of

Mr. Ingersoll, manager, said: "This company best interests of the health of the public in view times. We at all times anticipate the public nee believe in giving them pure products, of unexcelle ity, delivered by premier service."

The plant is in charge of Henry W. Ingerso and Howard Thompson. A. J. Robson has supe of the delivery system.

FROM ONE HORSE TO HORSELESS WAG

Twenty-five years ago it took Lawrence Bos Chesapeake, W. Va., exactly a day to deliver fro to six cans of milk. Today that amount may be ered in Huntington, to the same customers, in a more than an hour.

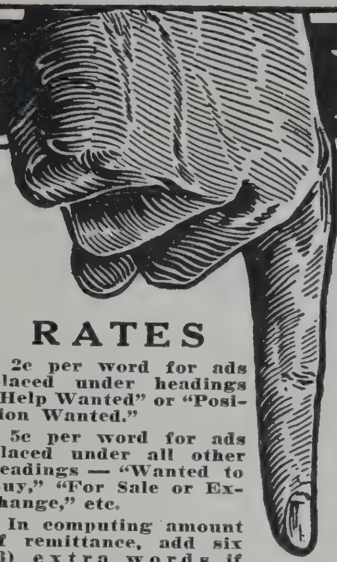
A gray mare named "Nell" played the part w now played by a truck.

Mr. Boster was born in Huntington, and is t of the late W. S. Boster, who died in Chesapea years ago. Mr. Boster operated the milk and frui in Chesapeake and called it the W. S. Boster & So Farm. This was sold two years ago to Henry Su Chesapeake. It consists of fifty-four acres.

PASTEURIZED MILK ONLY.

After December 1, 1927, the pasteurization la go into effect in the city of Waltham, Mass.

WANT DEPARTMENT



HELP WANTED
(Rate: 2c per word)

'ED—Young man to sell record-
ruments and automatic tempera-
itrol equipment to the dairy and
m industry for long established
turer. Candidates must have
character references and be free
k transfers and unlimited travel
arts of the United States. Young
ien preferred who had operating
eering experience in the dairy in-
Write stating age, education, ex-
and salary desired. Address:
'he Milk Dealer. 7-27

'ED—High grade man experienced
eurizing milk, making cottage
commercial buttermilk and oper-
eparators. Must be capable of
out the very highest grade prod-
l be a steady, hard worker. State
xpected. This is a city milk plant
handling an average of 6,000 gal-
nilk daily for bottling, condensing
cream mixes. No floaters need
Address: D-321, The Milk Dealer.
7-27

'ED—Salesman to handle a side
icle of merit now on the market
ling to the dairies. A good re-
will help to increase milk sales.
: D-323, The Milk Dealer. 7-27tf

'ED — Manufacturer of line of
roducts used extensively by ice
manufacturers, milk and cheese
desires to employ highly qualified
n to take charge of department
exclusively to dairy products in-
Applicants must show record
previous experience of having
ully sold quality lines to this class
ıess. Position being created offers
opportunity for promotion and
tory income. To secure considera-
cessary you give full details about
, past connections, length of time
d by each, age, etc. Address: Sales
r, P. O. Box 27, Bush Terminal,
n, N. Y. 7-27

TED—Salesmen calling on dairies
our bottle crate on commission.
proposition. American Box and
o., Louisville, Ky. 7-27tf

MISCELLANEOUS.

TED—To furnish increased capital
or more successful milk plants op-
in territories where milk is avail-
large quantities at fair prices.
expansion and investment. A rec-
successful operations and ability
age is necessary. Address: D-250,
lk Dealer. 7-27

TED—Opportunity to work into
ship in retail milk business. Can
small amount after connection
mutually agreeable. Age 38; 14
xperience. References given and
l. Prefer locality where growth
ansion is possible. Address: D-388,
lk Dealer. 7-27

OSITION WANTED
(Rate: 2c per word)

**TION WANTED — General milk
ve, young, aggressive and compe-
Experienced in all departments of
s, production, buying, selling, de-
etc. Available immediately. Can
unqualified references. Change of
ip of present employment makes
nection desirable. Address: D-316,
k Dealer.
7-27**

TION WANTED—General executive
s manager for a city milk com-
Am a graduate of an agricultural
Have had ten years experience
uction, sales management and as
r of a milk health campaign in
he large cities. Capable of taking
of sales, general executive or pro-
of clean milk. Address: D-385,
k Dealer. 7-27

RATES

2c per word for ads placed under headings "Help Wanted" or "Position Wanted."

5c per word for ads placed under all other headings — "Wanted to Buy," "For Sale or Exchange," etc.

In computing amount of remittance, add six (6) extra words if wanted published under Blind Address.

Bold Type—Double regular rates.

Minimum Charge—50c.

Blind Address — EXTRA — 25c in U. S. only; 65c Foreign — To cover postage in sending out replies from this office.

REMITTANCE MUST ACCOMPANY ORDER.

IT PAYS TO ADVERTISE

NOTE: Names and addresses of advertisers using blind addresses cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of this paper.

NOTICE

The publisher disclaims any responsibility for the reliability of parties advertising in the Want Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting suspicious dealings.

We reserve the right to refuse to accept advertisements which we believe are detrimental to the dairy industries.

Want Ads are accepted up to 7th of month preceding date of issue. Forms close on that date.

POSITION WANTED—By young man whose past training has consisted of high school education, dairy school short courses and nine years experience as owner and operator of small business distributing pasteurized milk, desires position with progressive concern where entire time may be devoted to the operation and study of pasteurizing machinery and methods. He is conversantly familiar with the subject but wishes to specialize under practical working conditions. An opportunity for real hard work and study as well as research work, with advancement as the ultimate goal, is of prime importance. He has best of references and prefers to locate in New England. Address: D-356, The Milk Dealer. 7-27

POSITION WANTED—As plant superintendent or production manager of a milk or ice cream plant. Life experience and two years technical training. Superintendent of one plant for five years. Technical and practical experience in ice cream—cheese of all types—market milk—condensed milk—commercial buttermilk, etc. Address: D-364, The Milk Dealer. 7-27

POSITION WANTED—By single man, age 30, as working foreman in milk plant. Eight years practical experience in market milk, ice cream, butter, cheese, condensing, etc. Also attended dairy school courses. Address: D-377, The Milk Dealer. 7-27

If you want a Manager, Superintendent, Expert Chemist, Bacteriologist, Buttermaker, Pasteurizer Man or Ice Cream Maker—or help of any kind—"The Milk Dealer" can help you find the best available man.

FOR SALE or EXCHANGE
(Rate: 5c per word)

BUSINESSES

FOR SALE—Well equipped 40 cow grade A dairy in good town of 30,000. All retail trade. For information write: J. B. Richardson, Box 496, Texarkana, Tex. 7-27

FOR SALE—Modern creamery in southern Ohio; good cream section; main plant in large city, 800,000 population, with smaller plant in country 20 miles out. Doing a good business. Will include large storage holdings, eggs and butter. A wonderful buy for a live creameryman. Address: D-390, The Milk Dealer. 7-27

FOR SALE—Dairy plant handling 130 gallons pasteurized milk per day. Complete up-to-date equipment including Frigidaire plant. In 1926 paid $5,000 net. Long time lease covers residence and business property. Price reasonable. Located in north central Indiana. Address: D-383, The Milk Dealer. 7-27

MACHINERY AND SUPPLIES

FOR SALE — Refrigeration Machines — Used—We have several used and new machines of nationally known make, which we can sell at a big saving to you. Will erect and guarantee the plants fully. Address: Erecting Engineers Company, 4725 West Lake St., Chicago, Ill. 7-27tf

FOR SALE—Ice cream and dairy equipment of all kinds, including boilers, compressors, vats and separators. The Telling-Belle Vernon Co., Cleveland, O. 7-27

You can't afford to miss a single copy of The Ice Cream Review. Have you sent in your renewal?

FOR SALE—One new $285 Rice & Adams brush bottle washer and sterilizer. Sacrifice price, $185.

One new $640 Cresco 200-gal. pasteurizer with motor direct connected. Sacrifice price, $490.

One new $306 Cherry 100-gal. batch mixer. Sacrifice price, $265.

One new $75 Milwaukee bottle drainer. Sacrifice price, $55.

One new $325 Alvey bottle case elevator. Sacrifice price, $275.

One rebuilt C-P 150-gal. coil pasteurizer. Sacrifice price, $225.

One No. 12 $110 De Laval separator; universal drive, used only about 6 months. Sacrifice price, $67.50. Address: D-270, The Milk Dealer. 7-27tf

FOR SALE—Here is an opportunity. New Davis rotary filler, Junior size, Model 640, motor driven, cost $700. A reasonable offer takes it. Also nearly new De Laval separator, capacity 2,500 lbs. per hour, direct motor drive, for $125. Cost $185. We also have several tubular milk coolers, large and small sizes. Address Merkle Dairy Company, 2727 N. Halsted St., Chicago, Ill. 7-27tf

FOR SALE—Well equipped dairy plant. Two fine brick buildings. Almost new machinery, boiler, motors, etc. Good milk supply. Arthur L. Bates, Meadville, Pa. 7-27

FOR SALE — One type H Milwaukee automatic filler and capper in first class condition, price $200.

One B&W milk heater, size 3, complete, price $100.

One B&W milk heater, size 4, complete, price $100.

These heaters were used only two months and are in first class condition.

One 6,000-lb. capacity De Laval clarifier, belt driven, practically new, price $200.

One 4,000-lb. capacity De Laval separator, steam driven and in first class condition, price $200.

One De Laval No. 20 steam separator, complete with all fittings and in A-1 condition, price $100. Address: Gray-Von Allmen Sanitary Milk Co., Louisville, Ky. 7-27

(Want Department continued on next page)

FOR SALE—One Yundt air brush bottle washer, capacity 120 bottles per minute. complete with motor driven air compressor, 3 phase, 60 cycle, 220 volt motors and conveyors. Used about 2 years. In good mechanical condition. Original cost installed $15,000. Will sell for $7,000, f. o. b. St. Louis. Write to the Meyer-Blanke Company, St. Louis, Mo. 9-27

FOR SALE—1,000 genuine Brussell 32-oz. fly covers, 100-inch $1.50 each. Catalog on harness bargains free. Midway Harness Co., 1969 University Ave., St. Paul, Minn. 7-27

FOR SALE—Blue Line case washer complete with pumps and motors. This machine used less than 60 days and is in perfect shape. Replaced with large Miller Hydro. Priced right for quick sale f. o. b. Houston, Tex. The F. L. Davis Co., 3918 Hall St., Dallas, Tex. 7-27

FOR SALE—Combination creamery and milk plant selling 700 gallons of milk and 500 pounds of butter daily. $10,000 will handle, and balance easy terms with security. Address: D-296, The Milk Dealer. 7-27

WANTED TO BUY
(Rate: 5c per word)

WANTED—Used pasteurizing vat ers, ice breakers, ice cream cans an churns, etc. Send us list of what yo for sale. B. Riley Hauk & Son Co 201 S. First St., St. Louis, Mo.

Send news items to "The Milk and see how well they look in prin

THE NEW NEIL HOUSE OF COLUMBUS, O.

The new Neil House, Columbus, O., is a palatial structure reflecting a hundred years of progress in the hotel industry dating from the time the first Neil House welcomed the stranger. It is ideally situated in the very heart of Columbus, and opposite the State Capitol. It is accessible to the banking, shopping and theatrical districts of the city. It is located on the national highway, close to interurban and bus connections with many outlying towns. It is situated geographically perfect for the tourist or traveler. Columbus is but 637 miles from New York, 546 miles from Philadelphia, 527 miles from Baltimore and 547 miles from Norfolk and accessible by over-night travel to any of these points.

The Neil House contains 12 stories and basement, an abundance of public room space and 655 rooms for guests.

The attractive, commodious lobby first impresses the guest with the restful atmosphere. Here is the rendezvous for all social and political functions of the city, where guests may lounge and read at leisure or keep in intimate touch with local and political activities.

Off the lobby is the main dining room, a large, natural lighted room, which appeals to those who appreciate artistic surroundings and exquisite appointments while enjoying their meal. The adjoining lounge lends itself as an ante-room to the main dining room where the evening may be concluded in chatting or listening to the music.

Off the mezzanine floor is the comfortable lounge and promenade overlooking the lobby, ladies' retiring room, beauty parlors, desks and accommodations for individual writing and private dining and exhibit rooms. Opening off this floor and enclosed by large glass panelled doors is the beautiful and spacious ballroom with a seating capacity of a thousand people, possible of division to small sections by accordion doors.

The guest rooms all contain an abundance of window light and are very tastefully and comfortably furnished. The guest may have a choice of double or twin beds. A bath, of course, is connected with each room.

The lower level lobby of the Neil House contains the grill room and lunch room, barber shop, men's manicure parlors and ladies' retiring room.

Frederick W. Bergman, general manager of the Neil House, has been prominent in hotel circles for the last 20 years.

Gustav W. Drach, who is president of the Neil House, designed the present Neil House which opened for business August 25, 1925.

Leaders of the dairy industry are invited to make this hotel their headquarters when they are in Columbus.

Do You Circularize the Dairy Industries?

Get our prices on our Extensive Addressograph Service

The Olsen Publishing Co., Fifth & Cherry Sts. Milwaukee, Wis.

"THIS PUNCTUAL SPOT."

The meeting was called for 4 o'clock. At one ute before the appointed hour the attendant clos doors. As he did so he took notice that all the were occupied.

The room and its furnishings were in taste wi architecture of the building. A long table occ the center of the room. Lewis Cass Ledyard was chair set for the presiding officer. At his right was Cardinal Hayes. Next to the Cardinal sat Morgan, then came Payne Whitney and Geor Baker, Jr. At the table's end was Elihu Root and to him was Vincent Astor and Henry Walters. engineering profession was represented by Willian clay Parsons and the law by two former justices supreme court, Morgan J. O'Brien and Samuel baum, and by John G. Milburn and Frank L. Polk.

At a sign from President Ledyard Mr. Whitney and proceeded to read the report of a commit which he is chairman. It was the monthly meet the trustees of the New York Public Library. man was on time.—New York Sun.

* * *

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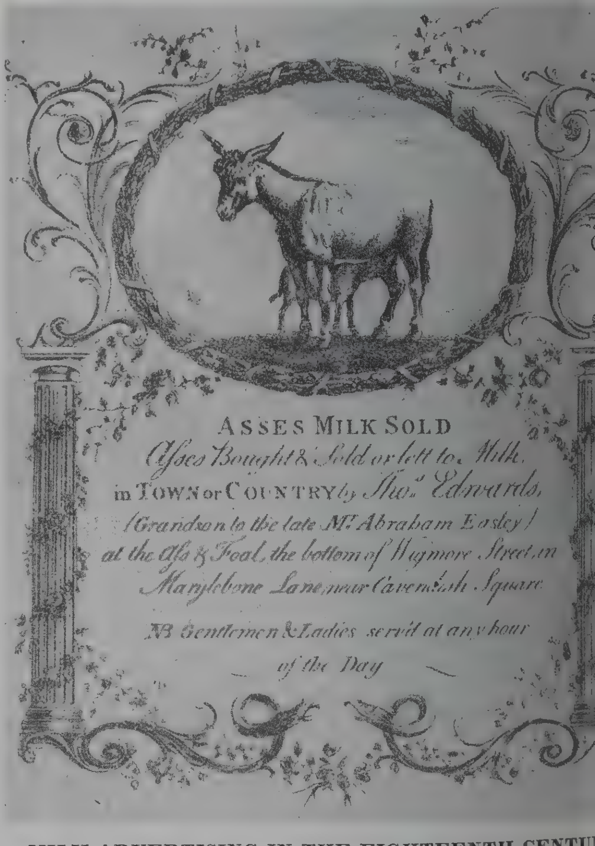
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at the Ass & Foal, the bottom of Wigmore Street, in
Marylebone Lane, near Cavendish Square
NB Gentlemen & Ladies servd at any hour
of the Day

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The above "tradesman card" appeared among several in "London Tradesmen's Cards of the 18th Century" by A Heal, published by Charles Scribner's Sons. Compare modern milk advertising.

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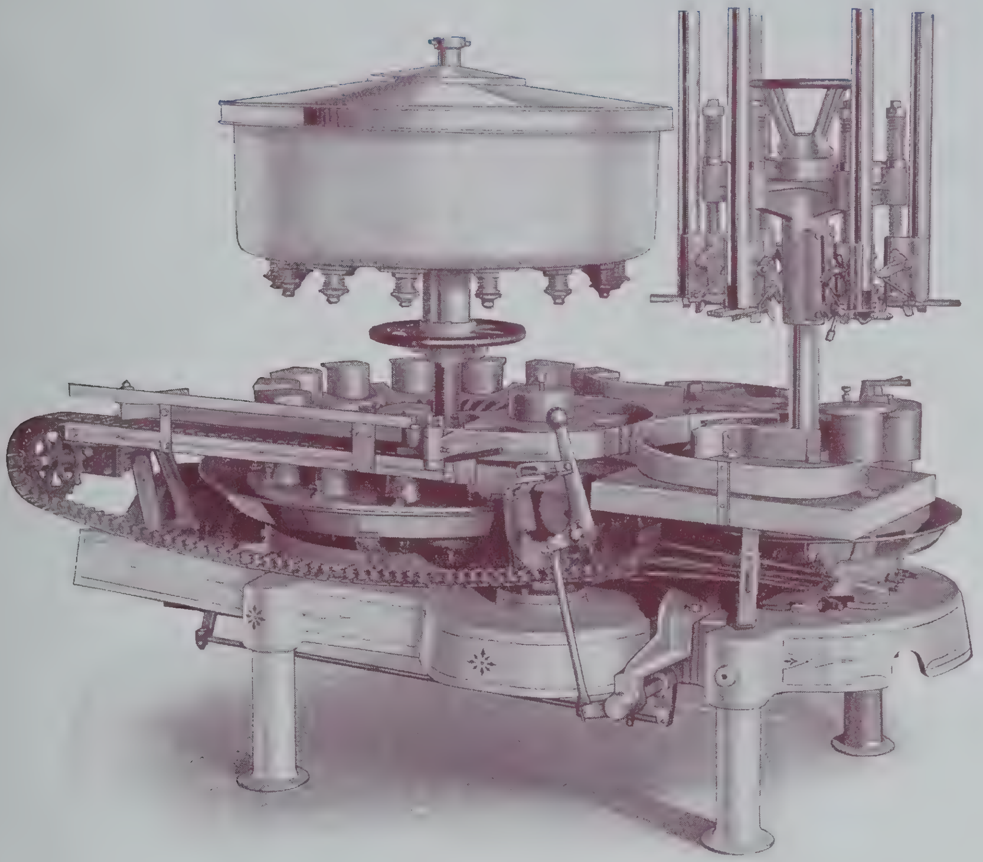
he Davis Rotary Filler and Capper

HAS BEEN IMPROVED!



This is the new No. 5 model, the big dealer's machine. Capacity is 53+ quarts or 66+ pints per minute. Two smaller sizes, Nos. 6 and 7, have capacities of 38 and 24 quarts per minute, respectively.

Why, you ask, when the last model was without a question, the fastest, smoothest and most satisfactory machine of its kind on the market?

Here's the story:

CP Machinery and Equipment always dominates the market because it is years in advance of the rest of the field. So, when our engineers saw that the Davis could be made even better than it was, we told them to go ahead and make it better—regardless of the season, or time, or popularity of the present model.

Among the improvements are: A new, simpler valve which insures filling to just the proper height without adjustments. Design of valve permits use of lighter springs, thereby prolonging life of rubber and mechanism. Conveyor chain is now made of brass. Float valve in tank can be adjusted without touching any part coming in contact with milk. Appearance is improved by lowering tank. Rated capacity is unchanged but tests show that new models are faster than the old.

Of course the all-rotary principle remains unchanged. This feature, which prevents overworking of the machine, spilling of milk and bunching of bottles, is the basic reason for Davis performance.

If you have an old inefficient filler why not replace it with a new Davis now? The saving in labor alone will pay for a new machine in but a short time. Besides you'll have the satisfaction of owning the finest milk bottle filler and capper ever made.

Full particulars and prices upon request.

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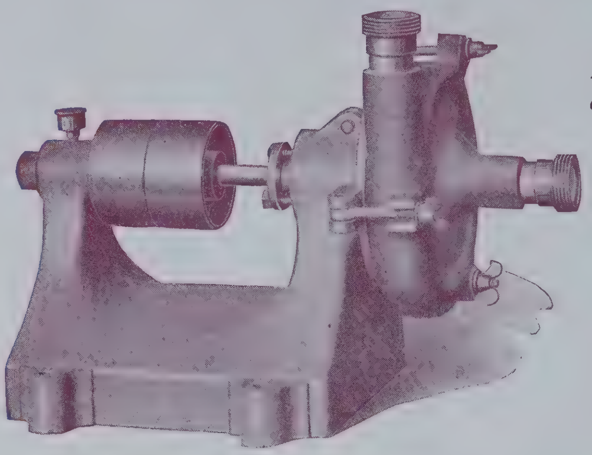
Sales Branches Everywhere

"FOR BETTER MILK HANDLING"



The YORK Milk Pump is made in No. 1, No. 2 and No. 3 sizes and in either belt drive or direct motor drive.

Belt driven pump assembled.

YORK No. 2 Milk Pump

A PUMP which can be cleaned easily and thoroughly is a boon to the dairy. That is what you will find in the YORK No. 2 Milk Pump.

By loosening three thumb nuts, you are able to clean every inch without any guess work. There are no cracks or crevices which are hard to get at.

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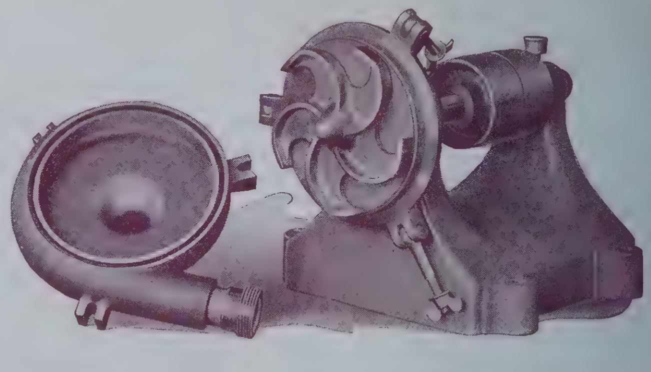
The illustration shows the belt driven pump.



Belt driven pump taken apart.
Note easy access for cleaning.

For further information or prices, write

YORK MILK MACHINERY CO.

Manufacturers of Milk Handling Equipment

York, Penna.

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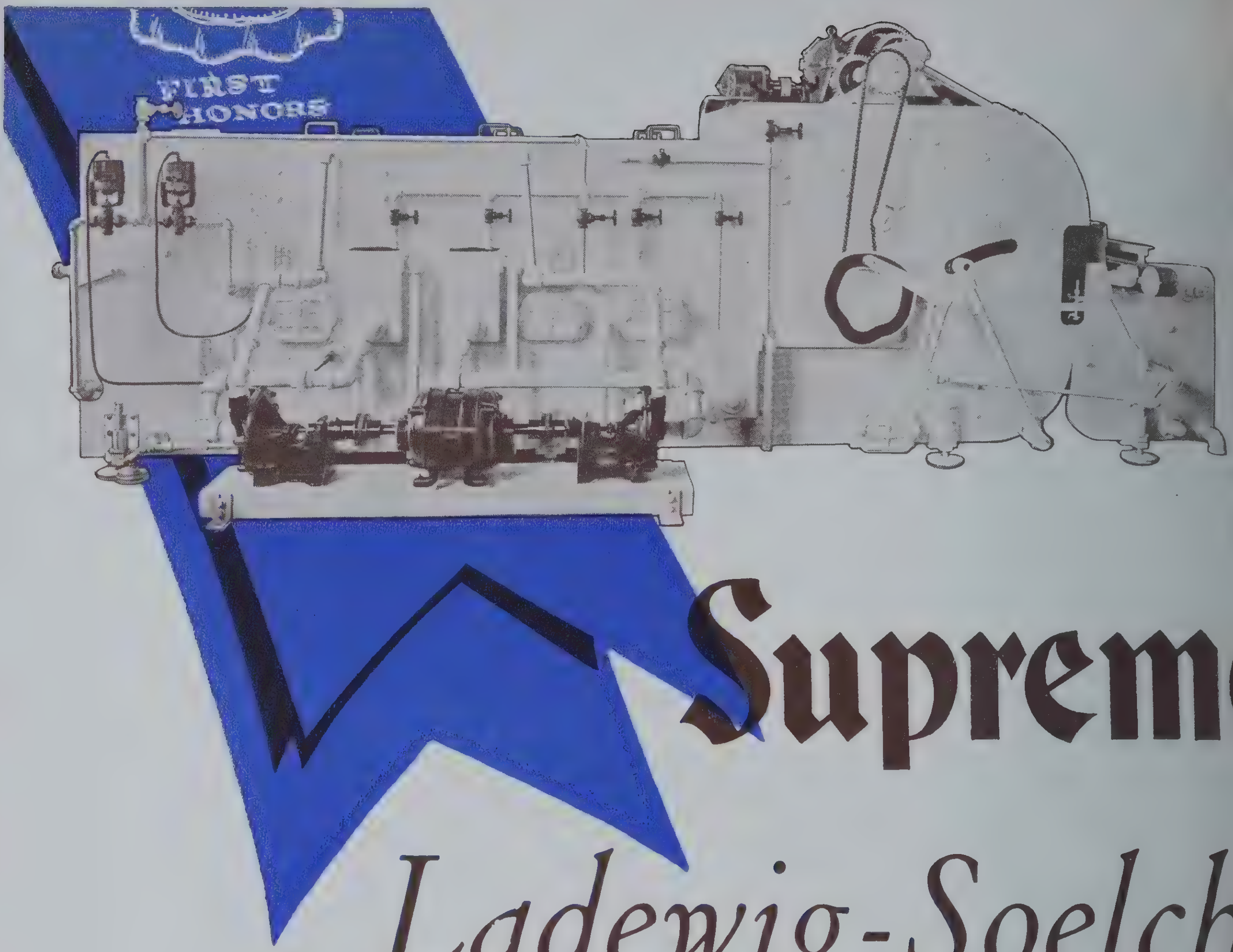

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Ladewig-Soelch
SUPER EIGHT

SUPREME! No milk plant manager can see the Ladewig-Soelch Super Eight without feeling that here indeed is a mechanical masterpiece—a supreme achievement in bottle washing machinery. And no Super Eight owner can help but feel proud of his ownership. For the Super Eight has won its supremacy honestly—through *performance.* The proof of this performance lies in the cost records of many Super Eight owners. Ask them and they will tell you that the Ladewig-Soelch Super Eight washes bottles thoroughly clean, cold, and sterile faster and *cheaper* than it has ever been done before. Let us send you complete information.

A. H. ARNOLD & COMPANY
718 W. RANDOLPH STREET, CHICAGO, ILL.
Manufactured by LADEWIG-SOELCH CO., 38th & Lapham St., Milwaukee, Wis.

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nswering YOUR questions about Pure Nickel

The International Nickel Co. (Inc.)
67 Wall Street New York

Please send me without obligation, copy of your booklet—"Nickel Facts for the Dairyman".

(Please print name and address)

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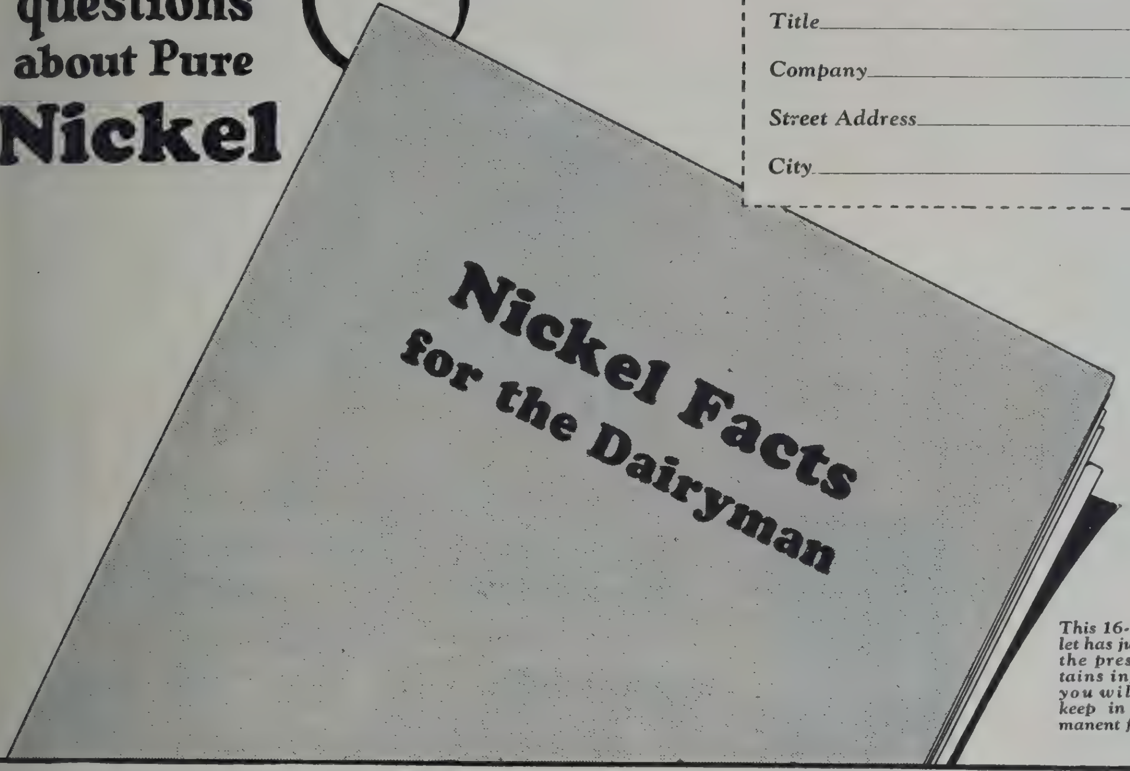
Nickel Facts for the Dairyman

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THIS HELPFUL BOOKLET WILL TELL YOU—

1. Is nickel satisfactory for contact with all dairy products?
2. Can nickel be easily worked?
3. Can nickel be polished?
4. Does nickel tarnish in service?
5. Is nickel easily kept clean?
6. Does nickel transmit heat well?
7. Are sanitary nickel tubing and fittings available?
8. Does nickel equipment lower bacteria counts?
9. Why nickel is the most all-around satisfactory material for dairy equipment.
10. Are there many nickel installations in service?

THIS BOOKLET FURNISHED FREE TO DAIRYMEN AND MANUFACTURERS OF DAIRY EQUIPMENT.

In other words, this booklet will give you a thorough understanding of why leading manufacturers of dairy equipment have adopted Pure Nickel. It will also tell you why Pure Solid INCO Nickel is specified by those dairies that are famous for the high quality of their products.

Clip the coupon at the top of this page. Send for "Nickel Facts for the Dairyman" today!

Nickel

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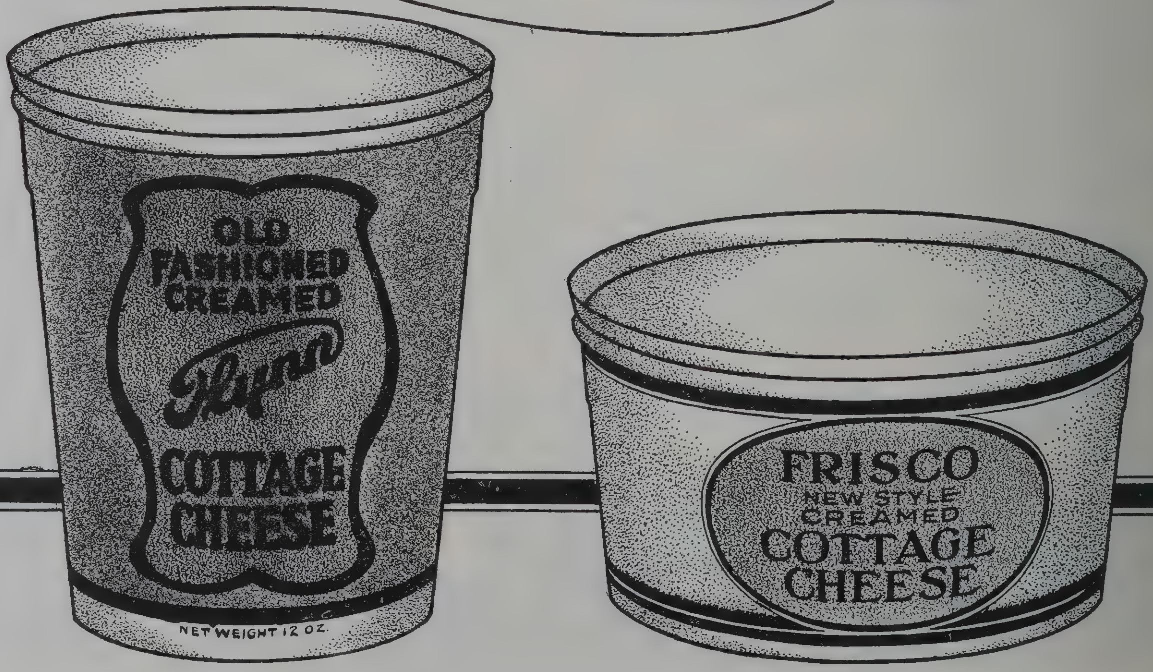
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Flynn
COTTAGE CHEESE
NET WEIGHT 12 OZ.
FRISCO
NEW STYLE CREAMED
COTTAGE CHEESE

ALDERNEY DAIRY CO.
ALDERNEY DAIRY CO.

Part of the fleet of nine Pfaudler Car Tanks, which the Newark Milk & Cream Co., N. J., will operate, leaving the Rochester factory of The Pfaudler Co. Modern to the last degree, including new type of car trucks, tank mountings and fixtures.

OF THEM ··"*We Are Elated*"!

"We are very much elated over the appearance of the cars . . . so is everybody. As a matter of fact we are proud of the whole outfit, trailer tanks and the cars. . . . . certainly is a good advertisement for both of us."

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(Signed) STANLEY A. RUTZ

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No cans to handle or replace; special refrigeration is eliminated; extra labor dispensed with. Pure sweet milk supplied daily with minimum effort and lower operating costs.

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E PFAUDLER COMPANY, *Transportation Division*, ROCHESTER, N. Y.

PFAUDLER

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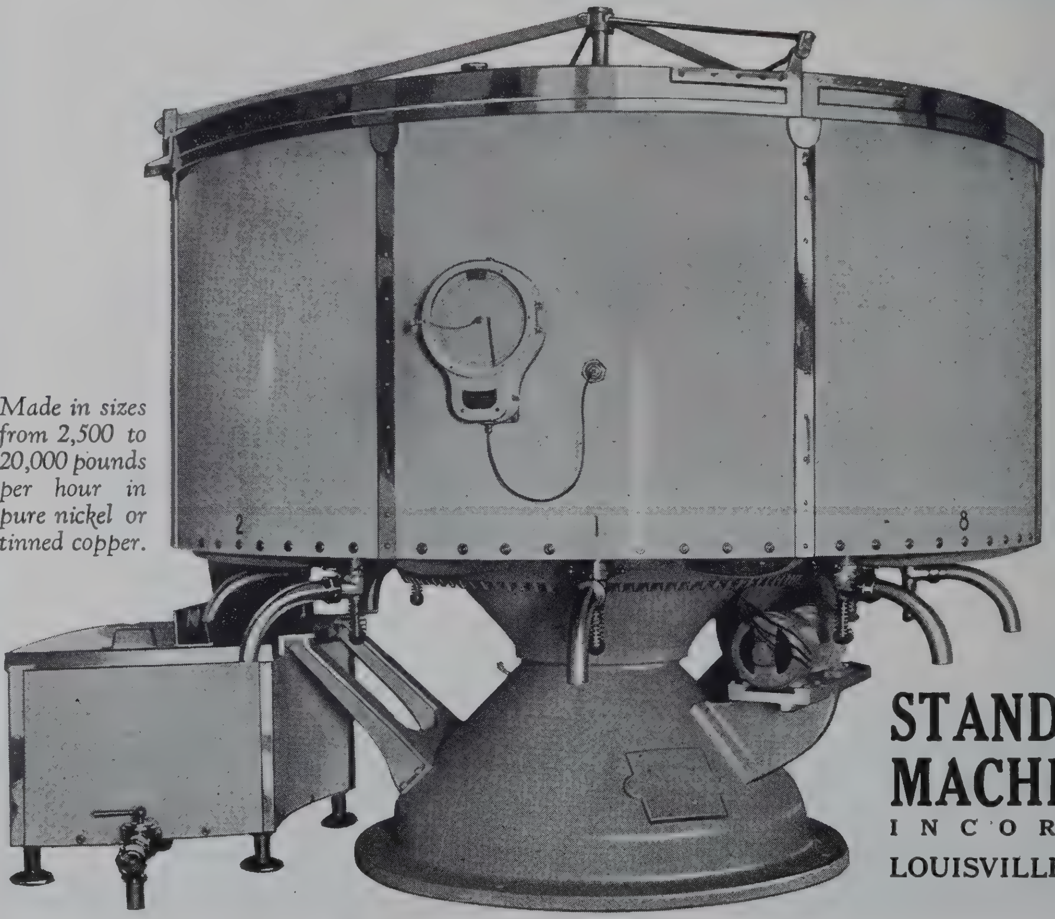
The MORTENSEN

Positive Automatic

All Nickel Holder

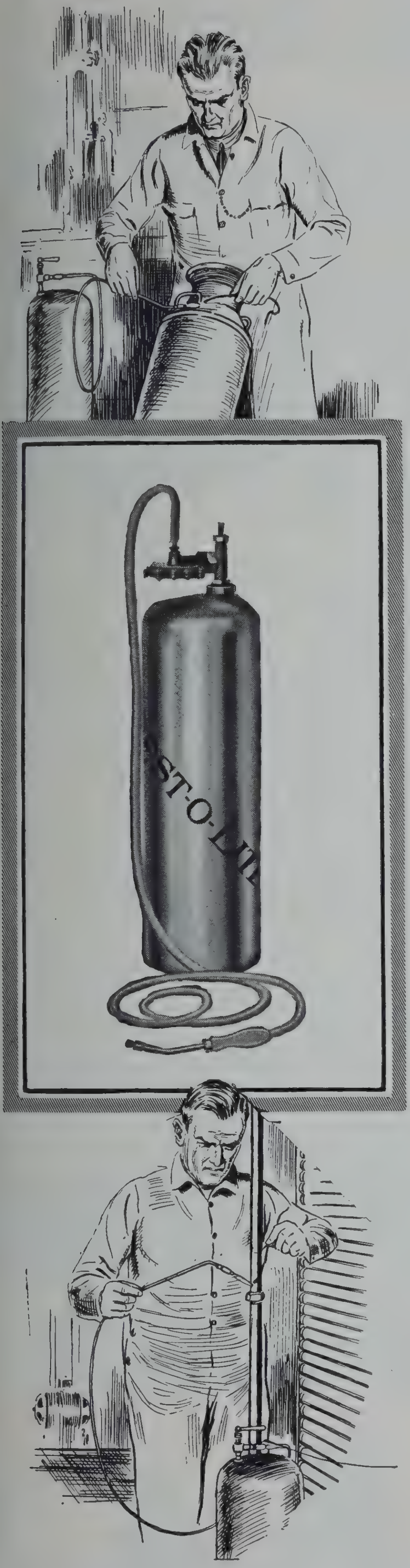


Made in sizes from 2,500 to 20,000 pounds per hour in pure nickel or tinned copper.

Our Milk Plant Engineering Services are always under my personal supervision.

C. Mortensen

STANDARD MILK MACHINERY CO.
INCORPORATED
LOUISVILLE, - KENTUCKY



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You will also save on the installation and maintenance of sanitary pipe lines, the re-soldering of vats, etc.

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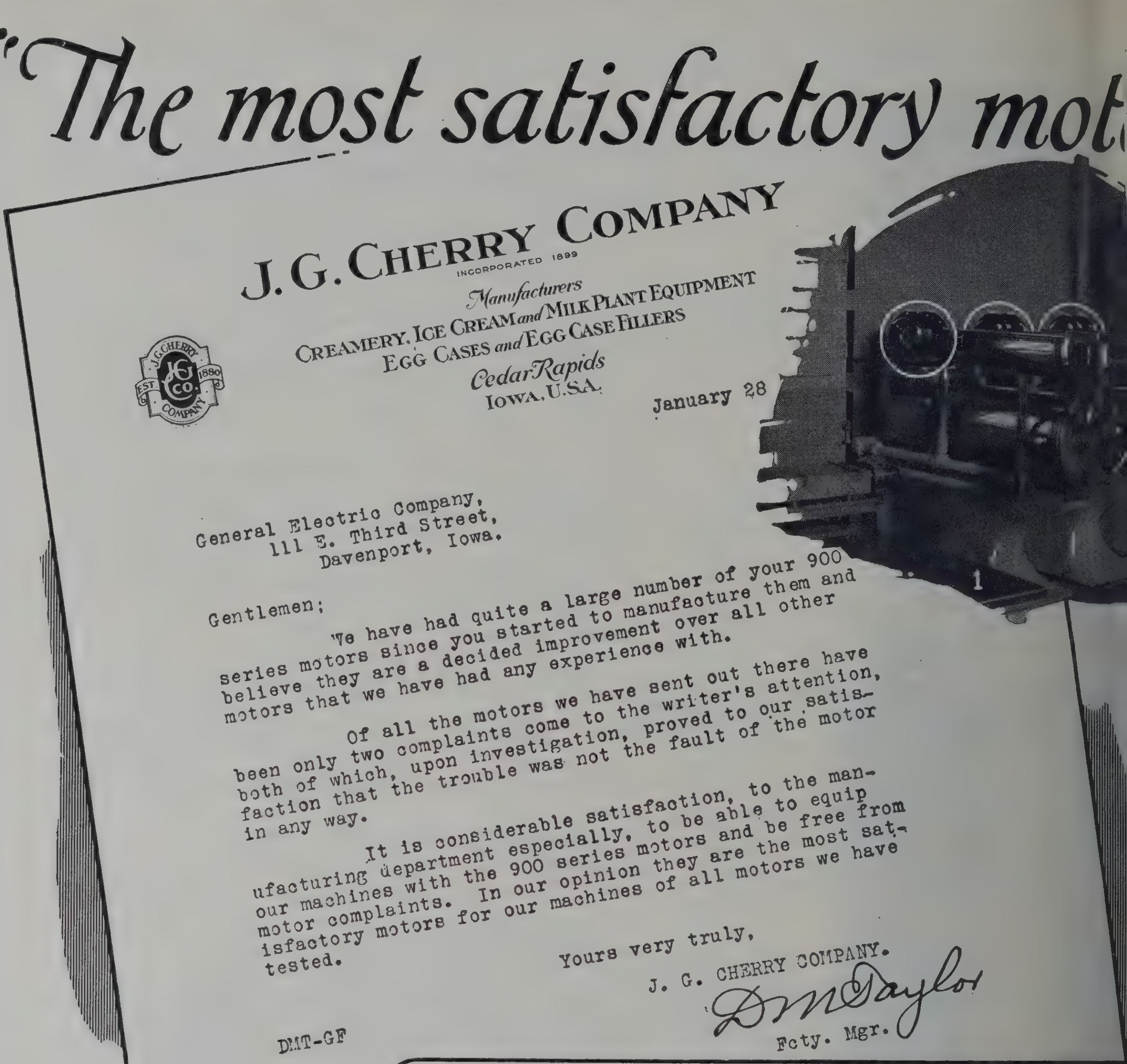
THE PREST-O-LITE COMPANY, *Inc.*
New York INDIANAPOLIS San Francisco
In Canada, Prest-O-Lite Company of Canada, Ltd., Toronto, Ontario
Unit of Union Carbide and Carbon Corporation

Prest-O-Lite
Gas
The Gas of a Thousand Uses

When writing to PREST-O-LITE CO., INC., *please mention The Milk Dealer.*

"The most satisfactory mot



J. G. CHERRY COMPANY
INCORPORATED 1899
Manufacturers
CREAMERY, ICE CREAM and MILK PLANT EQUIPMENT
EGG CASES and EGG CASE FILLERS
Cedar Rapids
IOWA, U.S.A.

January 28

General Electric Company,
111 E. Third Street,
Davenport, Iowa.

Gentlemen;

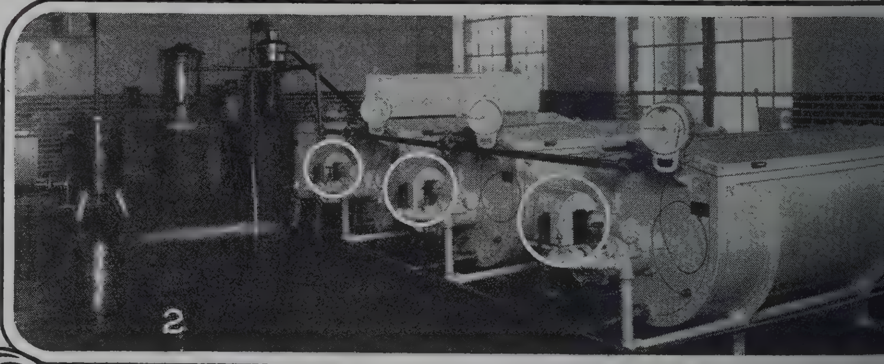
We have had quite a large number of your 900 series motors since you started to manufacture them and believe they are a decided improvement over all other motors that we have had any experience with.

Of all the motors we have sent out there have been only two complaints come to the writer's attention, both of which, upon investigation, proved to our satisfaction that the trouble was not the fault of the motor in any way.

It is considerable satisfaction, to the manufacturing department especially, to be able to equip our machines with the 900 series motors and be free from motor complaints. In our opinion they are the most satisfactory motors for our machines of all motors we have tested.

Yours very truly,
J. G. CHERRY COMPANY.
D M Taylor
Fcty. Mgr.

DMT-GF



Apply the proper G-E motor and the correct G-E controller to a specific task, following the recommendations of G-E specialists in electric drive and you have G-E Motorized Power. Built in or otherwise connected to all types of industrial machines, G-E Motorized Power provides lasting assurance that you have purchased the best.

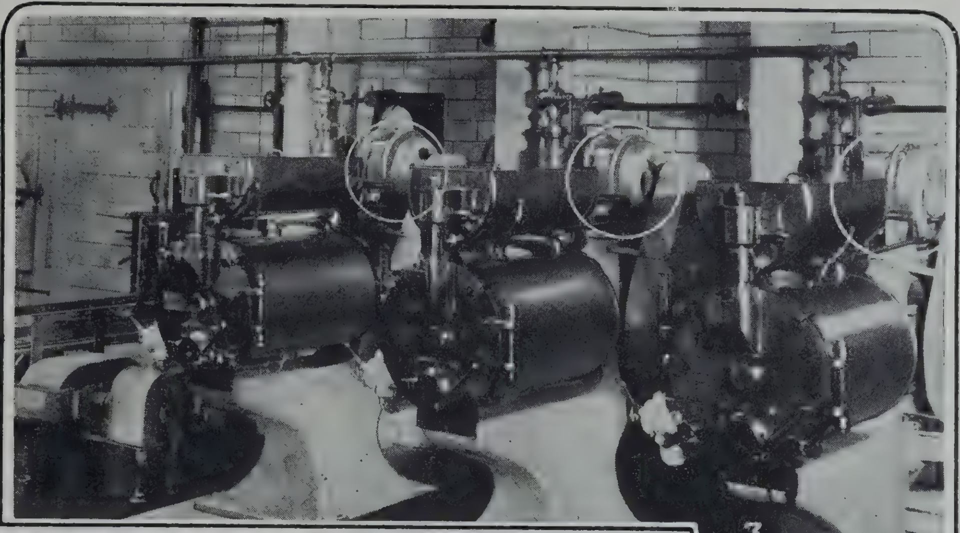
GE Motorized Power
-fitted to every need

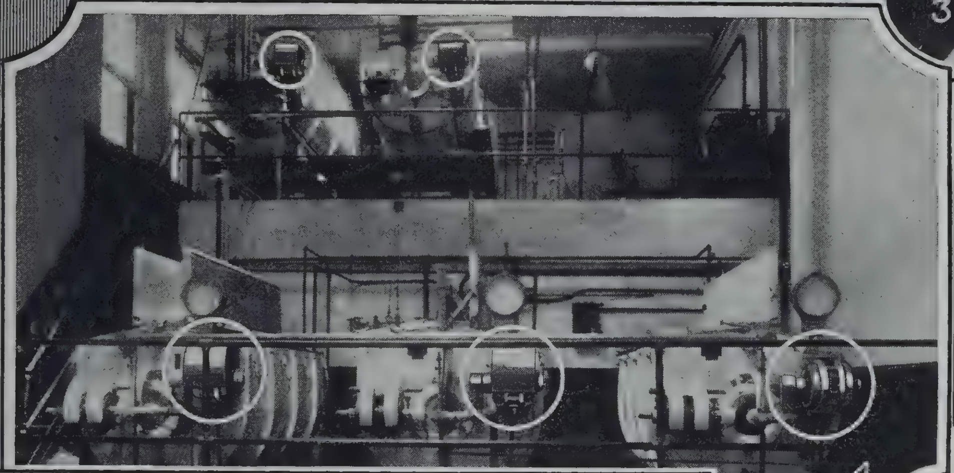
GENERA

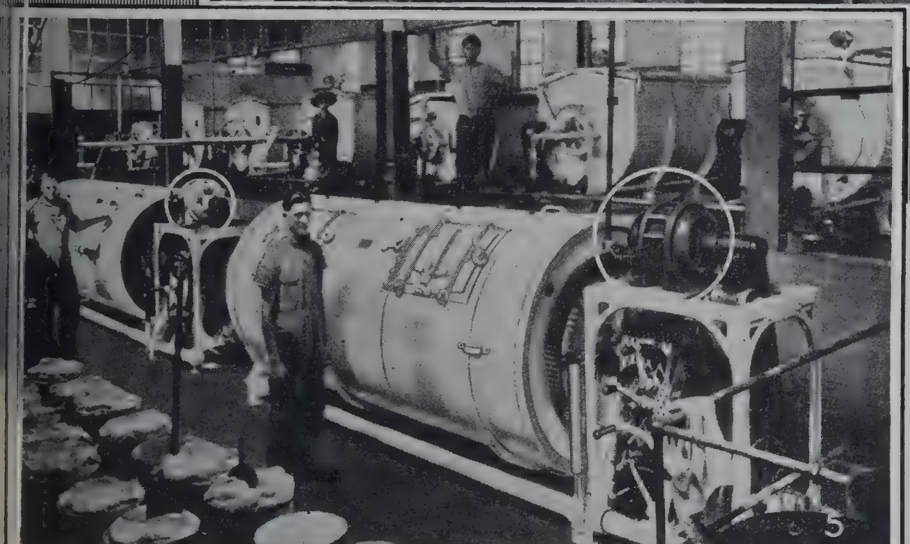
GENERAL ELECTRIC COMPANY, SCHENECTADY, N.

When writing to GENERAL ELECTRIC COMPANY *please mention The Milk Dealer.*

for our machines"~







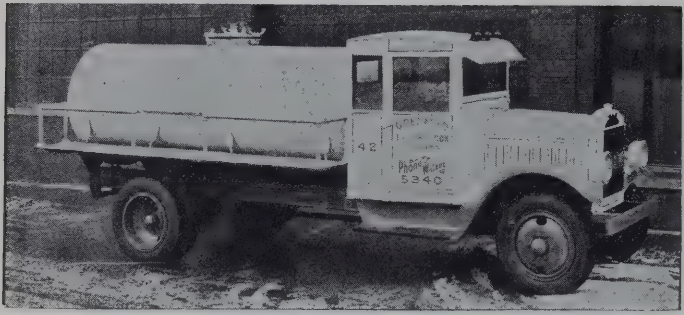
1. *Cherry ice cream freezers and batch-mixer in new plant of the Seale-Lily Ice Cream Co., Jackson, Miss.*
2. *Cherry milk pasteurizing equipment at Union Dairy Company, Freeport, Ill.*
3. *A Cherry installation in the plant of the Champaign Ice Cream Company, Champaign, Ill.*
4. *Cherry Special Two-Speed Twin Coil Pasteurizers at the Pennsylvania Milk Products Company, Harrisburg, Pa.*
5. *Two Cherry "Dreadnaught" churns in the plant of the Rutherford County Creamery Association, Murfreesboro, Tenn.*

201-89

ELECTRIC

SALES OFFICES IN PRINCIPAL CITIES

GLASCOTE



MEYERS
Drexel 2196
MEYERS MILK.
Kansas City Kans.
3

109
DAIRY CO.

Glass Lined Truck Tan
Promptly Save The
Costs and Pay Dividen

Big Dairies succeed by economy and grow
quality. Glascote Tanks provide both at c

Can expenses are eliminated. Labor is redu
Speed is increased. Loads are larger. Cost
gallon hauled is less.

Most Important

Glascote Tanks mean quality milk. No
sible metallic corrosion. Cleanliness insurec
continuous, seamless high glaze glass lining.

Tank Construction along finest Enginee
lines. Glascote special cradling and brac
Three styles standardized; Lightweight, for l
distance speed collections, with 2 inch cork
sulation covered with aluminum jacket. Medi
weight, for normal distances, with or with
insulation. Oval Tanks, with low center
gravity, for rough roads, curves and grades.

Preferred by Largest Users

Well built, Glascote Tanks are most dur
in heavy service. High Glaze Glass lining
superior quality absolutely prevents corros
and is easily cleaned. Tanks are built to st
abuse from accidental air pressures or vacu
from steam condensation. Every safety de
for efficient operation. Convenient, lock-co
outlet valve. Jackets finished to take paint
produce fine advertising advantages.

Join the list of money saving users
of Glascote Truck Tanks

New Bulletin ready.

THE GLASCOTE COMPANY, EUCLID, OHIO [Cleveland Distri

NEW YORK OFFICE
15 Park Row
Barclay 1784

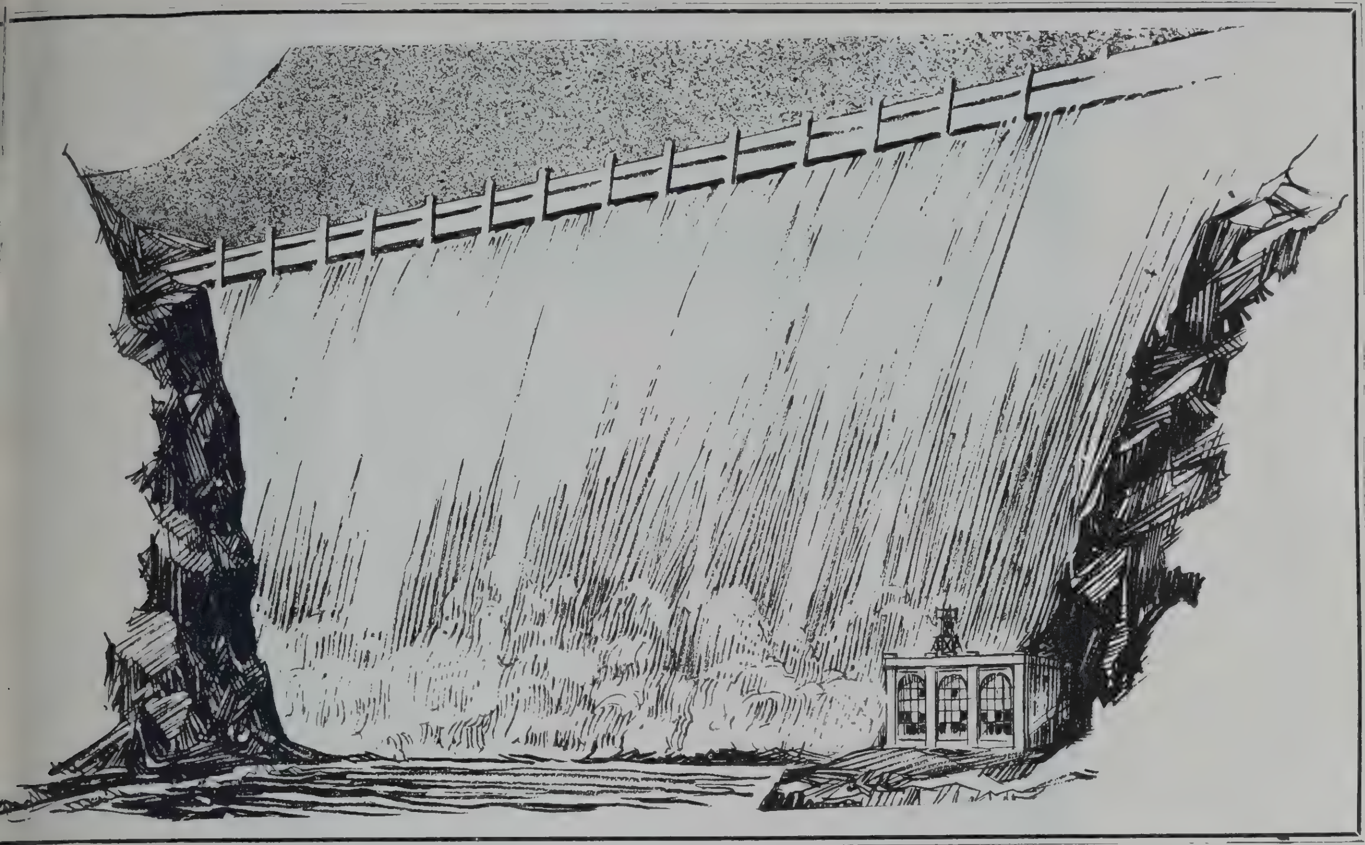
CHICAGO OFFICE
127 North Dearborn St.
Dearborn 9731

DETROIT OFFICE
1217 Book Building
Cadillac 0799

ST. LOUIS OFFICE
905 Carleton Building
Garfield 3561

LOS ANGE
487 Chambe
Commerce B

When writing to THE GLASCOTE COMPANY *please mention The Milk Dealer.*



The immense volume of water stored behind Elephant Butte Dam in New Mexico can develop sufficient Hydrostatic Friction to sweep away an entire city.

o Bottle Washing, the Miller Hydro as adapted the greatest physical force nown . . . the terrific friction of Water under Pressure

e greatest achievement in the long history of Bottle ashing—applying this great force, Hydrostatic Fric- n, in a constant and continuous manner that is always pendable. Through self-cleaning nozzles the power- streams of hot alkali solution are forced by high mp pressure into the bottles.

bottles travel neck down through the Miller Hydro y encounter diagonal nozzles, the latest Miller dro improvement, which drive a swirling, scouring, ustic blast straight in under the very edge of the am line and on around the inside clear through to bottom, meeting with a terrific impact every point on the interior surface of each bottle. Dirt and filth cannot resist this positive treatment. Bottles are washed to a degree of cleanliness and sterility far superior to results obtainable with the strongest brush made.

There is value in the Miller Hydro. Its every-day efficiency records have made it the most extensively sold bottle washing machine in the world. It has become standard equipment for both the dairy and beverage industries in every civilized country . . . wherever bottle cleaning perfection is sought after.

No obligation will be involved in requesting further information. We will supply it without delay.

MILLER MANUFACTURING CO., Bainbridge, Ga.

Makers of

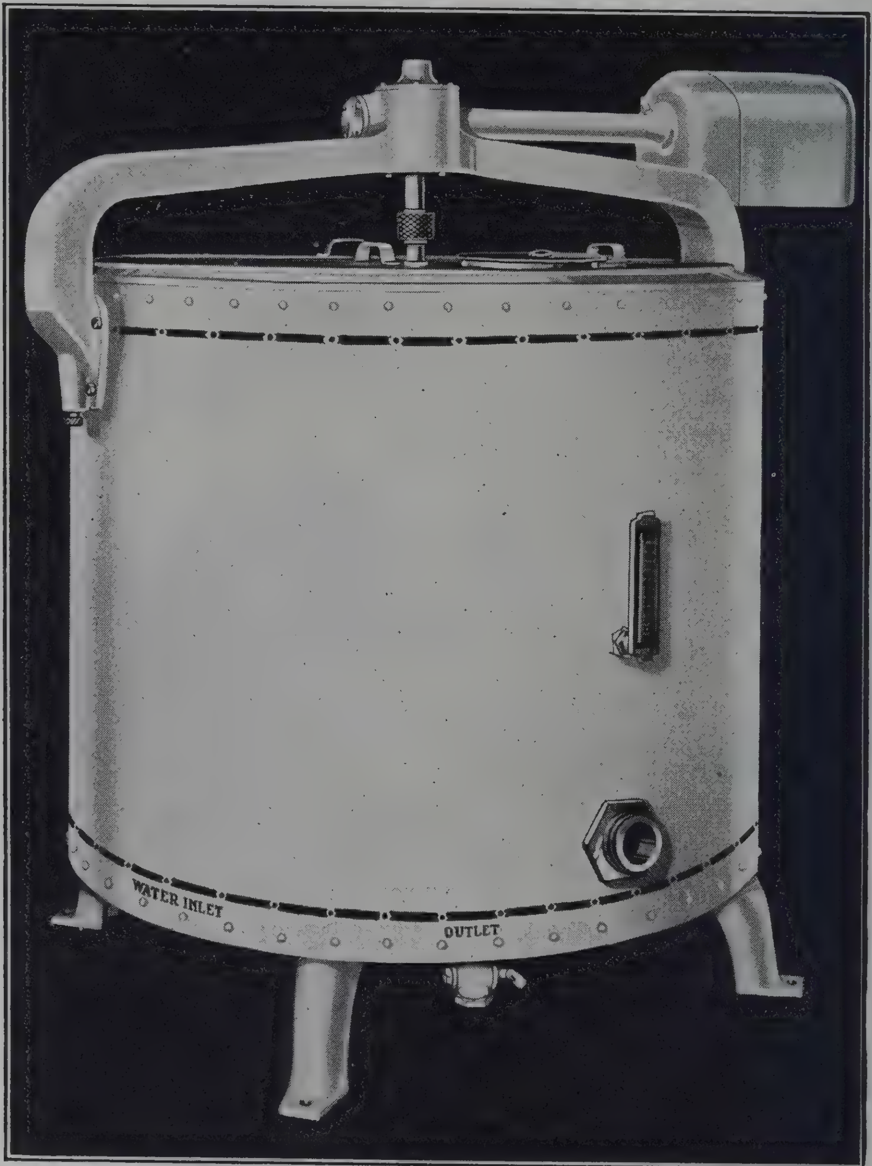
The MILLER-HYDRO
Bottle Washer and Sterilizer

Chicago Office:
1305 Monadnock Block

New York Office:
105 West 40th Street

THE LARGEST FACTORY IN THE WORLD DEVOTED EXCLUSIVELY TO THE MANUFACTURE OF BOTTLE WASHING MACHINERY

When writing to THE MILLER MANUFACTURING CO. *please mention The Milk Dealer.*



It Does Lots of Things!

THIS 200 gallon CHERRY MIXER AND PASTEURIZER has many uses. Small milk plants use it as a pasteurizer while larger plants use it for handling their certified milk and pasteurizing special milk and cream. It's a good buttermilk machine. Creameries make starter with it. Ice cream plants use it as a batch mixer, for cooling and storage, for remaking milk and cream from unsalted butter, powdered skim or whole milk. Ask us for more details—they're interesting.

J. G. Cherry Company, *Cedar Rapids, Iowa*

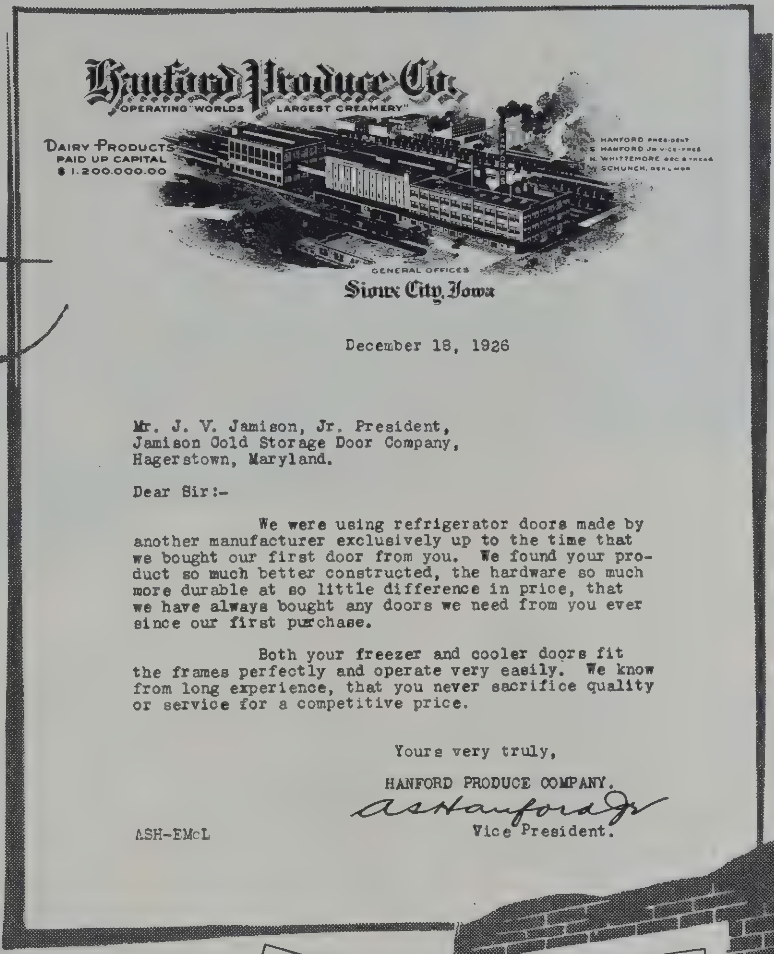
ST. PAUL, MINN. TAMA, IOWA PEORIA, ILLS.

When writing to J. G. CHERRY COMPANY *please mention The Milk Dealer.*

oubting Thomases!

If you want **PROOF** *of all we say about Jamison* **Doors** *ere it is, right to the letter..*

Read this



Hanford Produce Co.
"OPERATING "WORLDS LARGEST CREAMERY"
DAIRY PRODUCTS
PAID UP CAPITAL
$ 1.200.000.00
S. HANFORD PRESIDENT
S. HANFORD JR VICE-PRES
H. WHITTEMORE SEC & TREAS
W. SCHUNCK, GEN'L MGR
GENERAL OFFICES
Sioux City, Iowa

December 18, 1926

Mr. J. V. Jamison, Jr. President,
Jamison Cold Storage Door Company,
Hagerstown, Maryland.

Dear Sir:-

We were using refrigerator doors made by another manufacturer exclusively up to the time that we bought our first door from you. We found your product so much better constructed, the hardware so much more durable at so little difference in price, that we have always bought any doors we need from you ever since our first purchase.

Both your freezer and cooler doors fit the frames perfectly and operate very easily. We know from long experience, that you never sacrifice quality or service for a competitive price.

Yours very truly,
HANFORD PRODUCE COMPANY.
A S Hanford Jr
Vice President.

ASH-EMcL

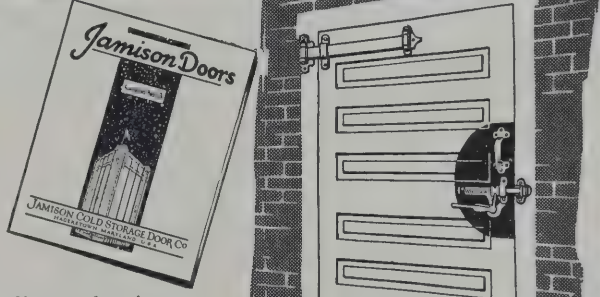
MAYBE you've never used a Jamison Cooler or Freezer Door. Maybe you've never seen one. Maybe you've wondered how all the winning points we claim for them can be true.

But there's no "maybe" about letters like this—and we receive scores more like it constantly. These letters prove that Jamison Doors are better—not because we say that they are, but because we *make* them that way. They prove that Jamison Hardware is the heaviest, strongest, finest obtainable—not because we claim it is, but because it has established its fitness *on the job.*

They prove that Jamison Doors are giving maximum service at minimum expense to thousands of plant owners—not just because we *say* that they are, but because they *are!*

Solid, cold-tight, braced construction . . . Adjustable spring hinges that keep the seal of the door "at par"—and the *only* spring hinges in which *none* of the weight of the door falls on the spring . . . A bounce-proof, self-tightening fastener; the harder you slam it the tighter it grips . . . *Double* seals of contact, between the door and frame.

These are distinctive Jamison features. No other door combines them. That is why *more than half* of the world's Cold Storage Door owners use—*Jamisons.*

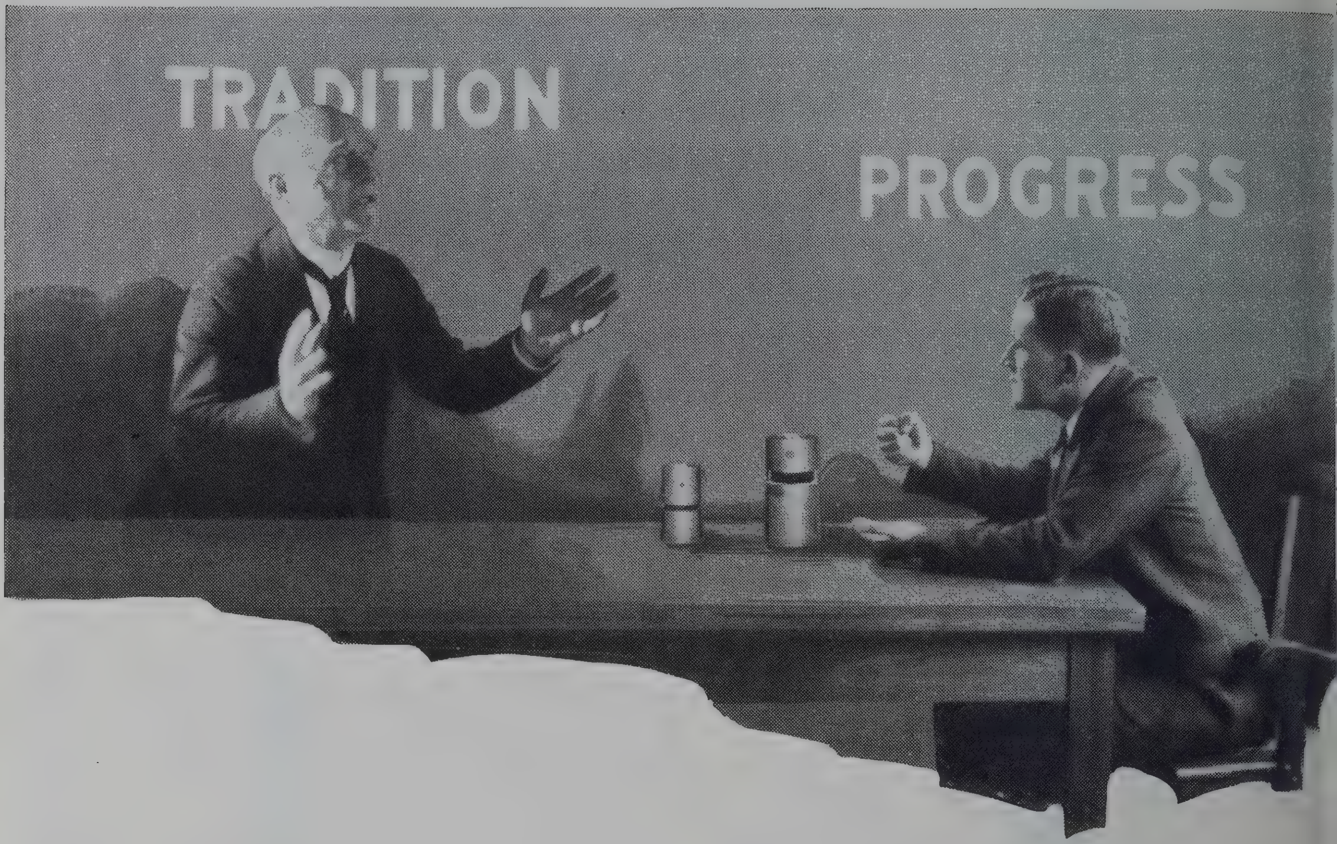


If you haven't a copy of our catalog, write for it now. It brings you complete information on Jamison Cooler and Freezer Doors, Refrigerator Fronts . . and those time-savers, ice-savers and money-savers — Noequal Automatic Ice Chutes.

Jamison Doors

JAMISON COLD STORAGE DOOR COMPANY
Hagerstown, Maryland, U. S. A.

Pop asks how it happened



"Here, Lad—

if you would spend more time looking after the motors that we've got and less time trying to have me get this new-fangled motor the next time I buy—we wouldn't have to be arguing here about the amount of money it costs us to keep motors going. How does it happen that this motor of yours suddenly becomes a world beater?"

"Easy, Pop—

it didn't happen. The best things ***neve*** happen—they're achieved.

The "Linc-Weld" people didn't happen o bearings and shafts that are bigger than thos of any other motor.

Being motor specialists they knew years ag that these items cause the most trouble i motor operation—so they deliberately developed these to a point where these trouble were licked.

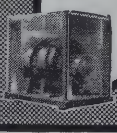
By accurate logging of our motor shutdown 75% were directly the result of bearing failur

So I'm simply asking you, Pop, to look a these two bearings—

The little fellow is ours—the big brute is th "Linc-Weld," and tell me which you'd choos if your life and not your prejudices wer at stake on the final outcome in service?"

The Lincoln Electric Co., Dept. No. 25-8, Cleveland, Ohio

MA-19



"Linc-Weld"

LINCOLN MOTOR

When writing to THE LINCOLN ELECTRIC COMPANY *please mention The Milk Dealer.*

The correct bottle washer for every sized plant

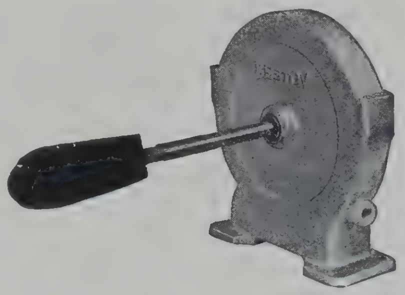
Clean Bottles! How much depends on them? How many customers are needlessly lost through the lack of them?

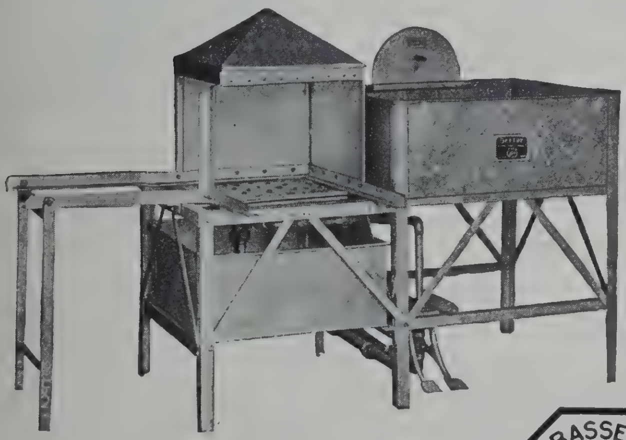
Cherry-Bassett has made a complete study of the bottle washing requirements of the dairy industry, and as a result offers you bottle washing equipment with a name and reputation, backed to the limit by us.

Whether your requirements be 50 or 50,000 bottles a day it will pay you to get our complete literature on your size washer, study it carefully, convince yourself of its excellent qualities and then let us fill your washing requirements to perfection.

Your name and address together with your plant capacity will bring this literature very promptly.

Bestov Brush Washers are made in various sizes and styles—direct motor, steam turbine and belt drive. No matter what the working conditions in your plant might be you will find a Bestov Brush Washer to satisfactorily fill your requirements. The model shown is the Bestov Steam Turbine Single Brush—a very popular washer among the smaller plants.





The Bestov Junior Bottle Washer is ideal for plants washing not more than 600 bottles a day. One man can do the job very efficiently and thoroughly. Although a low priced outfit the Quaker City Junior washes bottles just as clean and sterilizes them just as well as the much larger washers. A very popular piece of equipment among the medium sized plants.

CHERRY-BASSETT COMPANY
TRADE MARK
BESTOV
MILK PRODUCTS EQUIPMENT

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION INC.
ASSOCIATE MEMBER
NATIONAL ASSOCIATION OF
ICE CREAM MANUFACTURERS

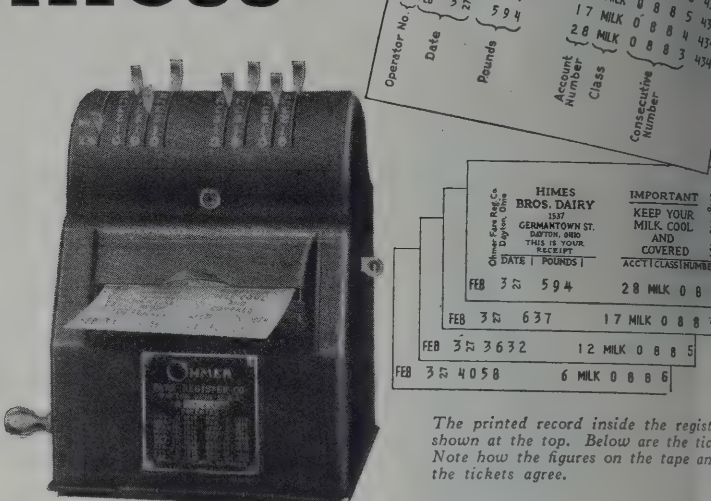
PHILADELPHIA
PITTSBURGH

Cherry-Bassett Company

BALTIMORE

NEW YORK
SYRACUSE

See how this will help YOUR business


NIFEB 3 27 4058
NIFEB 3 27 3632
NIFEB 3 27 637
NIFEB 3 27 594
6 MILK 0886
12 MILK 0885
17 MILK 0884
28 MILK 0883
Operator No.
Date
Pounds
Account Number
Class
Consecutive Number
Ohmer Fare Reg. Co. Dayton, Ohio
HIMES BROS. DAIRY
1537 GERMANTOWN ST.
DAYTON, OHIO
THIS IS YOUR RECEIPT
DATE | POUNDS |
IMPORTANT
KEEP YOUR MILK COOL AND COVERED
ACCT | CLASS | NUMBE
FEB 3 27 594 28 MILK 0 8
FEB 3 27 637 17 MILK 0 8 8
FEB 3 27 3632 12 MILK 0 8 8 5
FEB 3 27 4058 6 MILK 0 8 8 6
OHMER

The printed record inside the regist shown at the top. Below are the tic Note how the figures on the tape an the tickets agree.

THERE'S nothing like the OHMER No. 79 Ticket-Printing Register for keeping account of milk received at dairies and creameries. It's the most convenient, quickest, and surest method ever devised.

Your receiving department weighs in a delivery. The weighman sets the levers on the OHMER Register and turns the crank. Two things instantly happen. A receipt is issued and a duplicate record is printed on tape locked in the register.

Receipt and Record Show Every Detail

The receipt is completely printed by the register. It shows the name of your company, the date, the weight, the account number, the kind of product, and the consecutive number of the transaction. This receipt can be handed to the driver at the time or mailed to the producer later.

And all the items shown on the receipt are printed from the same type on the locked-in record. There can't be any discrepancies or changes. No memorandum can be lost, blurred, or mutilated. No errors can occur from illegible figures.

Office detail is greatly simplified by the use of the No. 79 OHMER Ticket-Printing Register and the system of operation that we recommend with it. From the time the milk is weighed to the time you send the checks in payment, all pencil writing and all copying of any kind is entirely eliminated. Think of the time and trouble saved.

See how the register in the receiving room is out of the way, yet convenient for instant use.

Compact and Simple

When you see the OHMER Ticket-Printing Register, you will be amazed at its compactness and simplicity. Only the knowledge gained from 29 years' experience in making precision recording devices, only the specially designed equipment for fine and accurate work have made this register possible.

And the cost is so little that the saving of time and the prevention of losses will pay for the register over and over again in a single year.

Get Complete Information NOW

While the matter is fresh in your mind—right now—inquire for complete information. We'll send you fully descriptive literature with samples of receipts and records. Learn how the OHMER Register will save time and money for you. Learn how it will foster good-will among your customers. Write or wire today.

OHMER FARE REGISTER COMPAMY
Dept. A Dayton, Ohio

OHMER
REG. U.S. PAT. OFF.
Ticket-Printing Register

Other OHMER Products

OHMER ODOMETER gives accurate distance traveled by motor vehicles and railways.

OHMER RECORDOGRAF gives a stylographic analysis of the operation of the vehicle on which it is placed.

OHMER TRUCK AUDITOR produces complete printed record of the operation of motor vehicles.

OHMER HUB-ODOMETER, an accurate counter for commercial vehicles. It goes on in place of hub cap.

OHMER PRINTING TAXIMETER prints receipt for the passenger and produces locked-in record for the owner.

ATCO TAXIMETER; accurate and most durable non-printing taximeter on the market.

ATCOGRAF TAXIMETER produces a stylographic record of the movements of the cab.

OHMER FARE BOXES, convenient and durable receptacles for fare collections.

OHMER INDUSTRIAL COUNTERS are for use wherever accurate count is desired.

Ohmer recording instruments are leaders of their type throughout the world.

When writing to OHMER FARE REGISTER CO. *please mention The Milk Dealer.*

SOLVAY Super Cleanser

ADE MARK REG. U.S. PAT. OFF.

SOLVAY
SUPER
CLEANSER
The Ideal Cleaner and Cleanser

—decreases the COST

—increases the CERTAINTY

of

CLEANLINESS

in Milk Plants and Creameries

THIS necessity for absolute cleanliness is an important item in costs in the milk business. Here's a suggestion:

By using Solvay Super Cleanser, the IDEAL cleaner and cleanser, you make sure that your equipment is kept perfectly clean at all times at the minimum of expense.

You actually save money by using Super Cleanser because it is produced and sold direct to the trade by the largest producer of alkali products in the United States. You get the benefit of large scale operation together with prompt handling of your order through the nearest of our many distributing points.

OUR Technical Service Department will gladly discuss with you your particular cleaning problems — entirely without charge — or we will send you a booklet on Solvay Super Cleanser with generous testing samples. Ask for Booklet No. SC2.

SOLVAY SALES CORPORATION

Alkalies and Chemical Products Manufactured by The Solvay Process Co.

40 Rector Street, New York

Boston Syracuse Chicago Indianapolis Cleveland Cincinnati Pittsburgh Detroit Philadelphia Kansas City St. Louis Atlanta

When writing to SOLVAY SALES CORPORATION *please mention The Milk Dealer.*

"Guess-Work" is removed from insulation when

Crescent 100% Pure Corkboard
(Made in U. S. A.)
AND
United's Service

are selected for the insulation of Cold Storage Rooms

F. P. HOOD & SONS PLANT, Cambridge, Mass.

THE entire organization that handles your work when you place a contract with United, is composed of men who ***know*** insulation work.

Operating under the personal supervision of our trained engineers, they effect installations that are permanent, economical and always satisfactory. Each insulation problem is properly settled; each step in making the installation is carefully planned; each mechanic is assigned to his particular job—previous to the starting of the work.

Consequently the contract is executed with dispatch, and in a manner that is always pleasing to the customer. And the owner has that feeling of security and satisfaction in knowing that his work was done right.

We would appreciate an opportunity to submit our estimate on your requirements. Write to us.

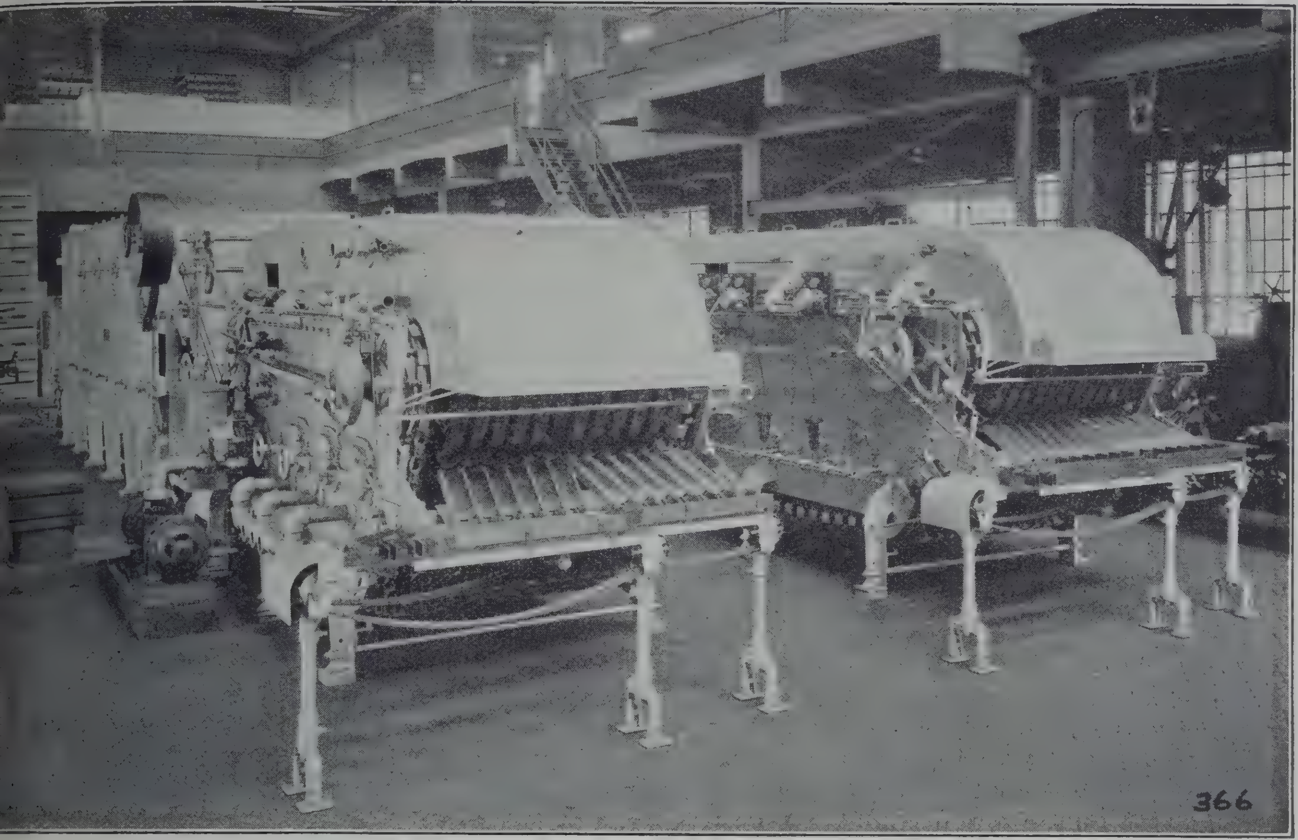
CRESCENT CORK INSULATION

UNITED'S SERVICE
Provides
"Insulation of the utmost efficiency"
Branch Office

CRESCENT CORK COVERING

New York	Baltimore	Chicago
Philadelphia	Pittsburgh	Cincinatti
Boston	Cleveland	Hartford, Conn.

UNITED CORK COMPANIES
LYNDHURST, N. J.



The "ARISTOCRAT"

OF BOTTLE CLEANERS

APTLY NAMED BECAUSE IT IS IN A CLASS BY ITSELF

Above cut shows TWO large ARISTOCRAT units consisting of independent 5-COMPARTMENT SOAKER connected to our latest hygienic BRUSHLESS WASHER with Sterilizing and 3-Compartment Cooling attachments. Photo was taken on the assembly floor of our large modern factory.

These units are now being installed in that new wonderful plant of SIDNEY WANZER & SONS, INC., CHICAGO, ILL., where the best was the main consideration. Write us for full particulars. Our engineering staff belongs to you. 26 years experience.

Sheffield Farms selects Barry-Wehmiller Bottle Washers, Soakers and Sterilizers for their *new Jamaica*, Long Island Plant. After using 2 Barry-Wehmiller machines for more than 2 years in their New York City Plant, 2 more at the Brooklyn Plant, 2 more at the Harlem Plant, and 2 more at the Bronx Plant, all of 6 to 8 compartments in size, they have for the *fifth time ordered 2 more for their new Jamaica Plant.*

Barry-Wehmiller Machinery Company

Pioneers of Bottle Cleaners and In-the-bottle Pasteurizers

4660 W. Florissant Ave., St. Louis, Mo., U. S. A. **New York Office: 18 West 25th St.**

When writing to BARRY-WEHMILLER MACHINERY COMPANY *please mention The Milk Dealer.*

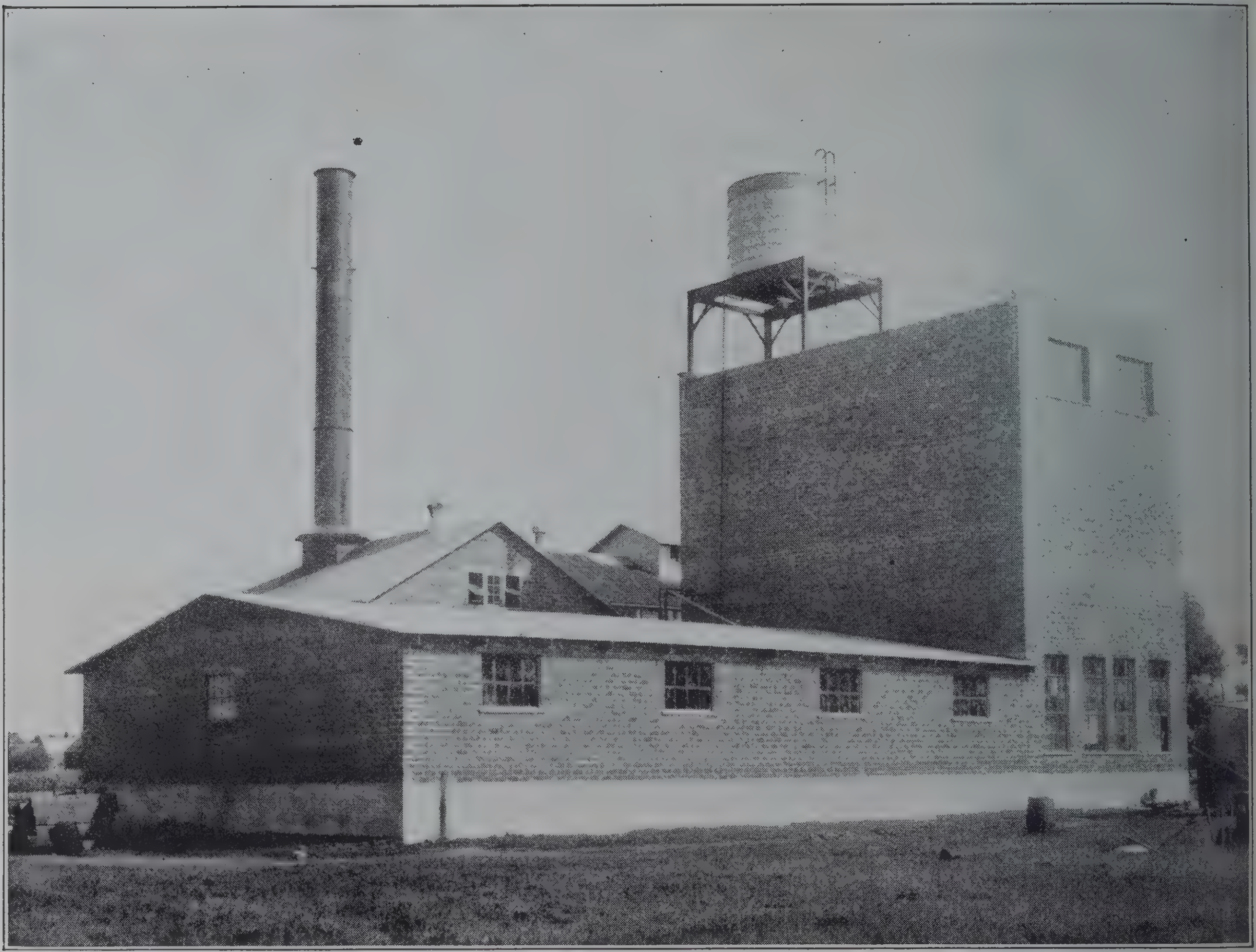
DOUTHITT MILK POWDER PLANT

GRAY-JENSEN SPRAY PROCESS

Designed and Built by

DOUTHITT ENGINEERING COMPANY

100 WEST MONROE STREET, CHICAGO



Sheffield Farms Company's plant at Lisbon, N. Y.

Add to your creamery profits by manufacturing your skim milk, buttermilk, or whey into powder on the Gray-Jensen Spray Process Milk Powder Plant.

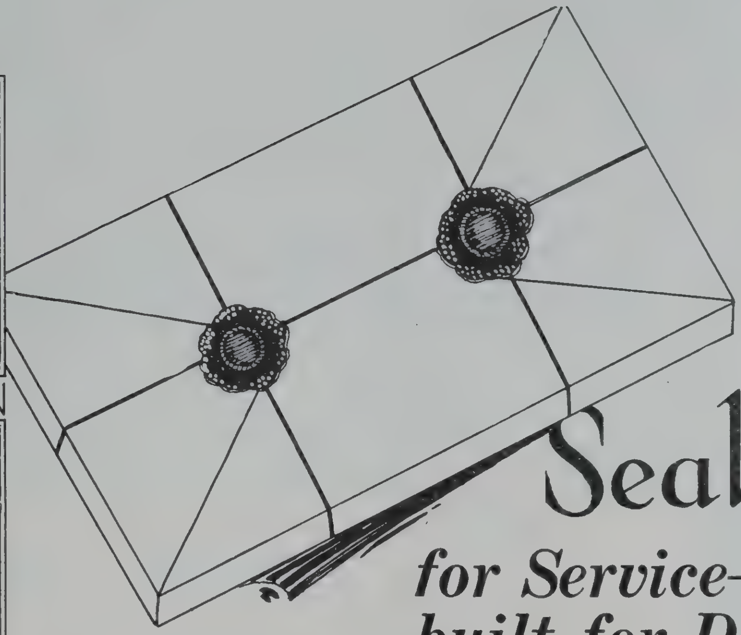
The highly developed efficiency of the Gray-Jensen process results in recovery of milk powder actually equivalent to the solids in the milk, with lower labor, fuel and power costs than are possible with any other type of milk powder plant. These savings alone pay for one of our plants in from one to three years. Operating records prove this.

We can furnish an assured market for all skim milk and buttermilk powder made on our plants.

These plants are built in sizes to handle from 10,000 to 120,000 pounds of normal liquid milk or milk products daily.

Write today for booklet describing the Gray-Jensen Spray Process Milk Powder Plant

When writing to DOUTHITT ENGINEERING COMPANY *please mention The Milk Dealer.*



Non-corrosive bearings of special design. Cast of non-corrosive alloy. They cannot freeze, and always operate.

RESIST · CORROSION

Stands up under flushing and steaming. You can't harm the bearings, you can't force moisture into any part where it will be harmful.

EASILY · CLEANED

Moisture can't get in. Lamson Rollers extra heavy throughout, have heads welded in. No joint through which moisture can enter.

MOISTURE · PROOF

Special guard rail over roller ends. Prevents can chimes from dropping off and blocking the conveyors. Saves both cans and rolls from wear.

SAVES · · · · WEAR

Sealed

for Service—built for Dairies

Sealed for service....built for dairies....made to last longer. That is the story of Lamson Sanitary Gravity Roller Conveyors.

A special bronze (non-roller) bearing that defies lactic acid ....sealed rolls that invite steam and water drenchings.... with a rigidity of construction that guarantees long life, Lamson Sanitary Gravity is specified in hundreds of dairies all over North America.

No ball-bearings to rust and dust away. Dead rolls are almost unknown, as these special bronze (non-roller) bearings guarantee that the rolls will always roll. The sturdy construction guarantees longer life and a more useful life.

Lamson Sanitary Gravity Conveyors have become the ideal of the entire gravity family. Because it is built to last longer. Learn about this new gravity conveyor, built to overcome your difficulties....to cope with your problems. Attach your letterhead to a portion of this page. That will bring additional information.

THE LAMSON COMPANY
Syracuse, New York

THE LAMSON CO.,
Syracuse, N. Y.
Please send me your booklet which shows why your Sanitary conveyors save money through longer life.

Name ____________________

____

Firm ____________________

____

Address ____________________

____

last longer

LAMSON
SANITARY
CONVEYORS

"JUST THE THING"

An educational exhibit showing the food value of milk, butter or ice cream —

FOR HEALTH FOOD SHOWS, CONVENTIONS, FAIRS, WINDOW DISPLAYS, ETC.

Attractive-Educational-Effective

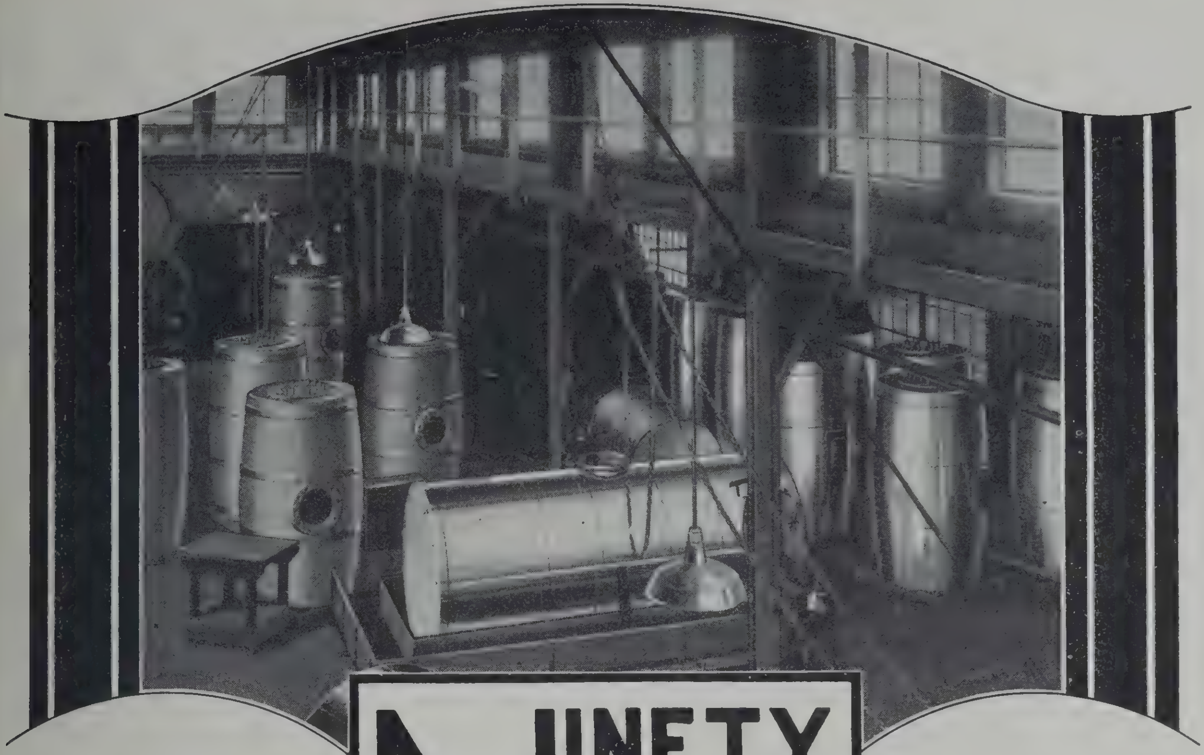
Artists in the Educational Display Department of the National Dairy Council have just added the "finishing touches" to another unique exhibit, emphasizing the value of dairy products. Whenever doctors, dentists, school authorities, health commissioners, or other influential groups meet, the Council's outstanding message is there to inform them of the latest scientific and practical information.

Many of these effective displays are available for rental to the dairy industry, on a cost basis, for conventions, food shows, window exhibits, schools, fairs, etc. As this new department develops, more of these unusual displays will be announced. This is another striking service of *your* educational organization.

Write or Wire for Details

NATIONAL DAIRY COUNCIL

Promoting Health and Child Welfare
910 South Michigan Avenue
Chicago, Illinois



NINETY NINE % NICKEL

"never dents or peels!

99% Pure Nickel Milk Truck Tanks are not merely lined with nickel, but are made of solid sheets of 99% Pure Nickel joined together into a single tank unit that is seamless from end to end.

This solid, smooth, sanitary metal has greater strength than steel, will not peel and is absolutely impervious to acid corrosion or rust.

For a permanent and lasting investment in nickel milk tanks specify 99% solid Nickel Tanks. It pays.

Nickel Fabricating Corporation

GENERAL SALES OFFICE:
Century Building, Pittsburgh, Pennsylvania

When writing to NICKEL FABRICATING CORPORATION *please mention The Milk Dealer.*

PHONE HADLEY 1288 M. C. OLDHAM, MGR.

THE PHENIX DAIRY
PASTEURIZED MILK
WHIPPING CREAM, PLAIN CREAM,
BUTTERMILK
POLK & SMITH STS.
HOUSTON, TEXAS

February 2, 1927.

Union Engineering Co.,
Cleveland, Ohio

Gentlemen:

Regarding the Bestoval Bottle Washer we purchased from you and installed in our new plant on November 7th,1926, wish to say that this machine is performing very satisfactorily in fact after a few minor adjustments when installed we have had no trouble with it.

The bottles discharged from it are sparkling and clear and we would heartily recommend this type machine to anyone in the market for a large size bottle washer.

Yours very truly,

MCO:K THE PHENIX DAIRY.

MORE PROOF

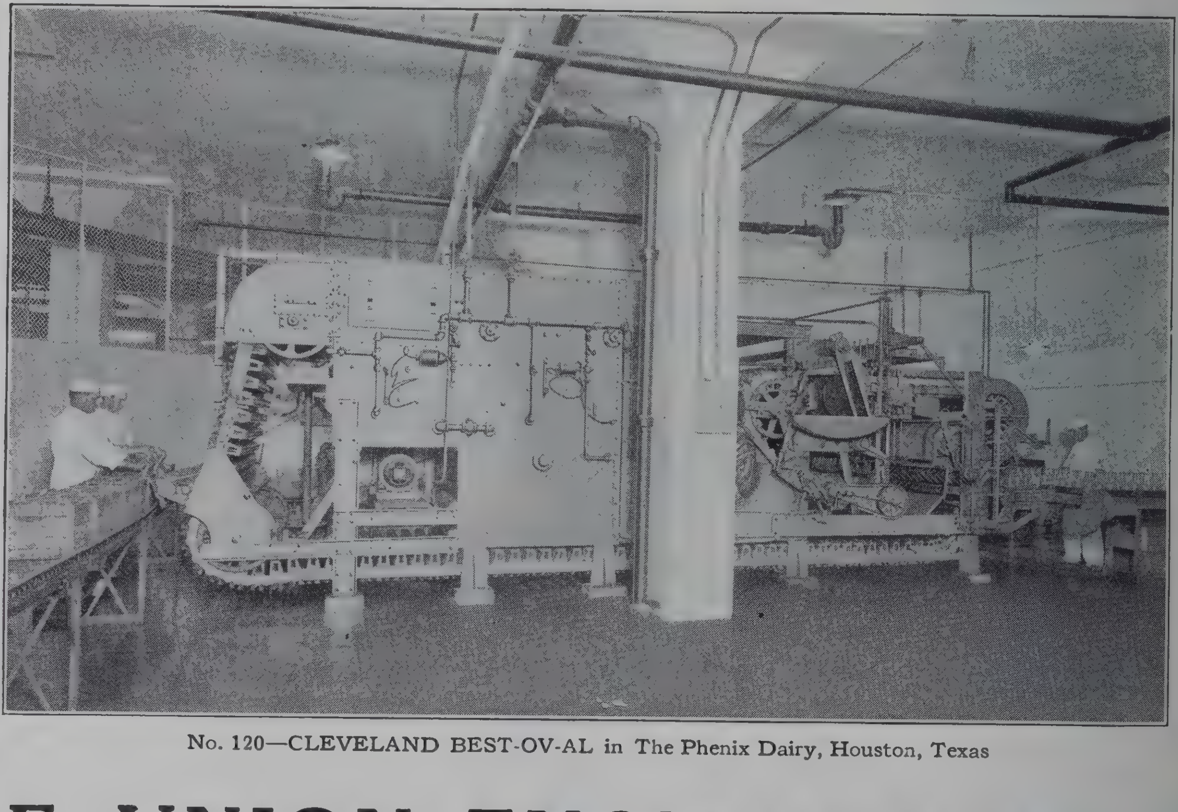
of the SUPERIORITY *of the*

CLEVELAND
BOTTLE WASHER

MR. OLDHAM of the Phenix Dairy, Houston, Texas, after hav carefully studied all makes of bottle washers for more than th years, decided on the **CLEVELAND** for his new plant, which is c of the largest and most up-to-date in the South.

He was thoroughly convinced that the **Cleveland Method of Pressu and Dormant Soaking in Conjunction with Clean and Sterile Brush** would give him the cleanest and most sterile bottles to match his unexcel product. Furthermore he knew that the Cleveland Bottle Washer was machine for service due to its rugged construction and simplified design a this has been conclusively proven by the fact that **The Phenix Da erected and put their bottle washer into operation themselves wit out the assistance of any representative of the Union Engineering C**

The Cleveland Bottle Washers are Built in All Sizes and for Every Requirement!



No. 120—CLEVELAND BEST-OV-AL in The Phenix Dairy, Houston, Texas

Guara teed Cleani Efficier 99$^{9}/_{1}$

Clea and Sanita Soakir Solutio with fr 30 t 50% Less Alkal

Clea and Steril Brushe

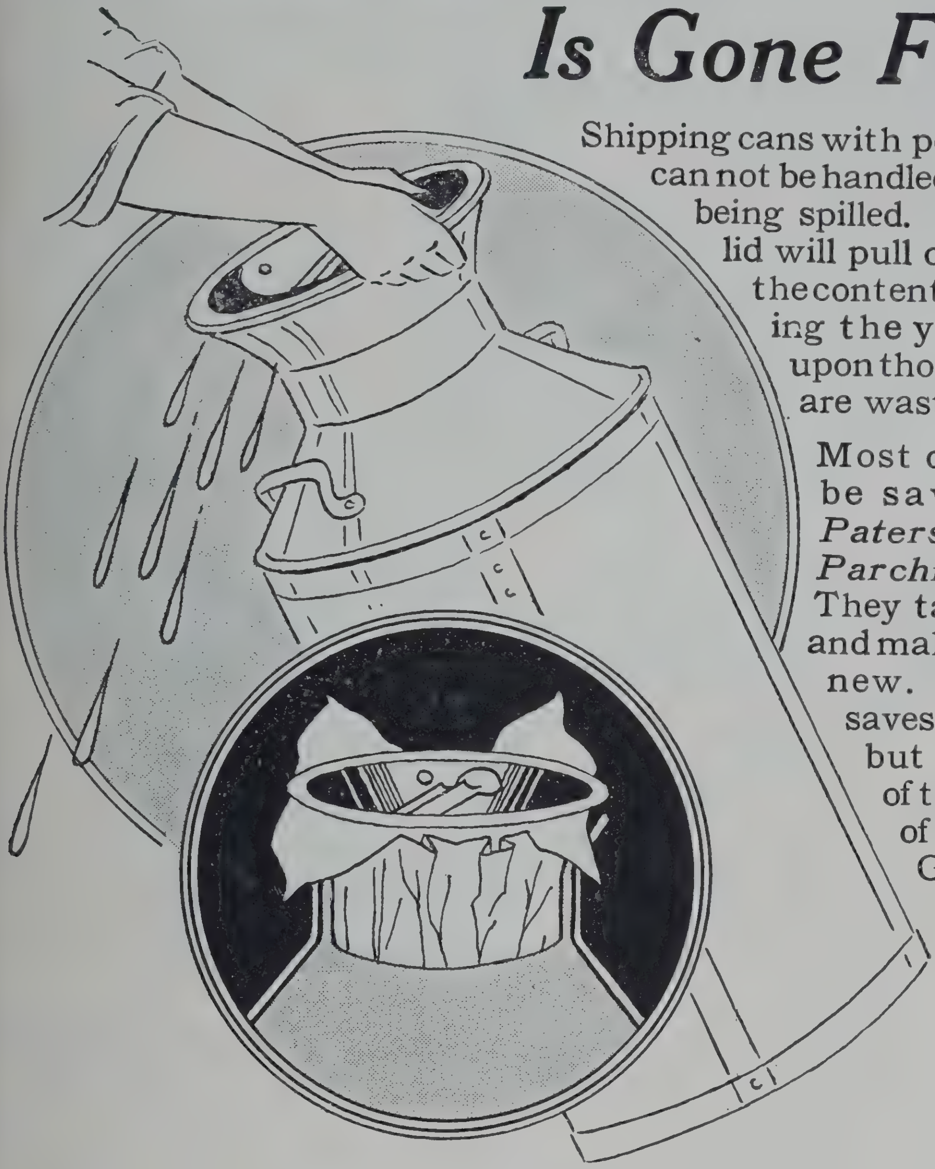
THE UNION ENGINEERING CO
CLEVELAND, OHIO

LIST OF AGENTS

Americo Dairy Supply Company............Cincinnati, Ohio
Bessire & Company....................Indianapolis, Indiana
Cherry-Bassett Company........Philadelphia, Pennsylvania
Illinois Creamery Supply Company..........Chicago, Illinois
Jensen Creamery & Supply Company....Oakland, Californ
Meyer-Blanke Company..................St. Louis, Missou
Wright-Ziegler Company.............Boston, Massachuset
Hughes Sales Company.................Seattle, Washingt

When writing to THE UNION ENGINEERING CO. *please mention The Milk Dealer.*

Cream Lost Here—
Is Gone Forever



Shipping cans with poorly fitting lids can not be handled without cream being spilled. Frequently a lid will pull out and most of the contents are lost. During the year thousands upon thousands of dollars are wasted.

Most of this loss can be saved by using *Paterson Vegetable Parchment Gaskets.* They take up the slack and make all lids fit like new. This not only saves milk and cream but prolongs the life of the can. The cost of the Parchment Gasket is nothing compared to what it saves. That's why millions are used every year.

Special Offer

Send us One Dollar in coin, stamps, check or Money Order and we will send you, Postage paid, 250 Parchment Milk Can Gaskets made from heavy fifty pound stock cut to standard size 11″ x 11″. If you are not satisfied that their constant use will save you money, the amount you paid us will be cheerfully refunded.

The Paterson Parchment Paper Co.

Chicago San Francisco

Passaic :-: New Jersey

You can save money, too!

You may handle only a few cans a day, or week, or you may handle hundreds. But in either case Parchment Gaskets will save many times their cost. Fill out the coupon below and send for the free samples and instructions how to use them.

THE PATERSON PARCHMENT PAPER CO.
35 Eighth Street, Passaic, N. J.

Gentlemen:

Please send us free samples of Paterson Vegetable Parchment Milk Can Gaskets and leaflet called "Making Milk Shipments Pay".

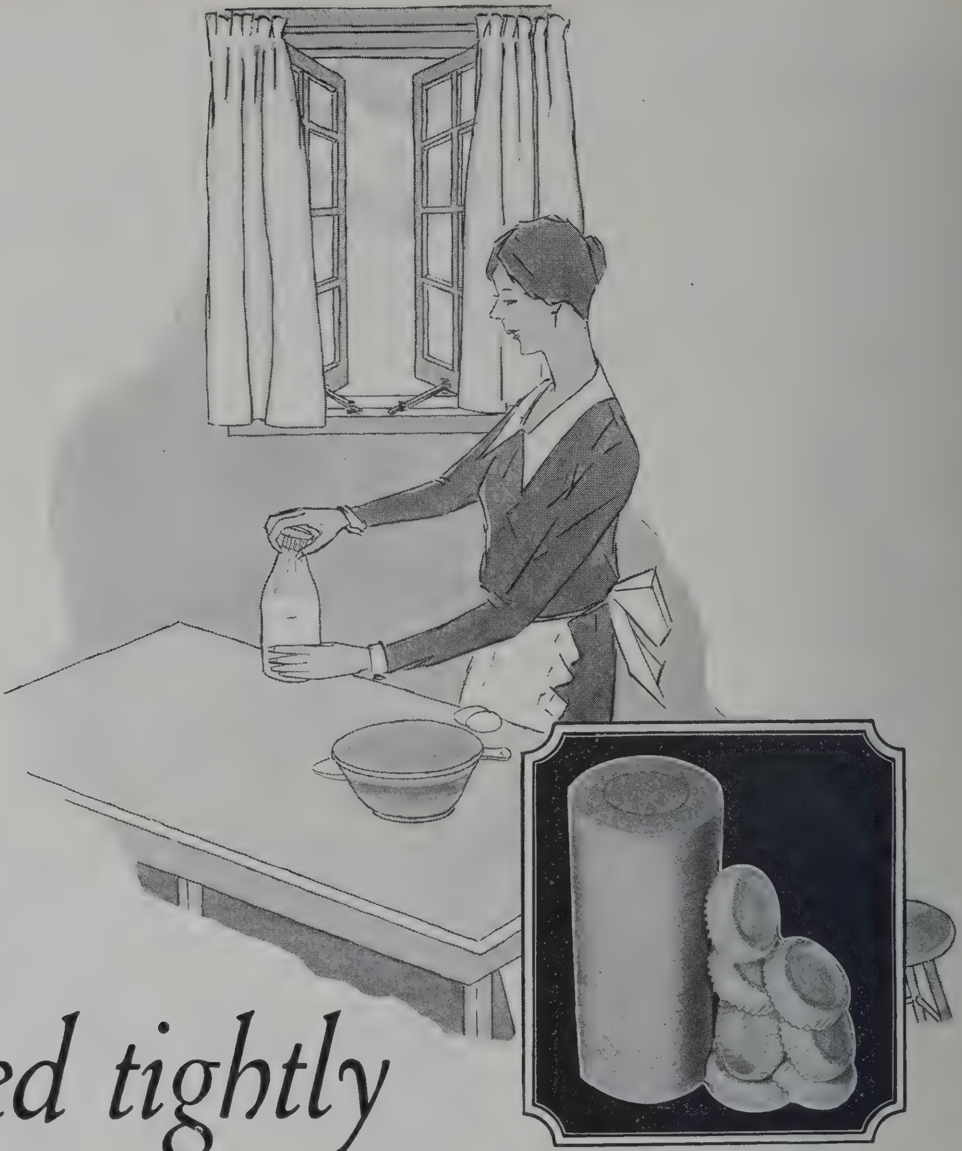
We handle about.............................. cans of milk / cream a day.

....

....

....

When writing to THE PATERSON PARCHMENT PAPER CO. *please mention The Milk Dealer.*



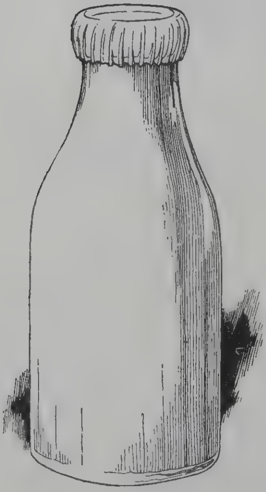
Sealed tightly

....yet easy to remov

The Westlake One Piece Seal fulfills both essential conditions of the ideal milk bottle cap:

1. It affords complete protection to the contents of the bottle. The five ply spruce paper disc, softened under heat in the Lakewest Automatic Milk Bottle Sealing machine, is moulded over the *entire* top of the bottle by crimping fingers. These fingers hold the seal in place until it cools and hardens. The seal then grips the *under* portion of the lip of the bottle. Result, a tight seal that cannot accidentally be knocked off.
2. But when the housewife wants to remove the seal, it may be taken off in a jiffy, *without the aid of any additional appliances whatsoever.* A simple lifting of the edge of the seal to open the crimping, and off comes the whole seal. It cannot be used again as a tight seal, but makes an excellent dust-cover.

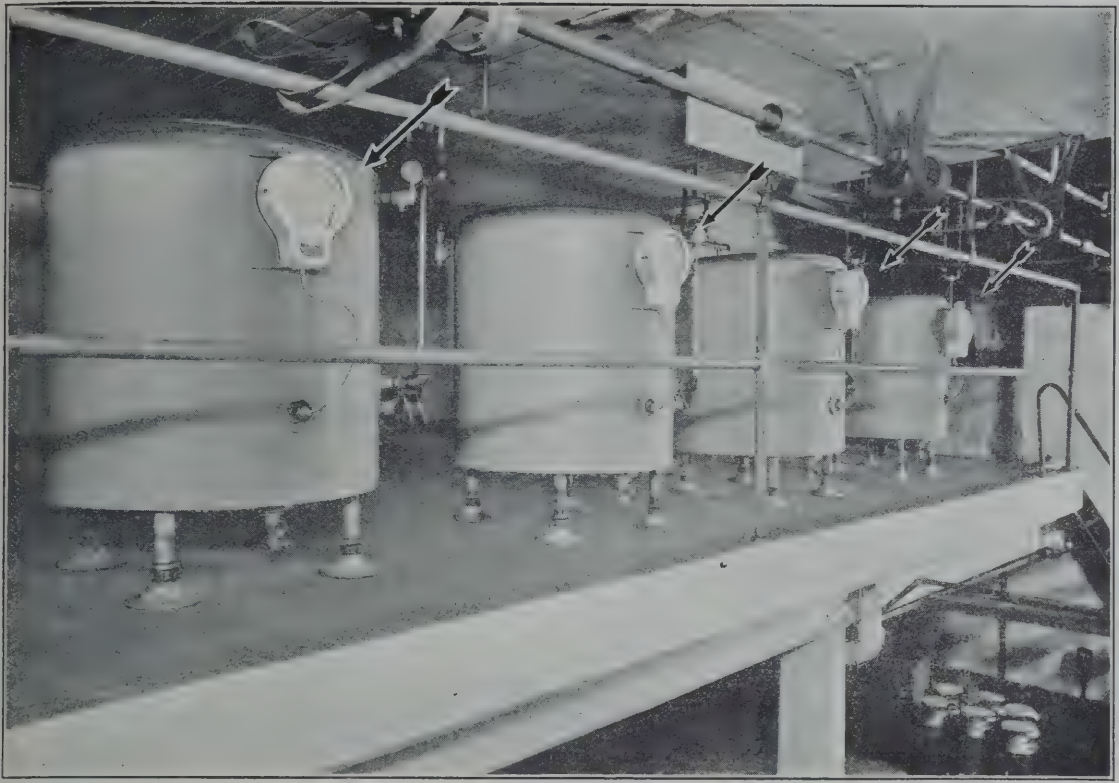
Wherever the Westlake Seal has been used, both dairymen and consumers report unqualified satisfaction. May we send you a copy of the new bulletin, "The Scientific Combination"?



THE LAKEWEST CORPORATION

American Machine & Foundry Company
Exclusive Manufacturing and Selling Agents
5502-5524 Second Avenue, Brooklyn, N. Y.

When writing to THE LAKEWEST CORPORATION *please mention The Milk Dealer.*



Tycos Recorders on Storage Tanks

Here are four *Tycos* mercury actuated temperature recorders installed on the storage tanks of a large California milk company.

They keep faithful record of every fluctuation in the temperature of the stored milk. After long periods of use they check accurately with test thermometers when they are inspected. They are rendering the *Tycos* service which we built into them and which by experience milk dealers and superintendents have grown to depend on.

If you plan additions to your temperature equipment, be sure to send for *Tycos* Catalog Part 500-A for milk plants. In it you will find a *Tycos* or Taylor temperature instrument for every milk plant need.

Taylor Instrument Companies
ROCHESTER, N. Y., U. S. A.

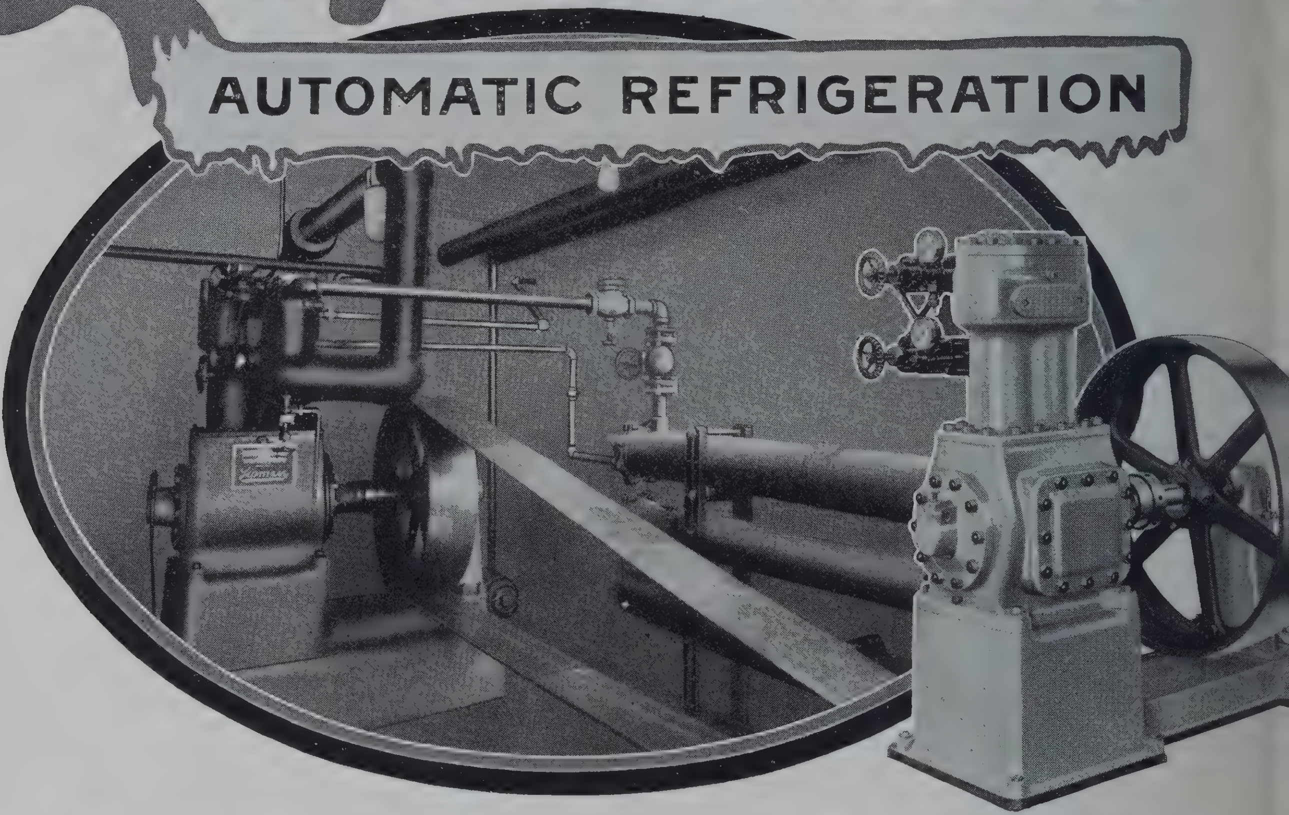
CANADIAN PLANT
TYCOS BUILDING
TORONTO

MANUFACTURING DISTRIBUTORS
IN GREAT BRITAIN
SHORT & MASON, LTD., LONDON

Tycos Temperature Instruments
INDICATING - RECORDING - CONTROLLING

Lipman

AUTOMATIC REFRIGERATION



"Same as our Salt Bill"

The Martin Dairy Company, of Little Rock, Arkansas, writes that "the operating cost of our entire plant, which includes one 30 H. P. motor on compressor, one 10 H. P. on marginizer, one 7½ H. P. on milking machine, one 2 H. P. on pasteurizer, one 2 H. P. on ice crusher, one 2 H. P. on well pump, one 1 H. P. on brine circulation and one 1 H. P. on water cooling tower, is approximately the same as our salt bill when using the old ice and salt methods.

"This machine operates automatically and is giving us entire satisfaction."

Milk dealers are invited to write for our folder on refrigeration for dairies. Sent Free on request.

The Martin Dairy is refrigerated by one of our Model 3000 machines, the compressor of which is shown above. This Model has proven well-adapted to dairy refrigeration as it is very economical to operate, very rugged and dependable, and seldom needs attention. Controlled either by thermostat or by hand.

GENERAL REFRIGERATION COMPANY

116-194 Shirland Ave., Beloit, Wis., U. S. A.

Please send me full particulars including Free Descriptive literature on Lipman Refrigerating Machines.

Name.................................... St....................

City.................................... State..........

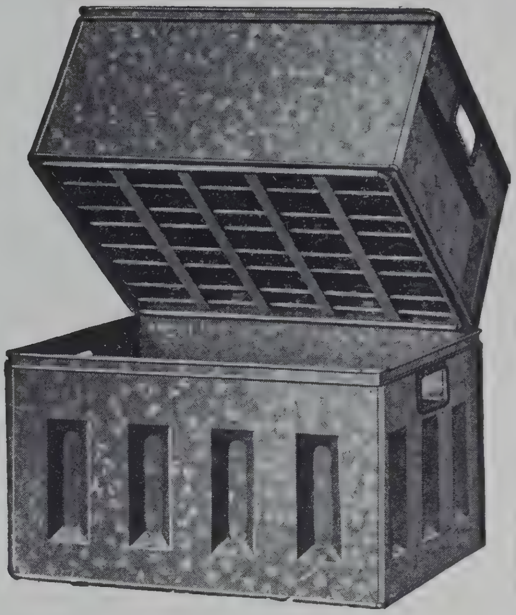
THE DRY, CONSTANT COLD OF THE MOUNTAIN TO

GRCo

When writing to GENERAL REFRIGERATION COMPANY *please mention The Milk Dealer.*

STRONG

Without Excess Weight



CLIPPER CASES

(ALL STEEL)

No excess weight is added to Clipper Cases by the customary metal reinforcement. The whole case is made of steel.

In proportion to its strength there is no lighter case made and none are stronger.

Their Weight is Permanently Fixed

There is no added weight through repeated soaking and washing. Neither is there the deteriorating effect of splitting, warping or loosening of joints.

Every joint of a Clipper Case is welded or lock seamed. The bottle partitions are securely fastened and the finished case is finally given a heavy coat of galvanizing to prevent rust.

When you buy Clipper Cases you buy Permanent Equipment. You buy an asset instead of incurring expense.

A Small Lot Will Prove It. Send for a Trial Shipment Now!

THE DEFIANCE PRESSED STEEL COMPANY

DEFIANCE, OHIO

These Jobbers Sell Clipper Cases

American Dairy Supply Co	Washington, D. C.
Apothecaries Hall Co	Waterbury, Conn.
A. H. Barber-Goodhue Co	Chicago, Ill.
Arthur T. Barlass Co	Chicago, Ill.
Bessire & Co., Inc	Atlanta, Ga. Indianapolis, Ind. Louisville, Ky. Richmond, Va. Memphis, Tenn.
E. W. Biesecker	East Stroudsburg, Pa.
J. S. Biesecker	New York, N. Y.
Bingham & Risdon Co	Green Bay, Wis.
Birmingham Dairy Supply Co	Birmingham, Ala.
D. Frank Black	Philadelphia, Pa.
Brown-Rogers-Dixson Co	Winston-Salem, N. C.
Carter Supply Co	Lexington, Ky.
Cherry-Bassett Co	Baltimore, Md. New York, N. Y. Syracuse, N. Y. Philadelphia, Pa. Pittsburgh, Pa.
J. G. Cherry Co	Cedar Rapids, Iowa St. Paul, Minn.
Chester Dairy Supply Co	Chester, Pa.
Churchill Drug Co	Burlington, Iowa
Creamery Package Mfg. Co	Chicago, Ill.
Cresco Dairy Machinery Co	Chicago, Ill.
Dairy & Farm Supply Co	Atlanta, Ga.
Dairy Supply Co	Minneapolis, Minn.
Dairy Supply & Equipment Co	Pittsburgh, Pa.
A. L. Davis' Son	Binghamton, N. Y.
Fort Wayne Dairy Equipment Co	Fort Wayne, Ind.
Gowing-Dietrich Co., Inc	Syracuse, N. Y. Buffalo, N. Y.
Hackney Bros. Co., Inc	Charlotte, N. C.
Hagan's Dairy Supply House	Greensboro, N. C.
Haines-Carpenter Dairymen's Co	St. Louis, Mo.
E. A. Kaestner	Baltimore, Md.
N. A. Kennedy Supply Co	Kansas City, Mo.
D. & F. Kusel Co	Watertown, Wis
John W. Ladd Co	Detroit, Mich. Cincinnati, Ohio Columbus, Ohio Cleveland, Ohio
G. F. Lessenhop & Sons, Inc	Lincoln, Neb.
Lone Star Supply Co	Austin, Texas
Meyer-Blanke Co	Birmingham, Ala. St. Louis, Mo. Dallas, Texas
Miller-Lenfesty Supply Co	Jacksonville, Fla. Miami, Fla. Tampa, Fla.
National Dairy Equipment Co	Utica, N. Y.
M. G. Newell Co	Greensboro, N. C.
Oakes & Burger Co	Cattaraugus, N. Y.
Onondaga Dairy Supply Co	Syracuse, N. Y.
John Pico	New Orleans, La.
Shelley Equipment Co	Lincoln, Neb.
Southern Dairy Supply Co	Houston, Texas
Teague Hardware Co	Montgomery, Ala.
Thompson-Bremer & Co	Chicago, Ill.
West Side Feed & Bldg. Material Co	Grand Rapids, Mich.
Wisconsin River Supply Co	Wausau, Wis.
Wisner Mfg. Co	New York, N. Y.

When writing to THE DEFIANCE PRESSED STEEL CO. *please mention The Milk Dealer.*

The Faultless

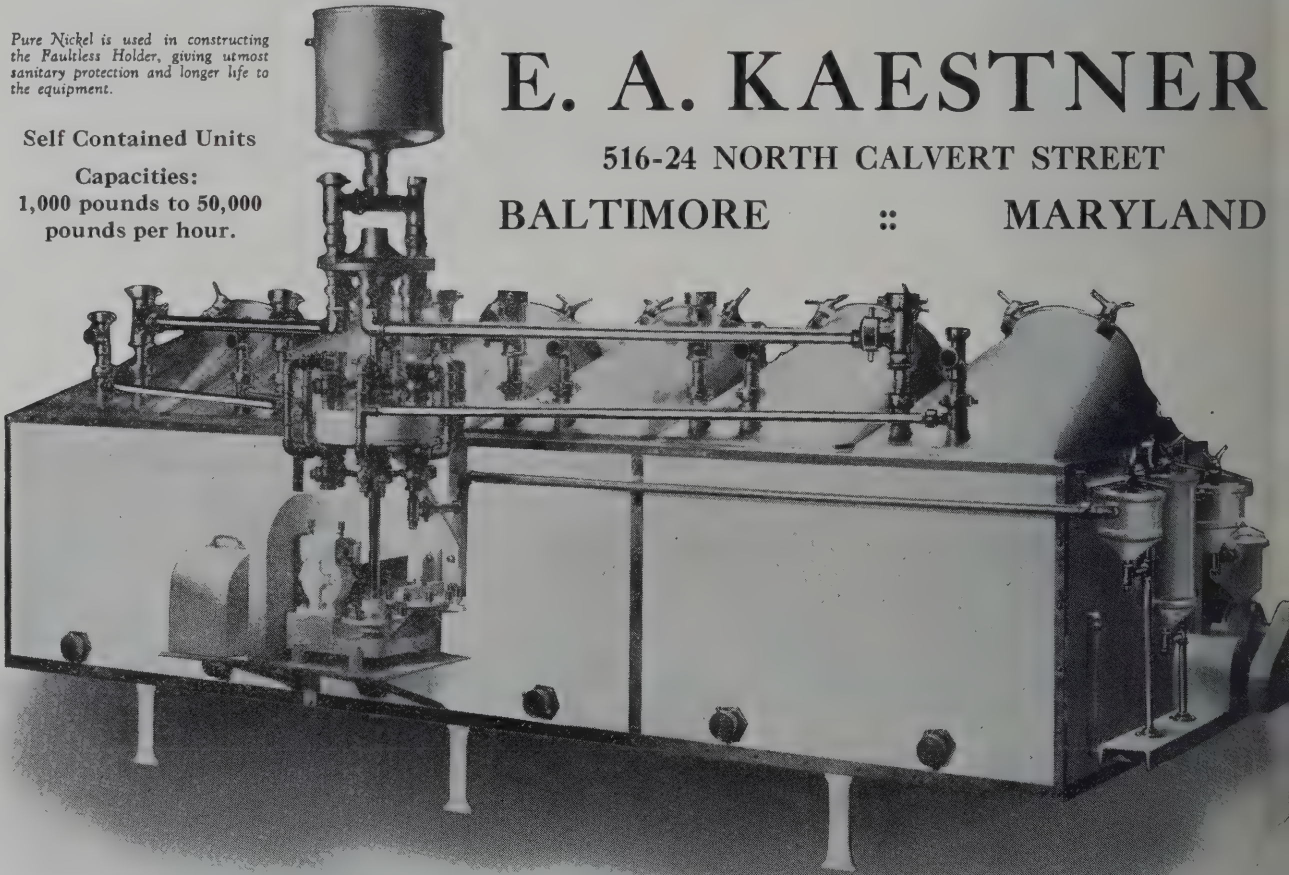
Nothing Left to Chance

Positive
Automatic
Valveless
HOLDER

All operations are automatically controlled. ℭ Every valve is accurately timed and positively functions at the right time. ℭ The holding period cannot vary and ample, high quality insulation maintains correct temperatures throughout the holding period.

How the Faultless Holder does these things is fully explained in our illustrated circulars.

WRITE FOR THEM



Pure Nickel is used in constructing the Faultless Holder, giving utmost sanitary protection and longer life to the equipment.

Self Contained Units

Capacities:
1,000 pounds to 50,000 pounds per hour.

E. A. KAESTNER
516-24 NORTH CALVERT STREET
BALTIMORE :: MARYLAND

When writing to E. A. KAESTNER *please mention The Milk Dealer.*

DIVCO
MOTOR TRUCKS
FACTS
about house to house delivery

What's the Connection Between Delivery Methods *and* Building New Business?

HOW are present routes ***intensified*** to make stops average every ***two*** houses instead of every ***three?***

What is the best way to get business in suburbs and outlying districts and make it pay?

How are routes combined so that ***two*** driver-salesmen and ***two*** vehicles take over the work of ***three*** driver-salesmen and ***three*** vehicles?

What is a reasonable cost per mile for a milk-delivery vehicle?

Experience of prominent creameries are the sources from which this ***problem-solving*** book was written. It contains startling facts! It is a book every progressive retail dairy in the country will want!

This Book is Free—Fill in and Mail the Coupon

DIVCO-DETROIT CORPORATION
2433 Merrick at Sixteenth, Detroit, Mich.

DIVCO
OTOR TRUCKS

DiVco Detroit Coporation,
2433 Merrick at Sixteenth, Detroit
Gentlemen:
Please send me the book, "Facts About House-to-House Delivery."

Name____________________

Address____________________

City ____________________

When writing to DIVCO-DETROIT CORPORATION *please mention The Milk Dealer.*

H. P. HOOD & SONS, INC.
Dairy Experts
4 RUTHERFORD AVENUE
BOSTON 29 MASS

BORDEN'S
FARM PRODUCTS COMPANY, INC.
QUALITY BORDEN'S SERVICE

JERSEY FARM DAIRY CO.
INCORPORATED
6001 SO. GRAMERCY PLACE
LOS ANGELES, CALIF.

WINDSOR FARM DAIRY
1855 BLAKE STREET
DENVER, COLORADO

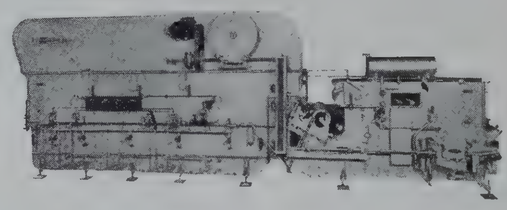
Pevely Dairy Company
001 S GRAND BLVD
ST. LOUIS

Gridley Dairy Co.
DAIRY PRODUCTS
MILWAUKEE, WIS.

ADOHR STOCK FARMS
and
ADOHR CREAMERY COMPANY
1126 Pacific-Southwest Bank Building
LOS ANGELES

Crescent Creamery Company
GENERAL OFFICES
237 WINSTON STREET
LOS ANGELES

RIECK-McJUNKIN
DAIRY COMPANY
RIECK PLANT
COR FORBES & STEVENSON STS
PITTSBURGH
MAGNOLIA 4000



BOWMAN DAIRY COMPANY

D. H. EWING'S SONS
INCORPORATED
MILK·CREAM·BUTTER·BUTTERMILK·COTTAGE CHEESE
LOUISVILLE, KENTUCKY

NORTHLAND
MILK AND ICE CREAM
COMPANY
WHOLESALE AND RETAIL
DAIRY PRODUCTS
Minneapolis
Minn

CLOVERLAND DAIRY PRODUCTS CO.
INCORPORATED
34[illegible] CARROLLTON AVENUE
NEW ORLEANS

Trapp Bros. Dairy Co.
PASTEURIZED
MILK-CREAM-BUTTER

[illegible] BURLEIGH STREET TELEPHONE EDGEWOOD 330
MILWAUKEE

LEADERS in the INDUSTRY

THE superior performance of the Yundt Air Brush Milk Bottle Washer has won for it the leadership in the bottle cleaning machine field.

Leading dairies have installed the Yundt Air Brush Milk Bottle Washer because of its quality and dependable performance.

A steady flow of clean, sterile, polished bottles are delivered from the Yundt Air Brush Milk Bottle Washer.

You, too, can secure clean, sterile bottles by installing a Yundt Air Brush Milk Bottle Washer.

Descriptive literature is yours for the asking.

A Few Leading Dairies Who Are Using
YUNDT Washers

No. machi

BORDEN'S FARM PRODUCTS CO., NEW YORK and CHICAGO, ILL..............
in various sizes, ranging in capacity from 90 to 160 bottles per minute each

BOWMAN DAIRY CO., CHICAGO, ILL..........
capacity each 120 bottles per minute

GRIDLEY DAIRY CO., MILWAUKEE, WIS........
capacity 160 and 120 bottles per minute

H. P. HOOD & SONS, INC., BOSTON, MASS......
capacity 160 and 120 bottles per minute

PEVELY DAIRY CO., ST. LOUIS, MO..........
capacity each 160 bottles per minute

WINDSOR FARM DAIRY CO., DENVER, COLO....
capacity each 160 bottles per minute

CLOVERLAND DAIRY PRODUCTS CO., NEW ORLEANS, LOUISIANA ....
capacity each 120 bottles per minute

ADOHR CREAMERY CO., LOS ANGELES, CAL...
capacity 60 bottles per minute

NORTHLAND MILK & ICE CREAM CO., MINNEAPOLIS, MINNESOTA ....
capacity 160 bottles per minute

RIECK-McJUNKIN DAIRY CO., PITTSBURGH, PA.
capacity 160 bottles per minute

JERSEY FARM DAIRY CO., LOS ANGELES, CAL.
capacity 160 bottles per minute

TRAPP BROS. DAIRY CO., MILWAUKEE, WIS....
capacity 120 bottles per minute

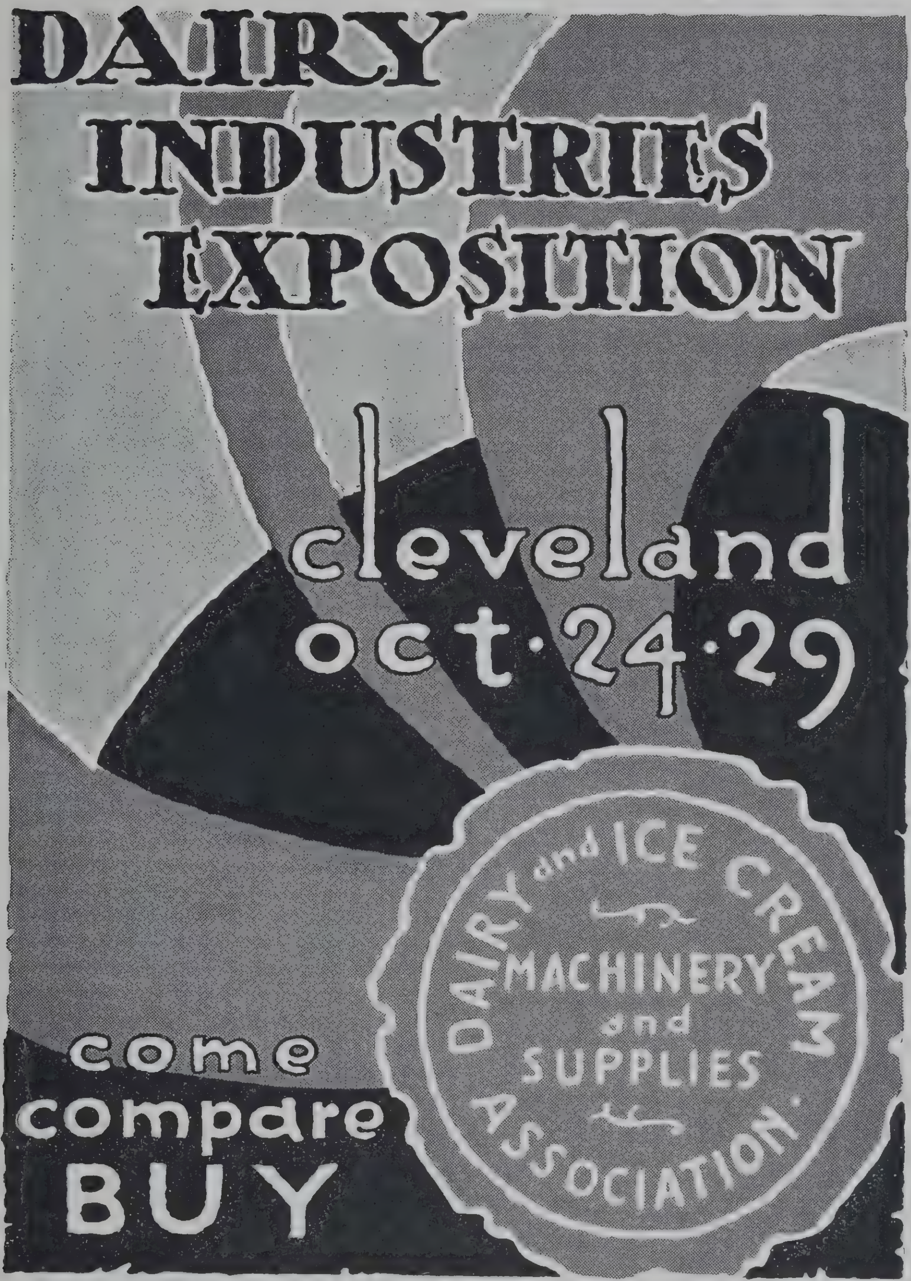
D. H. EWING'S SONS., INC., LOUISVILLE, KY...
capacity 120 bottles per minute

CRESCENT CREAMERY CO., LOS ANGELES, CAL
capacity 120 bottles per minute

MICHAEL YUNDT COMPANY, MILWAUKEE, WI
WAUKESHA, WI

When writing to MICHAEL YUNDT COMPANY *please mention The Milk Dealer.*

ere progressive manufacturers will go with expectation compare with deliberation and buy with conviction


DAIRY
INDUSTRIES
EXPOSITION
cleveland
oct·24·29
come
compare
BUY
DAIRY and ICE CREAM MACHINERY and SUPPLIES ASSOCIATION

Buyer's
of Safety

DAIRY AND ICE CREAM MACHINERY
AND SUPPLIES ASSOCIATION, INC.
TWO TWENTY-FIVE WEST THIRTY-FOURTH STREET, NEW YORK CITY

The Buyer's
Seal of Safety

hen writing to the DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION, INC., *please mention The Milk Dealer.*

THE
MILK DEALER

PUBLISHED THE TWENTIETH OF EACH MONTH BY
THE OLSEN PUBLISHING COMPANY
H. P. OLSEN, President and Manager
LESTER S. OLSEN, Vice-President
E. K. SLATER, Secretary and Editor
Also Publishers of
"BUTTER, CHEESE & EGG JOURNAL" and "THE ICE CREAM REVIEW"

FIFTH AND CHERRY STS. MILWAUKEE, WISCONSIN

We will not accept responsibility for the views or opinions expressed by contributors nor for news sent us for publication, nor for statements made by advertisers in their advertisements.

Entered as second-class matter December 1st, 1911, at the Post Office at Milwaukee, Wis., under the act of March 3rd, 1879

Requests for CHANGE OF ADDRESS must be received not later than the 10th of the month to insure delivery of that particular month's issue at New Address. **Old Address** as well as **New Address** must be given us as all records carried by us are "Geographically arranged" and not "Alphabetically arranged."

Subscription in United States....................$1.00 per annum
Foreign Subscriptions ....$3.50 per annum
Payable in Advance.

OFFICIAL ORGAN OF
The International Association of Milk Dealers
Dairy Products Association of Kentucky, Inc.

AUGUST, 1927

BULLETIN *of* EVENTS

Dairy Industries Exposition—The second annual exposition of the Dairy and Ice Cream Machinery and Supplies Association will be held at Cleveland, Ohio, on October 24-29, inclusive. Roberts Everett, 225 West 34th St., New York City, secretary and manager.

International Association of Milk Dealers—Twentieth annual convention to be held in Columbus, O., on October 19, 20, 21 and 22, 1927. The Neil House will be convention headquarters. Secretary, R. E. Little, 228 No. La Salle St., Chicago.

Pacific Slope Dairy Show—Seventh annual exposition to be held from November 14 to 19, 1927, at Oakland, Calif. Secretary-manager, Robert E. Jones, 1404 Franklin St., Oakland, Calif.

Ohio Milk Distributors' Association—Annual convention to be held in connection with the convention of the Ohio Association of Ice Cream Manufacturers and the Ohio Association of Creamery Owners and Managers, at Toledo, on January 24 and 25, 1928. Commodore Perry Hotel will be convention headquarters. Secretary, W. A. Wentworth, 5 East Long St., Columbus.

"IT'S a selling job—this milk business." That's what a prominent milk dealer told us some time ago, and he said it with the fervor of a new convert. He is right, of course. But it seems to be one of the most difficult tasks imaginable to persuade some members of the industry that they are face to face with a merchandising proposition.

People used to run milk plants—like people used to "keep cows." A customer came and bought milk. Then competition. Then the customer wanted his milk brought to him. Now it is necessary to do something more—to show him why he should buy more milk than he now is using.

You may confine yourself to running a milk plant. You may build up the best organization, the best plant systems in the universe. Some of the national business magazines may come around from time to time and write you up—your system, etc.

But that isn't selling milk. Years ago people used to keep store like people kept cows. They kept the store well, too. They kept it clean, well swept out, v dusted. They kept anybody from running off with a thing. But they didn't know much about merchan ing. Didn't have to. Folks just came and bought th goods. But nobody is coming around to the milk pl to buy milk these days. Neither are they coming to stores—of their own original accord. They are be brought into the stores by merchandising material, vertising, direct-by-mail sales talks, printed card selling stuff.

That's the same condition we face in the industry.

It's a selling job.

⁂

THERE was a time when a city milk campaign a live item of news and The Milk Dealer told a it in detail. Now we get so many reports of city advertising campaigns that we take them as a ma of course. They have come to be an established fea of the city milk distributing business.

The fact that they are growing more popular is haps the best evidence that they pay. They not pay the individuals who put them on, but they also in a larger way. They increase the consumption of products and thus benefit humanity. The city dealer who spends his money to increase his sale serves to be recompensed by a more profitable busi

Say, men—you who are supplying folks with wonderful food—do you even get so busy with many problems of business that you don't find tin think about the service you are rendering humanity you sell pure, wholesome milk? It's easier to kee standard high when you have the thought of SER in mind.

These milk advertising campaigns help to keep thought in mind. We really believe that they enco better methods, along with increased sales. They to pep up the whole organization.

There are many agencies back of this general ment to encourage a larger consumption of milk. of them are of a private nature. Men of unusua perience and ability contract with individual milk ers to study their organizations and to build up efficiency. Such men are in a high calling and pe a real service to their clients and to humanity. improve the quality of the product, as a rule, be improvement in quality is often necessary to incr sales efficiency.

Often the milk dealers of a city band together t on an advertising campaign. They generally invit co-operation of the state dairy council or its paren National Dairy Council. These campaigns are a successful. They increase sales of milk and are su ful because they do. They stimulate interest in m a food and educate the consumers to better appr its worth. Whether promoted by the individual or wise we are heartily in favor of the advertising paigns being put on all over the country to increa uses of milk. They are a good thing for the dai dustry.

R years the general trend in the city milk business as been in the direction of fewer dealers and a r business for the ones who stay in business. We always argued that this is a natural development e business and results in benefit for the producer, lealer and the consumer of milk. This development, ever, has been confined largely to the East, West North. With few and shining exceptions, it does old true in the South, where the milk supply of the s and cities still largely comes from many small rs. Of course the purity and wholesomeness of the ly suffers in consequence.

Vith increased volume the milk distributor is en- l to use expensive equipment, and methods which ould not use if he were handling a small volume. believe in increased volume for the city milk dis- tor to such a degree that we believe his business show an increase in volume each year or it is in a erous position. Most any business grows in volume importance from year to year, or it goes the other It is seldom that a business remains at a stand- The only safe course for the business man is to every effort to increase his volume.

Ve believe it is a laudable effort when the milk r uses every opportunity to increase volume, to his business grow in spite of the danger of having business called a "milk trust" by some "clatter- ed" newspaper man.

ncreased volume, however, must never be gained at xpense of quality and service. It is a short-sighted y to sacrifice any of the fundamentals of success in to gain temporary increase in business. The man e firm who has built up a reputation for integrity, in the conduct of the business and in the product, ll afford to adopt any measures to increase volume s such measures will protect that reputation. In words, increase in volume is only desirable when procured on the right basis. Some men in business o greedy to increase volume that they are willing so at no profit, or even at a loss. They live in s that something will happen in the future to en- them to make some money on the increased volume. times something does happen, but it isn't usually they are hoping for.

* * *

ANY city milk dealers are finding it practical and profitable to sell eggs to the consumer along with products. Where the man on the route has all the ess he can handle it would probably be unwise to him down with additional work, but on most routes can be added without increasing delivery expenses much. When this can be done it is profitable to do roviding the dealer can give the same good service his customers are accustomed to.

ome men are not as busy on their routes as they r to be. That is a failing not peculiar, however, em. It is a trait peculiar to most men. They can busy whether loaded to capacity or not. When ng for means to increase sales on your routes it may pay you to consider adding eggs if you are not already handling them.

* * *

IT'S an old story and we have repeated it several times, but we want to again emphasize the importance of forever keeping in mind that you as a distributor of milk are selling more than milk. Each bottle of milk you sell represents a service and an investment that suits the customer's convenience and protects the health of his family.

People who complain about the price of milk do not appreciate the true value of the service they are getting. If they understood its real importance to them they wouldn't kick. They can't be blamed for kicking if they are not made to appreciate the value of that service.

Generally when a milk dealer gets such a complaint he tries to excuse his price by emphasizing the food value of milk or by telling about the expenses of handling milk. Even though the customer is convinced that the milk dealer is blameless he still condemns the system. He looks upon his particular milk dealer as an apology.

Our modern system of handling milk should not carry such a blame. It needs no apology. It is operated in the interest of the milk consumer. He should understand these facts. It is the milk dealer's fault if he doesn't understand them. At least it is a lost opportunity for the dealer. Many milk dealers find their hardest competition with peddlers of raw milk. Many consumers are satisfied with far less service than the legitimate milk dealer offers. They are satisfied because they don't know any better.

When they are finally induced to patronize the modern milk plant they must understand the value of the service they are getting or they will not be satisfied. They will look at nothing but price, and who can blame them? These consumers must be told the story of service. It is an easy story to tell and one easily understood. Your fine plant, your modern machinery, your delivery equipment, and other visible evidences connected with your business, testify to the service you are giving. These things should be used not in apology for the price of your milk, but as arguments for the better service you are giving the public.

* * *

IT'S going to be a long time before legislation will replace human initiative and honest endeavor in bringing about improvement in dairying conditions in this country. Some people seem to think that if we could just have a state or federal law to govern every act that our dreams of perfection would be realized. Every time a new problem presents itself, or an old one bobs up again, they think of rushing to the state legislature or to congress and asking for a new law to solve that problem.

Some dairy problems have been solved by legislation, but far more have been solved by honest, earnest effort on the part of men in the business. We need more of the same kind of effort today, and it will do more to promote the best interests of dairying than will more dairy laws.

The Streets of Forgotten Mil
Merchants

By A Staff Writer

A Story of Men Who I
Not Sell Milk—And W

I KNOW this story takes the wrong slant. All of us argue that the negative side of a matter should never be featured, either in advertising, direct selling, or in any way. Yet this article wants to discuss the negative side of milk salesmanship, and it necessarily must be a negative article, for it is a series of negative stories about negative men who overlooked their sales opportunities.

Labor turnover, you most certainly know, is one of industry's greatest problems, and it is to be wondered if we in the milk industry have not been grievously at fault in not considering this fact in our handling of drivers.

This is not to argue that a man who shows clearly from the outset he has no ability is to be bothered with, but the milk plant operator will do well to weigh the matter carefully before issuing the discharge order.

There is a training period in milk salesmanship just as in other lines of industry—only it is decidedly truer of this than others.

Few milk dealers give much thought to this. Indeed, how sadly true it is that the milk dealer so often hires drivers instead of salesmen and then becomes disgruntled because they are not selling!

How true it is that the route foreman so often is just that—a route foreman—directing drivers, training drivers, when all the time these men should be receiving the highly finished ground work of milk salesmanship!

Why don't they make good?

The milk dealer does not ask himself that question often enough. They come and go and he wrings his hands and says, "My gosh, what a business, a gang of tramps here today and gone tomorrow!"

Here and there in the milk industry dealers are beginning to question the wisdom of turnover in labor. It is an all-round problem, not only in milk salesmen, but also in other operatives about a milk plant, for this is a highly specialized business, and the dealer has quite an investment in every man and woman that comes into his plant for any length of time. That money is gone —vamoosed, passed out the way of the dodo and milady's bustle. Just like putting money into a big black hole.

In the first place, we are discovering in the milk industry, it is necessary to be careful—be careful—very, very careful!

Many life insurance companies make the most exacting requirements of the caliber of men they hire.

Many large firms of various industries go to great trouble to get a size-up of their men before they put them on the payroll. They want to know he is the sort of man they want. Otherwise they are taking up their time needlessly.

This is a serious business, this business of entrusting a man on a route to dispense the greatest food product in the world. This man has an intimate contact with the health and well-being of a large number of human creatures. He must be reliable—dependable.

In those two words you have just about expressed
what a milk merchandiser expects of good route me
reliability and dependability. Of course, to be succ
ful merchandisers they must have a certain amount
initiative, a certain use of speech, and a certain pleas
address—approach.

But just as the newspaper demands of its repor
accuracy above all else, a man can have all the quali
of a merchandiser and still fall down on a milk rout
he is not reliable.

Looking over the situation with the sales manage
a certain milk company just the other day we fel
talking about the men who didn't make good, the
who came and stayed awhile and used up somebo
time, drove away a few customers and then got the g

"It's awful," the fellow bemoaned. "Milk pla
today are keeping cost records. They are watching c
and depreciation very carefully. They are at the p
where they can tell you how much more they are go
to get out of this machine, and what the hourly op
tion of this apparatus will cost.

"But we have simply fallen down on the human s
We haven't devised any way to appreciate and de
ciate our human machine. For instance, we haven't
idea of what it costs us to take a chance with a dr
who never was cut out for selling milk. We d
figure on how much money that fellow costs us,
much of a risk he is in training, how many chances
are taking on his not being the right man, how poss
it is that he will undo a great deal of selling mission
work we already have accomplished."

He entered into silent reflection for a moment
then continued:

"By George, it's simply alarming every time I
into the matter. I can't possibly keep in mind how m
we have had this year. We—"

"Why don't you keep a record on these—"

"But we have done that very thing," the sales m
ager broke in, as though diving for the thought. "J
a few months ago I started it. Of course, with
thought of the man dismissed, but from our viewpo
Here it is"—pointing to a card index—"all down
black and white. We begin here with the name
George Abt and go right on through the alphabet
Adolph Zilkus.

"Now, here's a boy here—22, high school educat
good appearance, pleasing address. This boy failed
make good"—he peered closely at the card—"beca
he was impolite. Shows a man may have a pleasing
pearance and at the same time not have good mann
doesn't it?

"All right, it works the other way around ag
Here's this lad Johnson. His card is marked 'supe
advantages.' He was a college man. Thirty-two ye
old. This fellow had what we call background—rese
every earmark of a gentleman. In fact, seemed to be
of his sphere. Possibly he was. Maybe we were foo
in taking on a man of that type. Here's why he di
stick—'grouchy with customers, many complaints.'

The sales manager sighed. "A man may hav ant way about him. He may have even that thing ll personality for want of a more descriptive word. ay show all the elegant earmarks of a gentleman eeding and family background. Then, at the same he may have, smouldering down within himself, oroughly rotten disposition. It will show under but—"

gain the sales manager halted, and he drew a long h.

That's the h— of it," he continued. "We can't em under fire until after they are hired and out on oute. A man looking for a job is not in natural se. He's on his best behavior. He puts forth a ng front, the eager, earnest front that typifies the w looking for a job. How the dickens can we rate n when he's on parade? The colonel of a regiment d never pick his best soldiers just by seeing them on drill grounds.

That's the rub in the milk industry. What are eager, earnest lads going to do under fire? We tell a dern thing about it here in— What's that? acter study, you say? Need practice in studying acter in the face?"

he sales manager's face broke into a wide grin, and he laughed heartily.

I used to believe in that," he said. "But it was e I had handled salesmen long. I know it makes reading, and you boys who write those cute little zine articles like to play that old ghost, don't you? , son, there's no such animal. You take it from me there's no man west of Boston and north of Key who can look any man in the face and tell whether as character, courage, stamina, whether he'll talk to the boss, fuss with customers, hump against when's he's delivering the milk, drop the crate is foot and cuss loud enough to wake up the whole hould, get drunk and fail to show up for his route morning.

Oh, yes, we do have them to get drunk—just once. ourse, there's a way to get a fair idea of the sort of w you are dealing with—there are types, you know. e's the good natured, easy-going type. Then there's low, plodding type, not so good natured, but deadly rnest. I have rather a weakness for that sort of w on a milk route, for Heaven knows it takes stick- veness. I'd like to mix in a little good nature it, but we have little to do with the human alchemy llow creatures. You can draw 'em out and that , and I'm frank to say we milk people have failed very largely, including the present speaker. That's t, boy—an art!

Frankly, I like best of all, if he were the practic- kind, the fire-eating fellow, the chap whose very is on fire to get action, to drive, to do something, t somewhere, to do something.

I'm frank to say there's where I've been bit er. These fine, highstrung, quivering young thor- breds, have a heck of a time in the milk business. can't settle down to the grind, it seems. They take their call-downs—I call it taking it on the for we men selling milk have to take our blows on hin just like the pugilist. And right there is where milk merchandising comes in—being able to stand aff and come back fighting—fighting with a smile.

Somebody once said the strongest nation in the l is the nation with the most men who can take a of a lot and then come back for more. He spoke uthful for the milk industry—and I don't mean ps. For this game calls for standing up all the no matter how rough the going is, and being able le the tide.

"The milk salesman meets his people at the very worst time of the day, when human beings are not normal. It really isn't fair, you know. Not a bit. I'd hate like the dickens to have to go through what my men do, and by the way, I'll tell you a little story about that experience some time when you have the time to listen. I tried it.

"But I'm talking about the boys who don't make good.

"Stonewall Jackson said that success in warfare depends upon being where you are not expected. The reverse is true in the milk business; the driver must be where he is expected to be, and right on schedule, all the time, day after day, hippy-to-hop, never failing.

"Nathan Forrest said the secret of winning battles was to get there first with the most men. Now we come to a parallel between war and milk merchandising—the man who develops his route best is the fellow who gets there, who is on the job, the one who is ready to hear the call of a disappointed housewife whose milk man has fallen down on her. Her regular driver may be asleep at the switch. He may be late. But the fact is, she wants milk, and the boy who gets there first is the one who is going to sell that lady milk while she is in that mood—and may have her for a lifelong customer if he can always deliver the goods.

"You speak of milk merchandising—you fellows who write those magazine articles—as though the whole thing was summed up in getting more customers. Not by a long shot. Of course, we expect our men to be on the lookout for all the new customers they can get. Not necessarily some competitor's customers, though we are not above taking what we can. But also some customers who never before bought any milk to speak of. But, of course, we have a merchandising system that is operating right here from headquarters, and the driver must fit into that system. We develop new business here. Then it's up to the driver to hold that business—hold that business, I say!

"Man, I preach that more fervently than the Yale boys cry out for their football team to hold that Harvard line. Holding business is the big thing in selling milk. Think of it. We have more business now than we ever had. We are taking on new business at the rate of about 50 quarts a month. That 50 quarts is important, but not nearly as important as the volume we already have.

"We have had drivers to fall down on that very score. The over-eager lad wants to make a showing. He has his ears laid back, keen on the scent of a new customer. He overlooks some dear old soul who has been buying her milk from us since she had her first beau. We stand a good chance to lose her. And doubtless she is worth two or three new ones.

"Hold that business! That's the sermon I always preach.

"Well, it's getting sort of late now, brother, but some of these days when I feel like talking, I'll tell you about some of the few things I have learned about the business of milk merchandising—about the boys who look good in the office, signing an application blank, but just don't have the nerve to stand up under fire. Man alive, that's the real big problem in the milk industry, to find out how to look a fellow over and see what sort of flame he has in his soul, whether he can stand up and keep up the fight after the guns are trained on him for six months or not.

"Come around again some time, brother, when you are not busy, and we'll have a real chat about this milk merchandising stuff that so many people are shooting at the wind about."

Looking for New Equipment? Read the Advertisements.

Building Milk Sales by Selling Good Cottage Cheese

A Milwaukee Milk Company Attributes Increased Sales of All Milk Products to Their Efficient Sales Efforts to Popularize Cottage Cheese. The Trapp Brothers' Dairy Service Plan

By P. W. KOEPPEN

FEW dairies look on the humble cottage cheese as anything except a sideline—and a not especially profitable sideline at that. But the Trapp Brothers' Dairy of Milwaukee has featured its creamed cottage cheese and as a result has given its milk business a big boost.

Under the descriptive name of Kre-Melo cheese, Trapp Brothers are supplying a large number of dealers in Milwaukee county with cottage cheese. In fact more than 900 dealers sell Trapp Brothers' cheese—double the number who are now selling Trapp Brothers' milk.

But Kre-Melo cheese is the entering wedge. It is such a popular cheese that dealers who have not been selling Trapp Brothers' milk are gradually being won over. Last year a conservative estimate by Robert Smith, sales manager of the Trapp Brothers' Dairy Co., credited Kre-Melo cheese with 25 per cent of the increase made in milk sales over the previous year.

Kre-Melo cheese is a sweet milk curd and is ready to serve. It is guaranteed to be sweet and fresh with a replacement-if-sour assurance. Attractive colorful advertisements in the street cars and on billboards tell the story of the deliciousness of Kre-Melo cheese. Advertisements in the daily newspapers tell housewives of delicious new uses for this distinctive cheese and urge her to serve it daily.

Trucks of the Trapp Brothers' Dairy which carry milk to all parts of the city have a picture of the container in which Kre-Melo cheese is sold.

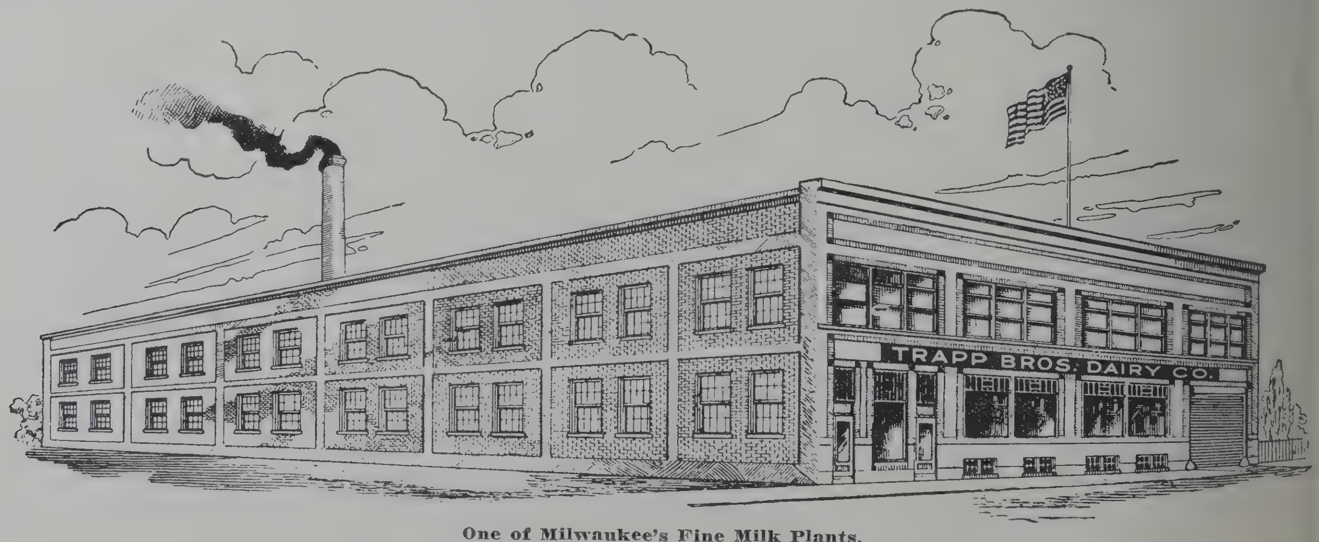
This advertising has resulted in a wide demand for Kre-Melo cheese. Dealers who were previously proof against any arguments of salesmen urging them to sell Trapp products, were eager to take on the new line of cottage cheese. "I personally know dealers who had always insisted that their customers would not care to change to Trapp Brothers' milk, who literally opened their ice box and told us to put in a supply of Kre-Melo cheese. The demand for the cheese changed their minds about the kind of milk their patrons would drink and these same dealers are now selling Trapp Brothers' m to their own and to their customers' satisfaction."

The Trapp Brothers' Dairy is a comparative n comer in Milwaukee as the histories of the local dai go. It has been established since 1912—yet today it s 15 per cent, approximately, of the milk sold in grea Milwaukee, and from 1,400 to 1,500 pounds of Kre-M cheese daily. The demand for the cheese extends as as Chicago, Port Washington, Waukesha and other s rounding cities. There have been inquiries for it as away as West Virginia!

In the development of their dairy business, Tra Brothers have followed carefully worked out plans keep old customers and to attract new ones. They not merely advertise the fact that they are interes in their customers—they show the customer that t are interested! The milk delivery man calls upon customers once a month, in addition to the day on wh he collects the bill. If the customer is a new one, friendly calls come twice a week for the first few wee This is a part of Trapp Brothers' service plan.

"We consider the milk business more than a m merchandising scheme. We are selling health. We everything we can to raise the selling of milk to a hig plane in the eyes of the public and in the eyes of men," said Mr. Smith in an interview.

"To this end we have meetings of our delivery m We have seven foremen with ten men under each fo man. Each ten men and their foreman are conside one group. About once a week we have a meeting each of these groups. At the meeting we discuss m ters which are vital to the milk business at that par ular time. While I am in charge of the meeting, it of assumes the form of an open forum in which each n can express his opinions, relate his experiences a offer his problems. If one of the men has developed idea for increasing sales, or has been unusually succ ful in following a plan which we have suggested, have that man tell about it at the meeting. Coming fr


TRAPP BROS. DAIRY CO.

One of Milwaukee's Fine Milk Plants.

of their own number, the story has an added in- t.

Among the subjects which we have outlined for ner sales topics are:

1. Put more effort on sales.
2. Handling vacation customers.
3. Emphasize by-products.
4. Kre-Melo.
5. Buttermilk.
6. Butter.
7. Cream.
8. Care of products in warm weather.
9. Collections.
10. Hot weather objections.
11. Lessen returned goods.
12. Buying motives.
13. Bottle returns and losses.
14. Getting prospects.
15. Sales demonstration.
16. Establishing new customers.
17. Service plan.

'Each of these subjects is interesting to the delivery . He has problems on his route which come under ost every group—for he is a salesman, collector and veryman and the size of his pay check depends on well he does all three things. We try to offer him ething concrete at every meeting which will help do his job better. We give him definite answers is problems and show him how to solve them.

'From time to time we have meetings of all of the . Sometimes we have men from our own organiza- talk to them. Sometimes we have outsiders come o give the men their slant on the vital subject— to interpret the wishes of the customer. This is, ntially, the salesman's problem.

'Coming from an outsider, the story has a slightly erent and often a more convincing sound than it does comes from someone inside the organization. Not ago we had James Fiske, a recognized merchandis- authority, talk to our men. Mr. Fiske talked on customer's viewpoint when buying dairy products interpreted it to the men. We have had advertis- men talk to our men on the most effective way to use ertising literature. We have had dairy experts.

'These meeting are really a training school for sales- in which we try to get our men to look at the sub- from the customer's side, to anticipate her objec- s and to be ready with answers to them, as well as e well informed on dairy subjects so that he can her interesting facts about the business which are to her.

'The data which they get at these meetings they to splendid use when they call on our customers. require our men to go around and call on their cus- ers once a month in addition to their regular call to ect the bill. Somehow nobody likes a bill collector e is only that. It is human nature to hate to part a lump sum of money at the end of the month for ething which is already consumed and forgotten. we want our customers to be friends with our de- ry men, so we require our men to call once a month, r the bill has been paid and forgotten. They come tly dressed, clean shaven, and in a friendly, smiling ask if the service has been satisfactory or if the omer has any suggestions on how to improve the ice. There are many things which can happen which not the fault of the dairy or of the deliveryman but ch might be held against both. Dogs will upset bottles. Thieves will occasionally steal milk or m on a day most inconvenient for the consumer. am sometimes will not whip when the company has ved and is waiting in the dining room for the cream e or schaum torte. None of these things may be fault of the deliveryman or the dairy, but an angry and disappointed customer, who knows her milkman only as the fellow who comes around to collect the bill, will leave a curt note in the morning asking the milkman not leave milk any longer. When the milkman is a friend of the housewife and if he calls regularly and does not dodge her after an unfortunate occurrence like this—of which he knows nothing but she knows all too well—she will be far more amiable and reasonable.

"In the case of a new customer, we ask our men to go around and call on the housewife a couple of times a week just at first to make sure that she is getting her milk or cream at just the right time and in the exact place she wishes it to be. In this way she gets positive assurance that Trapp Brothers' Dairy is vitally interested in pleasing her.

All Trapp Vehicles Carry This Advertisement of Kre-Melo Cheese.

"These calls on customers give the deliverymen an opportunity not only to straighten out any misunderstandings which may have arisen, but to suggest improvements, although he is not limited to suggest the improvements on this social call—he can make them at any time during the month. However, the call offers a convenient time to do this. For instance, if a housewife has always insisted on having her milk on the third step of the east porch, and if, as the summer approaches, our man should notice that this would bring the milk directly under the sun's rays causing it to be heated and to sour quickly, he would suggest that she leave a box on the porch in which he could deposit the milk to keep out the sun, or suggest that she leave a paper there with which to cover the milk until she takes it into the house.

"Or, take the case of the hostess whose cream wouldn't whip when the guests were waiting. He might explain to her that there are many factors which enter into the proper whipping of cream—age, acidity, test and temperature. Perhaps the bottle had been left on the back porch too long in the morning and the hot sun had heated the cream. This would mean that the cream would not whip. This can be explained in a courteous, interesting way and the salesman might suggest, 'I have something of special interest to you. We have prepared a folder on how to get the best results with whipping cream. I'll bring it along in the morning and leave it under your bottle of milk.'

"Being a friend with the customer is of great value to our men when they are soliciting new customers. The housewife, after she has talked with her milkman a number of times, gets to take a friendly interest in him and in helping him to get ahead. It is easy for the man to say to her, 'You've been satisfied now for a long time with our products and with our service. But there are a lot of people around here who don't buy Trapp's products and I know they would be just as well satisfied as you are if they were to try them.' Sometimes she will volunteer to speak to them herself and will give their names and addresses to her friend the milkman in a few days, telling him to leave milk there in the future. Sometimes she will give him the names and addresses of several of her friends and neighbors and he will jot them down on a pad which he keeps for that purpose. And it is a very unusual woman who will refuse to write down the names and addresses of a few of her neighbors and leave the slip of paper in the milk bottle the next morning.

KRE-MELO
COTTAGE CHEESE
KRE-MELO
COTTAGE CHEESE

A Trapp Window Display Featuring Kre-Melo Cottage Cheese.

"In going out to follow up on the names of prospects given him by an old customer, our milk salesman is accorded a far more friendly welcome when he tells the housewife that her friend has suggested that he call on her and tell her about the Trapp Brothers' dairy and its products, than he would have received if he had merely gone out with a 'cold' name.

"When we coach our man on sals talks, we tell them to call the prospect by her name, 'Mrs. Brown,' and not to stop with 'Can't I interest you in Trapp Brothers' milk?' The perfectly natural reaction to a question like this is 'No, I don't believe so.' We tell them to go out and tell the prospect about Trapp Brothers' dairy and its special advantages to a customer. In other words, we tell them to look at the subject from the customer's viewpoint rather than their own, and to show her that this dairy offers her what she wants and what she cannot get elsewhere. We never knock a competitor; rather, we spend our time boosting ourselves in a positive way.

"We give our men their talking points. One of our biggest arguments is our continuous flow pasteurizing system. They, our men, talk at length on the care which we give our milk, on the tests which we perform to make sure that all milk and cream is up to our standard. They tell the housewife of our special arrangements for returned goods so that it does not come in contact with the fresh milk and cream. The returned goods comes into the basement. The fresh milk and cream enter on the first floor. Bottles do not come in contact with the cream or milk until they have been thoroughly washed and sterilized. This is a very good talking point because most women shudder when they think that the bottles which they may be getting might have come from kitchens not so fastidious as theirs, or in which there might be some communicable disease which has not yet been diagnosed or quarantined. The washing is done with pure artesian well water from a well 700 feet deep inside our own building.

"We supply our men with scientific data on milk that they can meet most arguments on the food val of milk on the spur of the moment, or can find the i formation in pocket manuals. We have known cu tomers who were temporarily hard up and who decid that they would stop our milk altogether until they g their bills paid. Our men call on these people, prove them that a diet of bread, meat and potatoes is entire too starchy and does not have the health-giving value milk, vegetables and fruit. They talk protein, carb hydrates, starches, calories—and they tell the story their own way. Often our men come back with a stan ing order for two quarts of milk where the custom ordered only one before.

"Then there is the customer who wants to get th and is under the impression that milk is what is makin her fat. In a good-natured way the Trapp represent tive will tell her that it is the sugars and starches th are making her fat and will tell her that the avera maintenance diet is from 1,800 to 2,100 calories whi a quart of milk has only about 650 calories. This mea that she would have to drink three quarts of milk befo there would be any danger of her putting on surpl pounds.

"Sometimes the customer will tell the man outrig that she is dieting because she wants to get thinner ar has decided to cut out milk, or at least cut down on th amount she drinks. Sometimes, if the customer is stout woman but does not mention that she wants to b come thinner, our men just take for granted that sl wants a fashionable boyish figure and mention, casuall 'I ran across something very interesting the other da Scientists have proved that milk has sixteen element all of which are vital to growth, and yet milk doesn add a pound of fat. It's foods like potatoes and pie th are mostly starches that do that.'

"Or, if the customer, or prospect, is the type that ca be teased good-naturedly and enjoy it, he might sa 'I've got the best kind of diet for you!' and then sugge milk, telling his story about the scientific value of mil

"The figures will get them!

"Of course, some prospects, and some customers, wi ask questions that only a doctor could answer. Whe one of our men gets into a discussion of a question whic he cannot explain fully he tells the customer, or prospec frankly that he cannot tell her all about it off-hand, bu that one of the men from the office will be around an will tell her. As soon as he reports the matter someor from the Trapp organization calls on the woman an gives her the desired information."

This is the Trapp Brothers Dairy service plan, whic has worked out so successfully, keeping customers inte ested and contented, and attracting new customers. has made the milk deliveryman a salesman intereste personally in his customers and in getting more of then

CHICAGO, NEW YORK MILK DEALERS BID FO ORFORDVILLE, WIS., MILK.

Representatives of Chicago and New York mil firms attending a meeting of the Orfordville, Wis., Co operative Dairy Association July 13, making attractiv offers for the milk of that section.

Dairymen were told that if they could arrange to b sure of sending a worth while amount of milk each day it would be easy to reach the New York and Chicag markets. The idea has met with favor in the communit and steps are being taken to provide the necessary mil supply.

Auto Taxes and the Milk Industry

Sound and Equitable Principles to Control Special Taxation for Motor Vehicles as Laid Down by the Motor Vehicle Conference Committee

EN in the milk bottling industry are big users of motor vehicles. Both in gathering and distributing their product the motor vehicle is tant and fast growing in importance.

ate legislatures have constanly before them the em of equitable taxation of the motor vehicle in- y. At a conference of leading men interested in industry the following principles were suggested em as a guide to tax fixing bodies:

The state should have the sole special taxing agency eral, county and municipal governments should be ex- from the field.

The motor vehicle tax should be simple in form and uted in equitable and just proportion between the nt types of motor vehicles.

No highway should be improved by expenditure of funds in excess of its earnng capacity. The return public in the form of economic transportation is the neasure of the justification for the degree of im- nent.

All money raised by such special taxes should be in the state motor vehicle highway fund and to secure st results should be expended under the direction of ate highway department.

The cost of building and maintaining adequate sys- of highways should be distributed in an equitable rela- the benefits derived. These may be summarized as s:

Benefits to society in general, such as influence on education, recreation, health, fire prevention, police protection, the national defense, the postal service, living and distribution costs.

Benefits to definite groups, such as agriculture, manufacture, labor, railroads, mining, forestry and waterways.

Benefits to property served.

Benefits to road user.

For the purpose of apportioning costs in relation to s received, all highways may be divided into two : First, those used by the general motoring public, econd, those which perform a purely local service on.

Special motor vehicle taxes should be levied and used or the improvement and maintenance of highways used general public, i.e., for general highway traffic flow

The wide variance in valuations, tax burdens, number or vehicles in use and the status of highway develop- in the several states prevent the adoption of any fixed la as to the proportion of total costs of highways of l use which should be paid for from motor vehicle Generally speaking, however, these principles may forth:

In states where the income from motor vehicles is sufficient to meet all of the maintenance costs of highways of general motor use without undue burden to the individual motorist, such funds should be applied first to the maintenance of inter-state and state highway systems.

In state where the income from motor vehicles is sufficient to meet all maintenance costs of highways of general motor use without undue burden to the individual motorist, any surplus should be used for this class of highway reconstruction and administration costs.

In states where the number of motor vehicles will bring in large sums in excess of maintenance without placing undue burdens upon the individual motorist, such surplus should be used to defray all costs of maintenance and a substantial share of all of the other costs of highways of general motor use.

d. In those states where the motor vehicle income is more than sufficient to meet maintenance costs of highways of general motor use without undue burden to the individual motorist, it may be found advisable to use such surplus for the purpose of defraying all or part of the costs of bond issues to expedite construction of economically desirable motor highways.

9. Roads of a purely local interest, serving only local needs, should be financed out of local revenues obtained from local general taxes. Special assessments on adjoining land to defray a portion of the costs of such roads may be justified.

10. Where extraordinary improvements are undertaken in the vicinity of or serving congested areas of population the increment, if any, in property valuation following the improvements should be drawn upon to defray an equitable portion of the cost.

11. Irrespective of the particular form of special tax of the motor vehicle, whether registration fees or motor fuel taxes, the aggregate amount of these taxes in any one year should not be so great as to impose an undue burden on the individual motorist.

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UTICA FIRM IN NEW HOME.

The Sauquoit Valley Dairy Co., Utica, N. Y., moved into its new $75,000 plant late in July. Formal opening of the plant was held on August 1 and 2, and was celebrated by throwing the doors of the new structure open to the inspection of the public.

The plant, which has been under construction since April, is said to be the last word in dairy methods and appliances. The main building, built of concrete blocks, measures 130 by 50 feet, and houses the company offices, and practically all the machinery necessary for receiving, preparing and distributing milk.

A siding from the West Shore Railroad runs to the plant's receiving room, where shipments of milk are unloaded or sent on to New York.

Near the main building are located the company stables and garages. The barn has space for horse stalls, wagons, sleighs, a repair room and hay loft.

In order to provide for normal increase in volume, the company has allowed leeway for expansion. The plant, at present, has a capacity for handling 40,000 pounds of milk a day, although the present volume is only 35,000 pounds.

All of the main operations are carried on in one general room, thus making the work simpler, handier and easier to supervise.

The incoming shipments of milk are first placed in four glass-lined pasteurizers, having a capacity of 330 gallons each. They are then cooled by means of the new refrigeration plant. The ice plant has a capacity of 25 tons.

The new plant will entirely replace the present offices and plant, 403-405 Cooper Street. The company will retain its retail store at 351 Columbia Street, and will maintain a small retail store at the new plant.

Products of the company which will be made in this plant are milk, butter, buttermilk, cottage cheese, milk chocolate and a special grade A, golden Guernsey milk.

Milk Scores Again in Trans-Pacific Fligh

Taking on some "Body Fuel"

"Ernie" Smith, Intrepid Pilot, Trained on Milk and Gave it to His Mechanics....

MILK—the recognized food for aviators—has scored again in the success of the Trans-Pacific flight made by Ernest Leroy Smith, young San Francisco airmail pilot, from Oakland to the Hawaiian Islands.

Prior to the flight ''Ernie'' Smith trained on milk. He knew he must have a boundless supply of energy, and his nerves must be steady to meet the exigencies of the exhausting 25-hour journey across the sea. Like an athlete he prepared himself for the contest. He drank two glasses of milk at every meal. He drank milk between meals. He drank milk while he worked over his plane, the ''City of Oakland,'' on the flying field. He refused coffee and tea and other stimulants with the quiet remark:

''I never drink anything but milk when I am flying.''

Then he told his auditors what milk had meant to him during his training days on the University of California Rugby Team. Yes, ''Ernie'' was a football player before he became an aviator at the time the United States entered the World War, and even in his college days he realized that it is physical fitness that ''puts the ball over the line.''

When ''Ernie'' took up flying he demanded mechanical perfection in his plane, and physical fitness in himself, both co-operating for the success of any undertaking.

To put the Travelair in shape for the take-off the mechanics had to work day and night. ''Ernie'' wanted to be the first flyer to hop the Pacific, and it became a contest between the United States army and the civilian. It was exhausting work—this race against time. The men became thin and haggard, and a distinct let-down in efficiency and energy was noticeable. Smith knew they needed milk. He appealed to California Dairy Council for aid. He received it. Two crates of milk were immediately sent to the hangar, and from that time until the completion of the plane five days later, the mechanics were kept supplied with the energizing food.

Milk did its work, just as Smith knew it would.

''Milk is just the thing these boys need,'' said Anthony Parente, backer of the flight, ''it gives them the necessary strength and nourishment.''

And the boys coincided in Parente's opinion with such characteristic expressions as, ''Milk is sure great!'' ''O, Boy; more milk!'' ''This milk sure peps up my motor.''

A. R. Wild, supervising mechanic and aircraft engineer and builder, gave milk credit for keeping work going, saying, ''Milk is keeping those boys at it; it's good for them. Some of the men are drinking three quarts a day.''

When the Travelair was moved from the San F
cisco machine shop to Bay Farm Island flying field
the final tuning up, Council saw that the milk was
livered to the mechanics each day.

The Oakland-Hawaii flight promoters knew what
Council was doing in a nutritional way. They wa
''Ernie'' Smith and Emory Bronte, his navigator, t

"I'll Say It's Good."
Mechanics Building Plane for Trans-Pacific Hop Pause f
Nourishment.

safeguarded in every possible way should anythin
wrong with the plane. So they asked Council to s
the proper food and correct rations to sustain the a
tors for 10 days, in case the monoplane was force
drop into the Pacific.

The list was made up from a nutritional standp
consisting of food necessary to sustain basal metabo
for ten days. The rations were packed in a watert
tin box which was strapped to the plane. This is
the flyers took with them:

Six pounds pilot bread, one pound dried apri
one pound hard cheese, 30 ounces raisins, one p
prunes, one-half pound can butter, two cans milk,
dozen meat and cottage cheese sandwiches, three ou
malted milk tablets, 24 ounces canned tomatoes, and
can opener.

Then came the day of the hop-off, and three qu
of fluid milk were tucked away in the cockpit in a
tion to the two cans of milk included in the emerg
rations.

''I'd like a drink of milk just before I go up. I
it sustaining,'' remarked ''Ernie'' as he finished a
bottle. Then, he added with a quick smile, ''Th
going to be a long hop, and I shall want several gl
of milk on the way over.''

The world knows the story of that flight. It k
those indomitable men had need of every bit
strength and energy they possessed.

Lost to the world for five hours—their radio crip
—their supply of gas running low—their oil pump

battling through wind and fog, unseeing and un- until every drop of gasoline gone, they dropped he arms of a friendly Kiawe tree on the lonely Isle lokai, 50 miles from Honolulu.

at trip took stamina—spiritual, mental and physical na. The former are the essence of character, the sheer bodily endurance, all equally necessary in erformance of such a feat.

So you see, milk comes in for a goodly share in the glory of that Trans-Pacific flight. It was milk that gave the mechanics strength to work day and night to build the plane; it was milk that gave "Ernie," the pilot, the physical endurance to hold on and win in the face of terrific odds.

Lindbergh. Chamberlain. Byrd. Smith.
Next!

How to Keep the Bacteria Count Low

Count Can be Kept Low With Old Equipment if Proper Methods are Followed. Chlorine Solution Most Effective

By H. W. VETTERLEIN*

E ARE all striving to put out a bottle of milk with a low bacteria count. To attain this object, we should have a fairly low count in the raw Try to show your farmer patrons how to produce milk. Give his cans back to him in a sterile, dry tion. In the past, this has been a sore spot in the business—neglect of the milk cans—but now with utomatic washers, we don't hear so much complaint. very farmer should be shown how to properly , filter and cool the milk and keep it cold until ered. Everything that the milk touches in the should be sterile. As we get through with each of apparatus, it is first rinsed with cold water, brushed with fairly hot water to which has been l some good water softener or cleaner, then ned with live steam until too hot to touch. In the ing we fill the weigh can with boiling hot water, pump it through the entire system. Then insert e into a sanitary pipe, and turn on the live steam 0 minutes. Any apparatus that we can't reach this we hold the hose and steam until the surface is ot, or rather, too hot to touch. This applies chiefly eigh can, receiving vat and surface cooler.

e next fill the weigh can with cold water, and add a small quantity of chlorine solution. This can ade of chloride of lime and water, or salt water ed with an electric current, or can be purchased in ncentrated form, either in tablets or liquid form. the chlorine treatment everything is rinsed with , cold water.

is also a good plan to use the chlorine solution on bottles and afterward rinse with cold water. When oing the solution through the system any parts that not touched by the chlorine, such as pasteurizers, can be covered with a small sprayer.

here is a wide difference of opinion on using chlo- Some boards of health are against it, while others nd it. It was my pleasure to work in a city where nspector insisted on us using chlorine, and we had ge monthly bacteria counts as low as 1,000 .c., and for two years, we had only a few counts 10,000 bacteria per c.c. A low bacteria count milk eam, if kept cold, will keep sweet a long time, pro- l it has been properly graded and pasteurized.

e often hear arguments on how much easier it is to ow bacteria counts with new apparatus, or glass- pasteurizers. It is all bosh. You can get just ood results with a system installed ten years ago, ou can with one installed this year, provided you keep it sterile and are sure of your pasteurization temperature and holding period.

We always pasteurize to 145 degrees F. and hold for 30 minutes. I believe the continuous flow system is doomed because there is so much chance of milk getting through before the 30 minutes are up. With the vat system, and recording thermometer, you are sure of this. Flush valves are also necessary.

It begins to look now as though steam pasteurization, as we know it, will be done away with, if the claims of some experimenters with electricity are to be believed. As I understand it, the milk is treated with an electric current and it serves the same purpose as pasteurization. Guess it will be a long time yet, though, before this comes to pass. It is only 35 years ago that milk was first pasteurized. At the Chicago World's Fair in 1892 some milk was pasteurized in bottles.

Three years later the first pasteurizing machine was invented. Now the smallest plants are using some of the best pasteurizing apparatus.

Another source of bacterial growth, is when milk is bottled which is not cold enough, and not keeping the refrigerator at low enough temperature. We try to bottle all milk at 38 degrees F. and keep the refrigerator at that temperature also.

I have often wondered if it is a good plan to publish the bacteria counts from milk plants where the samples are collected by the inspector. Sometimes there is a feeling that he favors one plant more than another, and might not deliver the sample to the chemist as soon as he could. I know a city where this very thing happened, and now they just publish the names of the plants, as having, or not, come within the bacteria limits set by the board.

The only way to keep the count low is to be everlastingly careful.

PENNSYLVANIA CO-OPERATIVE ASSOCIATION BUILDS NEW MILK PLANT.

After operating for eight years in their original building, the Kane Dairy Co-operative Association, Kane county, Pa., is building a new stone and concrete structure to house their milk plant equipment.

About sixty dairymen in the county are members of the association, which is operated on a strictly co-operative basis. New equipment is being installed with an idea of efficiency and sanitation in handling their product, says A. T. Larson, president of the association.

Plant Superintendent, Sauquoit Valley Dairy Co., Utica, N. Y.

Getting the Money for Your Milk

An Established Credit Policy Aids the Milk Dealer. Whatever Method May be Used, It Should be Applied Rigidly

By E. J. CLARY*

WITH a large number of comparatively small accounts, which is a condition commonly met with in the market milk trade, collection problems appear which are absent in many other lines of business.

Laxity in formulating an established collection policy is certain to result in cash losses to the milk plant, and unless this end of management is fortified by a strict application of such a policy, a weak link is immediately found in the merchandising plan itself.

No matter how you look at it, collections bear importantly on sales and the development of any milk business. Experience has taught that an adequate policy on collections will help business development for the milk plant and that an inadequate policy will retard it.

The fear that competition lurks in the background whenever the milk plant or the milk dealer uses aggressive methods to collect his money, is not borne out by the facts. The best managed plants in the trade have rigidly applied their collection policies after finding out that laxity in such matters never pays.

In the auditing of numerous milk plant books in recent months, some interesting points have been brought out with regard to collection methods.

In any business where delinquency increases in time units of days or even weeks, accounts must be watched with greater care than when the delinquency is the result of a single purchase in a 30-day period.

Another point of importance is this: The product of the plant is soon consumed and the psychology of credit shows that collection is more difficult in the case of real delinquency is concerned when the product is perishable and quickly consumed than is the case where the purchase is represented by a permanent and material article.

Business That Doesn't Pay

Collections have been and always will be an important factor in the successful operation of any plant. The idea of building up a permanent and increasing sales volume, or a profitable production, on NUMBER of accounts, without regard to quality, has been discarded by the most progressive. The writer of this article, continuously auditing accounts for the trade, voices some opinions picked up in this connection.

Small Accounts Seem Unimportant.

The manager of one large plant said: "Small accounts seem unimportant to the consumer. That's why they have to we watched more closely."

In formulating its collection policies, one large Eastern plant set distinct limits on service in case of delinquency and applied them rigidly. These limits were in every way fair but fell considerably short of the time allowed generally in the trade. The results on sales and new business extension was, upon the whole, healthy. This was especially true in the sales made to and through retailers.

There have been no exceptions made under any circumstances and this fact is made clear to every new consumer and retailer.

A great many plants put undue faith in form lett statements and pleas for payment. This appears to the only practical method of collecting money from consumer and the retailer. But, as reasoned out by Philadelphia plant, a delinquent is a delinquent an he is behind with one creditor he is behind with oth and therefore form letters and statements—even sonal calls—are part of the business of the day. Philadelphia plant treasurer simply notifies the custo that his account is overdue—that within five days s ice will be shut off and this is done over the teleph politely but firmly.

In the best regulated plants in the industry, i generally agreed that the weak spots in collection as follows:

(a) The habit of bluffing the delinquent.

(b) Failure to set distinct li to credit in the beginning.

(c) Flooding the delinquent form letters and statements.

(d) Failure to have a daily ch up system on delinquency.

Very Little Trade Lost.

In any staple trade today producer who gives the service not afford to waste his capital bad risks, and as a real commo is involved, with a definite va the loss becomes a real one. C petitors do not want the busi of delinquent customers so tha resolves itself down to this:

The plant with a rigidly app credit and collection arrangem skims off the cream of its field.

Such a system helps busi building in other ways.

Where a delinquent is shut of a certain point, law suits and collection costs are duced, if not eliminated.

If the delinquent reinstates himself, as he usu does, he will be a better customer afterwards, hav learned the lesson of reasonably prompt payment.

The customer so treated has a feeling of respect the plant independent enough to cut him off when deserves it.

I find that the best managed plants work on a t schedule basis which is automatic and which become mere matter of bookkeeping routine. Accounts fall i three classes:

1. 10 days overdue.
2. 20 days overdue.
3. 60 days overdue.

In one case, the bookkeeping department, having tablished these three stages of delinquency act as lows:

A delinquent who falls into class 1 is merely noti of the fact.

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*Management consultant.

delinquent who falls into class 2, is warned.

delinquent who falls into class 3 is notified that e will stop in three days, and it is stopped.

No Need for Antagonism.

o plant can afford to unduly antagonize its custom- vhether they are delinquent or not. Handling them ully, though firmly, is simple enough and need leave ard feeling. It is far better in the results gotten t and explain than to threaten and annoy. The method conveys a feeling to the customer that the is sufficiently independent to assert its rights, and ffect is beneficial to the business.

he employment of staff collectors is, of course, a business policy and need in no way interfere with tem of collection that is distinct and which is rig- applied.

s a matter of fact in some instances I find that the nal call will cause a rigid credit policy to work tter advantage, providing the collector understands the plant's policies and that they are rigidly en- d.

But the chief job of the collector under these circumstances is to collect the amount due after service has been shut off.

In some instances, the smaller plants have tried out the weekly payment basis and, while this system appears to work pretty well in the case of domestic trade, it will not do so well in the commercial line, especially among hotels, hospitals and retailers. It is questionable whether such a short term basis will not so increase the plant's overhead as to nullify its good results.

The treasurer of a fairly large plant in New York was asked recently what policy he had adopted on collections and he replied:

''We simply push them when they don't pay up—handle each case on its merits.''

This plant revealed 467 accounts that looked uncollectible and carried on its books over $102,000.00 in out-and-out delinquent accounts.

It is in line with the best business policy in this country today to establish a definite policy on collections and then—stick to them.

The Bottle Cap Not to Blame

Probable Cause of a "Cap" or "Pulpy" Flavor in Certified Milk. Use of Abrasive or Scouring Powder on Certified Milk Equipment Must be Exercised with Care

By SOBEY OKUYAMA*

PECULIAR flavor which may be defined as a ''cap'' or ''pulpy'' flavor has been brought to the writer's attention at various times in the last years. It has been noted at four different plants this laboratory's control. It has also been noted rtified milk in Boston and St. Louis. Mr. Posson e United States Department of Agriculture spoke e common occurence of a ''cap'' flavor in certified exhibited at the annual meeting held at Atlantic n 1925 and it is thought that the same flavor was ted there as is discussed in this article.

peculiar feature of the flavor is that the consum- ublic apparently does not notice it. One restaurant 500 bottles of certified milk has never had com- s but we have noted the flavor frequently when asing certified milk there.

characteristic of the flavor is that it is never found k just when bottled. The flavor takes 24 to some- as long as 72 hours to develop. In samples hav- strong taste, a smell similar to that from green soap e noted.

e to the fact that the flavor does not appear regu- it has been very difficult to work out an extended igation until recently when one farm's product ped the taste regularly.

mples were first taken from every point in the ess of the milk from cow to bottle. Samples were from the barns, carrying cans, pouring tank, pipe cooler, holding tank, bottling machine and filled s. Care was taken that there was no contact of ilk with the cap. The samples were immediately and held in an ice box and sampled for flavor at and 72 hour intervals. Samples from the cooler d showed off flavor.

previous work no barn samples showed this flavor herefore another batch of samples was prepared warm barn milk and pouring this over or through every piece of equipment, a check sample of barn milk being kept. This showed the trouble in the cooler.

The whole experiment was run again with 15 samples, seven not going over the cooler and with eight over the cooler, and not labelled given to three samples. All checked out correctly with off-taste passing over cooler.

The cooler had been scoured to a coppery appearance. After being well retinned the flavor stopped.

On previous work, there was no such evident discoloration or exposed copper and in one case the cooler appeared perfect but occasional flavor developed to a slight degree with torn up caps but not sufficient to call this a regular cause.

Apparently some chemical action of copper or brass on raw milk is the cause and it is suggested that where this flavor appears every piece of equipment be checked and retinned even when it appears in perfect condition. The flavor is not that usually spoken of as metallic as laboratory men from large distribution companies could not define the flavor as metallic.

Another suggestion would be that dairymen at certified plants be very cautious in the use of abrasives and scouring powders in washing equipment over or through which milk will travel.

Summary.

1. A peculiar flavor which may be defined as a cap or pulpy taste has been found in certified milk from various parts of the country.
2. The flavor develops 24 to 48 hours after bottling.
3. The flavor does not always come regularly.
4. No unusual bacterial growth has been noted.
5. Cause is apparently a chemical action of exposed copper or brass on raw milk.
6. Use of abrasives or scouring powder on certified milk equipment should be exercised with extreme caution.

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ientific Director, Brook Hill Laboratories, Inc.

How to Get Customers' Attention

Positions Used for Dairy Products Advertising in Local Papers are Important. How Some Advertisers are Doing it

By J. T. BARTLETT

THE position of a dairy products advertisement is like the location of a store.

What street a store is on, and just where, determines the people who pass the store—and who see its window displays. In exactly the same manner, page position affects "reader traffic" for the dairy products advertisement.

One group of readers turn first to the sport page. Another seeks the financial pages. Women are partial, naturally, to the society page.

Then there are pages of far less specialized reader traffic—the news pages, and the editorial page.

And when the subject of particular page has been settled, position on that page comes up. How can a dairy products advertisement be placed so that, of all seeing page 9, for example, the largest possible percentage see the advertisement?

Considering examples from various parts of the United States, we can make interesting and helpful observations.

From Tulsa, Okla., we have an unusual position. The advertiser is Purity Ice Cream Company, and the issue is a Sunday one, and the advertising space is single column by nine inches. In this particular instance, the "funnies" are involved. The syndicated material, printed in colors, does not occupy the full page. There is about a column of space on the right side. Various advertisers have taken space here.

Right here, where reader traffic of children especially is heavy, we find Purity Ice Cream Company represented. With thoughts for children especially in mind, dairy products advertisers will use similar position to this. At Denver, one advertiser has used the foot of the front page, comic section. Probably as a class, too, followers of the comics are especially interested in ice cream, candy, and kindred products. The advertisement of Purity Ice Cream Company has the cut of a child eating an ice cream cone, together with a brick of ice cream, heading the insertion. At the foot of the space, below the advertising signature, is a half-tone of the company's sunlight factory.

Positions observed of a great many dairy products advertisers undoubtedly reflect no special thought on behalf of the concerns represented. The latter have simply contracted for run of the paper, and the newspaper has placed the advertisement where convenient for it. Of course, where run of the paper is contracted for, the advertiser has some restrictions in mind. The financial pages are very poor for ice cream advertising. Readers of these pages have their minds strictly on business matters. Again, they are largely male adults—with a large proportion of men rather well along in years. This reader traffic is not a favorable one to work.

Similarly, most advertising men consider sport pages poor for food products advertising, including ice cream which is, besides, a refreshment. The editorial pages are not taken to be ideal for most products. Not specifying special pages, the dairy products advertiser can see to it his copy is not placed on the mentioned pages which will, usually, penalize it.

A two column by six inches advertisement of United Milk Company, San Francisco, is found upon pag
second and third columns at the foot. Second and t
pages are both considered excellent for general ad
tising. Of the two, page three, to which a great de
matter frequently runs from the first page, is per
preferred. The point on the page of this United
Company advertisement is usually considered no
good as on other parts of the page—notably the u
right corner. Laboratory tests have illustrated the u
right corner to be, ordinarily, observed by the la
number of newspaper readers, other things being e

Large insertions of dairy products advertisers
a habit of appearing on the right side of the page.
Los Angeles examples do this. One is the Sanitary
Seal Dairy Company. The space unit is full page d
by four columns. Page five is used.

In another example, the unit is two columns by
depth. This advertiser is Arden Dairy, Inc., and
page is twelve—on a household economics page,
position for obvious reasons. The woman reading
household page has her mind on her "business"-
kitchen and home.

When full depth single column space is used
extreme right of the page is usually preferred by
vertisers. This applies to all trades and industrie
was the position used for Morning Glory butter,
Houston, Tex., advertisement. A problem of len
single column display was solved by this particula
vertisement in an unusual way.

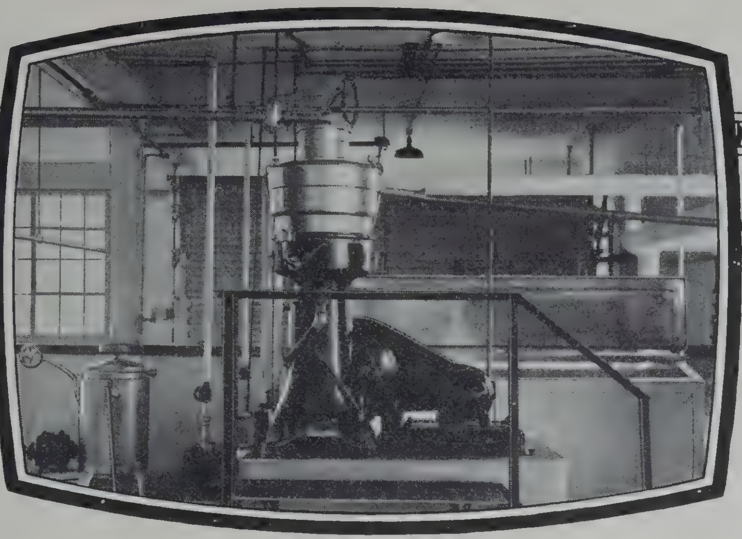
Silhouette sketches occupied over half the space
ginning at the top. First came, with caption, "Hu
Cottage." Then in order were, "Majestic Mansi
"Cozy Apartment," "Luxurious Hotel."

The copy followed this, one word to a line—"E
where good things to eat taste better when served
Morning Glory butter." A carton of the brand
pictured, and on a single line the slogan given, "Ar
crat of the dining table."

Unquestionably, the clever illustrative idea f
in the silhouetted cottage, mansion, apartment and
contributed to the effectiveness of this page-depth, s
column advertisement.

The dairy products advertiser should carefully
low his own advertising, and note positions sec
Let him observe advertising neighbors, too. Most
vertising experts consider it more favorable than o
wise for similar products to be grouped together
newspaper. If another ice cream company occu
adjoining space, it may be far better than otherw
for the same reason that ready to wear stores in
cities seek the location company of one another.

One can have, however, decidedly poor advert
neighbors. The message of a proprietary foot ail
remedy is hardly desirable for space next to a food
uct. Advertising of poultry feeds may be good com
for some advertisers—but not for dairy products
Food pages, which numerous newspapers publish
Fridays particularly, are especially good for ice cr
milk and butter advertising. Housewives read t
pages industriously, their minds are on food bu
Logically, it is a good time to broach dairy product



No. 90 New Series De Laval Separator at Watertown Milk Producers Co-operative Association.

No longer new— but still years ahead

THE New Series De Laval Separator is no longer new. It has been on the market for more than a year and hundreds are now in daily operation throughout America.

—Yet it is as far ahead of all other separators today as when it was first announced—further ahead, in fact, for now you can install it on the basis of *proved* economy and *proved* efficiency.

As a matter of fact, it is the opinion of users that in the New Series De Laval the very maximum of separator efficiency has been attained. In other words, that there will never be a separator capable of skimming cleaner or producing better cream, or of greater mechanical perfection.

Remember that this is the opinion of users based on their own experiences. All claims made for New Series De Laval Separators have this same foundation.

On the subject of skimming efficiency, for instance, many users report readings of ½ of 1/100 of 1% by the Standard Babcock test, and some state that they are unable to obtain any fat readings at all—this with the machines operating at full rated capacity and with milk at normal temperature.

That is a sample of what you get when you install a New Series De Laval—not claims based on laboratory tests—but *proved* efficiency in hundreds of plants like your own.

Get full details of your 1935 separator today.

THE DE LAVAL SEPARATOR COMPANY
165 Broadway, New York 600 Jackson Blvd., Chicago
DE LAVAL PACIFIC COMPANY, 61 Beale Street, San Francisco
THE DE LAVAL COMPANY, LIMITED
Montreal Peterborough Winnipeg Vancouver

New Series De Laval Separators

When writing to THE DE LAVAL SEPARATOR COMPANY *please mention The Milk Dealer.*

Preparations for the Big Cleveland Convention

Accommodation for 10,000 Visitors are Available. Cleveland Chamber of Commerce Officials Co-operating with Exposition Officials to Insure Comfort for Everybody

THE convention board of the Cleveland Chamber of Commerce has underwritten more hotel rooms for the use of visitors at the coming Dairy Industries Exposition than have ever been similarly guaranteed there before, not even excepting that heretofore greatest-of-all shows held in Cleveland, the American Electric Railways Exposition of 1926.

Beyond the total of this underwriting—which will assure accommodations to between 8,000 and 9,000 persons—the actual greatest capacity of the city's hotels as a whole has further limits. An exposition attendance of 10,000 persons on the same day can readily be accommodated.

The number of rooms guaranteed presages the vastness of the coming show. It also carries the suggestion that now is the time for every prospective visitor to make his room reservation—not to leave it to the last moment and be forced to take what is left.

Choose From 30.

The following hotels, all conveniently located at the exposition, are open to reservations at this time—(ice cream manufacturers will, of course, concentrate on the Hollenden, which is their convention headquarters): Cleveland, Statler, Winton, Olmsted, Auditorium, Allerton, Colonial, Fern Hall, Hermitage, Mecca, Murphy, New Amsterdam, Alcazar, Bolton Square, Doanbrooke, Fenway Hall, Griswold, Mt. Royal, Park Lane Villa, Regent, Sovereign, St. Regis, Wade Park Manor, Westlake, Euclid, Carnegie, Garfield.

More Than a Year's Work Involved.

When some 9,000 dairy products manufacturers visit Cleveland in October, they will witness the most extensive display of equipment, machinery and supplies used by their affiliated industries that has ever been assembled at one time under one series of roofs.

To get a clearer picture of the extent of this show, they can conceive of it spreading over approximately five acres of space or as forming a roadway sufficiently wide to drive their cars for a stretch of six miles.

Few of the 9,000 realize the work required to place before them this vast display of items to their industrial welfare.

Even before the conclusion of the Detroit Exposition in October, 1926, representatives of the Dairy and Ice Cream Machinery and Supplies Association had visited convention cities in every part of the country in search of that one which could best accommodate a show catering to the great dairy products industries.

The Detroit show concluded, Cleveland was chosen as the most logical site for 1927. Plans were immediately begun, numerous contracts covering building rentals, booth equipments, decorations, electricity, gas, water, trucking, labor and miscellaneous requirements prepared. Floor plans were drawn and re-drawn, exhibitors' contracts and information sheets printed.

Over the Top for Booths.

Then on April 25, at the zero hour, began one of the greatest leasings of booth space that has ever been recorded. Two switchboards hummed with calls association companies located in every part of the c try. Western Union messengers delivered 60 telegr Representatives of more than 35 member houses aw their turns in the association offices.

In three hours 130 member companies were pl Since April 25, the remaining space has been take member and non-member companies—a total of exhibitors! Contracts with them have been exec plans checked to insure a harmony among displays, a thousand details attended to.

Work About Completed.

With this great volume of preparatory work pleted, hundreds of exhibitors' representatives now forward to the actual period of installation, to those weeks immediately preceding the show when car of displays will be shunted on Cleveland sidings, transferred day and night into the designated expos booths.

All Week for Milk Dealers.

The International Association of Milk Dealers conclude its convention in Columbus on Saturday, 22. Cleveland is only four hours distant. Monday find many of the Columbus delegates of the prece week inspecting the market milk equipment and plies displays in the great exposition.

The range and number of these displays in this y show will be so outstanding that milk dealer attend both by members and non-members of the internat association, will be both numerous and closely inter —so leading milk company operators and machi men predict—from the first open hour of the sho through to the last.

More new milk equipment will be demonstr probably, than has ever before characterized a nat exposition for the milk products field.

It is reported that the Statler Hotel will be at informal headquarters for the visiting members o International Association of Milk Dealers.

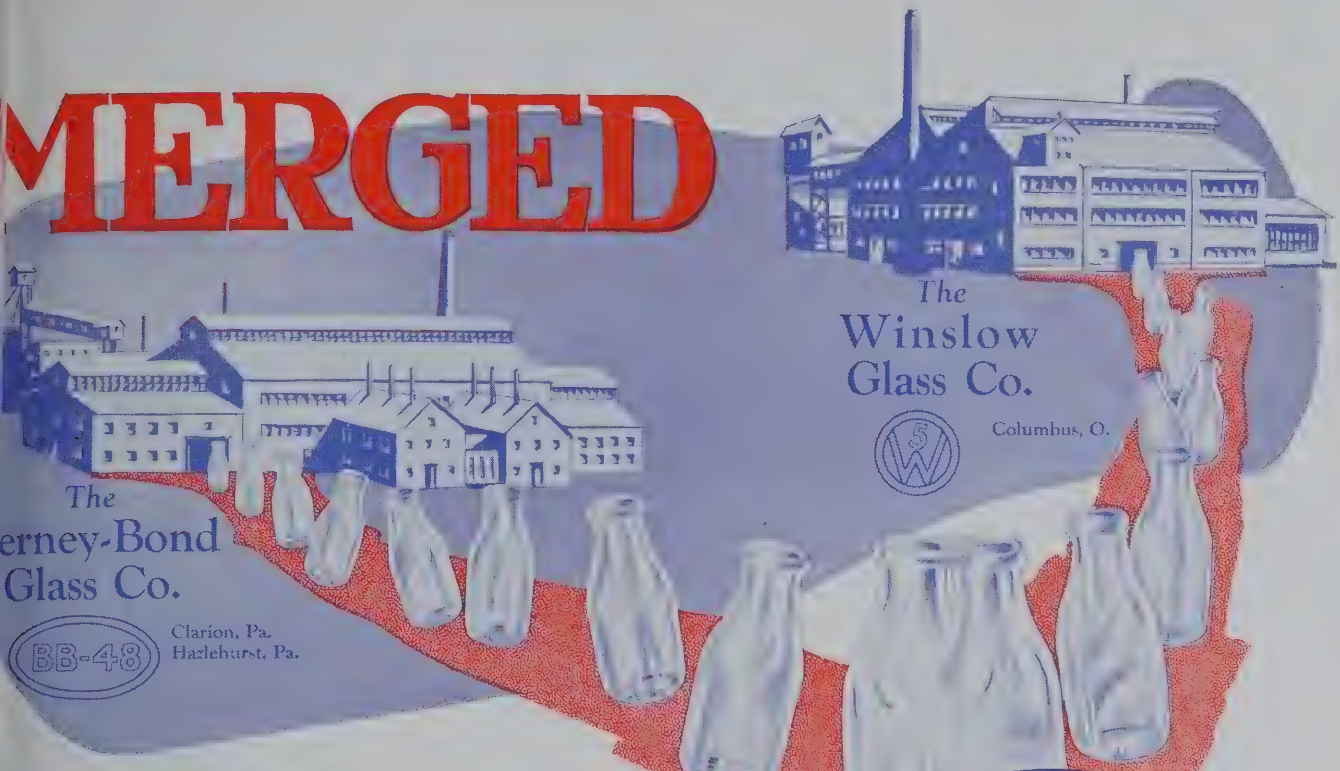
⚜

CITY HEALTH DEPARTMENT DEMANDS GRAD MILK EXCLUSIVELY.

Dairymen and milk distributors doing busines the town of Mexia, Texas, will have till September which to prepare their plants to handle a product will pass the inspection brought about by a recent nance passed by the city council.

Four tests will be made on four separate sampl milk and cream, and the product from that firm bear the determined grade thereafter till the next changes the grade. If within sixty days of the te period any dairy measures up to the required stan it may be given an official grading.

The city health department will approve all fu changes made in dairy plants and will require such struction as will permit the handling of a Grade A uct. This also applies to new dairies that may be



THE best in milk bottles has always been identified by these famous trade marks — the "BB 48" of the Berney-Bond Glass Company and the "5-W" of the Winslow Glass Company. The experienced dealer long as known that nothing finer is made than the ottles vouched for by either of these brands.

or years these two firms have been developing eir products to a plane of highest quality. The erger of these two concerns combines the supe- or features of both products and improves their rvice of distribution—a distinct benefit to the ade.

his co-ordination of manufacturing effort places the command of milk dealers everywhere two illed engineering departments — two famous uality products—two trained production depart- ents—five complete manufacturing units to pply your needs in the shortest possible time.

he individual superiority of either brand is ansferred to the other—each now embodies all s original quality plus the good points of the her.

ASK what you will in milk bottle quality—strength, durability, appearance, accuracy, color—you will find it exemplified to the highest degree ever attained in Berney-Bond-Winslow Bottles.

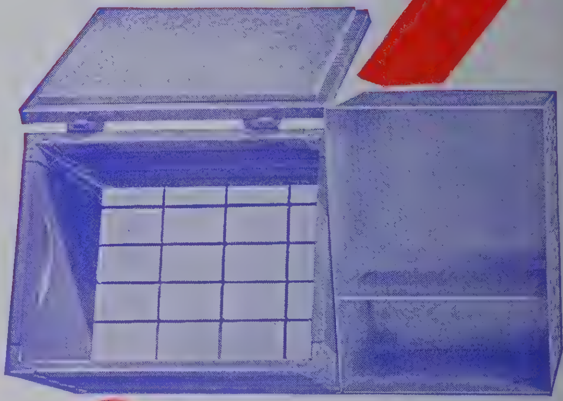
MILK FOR HEALTH—IN A BOTTLE FOR SAFETY

The Berney-Bond Glass Co.

Offices: COLUMBUS, OHIO . . . CLARION, PA.

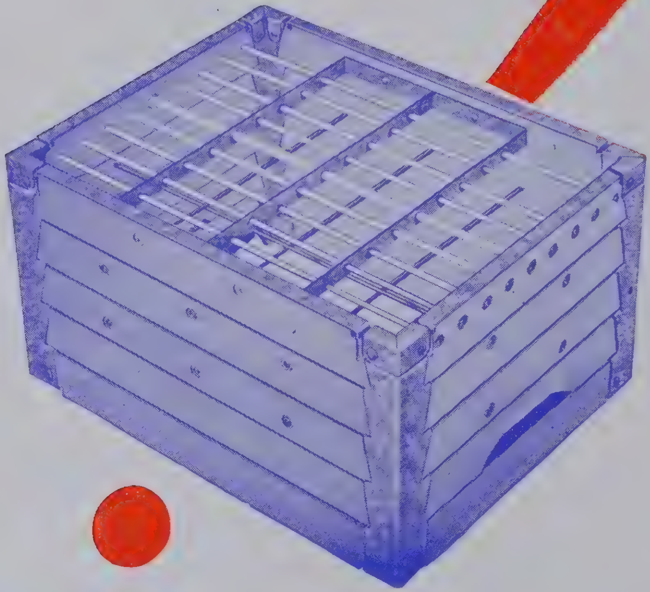
actories: Clarion, Penna. . . . Columbus, Ohio . . . Hazlehurst, Penna.

Woolsey



Butter Box

Will preserve quality, appearance
and make proper delivery
more convenient.



Super-Grid
Super-Strength!

Bottle Crate

Unrivaled for Service and
Satisfaction.

Made in all standard sizes.

Send for complete list of sty
and prices. -- Then try the

The Northwestern Collapsible Carrier

Ask These Jobbers:

A. H. Barber-Goodhue Co.,
Chicago, Ill.—St. Paul, Minn.
Indianapolis, Ind.

The W. E. Barrett Co.,
Providence, R. I.

E. A. Kaestner,
Baltimore, Md.

Meyer-Blanke Co.,
St. Louis, Mo.
Birmingham, Ala.
Dallas, Tex.

N. A. Kennedy Supply Co.,
Kansas City, Mo.
Oklahoma City, Okla.

Oliver M. Dean & Son
Worces

Beatrice Supply Co.,
Den

Ohio Creamery Supp
Clevel

When writing to THE NORTHWESTERN COLLAPSIBLE CARRIER CO. *please mention The Milk Dealer.*

“The Standard of Excellence in Bottle Crate Construction”

It took the Woolsey unit slat-metal bound bottle crate to set the fashion in this much used equipment of modern dairies.

The Woolsey bottle crate became popular only through actual *service rendered.*

It is still supreme in the feature that made it unique

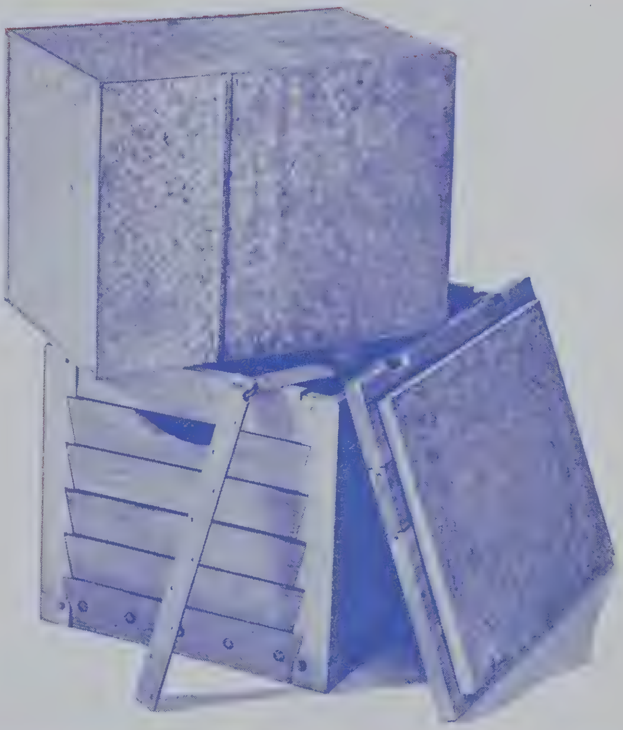
The Wire Laced Corners

It is this construction detail that takes up the shock that ruins so many bottle crates.

It is this point of construction that can not be imitated.

It is the one feature above all others that adds years of life to a bottle crate.

Only through actual trial of Woolsey Bottle Crates can you appreciate the real benefit this construction offers.



Every wagon should have one of these Woolsey Butter Boxes

The *separate ice compartment* keeps the contents cold and clean. Made as two separate boxes and oined together. This gives longer life and prevents leaks from ice compartment.

The *insulated cover* thoroughly protects against dust nd dirt and keeps heat out of the box for the listance of the route.

A strong, specially designed hinge permits the cover o be opened at any angle without strain on the hinge.

Talmadge Ave., S. E.,
MINNEAPOLIS, MINN.

1821 Callowhill Street,
PHILADELPHIA, PA.

y & Equipment Co., Pittsburgh, Pa.
Bros., New Haven, Conn.
mond, Ltd., Toronto, Canada

Kennedy & Parsons Co., Sioux City, Ia.—Omaha, Neb.
Geo. G. Mill Co., Great Falls, Mont.
N. W. Creamery & Dairy Supply Co., Seattle, Wash.

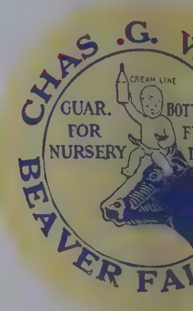
T. C. Power Co., Helena, Mont.
Oakes & Burger Co., Cattaraugus, N. Y.—Erie, Pa.
Phoenix Seed & Feed Co., Phoenix, Ariz.
C. Peterson, Hartford, Conn.

Geo. W. Prising Co., Inc., San Francisco, Calif.
The Smith-Comstock Co., Bridgeport, Conn.
United Dairy Machinery Corp., Buffalo, N. Y.
Warr Supply Co., Los Angeles, Calif.

MARTIN DAIRY
CHOCOLATE
MILK
DAIRY PHONE
666
RES. PHONE 572

SPILKER BRO'S, INC.
BUTTER MILK
FORBING, LA.

R. H. AXLINE
WHOLE MILK
3.5%
NEWARK, O.


CHAS .G.
CREAM LINE
GUAR.
FOR
NURSERY
BEAVER FA

T. L. BERRY
WHOLE MILK
QUALITY & SERVICE
GUARANTEED
4% B. F. OR MORE
SHREVE, OHIO.

MILK & CREAM
Direct From
To Consumer
CITY VIEW DAIRY-H. G. BLANCH, PROP.

ROMEO CREAMERY
PHONE 99
PURE T. B. TESTED MILK

GRADE
PASTEURIZ
A
KI
JERSEY MI
EAST 320

CLARENCE JOHNSON
PURE
CLEAN
MILK
MURPHYSBORO, ILL.

MAPLE LANE
NOT LESS
GRADE
A
WHOLE MILK
THAN 3%
FARM DAIRY

The Toledo-Baltim

TOLEDO, OHIO

“Qua

Pa

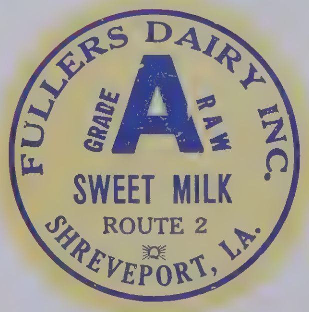
We advertise your business for you

CORMANY'S CREAM
WHIPPING
30% BUTTERFAT
PHONES
THAT SATISFIES

WALSAND DAIRY CO.
CREAM
PHONE 1453

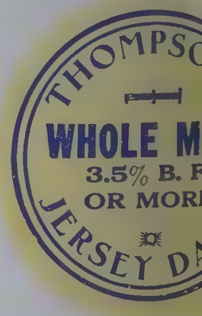
CAPITOL DAIRIES INC.
THE MILK DELUXE
Golden Glow
IT'S PASTEURIZED
WEBSTER 5018-6844

HART HAG
PHONE
KEEP
ME
COOL
BARDSTOWN

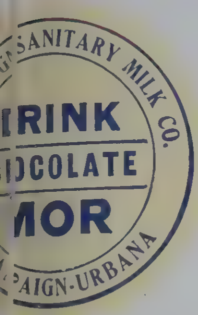

FULLERS DAIRY INC.
GRADE
A
RAW
SWEET MILK
ROUTE 2
SHREVEPORT, LA.

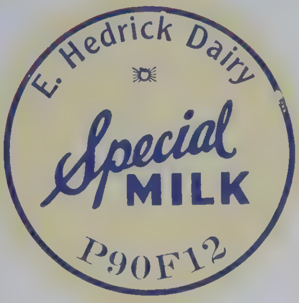
LEO MINKLEIN
Pure
Milk
GARDENVILLE, N. Y.

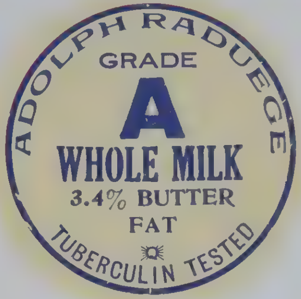
WASH AND RETURN BOTTLES DAILY
RAW
GEWE DAIRY
LOS ALAMOS, CALIF.
MARKET MILK
FROM NON-REACTING TESTED COWS

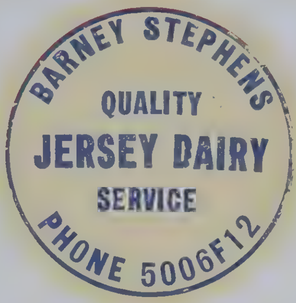

THOMPSO
WHOLE M
3.5% B. F
OR MOR
JERSEY DA

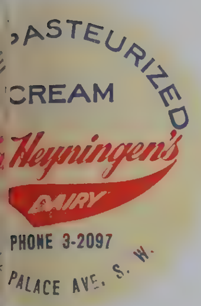
When writing to THE TOLEDO-BALTIMORE BOTTLE CAP COMPANY *please mention The Milk Dealer.*

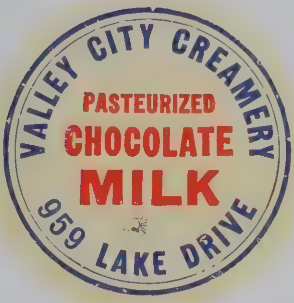

SANITARY MILK CO.
RINK
OCOLATE
MOR
AIGN-URBANA

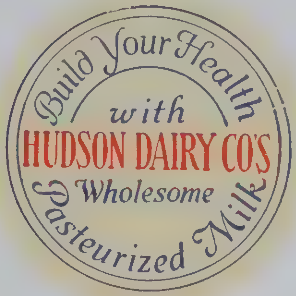

E. Hedrick Dairy
Special
MILK
P90F12

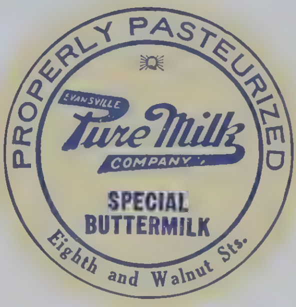

ADOLPH RADUEGE
GRADE
A
WHOLE MILK
3.4% BUTTER FAT
TUBERCULIN TESTED


BARNEY STEPHENS
QUALITY
JERSEY DAIRY
SERVICE
PHONE 5006F12


PASTEURIZED
CREAM
Heyningen's
DAIRY
PHONE 3-2097
PALACE AVE. S. W.


VALLEY CITY CREAMERY
PASTEURIZED
CHOCOLATE
MILK
959 LAKE DRIVE


Build Your Health
with
HUDSON DAIRY CO'S
Wholesome
Pasteurized Milk


PROPERLY PASTEURIZED
EVANSVILLE
Pure Milk
COMPANY
SPECIAL
BUTTERMILK
Eighth and Walnut Sts.

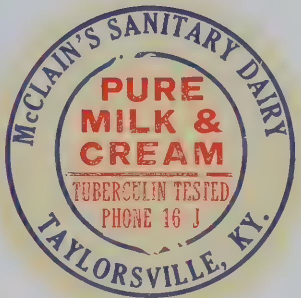
ttle Cap Company

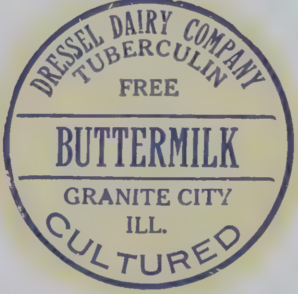
1345 Miami Street

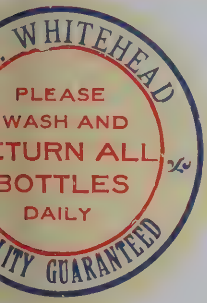
tle Caps''

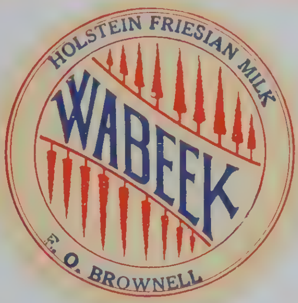
'ood

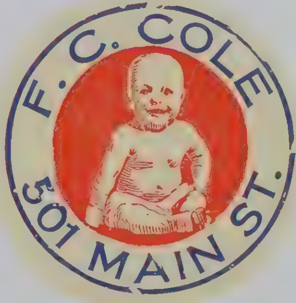
Makers of Bottle Caps
for Progressive Dealers

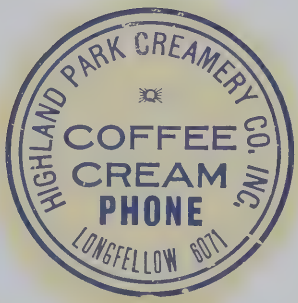

McCLAIN'S SANITARY DAIRY
PURE
MILK &
CREAM
TUBERCULIN TESTED
PHONE 16 J
TAYLORSVILLE, KY.

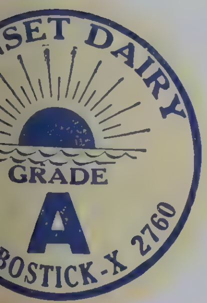

DRESSEL DAIRY COMPANY
TUBERCULIN
FREE
BUTTERMILK
GRANITE CITY
ILL.
CULTURED

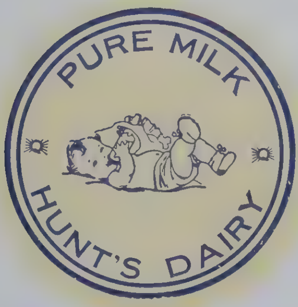

WHITEHEAD
PLEASE
WASH AND
RETURN ALL
BOTTLES
DAILY
ITY GUARANTEED

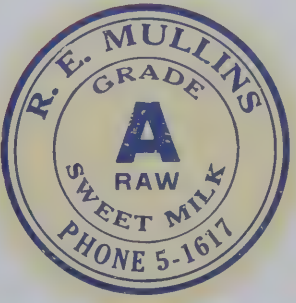

HOLSTEIN FRIESIAN MILK
WABEEK
E. O. BROWNELL

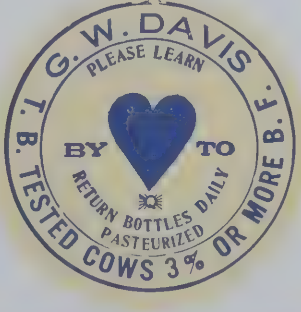

F. C. COLE
501 MAIN ST.


HIGHLAND PARK CREAMERY CO. INC.
COFFEE
CREAM
PHONE
LONGFELLOW 6071


SET DAIRY
GRADE
A
BOSTICK-X 2760


PURE MILK
HUNT'S DAIRY


R. E. MULLINS
GRADE
A
RAW
SWEET MILK
PHONE 5-1617


G. W. DAVIS
PLEASE LEARN
BY
TO
RETURN BOTTLES DAILY
PASTEURIZED
T. B. TESTED COWS 3% OR MORE B. F.

When writing to THE TOLEDO-BALTIMORE BOTTLE CAP COMPANY *please mention The Milk Dealer.*

The BEST BULWAR

CLEARNESS
ACCURACY
STRENGTH

ATLANTIC
Milk
Bottles

CLEARNESS

—that the customer may see the quality of milk you are distributing.

ACCURACY

—that the customer may get the amount that he or she buys.

STRENGTH

—that the bottle may last the dealer as long as possible. Bottle loss is one of the milk distributor's problems. Less breakage, less cost.

ATLANTIC BOTTLE CO.

FACTORY: BRACKENRIDGE, PA.

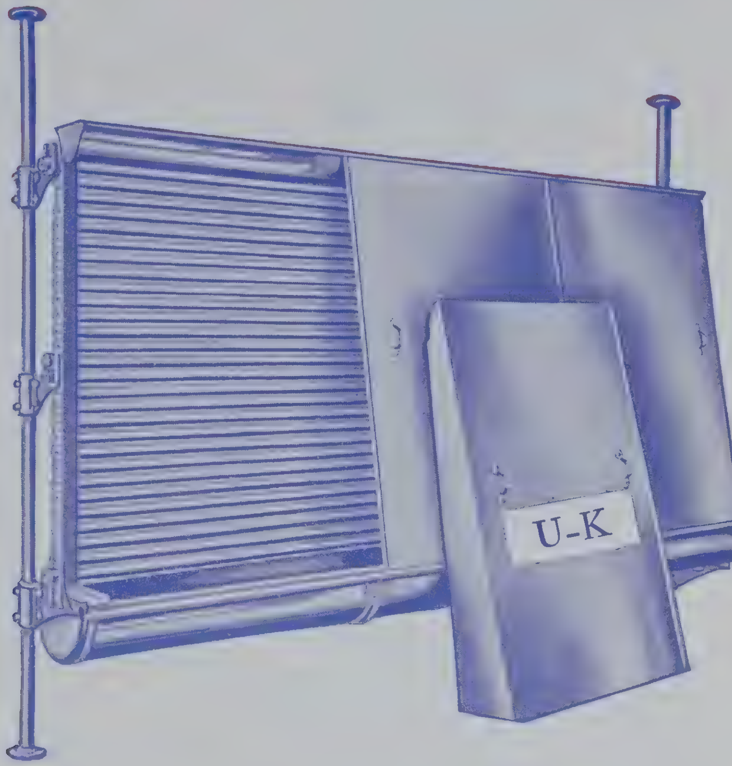
90 W. Broadway, New York 327 S. La Salle St., Chicag

When writing to ATLANTIC BOTTLE CO. *please mention The Milk Dealer.*

ASTER
OOLING

ith

hlmann-Kinsey Co.
Incorporated
PHILADELPHIA, PENNA.



Milk Coolers

U-K Coolers provide an immediate drop in the temperature of milk and prevent growth of bacteria after pasteurization. The milk flows down over heavy, seamless, tinned-copper tubes into the drain and there covers the last tube. This tube, the first to receive the cooling medium, is the coldest and gives the milk an extra drop in temperature to hold over until it reaches the storage tank or filling machine.

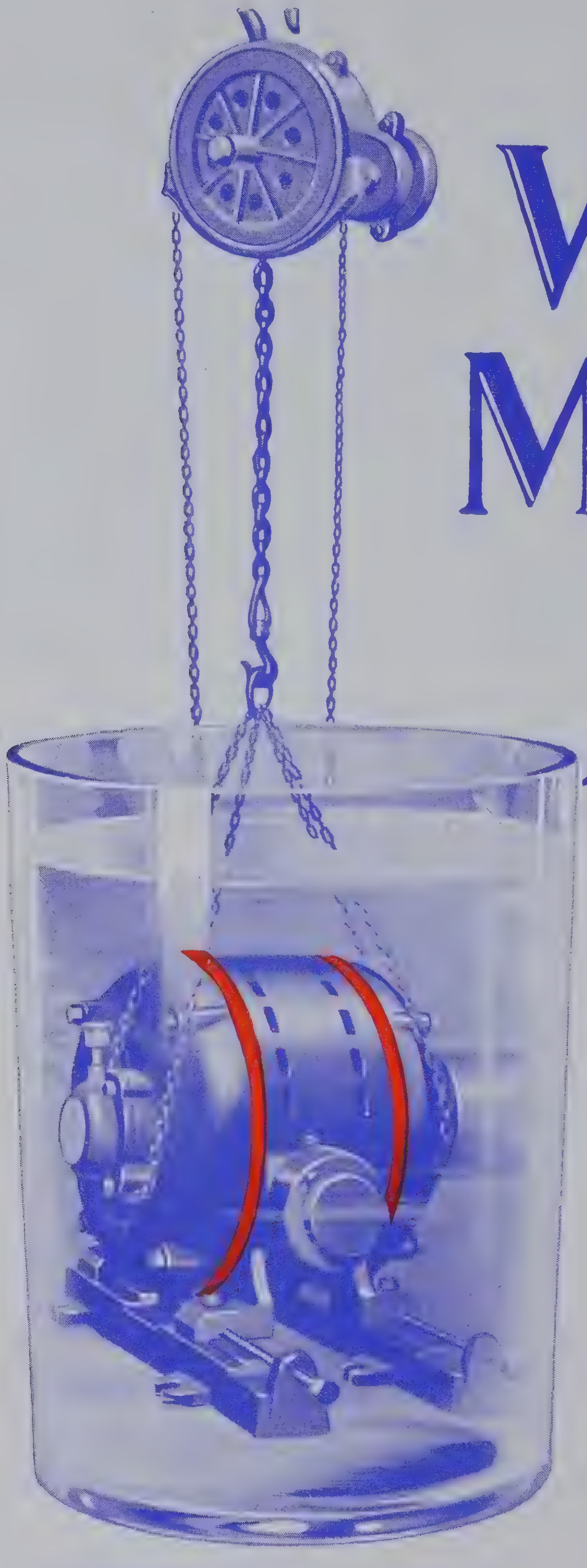
Constant circulation of the cooling liquid in U-K Coolers is made possible by the extra large manifolds or end-pieces. This steady flow is positive assurance that you are getting full benefit out of the brine or spring water used.

Our engineers will gladly submit a plan and estimate of a cooler of any size, any capacity, or any combination of sections for your needs, at no obligation to you. Write for interesting booklet with complete details.

UHLMANN-KINSEY COMPANY

(INCORPORATED)
25 - 27 - 29 South 20th Street
Philadelphia - - - Pennsylvania

When writing to UHLMANN-KINSEY CO., INC., *please mention The Milk Dealer.*



WATER and MOISTURE Proof!

The water-proof test! Will your motor pass it? If you are using Howell Red Band motors you need have no fears.

Under tests like the one shown here, Howell Red Band motors came through 100% — for Howell motors will run for days completely submerged in water.

Double cotton covered enameled insulation — one of many exclusive Howell features — takes care of that.

Won't you let us demonstrate to your satisfaction why we say "give Howell Red Band motors your hard jobs"?

Howell Red Band motors are sold, serviced and carried in stock within easy delivery distance everywhere.

Howell Red Band motors cost no more than ordinary motors. For complete information get in touch with the Howell representative in any of the principal cities

(101)

HOWELL ELECTRIC MOTORS COMPANY
Howell, Michigan

Howell RED BAND ELECTRIC Motors

When writing to HOWELL ELECTRIC MOTORS COMPANY *please mention The Milk Dealer.*

Economics, U. S. Department of Agriculture, Washington, D. C.

Manufactured product	Number factories reporting	January	February	March	April	May	June	July	August	September	October	November	December	Total 1926
Creamery butter	3,909	97,893	94,222	112,432	121,049	155,912	178,276	159,554	133,294	116,732	103,068	88,481	90,853	1,451,766
Whey butter (made from whey cream)	225	95	88	113	480	628	704	176	159	135	118	93	83	2,872
Renovated or proc. butter	6	136	182	185	130	237	181	138	249	269	185	244	369	2,505
Butter oil	*	1	1	...	25	29	32	28	27	24	16	16	18	217
American cheese:														
Whole milk	2,120	19,519	19,984	25,216	29,221	38,598	46,320	40,164	33,239	28,809	23,164	16,386	15,295	335,915
Part skim	23	172	163	238	335	405	476	285	211	161	148	148	185	2,927
Full skim	20	58	68	110	117	133	159	133	107	97	166	123	113	1,384
Swiss cheese (inc. block)	264	189	175	252	847	3,128	4,035	3,749	3,231	2,635	1,627	795	220	20,883
Brick and Munster cheese	376	2,530	2,300	2,880	3,330	3,060	2,958	2,316	2,067	2,065	2,608	2,483	2,451	31,048
Limburger cheese	105	407	377	598	973	1,367	1,508	1,030	864	736	785	554	440	9,639
Cream & Neufchatel cheese	52	1,701	1,600	771	1,519	1,451	1,358	1,204	1,205	1,198	1,636	1,748	1,801	18,192
All Italian varieties	36	140	143	209	255	305	363	196	158	167	168	156	165	2,425
All other varieties	50	400	381	453	384	432	468	445	397	492	410	372	369	5,003
Total cheese (not including cottage, pot and bakers' cheese)		25,116	25,191	31,727	36,981	48,879	57,645	49,522	41,479	36,360	30,712	22,765	21,039	427,416
Cottage, pot and bakers' cheese	543	5,332	5,371	6,510	6,829	6,923	6,997	5,556	4,661	4,550	5,155	4,875	5,218	67,977
Sweetened cond. milk:														
Case goods—														
Skimmed	*	58	173	76	160	59	...	26	135	45	37	237	292	1,298
Unskimmed	42	13,592	10,491	12,631	14,640	18,223	17,618	12,976	11,033	10,610	10,834	10,402	11,894	154,944
Bulk goods—														
Skimmed	116	11,006	10,354	12,149	14,051	19,247	22,169	14,241	10,226	10,436	9,428	6,721	7,445	147,473
Unskimmed	67	5,579	5,249	5,821	4,274	7,052	7,871	6,069	4,439	3,787	2,744	1,499	1,353	55,737
Total condensed milk		30,235	26,267	30,677	33,125	44,581	47,658	33,312	25,833	24,878	23,043	18,859	20,984	359,452
Unsweetened evap. milk:														
Case goods—														
Skimmed	*	10	14	13	2,614	2,436	2,517	662	8	111	1,367	1,153	1,080	11,985
Unskimmed	127	84,548	79,745	101,166	111,587	136,815	157,478	124,524	90,406	77,401	70,573	57,674	66,559	1,158,476
Bulk goods—														
Skimmed	137	5,382	5,159	7,929	9,972	12,943	14,223	16,086	12,791	9,790	9,142	7,312	6,029	116,758
Unskimmed	106	4,374	4,453	5,342	7,017	10,468	11,267	12,974	10,323	7,078	5,351	4,064	4,122	86,833
Total evaporated milk		94,314	89,371	114,450	131,190	162,662	185,485	154,246	113,528	94,380	86,433	70,203	77,790	1,374,052
Total cond. and evap. milk		124,549	115,638	145,127	164,315	207,243	233,143	187,558	139,361	119,258	109,476	89,062	98,774	1,733,504
Sterilized milk (canned same as condensed)	*	122	88	95	208	268	262	15	100	123	1	3	1	1,286
Condensed or evap. buttermilk	78	6,474	5,956	6,962	7,002	8,497	10,838	9,100	7,478	7,004	6,359	5,847	5,170	86,687
Dried or pow. buttermilk	97	2,180	2,254	2,799	2,581	3,169	3,602	3,118	2,728	2,511	2,276	1,853	2,307	31,378
Powdered whole milk	22	852	580	1,087	1,127	1,305	1,845	1,172	595	549	644	399	613	10,768
Powdered skim milk	99	5,400	5,647	7,755	9,052	11,042	12,118	10,100	7,907	6,924	5,941	5,037	4,795	91,718
Powdered cream	7	12	5	23	45	57	139	16	8	...	13	7	6	331
Dried casein (skim milk product)	118	966	1,028	1,475	1,618	2,041	2,611	1,742	1,291	1,130	1,087	944	960	16,893
Dried casein (buttermilk product)	*		17	...	1	1	1	31	...	...	...	...	9	60
Malted milk	10	1,596	1,741	1,948	1,952	2,044	2,115	1,804	1,561	1,489	1,423	1,400	1,600	20,673
Milk sugar (crude)	19	157	224	325	647	730	805	414	297	269	227	182	199	4,476
Ice cream, all kinds, (gal.)	3,188	8,054	8,682	11,477	14,902	24,914	27,885	36,714	32,129	20,418	12,982	9,258	7,833	215,248
Ice cream mix or stock	171	2,783	2,856	4,022	10,359	18,533	20,031	13,622	12,201	6,677	4,378	3,644	3,297	102,403

* Less than 5 factories reporting.

Note—This is the final report and supercedes all previous reports for 1926.

INTERNATIONAL ASSOCIATION *of* MILK DEALER

An Organization Built on Service to the Man who Sells Fresh Milk in Bott

PRESIDENT — F. H. KULLMAN
Bowman Dairy Co. Chicago, Ill.

SECRETARY — R. E. LITTL
228 North La Salle Street Chicago, I

Big Conclave of the Milk Dealer Clan in Columbus, October 19, 20 and 21, 192

COLUMBUS, OHIO, in 1917 acted as hosts to a small group of representative milk dealers, members of a very small association, with a very large and comprehensive name. At that meeting there were less than 80 members upon its roll.

It will be with considerable pride and pleasure that Columbus will welcome back again this year this youngster, now grown tall. At the tenth meeting in Columbus there was an attendance of less than 100 dealers. At the twentieth anniversary, after two decades of unselfish and splendid service to the industry it represents, the International Association of Milk Dealers has made provision for an attendance of over 1,500 representative dealers from all over the world, the newest member, from Lima, Peru, expressing his hope to be present, with a number of our old members from Great Britain sending their representatives as usual, — one new member from the British Isles having been added to the membership roll this year.

The twentieth annual convention has been organized most carefully and comprehensively by selective, able program committees, representing the several departments of the milk dealer's business, each group having in thought the key note of a "FACT FINDING" convention. The annual meetings of the International Association of Milk Dealers have long been conspicuous because of this particular virtue, that of an educational, instructive, fact finding, annual gathering of the dealers and the department heads, from all states and provinces on the continent.

The entire convention accommodations at the new Neil House, Columbus, one of the most modern convention hotels in the United States, has been set aside for this great annual gathering for the milk dealer clan. Every possible thought has been given to the comfort and convenience of the milk dealer during this convention week.

The plan of departmentalizing the convention for the different branches of the milk dealer's business, which has proved so successful the past three years at Milwaukee, Indianapolis and Detroit, will again be followed, with every effort being made to so arrange section meetings that the topics for discussion will be made available for a greater number.

The full outline of the program of each of these sections will be announced in the October issue of The Milk Dealer.

Chairman of the Sales and Advertising Section, F. A. Webb of Borden's Farm Products Company, Chicago, and his council of advisors, consisting of Milton Hult, Superior Dairy Company, Danvenport, Ia.; W. J. Burnap, Rieck-McJunkin Dairy Co., Pittsburgh, Pa.; L. H. Heller, Northland Milk & Ice Cream Co., Minneapolis, Minn., and K. L. Carver, Crescent Creamery Company, Los Angeles, Cal., have devoted themselves most aggressively to building up a constructive program along somewhat different lines than past years, but which the ever increasing tendency to better and more modern information in the advertising and sales departmentals, treating the subjects particularly from the standpoint of the sumer and the dealer salesman.

Chairman of the Laboratory Section, Geo. B. Ta of Chestnut Farms Dairy, Washington, D. C., and S tary R. C. Fisher, French Bros.-Bauer Company, Ci nati, Ohio, have provided a program having particu in mind the theme of sanitary control.

In the Plant Section, Chairman Tilford A. Ewin H. Ewing's Sons, Louisville, Ky., and Secretary Dreux of Rieck-McJunkin Dairy Co., Pittsburgh, have prepared an intensively interesting drawing for the plant managers on the theme of Plant Econo and Efficient Pasteurization.

In the Production Section, Chairman H. D. Dav Supplee-Wills-Jones Milk Company, Philadelphia, and Secretary Walter D. Hunnicutt, French Bros.-B Company, Cincinnati, O., have come forward wit equally valuable constructive outline dealing intens upon those factors that tend for the production of a ter milk supply.

Accounting Program.

Chairman of the Controllers' Council H. R. Ha ton, Telling-Belle Vernon Company, Cleveland, O co-operation with President H. H. Neel, D. H. Ew Sons, Louisville, Ky., and Secretary J. M. Gullans, man Dairy Co., Chicago, and the following district c men: Eastern district, C. H. Kennedy, Harbi Dairies, Philadelphia, Pa.; central district, C. L. P The Polk Sanitary Milk Co., Indianapolis, Ind.; Pacific district, W. B. Edson, Crescent Creamery Los Angeles, Calif., are over alert with new ideas improved methods for bringing home to the min the controller or accountant a more intensive yet plified service of cost and accounting methods, b on experience of several years of operation of th counting bureau and district meetings of the cou The fourth annual meeting of the controllers' co will be outstanding in the history of the association.

General Session Program.

Two evenings will be devoted to programs of ge and national interest, devoting Thursday evening, ber 20, to the annual banquet of the association.

It goes without saying that the program comm will surpass itself in providing a program of enter ment that will be in itself in the nature of a surpri the minutest detail.

Hotel Reservations.

The advance hotel reservations up to the pr time far exceeds the August 1 record of any prev year and if continued at the present rate will resu an attendance that will tax the hotel accommodatio the utmost.

Members of the association are urged to make hotel reservations beginning Thursday evening, ber 18. The convention sessions will open promptly early the morning of the 19th and everybody shoul registered before the opening of the first meeting.

The following convention committees have no dent Kullman of their willingness to serve upon respective committees:

al chairman—reception and entertainment committees:
ry A Moores, Moores & Ross, Inc., Columbus, O.

Reception Committee.

Foreman, Chairman, Moores & Ross, Inc., Columbus, O.
Buchanan, Hamilton Milk Co., Columbus, O.
Harpster, Moores & Ross, Inc., Columbus, O.
tt Antrim, Furnas Ice Cream Co., Columbus, O.
ll Jerman, Telling-Belle Vernon Co., Cleveland, O.
Goss, Moores & Ross, Inc., Columbus, O.
Edwards, Blue Valley Creamery Co., Columbus, O.
N. Gibson, Dairy Products Co., Dayton, O.
Schubach, Sanitary Milk Co., Canton, O.
Alexander, Akron Pure Milk Co., Akron, O.
French, French Bros.-Bauer Co., Cincinnati, O.
H. D. Drain, Ohio State University, Columbus, O.
Gibson, Watts Milk Co., Columbus, O.
Young, Young's Dairy, Columbus, O.
Walker, Cleveland, O.
Meyer, Meyer Dairy Products Co., Cleveland, O.
Schindler, Telling-Belle Vernon Co., Cleveland, O.
Hooge, Matthews Selected Dairies, Cincinnati, O.
Campbell, Andalusia Dairy, Salem, O.
Jamison, Ohio Clover Leaf Dairy Co., Toledo, O.

Entertainment Committee.

. Wentworth, Chairman, Ohio Dairy Prod. Assn., Colum-s, O.
Smith, Hamilton Milk Co., Columbus, O.
Osler, Moores & Ross, Inc., Columbus, O.
g O. Koch, Central Ohio Dairy, Columbus, O.
Holmes, Furnas Ice Cream Co., Columbus, O.
Cawrse, Telling-Belle Vernon Co., Cleveland, O.
Moore, Moores & Ross, Inc., Columbus, O.
Baker, Fairmont Creamery Co., Columbus, O.
Dressell, Moores & Ross, Inc., Zanesville, O.
Jewell, Jewell Ice Cream & Milk Co., Mt. Vernon, O.
llingsley, Kimball & Grove Dairy, Columbus, O.
Carver, Moores & Ross, Inc., Columbus, O.
. Johnston, Westerville Creamery Co., Westerville, O.
Davis, The Davis Company, Newark, O.

Ladies' Entertainment Committee.

R. B. Smallwood, Chairman, 532 Linwood Ave., Colum-bus, O.
S. M. Ross, care Moores & Ross, Inc., Columbus, O.
Everett Antrim, care Furnas Ice Cream Co., Columbus.
Florence Erlenbusch, 871 Studer Ave., Columbus, O.
H. C. Moores, 151 S. Parkview Ave., Columbus, O.
T. B. Buchanan, 2337 Bexley Park Road, Columbus, O.
W. A. Wentworth, 1197 Glen Ave., Columbus, O.
Frank Smith, 2306 Wickford Rd., Columbus, O.

olumbus, the capital of the state that makes presi- and does things in a big way, is organizing to re- the milk dealers of the world, and a conclave that be memorable throughout the history of the as- ion.

⚜

CONSIN MAN IS APPOINTED ASSISTANT DE COMMISSIONER OF THE DEPARTMENT OF COMMERCE AT SHANGHAI.

e appointment of Granville O. Woodard of La e, Wis., a graduate of the University of California ormer American vice-consul at Tientsin, China, as ant trade commissioner of the department of com- at Shanghai, was announced by Acting Director Hopkins of the bureau of foreign and domestic erce.

announcing the appointment, Mr. Hopkins stated Assistant Trade Commissioner Woodard's duties be largely along the lines of trade promotion on American foodstuffs products. China is an ent market for practically all classes of American tuffs and one which is certain to expand as the mic position of the Chinese people improves. ls form the most important class of our foodstuffs ents to Chinese markets, followed by dairy prod- fruits, vegetables, fish and meats. It is interest- note that the Chinese have become very fond of ican canned milk, taking more than a million dol- orth each year.

CHICAGO AND MILWAUKEE MILK DISTRIBUTORS MEET FOR THEIR ANNUAL CONTEST AND ENJOY THE HOSPITALITY OF THE GREENE BROTHERS.

Over 500 Chicago and Milwaukee milk dealers and their friends in the allied industries gathered at Brookhill Farm, near Genesee, Wis., on Thursday, July 21. A special train from Chicago, via Milwaukee, carried the majority of the delegates while scores of autos brought the rest.

Arriving at Brookhill Farm, the home of Brookhill certified milk, at 10:30 A. M., the celebrated coronation ceremony took place. Judge Reniff of Chicago donned the ermine and held court in the open, in spite of the fact that a heavy downpour of rain during the morning hours threatened to break up the whole party.

Lord High Chief Keeper of the Bull, Michael Yundt, was relieved of the duties of his office and Ed. Neumeister of Milwaukee was elected to succeed him. He was duly crowned and after adjournment of court the procession led to the big refreshment tent which served as headquarters for the day's proceedings.

Over $90,000 has been expended this year on new buildings and equipment on Brookhill Farm and the visitors lost no time in giving everything the "once over."

Inside the big tent ample provision was made for serving lunch, cafeteria style, and following the luncheon, a program of music and short addresses was rendered to the enjoyment of all present. It would be unfair to single out any one of the stars because all were artists and rendered their parts exceedingly well. Louis Terna of Chicago was perhaps the most versatile artist in the bunch and his splendid singing brought round after round of applause. Pete Christiansen of Chicago was master of ceremonies.

The annual baseball game between Milwaukee and Chicago milk dealers failed to materialize and Chicago men were claiming that the fellows from the Cream City got such a drubbing last year that they didn't want to repeat the experience. Anyway, the game was not played, and the supplymen substituted for the Milwaukee dealers and with the help of two very rotten umpires the milk dealers got the long end of a baseball score of 21 to 17.

Arnold Christiansen and James Jensen captured first prize for doubles in the horseshoe pitching tournament.

Each year the attendance at Brookhill Farm exceeds all previous records. Men in the milk industry look forward to the annual picnic sponsored by the Greene Brothers and they are never disappointed.

⚜

THREE TESTS INSURE GOOD QUALITY MILK FOR MURPHEY-WARD, CHICAGO.

At least 50,000 pounds of whole milk go each day to the Nichols, Wis., receiving plant of the Murphey-Ward Dairy Company of Chicago.

Three tests are made on the milk by the company so each shipper gets paid according to the quality of the product he brings to the plant. The Babcock test is applied for butterfat, the methylene blue test for bacteria count, and the standard sediment test for sediment. The average butterfat test for the month of June was 3.6 per cent. Patrons receive checks twice a month for their product and are paid according to the butterfat test. During the month of June the price averaged for all patrons was 57½ cents per pound of butterfat.

Special tank cars take the milk directly from the local vats to the receiving station in Chicago.

What the Courts Say:

By LEO T. PARKER. *Attorney at Law, Cincinnati, Ohio*

Court Upholds Giving Milk Free to Obtain Business

Parker's Important Higher Court Decisions Repo

IN THE recent case of Morris, 219 N. Y. S. 143, the Supreme Court of New York rendered a very important decision in which it was held that it is not an illegal act on the part of a milk jobber or wholesaler to deliver milk **free** to certain dealers, and to others for payments, where such acts are done to obtain business. And, further, that the milk dealer's permit is not revokable because of such acts.

The facts of the case are that Henry Morris was the holder of a permit to keep, sell and deliver milk and milk products in the city of New York, which was issued to him after an application had been filed with the board of health on April 19, 1926. He had invested upwards of the sum of $10,000 since the permit was issued to him. On September 8th, last, he received a notice from the department of health that his permit had been revoked. He contended the revocation was prompted, inspired, and directed by certain milk dealers, members of an organization known as the Greater New York Milk Dealers' Chamber of Commerce, "for the sole and only purpose of driving your petitioner out of the milk business so that the Milk Dealers' Association and the members thereof will have no competition."

The testimony disclosed that on August 24, 1926, Patrick Mullen, treasurer of the Greater New York Milk Dealers' Chamber of Commerce, and Barnet Metzger, its secretary, made a complaint to the department of health, to the effect that Morris had violated a so-called order, at a meeting of the board of health, to which all the wholesale milk dealers or jobbers were invited. At this meeting the dealers who attended were advised that "fair competition was always in order, and would not be looked upon with disfavor, but unfair competition, such as the solicitation or the taking away of another dealer's customer, by the giving of free milk, or a cash inducement, or the slashing of prices out of relation to the prevalent market price, would be looked upon with disfavor by this department, as it tended to precipitate these trade wars, in which the sale of adulterated or a low quality of milk generally followed; that any such unfair practices, as hereinabove stated, on the part of any dealer, would be treated as an act that tends to undermine the purity and wholesomeness of the milk supply of this city, and would be ground for revocation of the dealer's permit as a person unfit to sell and deliver milk in the city of New York; that they were then informed to report any infraction of this order, and not to retaliate, under any circumstances, as they had theretofore, and that this department would thoroughly investigate and properly dispose of any such violations as were reported by them."

The board of health revoked Morris's license, and the lower court upheld the decision.

However, it is important to observe that the Supreme Court reversed the decisions and, in issuing an order compelling the board of health to reissue Morris' permit, asid:

"Assuming that petitioner (Morris) did deliver milk
free of charge to certain dealers, and made cash
ments to other dealers for the purpose of procuring
business, he was not guilty, as far as I have been
to discover, of the commission of any illegal acts.
he can successfully sell pure milk of the required st
ard to the distributors at prices lower than the so-ca
market rate, other dealers can, and eventually must
likewise, with a resulting reduction in cost to the
sumers. In that way the public will receive the be
derived from the open competition. It seems to me
a strict enforcement of the penal laws, with severe
alties for violation, will result in keeping milk and
products pure and wholesome. If the possibility
adulteration, as a result of free competition, brings a
a departmental policy which practically eliminates
petition, then the effect is to deprive the public of
benefits which it has heretofore derived from the
forcement.....of the General Business Law....The
pose of this particular provision of our law 'is to des
monopolies in the manufacture, production and sal
this state of commodities in common use, to prevent
binations in restraint of competition in the supply
price of such commodities, or in restrainst of the
pursuit of any lawful business, trade or occupation.'

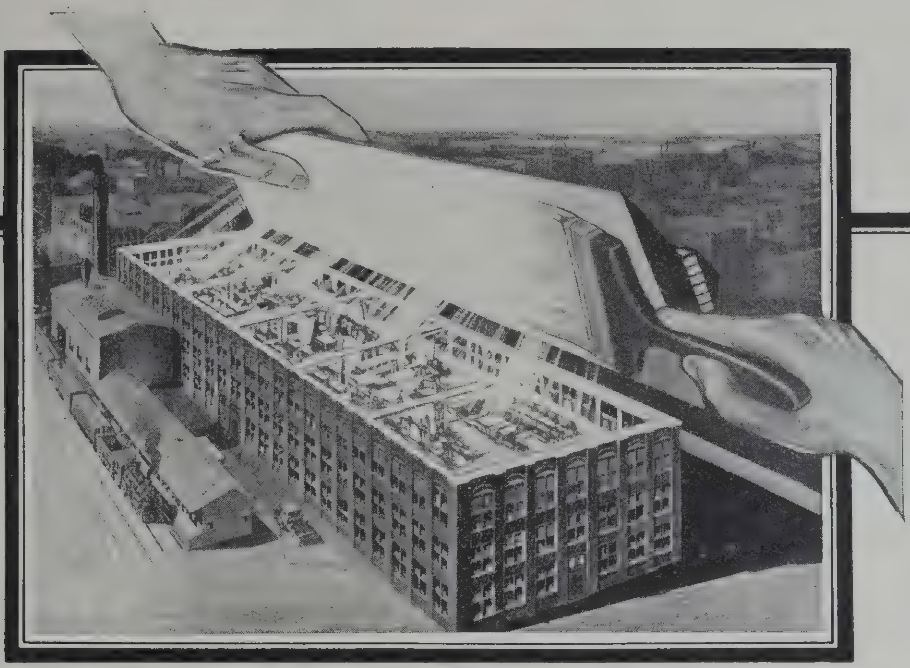
Permit of Dealer Selling Adulterated Milk Revoke

However, in another quite recently decided
Peoples Lodes vs. Department of Health, 189 N.
187, the Supreme Court upheld the revocation by
board of health of a dealer's permit who was convi
of selling adulterated milk. In this leading case
court explained the powers of the board of health t
voke a milk dealer's permit and in effect said that
powers of the members of the board of health are
ministrative merely. In other words, they can issu
revoke permits to sell milk in the exercise of their
judgment, upon or without notice, based upon such
formation as they may obtain through their own a
cies. If, however, their action is arbitrary, tyran
and unreasonable, or is based upon false information
dealer may have a remedy to right the wrong whic
had suffered. If the dealer can show that he and t
acting for him have not been convicted of violating
statute and the conditions imposed in the granting o
permits, and that consequently he is a fit and pr
person to engage in the sale and distribution of
among the inhabitants of the city, then he would b
titled to the relief asked for.

In commenting upon the rights of the board t
voke a dealer's permit, the court said:

"If, however, the charge of the board is true
he has been convicted of the offenses charged the
ber of times stated, the conclusion is irresistible th
was an improper person to be intrusted with the pe
of the city to dispense to the inhabitants of the ci
food product that was liable, if adulterated, to enda
the health of the people."

In the recent case of International Milk Co. vs. Co
219 N. Y. S. 593, it was disclosed that during eight



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When writing to U. S. GUTTA PERCHA PAINT CO. *please mention The Milk Dealer.*

the International Milk Company delivered to a party named Cohen $1,645 worth of milk and cream.

Cohen refused to pay the account, contending that he had not ordered the product from the International Milk Company, but had ordered it from a firm named the Valley Dairy Company.

It seems that the Valley Dairy Company accepted Cohen's order, but notified the International Milk Company to make the delivery, because the latter firm was conveniently located.

The higher court held Cohen liable to the International Milk Company, irrespective of whether he had ordered the milk and cream from the latter firm or the Valley Dairy Company.

This court said:

"The plaintiff (International Milk Company) alleges that it sold and delivered merchandise to defendants (Cohen) and that defendants accepted the merchandise. It seems to me that the fact that the merchandise was delivered to defendants under instructions from some one else does not affect plaintiff's right to recover..... He obtained the property, or at least part of it, as appears by his admission; and he cannot hold it, and yet refuse to pay for it....Attention is there called to the fact that, when defendants sent their wagon to plaintiff's plant, they must have known that the milk was coming from plaintiff, and not the Valley Dairy Company...We are of opinion that the learned county judge was right in regarding the answer of the defendants as sham."

Ice Cream Company Held Liable.

Few drivers of trucks are instructed of their legal rights and liabilities. Sometimes carelessness on the part of a driver results in his employer having to pend a considerable amount of money.

In the case of Dunbaden vs. Castles Ice Cream 135 Atl. 460, a rather complicated situation for decis was presented to the court.

A truck belonging to the Castles Ice Cream Comp was being driven in a northerly direction. Behind car, and proceeding in the same direction, was a F sedan. Traveling in the opposite direction was anot passenger car. As frequently happens in such situati these cars came together, and as a result of the collis each of the plaintiffs was injured, and sued the Cas Ice Cream Company for damages, contending that n ligence of the truck driver in suddenly turning into path of the oncoming passenger car was the cause the injury.

The lower court held the ice cream company lia for $3,650 damages. The case was carried into higher court, which sustained the verdict.

It has been held on numerous occasions that the ow er of a motor vehicle is liable for injuries which res from his driver suddenly turning or stopping the ve cle without giving due notice to the drivers of ot machines.

For instance, in a recent case the court said:

"The owner of a motor vehicle is liable in damag if he or his driver fails to exercise ordinary care to p vent injuries to pedestrians and the drivers and oc pants of other automobiles. Suddenly turning, with giving due warning to others, is not ordinary care, is it ordinary care for a driver of a motor vehicle suddenly stop without signaling others of his intention

PRODUCTION AND USES OF MILK IN THE UNITED STATES, 1926 AND 1925.

Product	Milk used per unit of product	1926			1925		
		Quantity of produuct manufactured	Whole milk used	Per cent of total milk	Quantity of product manufactured	Whole milk used	Per cent of total milk
	lbs.	lbs.	lbs.		lbs.	lbs.	
Creamery butter	21	[1] 1,457,766,000	30,487,086,000	25.245	1,361,526,000	28,592,046,000	24.5
Farm butter	21	[2] 615,000,000	12,915,000,000	10.694	590,000,000	12,390,000,000	10.6
Cheese (all kinds)	10	427,416,000	4,274,160,000	3.539	[3] 447,514,000	4,475,140,000	3.8
Condensed and evaporated milk	2.5	1,733,504,000	4,333,760,000	3.589	1,757,858,000	4,394,645,000	3.7
Powdered milk	8	10,768,000	86,144,000	.071	8,931,000	71,448,000	.0
Powdered cream	19	331,000	6,289,000	.005	339,000	6,441,000	.0
Malted milk	2.2	20,673,000	45,481,000	.038	18,050,000	39,710,000	.0
Sterilized milk (canned)	1	1,286,000	1,286,000	.001	1,576,000	1,576,000	.0
Milk chocolate	..	....	171,543,000	.142	....	228,822,000	.1
Ice cream (gallons)	13.75	324,665,000	4,464,144,000	3.698	322,729,000	4,437,524,000	3.8
Total whole milk used in manufacturing			56,784,893,000	47.020	....	54,637,352,000	46.8
Milk:							
For household purposes		[4] 55.3 gal. per capita	56,417,000,000	46.716	[4] 54.75 gal. per capita	54,325,776,000	46.6
[5]Fed to calves		200 lbs. per calf	3,941,600,000	3.264	200 lbs. per calf	4,047,105,000	3.4
Wasted (estimated)		...	3,622,994,000	3.000	....	3,495,162,000	3.0
Grand total		...	120,766,487,000	100.000		116,505,395,000	100.0

[1] Part of the increase in the creamery butter total for 1926 is due to more complete reports resulting from co-operati with a number of important dairy states in the collection of dairy statistics.

[2] Farm butter estimate for 1926 based upon 1919 and 1924 census reports. The estimate for 1925 was based upon t 1909 and 1919 census reports.

[3] Includes 4,000,000 pounds of farm made cheese for 1925. Farm cheese not included in 1926 figures.

[4] Population according to the census bureau estimates for 1925 was 115,378,094 and for 1926—117,136,000.

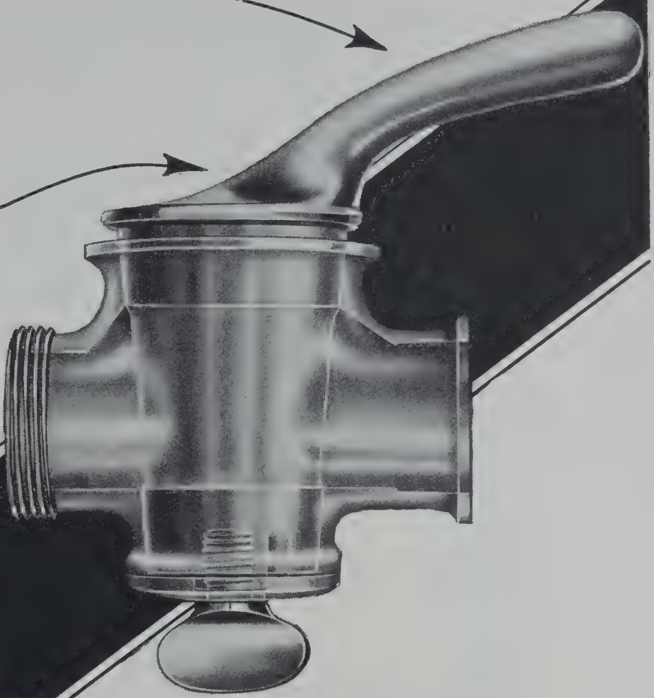
[5] Calves fed whole milk estimated at 85 per cent of number of dairy cows reported by bureau of agricultural economi

This Valve *Typifies* the Fine Designing *in* Burrell Sanitary Fittings

Observe that the handle is of almost uniform thickness and strength throughout—a handle that is gripped easily and held securely, and gives you the feeling that it will take all the pressure you want to put on it.

Note how the broad, strong base of the handle graduates from the full diameter of the plug to its off-center position, giving great strength and powerful leverage.

This flange extends beyond the body of the plug and protects it from injury when laid upon the floor.



Transparent View
Burrell-Simplex No. 10B Sanitary Valve

Valve Plug

The taper of the plug is *relieved* at this point to prevent grooving by the valve body when grinding in.

This *elongated* passageway permits a smaller diameter in the valve plug and body without decreasing the capacity. This design gives: (1) Lighter weight and consequent reduction in strain on adjoining connections; (2) Greater strength in valve; (3) Less chance of leakage; (4) Less liability to warp out of shape when being soldered.

The fine designing and superior quality illustrated in this Burrell Valve are found throughout the complete line of Burrell Sanitary Fittings. They mean economy for you. Send for Catalog Section 321.

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Dairy Creamery Cheesery and Milk Plant Apparatus

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Corrosion of Dairy Plant Equipment

Means of Lowering the Rate of Deterioration of Dairy Equipment. Losses Can Be Reduced by Applying Right Methods

By G. N. QUAM*

IT IS apparent to all who are familiar with dairy equipment that general rusting, pitting and tarnishing are chemical and physical changes responsible for much of the deterioration. It is the hope of many that the chemists and metallurgists will some day produce materials which will not suffer corrosion under the normal conditions of plant operation; but no such hope is entertained by those familiar with the complexity of the problems of corrosion. Through extensive experimentation it has been shown that the losses due to corrosion can be lowered and it is hoped that through a closer study of the phenomena methods of construction and operation will be developed which will reduce the losses to a minimum. It is the purpose of the author to point out means of retarding or preventing corrosion thereby reducing the losses due to deterioration of dairy equipment. For the purpose of classification the preventive measures will be grouped under five headings: Composition of equipment, physical condition of equipment, condition of medium, chemical treatment, electrochemical protection.

COMPOSITION OF EQUIPMENT: H. F. French of the U. S. Bureau of Standards (meeting of Amer. Electrochem. Soc., Washington, D. C., 1926) offered the following list of industrial corrosion-resistant metals: Aluminum, copper, brasses, nickel, nickel alloys with copper, lead, tin, silver, zinc, ferrous alloys (steels, ferrosilicon, nickel steels, high chromium steels). It is quite apparent that several of these metals are ruled out at once for dairy equipment because of the toxicity of metal salts or of the physical and chemical changes produced or accelerated in the dairy product. A suitable metal must be uniform and homogeneous in composition. A great deal has been said about the value of purity of metals for giving greater durability and recent developments have shown that the rate of corrosion is greatly affected by the presence of certain foreign elements. Thus in steel the presence of chromium, nickel or copper has a profound effect on its resistance to corrosion. Probably the most common metals used in contact with milk are tin, nickel and aluminum. It is generally true that where a so-called pure metal is used the greater the degree of purity the less the corrosion. High chromium steel has gained much attention due to its corrosion-resistance and will no doubt become an important metal for milk processing equipment. Blount and Bailey of the Exchange Orange Products Company, in a study of the effect of boiling orange juice on metals and alloys give the following order of decreasing resistivity: A high chromium steel, nickel, aluminum (tin was not included). The author has found that a grade of stainless steel (16-18 per cent chromium) exposed to milk under the usual plant procedure indicated no detectable corrosion even by the most delicate chemical tests on the milk ash. Nickel and tin have also given very favorable results. There are those who still persist in using pure copper in contact with milk. Recently the author secured a sample of condensed milk which had been processed in copper equipment, in part, and found that it contained 0.4 to 0.5 mgm, copper per 100 c.c milk. Work of medical authorities (Hess, Mallory and others) indicates that copper has a deleterious effect and should be used in contact with milk any more than with other food product. It is quite significant that the copper kettles of grandmother's days are not to found in our modern kitchens.

Glass-coated metal has been used in dairy equipm but due to its short period of use, little data has b made available thus far. Glass in general is subject corrosion by alkaline solutions and its relative resisti is roughly directly proportional to the silica cont Glass-coated metal that has been chipped is subject localized corrosion of the exposed metal.

Chromium is a very resistant element and its use electroplating steel may do much to aid in overcom losses due to corrosion.

PHYSICAL CONDITION OF EQUIPMENT: Loc ized corrosion is frequently caused by the presence segregations of foreign elements such as carbon in body of the metal, or by internal stresses due to proper annealing. The nature of the surface of metal also greatly affects the rate of corrosion. It generally true that the more uniform and highly polish the surface, the less the localized corrosion. Steel c rying a small percentage of copper forms in moist mosphere a dense, hard layer of rust. Aluminum though a very active metal is quite resistant due to excellent protective oxide film.

If weighed strips of zinc and copper are clamped soldered together and placed in milk for about twen four hours and then reweighed it will be found that zinc has suffered a loss in weight while copper remain constant. The surface of the zinc strip will be more regular after the exposure to milk. A similar con tion prevails when any two or more unlike metals in c tact are placed in milk; the relative corrosion of more active metal (zinc in the above arrangement) w depend on the difference in the potentials or activity the metals involved. In practice, it is not uncommon find in contact in milk such arrangements as: Solder the seam of tin or zinc sheets, tin and copper exposed milk in a partially detinned pipe; brass fittings on pipes, soft iron rivets in sheet steel or galvanized ste and so on.

Speller (Corrosion, page 327) states that the m outstanding and expensive example of localized cor sion on record due to dissimilar materials in contact that of the yacht "Sea Call." The hull was made monel metal plates, with exception of stem, keel, ste port and rudder frame which were made of steel. Mo and iron rivets were used. In a few weeks exposure sea water many of the iron rivets failed, causing lea and upon inspection corrosion of the steel parts w found to be so serious that the vessel was scrapped. T conclusion is easily drawn. Attempt to construct t parts, exposed to one continuous body of liquid, of o pure metal or if more than one, metal must be used, sulate them or coat them over with a continuous layer one metal, or choose metals which are very nearly the same potential. An illustration of the latter is t choice between zinc or camium for coating iron.

It is a known fact that milk is an electrolyte and locations where underground structures become more

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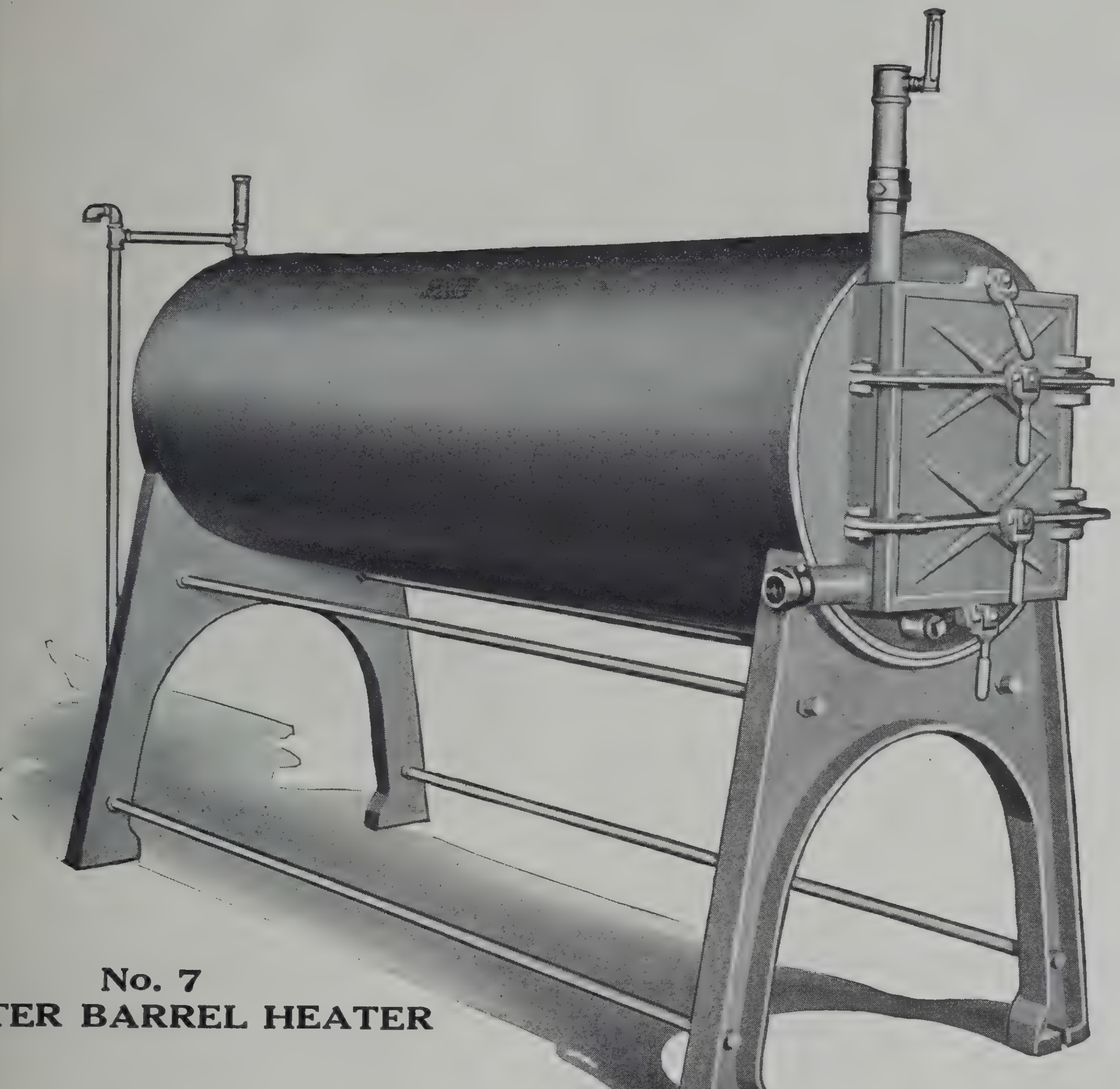
* Professor of Chemistry, Coe College, Cedar Rapids, Ia.



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less closely associated with poorly insulated rails of electric railways, corrosion due to stray currents may develop. Such cases can be dealt with by testing for the stray current and controlling by proper isolation.

CONDITIONS OF THE MEDIUM: At first thought it may seem that the condition of milk products in the manufacturing process cannot be altered to suit the requirements for control of corrosion but a few precautions may profitably be observed. Metals commonly used are least subject to corrosion in neutral or slightly alkaline solutions. Concentration of air in milk should be kept as low as possible and as uniform as possible. The latter condition has peculiar significance. The concentration of oxygen (air) is not the same at the surface of a liquid as it is at greater depths, it is not the same in a depression (pit) as it is above, it is not the same under a bit of curd or debris on a surface as it is just outside of it. We would observe due to these conditions, cases of surface line corrosion, pitting and spotting respectively. In other words, all of these conditions cause localized corrosion. Corrosion rate is increased by rise in temperature but temperatures involved in milk processing are relatively low. Metals commonly used in contact with milk show no appreciable change up to and considerably beyond the pasteurizing temperature.

Light has been found to hasten corrosion slightly. The data on this subject is very meagre but the precautions to observe are simple.

CHEMICAL TREATMENT: The practice of neutralizing with alkaline products is fortunately a method of lowering the rate of corrosion as well as serving other purposes in the dairy industry. Milk is unique in that it is colloidal in character and thus causes relatively less corrosion than a lactic acid solution of the same acidity. The addition of gelatine to milk to increase its value as a food (an investigation now in progress) will be another step in favor of lowering the corrosive action of milk. The addition of colloids to salt solution has been shown to reduce its corrosive action.

ELECTROCHEMICAL PROTECTION: The effect of unlike metals in contact has been discussed above. The principles may be applied to the protection of a metal such as steel by placing it in contact with a piece of zinc which is more active and therefore will alone be corroded as long as the surface is kept free from oxide. The application of this process has been known for some time as the Cumberland method of protecting condenser tubes in boilers. Zinc has been used by the Navy for protecting its boilers. The potential necessary to prevent corrosion need not be supplied by zinc or some other active metal but an E. M. F. may be applied from an external source. Electrochemical protection methods can be used effectively in preventing corrosion in refrigeration systems or parts of equipment exposed to brine but there may be no great need of such a measure for metals exposed to milk or milk products. The process is deserving of further study in connection with the dairy industry.

CONCLUSIONS: That corrosion is a problem demanding the attention of the dairy industry cannot be denied. A more detailed study should be made of causes peculiar to the industry in order that preventive measures can better be applied. We cannot hope to find a totally non-corrodible product in the realm of metals, alloys or glasses but we can strive to determine which product is best suited to a given process and seek to establish the optimum conditions for operation. The preventive measures enumerated above need not apply strictly to processes involving exposure to milk and milk products alone but may find application to refrigeration equipment or parts exposed to refrigeration liquids.

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needs of the people of Charles City, and making frie
for themselves among the town and country f
Charles City folk knew little of pasteurized milk,
never drank any at home for it was not obtainable.
Charles City was an up-to-date, growing town, and
new owners of the creamery determined it must h
pasteurized milk.

Their plant was not equipped for a market milk b
ness when it passed into their possession. The bu
ing was too small to permit of installing the necess
equipment. Early this year the old plant was
modeled, a new cold storage room was built, new
frigerating machinery, a new nickel pasteurizer, a bo
filler and capper and a small washer were installed.
day Charles City has pasteurized milk, and is glad
get it. H. C. Hansen, president of the firm, reports s
of pasteurized milk and cream have been gaining e
since they started their milk routes three months

The butter department is also enjoying a heal
growth. Production last year was about 600,000 pou
with prospects for an increase this year to 650,
pounds or more. Most of this is sold in Eastern m
kets, though a large quantity is sold in cartons
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* * *

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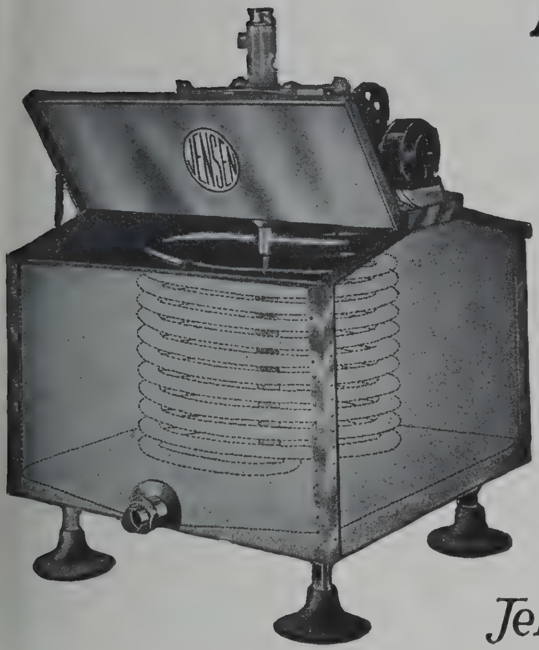

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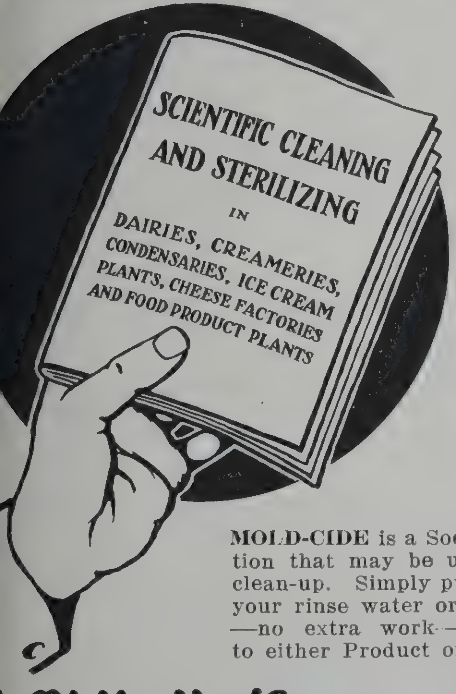

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William Strikes a Snag

One of Our Readers After Having Sent in His Reservation for the World's Dairy Congress Tour to Europe in 1928 Remembers Something He Forgot

WILLIAM!” says my wife kind of short like, “what's that a map of? Who gave it to you? And what are you looking at it for?”

That's my wife all over. When it comes to asking questions, she can make a professional question-asker at a mind reading performance sound tongue tied.

“Why, Elsie,” I says, puttin' a lot of surprise into the words so's they'd sound genuine, “this here is a map of Europe. Right now I'm as far as Paris, sittin' in one of them sidewalk cafes sippin' conyack.”

“Is that so?” she comes back like it wasn't. “Well, you can keep right on sipping because we ain't going to Europe. And that settles it!”

Now wouldn't that make you feel like a drowned golf ball? Here I've been tellin' the boys at the plant about me and the wife going to Europe next Spring and now my own wife, mind you, slips the skids under the trip. But I guess you know yourself that when a woman says “NO!” it's no time for a man to get mad. So I just smiles and acts polite.

“Why, Elsie,” I says soothin' like, “just a few weeks ago you put your okey on this trip and I sent our reservation in. Surely you ain't the kind of a woman who backs out after she gives her word.” Oh, I'm there when it comes to handin' out the soft soap. But this didn't work so good.

“Well,” says the wife calming down a bit, “you'd better get our reservation out then, because we ain't going.”

“Why ain't we, I'd like to know? Here I been talking big to all our patrons and friends about me goin' to Europe to the World's Dairy Congress and all that, and now you ain't going to let people laugh at your own husband, are you? And make him look cheap?”

That last shot held her a bit. But she don't stay held long. “You didn't have to brag to everybody about it so soon when the trip's so far off yet.”

“Well,” says I kind of peeved at the wife accusing me of bragging, “didn't you tell the woman across the street who's got a cousin who's a shoemaker in Berlin with one hand that you was going?”

“Yes,” she admits, not so cocky this time, “but we ain't going now.”

“So? What's goin' to stop us, I wonder?”

“William, you ought to know better than to ask such foolish questions. We can't go off and leave Gordon and little Oscar alone, can we?”

The kids! I had never thought about them. For a minute I just strokes my chin and thinks hard. Then after lots of stroking and thinking, I jumps up and lets Europe fall on the floor. “I got it!” I says, “the brilliant idea!”

“You always have such brilliant ideas, William. I suppose you want to put Gordon and little Oscar in cold storage over to the plant while we're gone.”

“Nope. I got a better idea,” I says, glad now that I had figured it out so nice. And then I explains how we can put the kids out on my sister's farm for about six weeks, 'cause school will be just about out when we leave anyway.

I get all through oratin' about the advantages of out in the open, on farms and such, and how the will take on weight and get a good color and learn s thing about cows, but the wife sits down sort of gusted.

“It sounds alright the way you say it, William, I ain't got the nerve to ask Amelia (meaning my sis to look after our kids for six weeks, knowing how m they pester me. Not much!”

“Say, listen,” I says, believing I can put the t over on Amelia. “I can handle my sister easy. W drive out and see her tomorrow night, and you let do the talking. If you must say something, tell her well behaved Gordon and Oscar are, and how much t like their Aunt Amelia and always asking us to t them out to see her. That'll make a big hit with And then I'll tell her how it's a shame that kids d often get a chance to go on the farm and get a lo fresh air and sunshine and stuff like that. And t later on, I spring the big idea kind of easy like, and chime in about a dress which maybe you could slip the customs officer and bring her with a real gen Paris label sewed in it. See?”

“Yes, I see,” says the wife, “not. Amelia's got kids of her own, and what with all her work to do, doesn't want to run a hotel. And I don't blame either. Taking care of six kids is no easy business you got at the plant, sittin' around bragging about y trip to Europe which ain't going to be no trip and sh ing maps around, and what you are going to d Paris.”

Sometimes the wife steps on my toes like that a get sore. But knowing there is no use to get mad ab it, I says real sweet to her: “Yes, dear, I know the are awful hard to manage and everything, and that sidering, you've been a wonderful mother to th bringin' 'em up so good. But just think what it me to them to be able to say to the neighbor kids that t dad and mother's been in Europe. Why it's a big th I tell you. When they grow up, they can always back to their happy days on the farm and when me you was in Europe.”

That settles it for the wife. She sighs like she real that after all I'm the superior part of the family all the brains, and then she looks up anxious like.

“But, William, we ain't asked Amelia yet. Supp she says ‘No.’ What are we going to do then?”

“You leave that to me,” I says. “I'll fix it up her pretty.” But just the same, I ain't so sure abou Amelia's sort of hard-boiled; and the last time the were out to the farm, they just about ruined the pl The only things they hadn't wrecked was the barn, that was too heavy to lift. But anyway, I'm good figuring out how to get around women having prove with my wife many a time, so I tells her that everyth will be jake and that she can start in anytime now ing all the neighbors and the Ladies Aid Society ab our trip and advertise it around town so as we get the good we can out of it. But of course, we ain't s Amelia yet.

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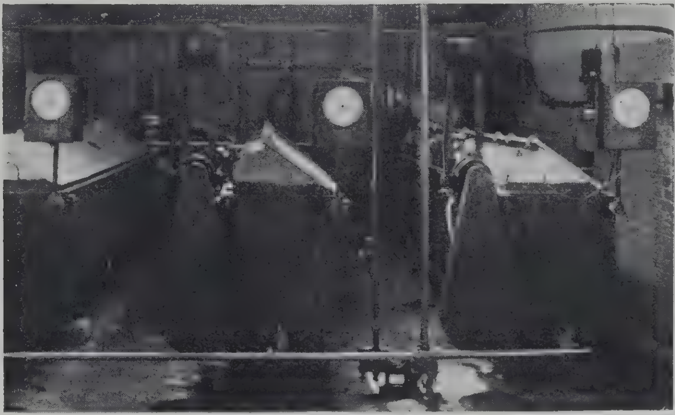
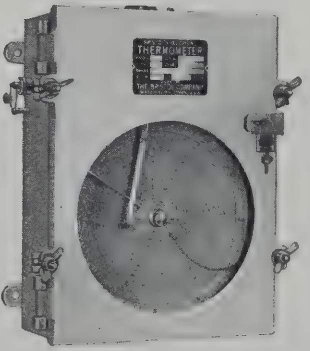


Three Bristol's Recording Thermometers in the City of Philadelphia used in connection with Simplex Spray Pasteurizers.



Bristol's Recording (Dairy) Thermometer, Model 40; with inverted pen arm. Moisture proof case, finished in white enamel.

A Nationwide Survey of Our Milk Supp

Government Authorities Will Summarize Conditions in All Cities of 10,000 and Over as Related to Tubercular Infection of Cattle

By A. M. LOOMIS*

A SURVEY is to be made during the next three months by the government agencies interested in the protection of public health from tubercular infection and the cleaning up of the dairy industry from tubercular cattle. Co-operative arrangements to make this survey have been agreed to by the United States public health service, the bureau of animal industry and the bureau of dairy industry. The purpose is to place in exact form a statement of the progress which has been made in the past few years in the public control of the milk supply, with reference to tubercular testing of cattle and the pasteurization of milk.

A survey of this character was suggested by the American Dairy Federation in a resolution which was adopted early this year by its executive committee, which called attention to the large number of cities and villages which had adopted such ordinances. The American Dairy Federation pointed out that these activities for the protection of milk supply and public health were the best and most important evidences of the growing public demand for the complete eradication of tuberculosis among dairy cattle. It was further suggested if a complete statement beyond any controversy c be presented to the committee of congress which han the appropriations for the tuberculosis work it woul the most convincing presentation which could be m

The public officials most concerned, as soon as were informed of the action of the American Dairy eration. expressed their interest and their willingnes immediately take up the proposition of a nationw survey. Several conferences were held in which offi of the bureau of dairy industry, bureau of animal in try and public health service most concerned with progress of tuberculosis eradication and the contro tuberculosis in the human beings took part, and a and a form of inquiry was worked out and agreed u This plan, briefly, is as follows:

An inquiry blank has been prepared which wil distributed first by public health service to the he officials in all cities of 10,000 inhabitants or over, w there is a public health representative. This incl most of the large cities in the United States. Secon

UNITED STATES DEPARTMENT OF AGRICULTURE.
Bureau of Animal Industry.
Report on City Ordinance with Regard to Tuberculin Tests and Other Data.

State of		Does your ordinance require that all milk sold must come from—			Additional information		Per cent of your city's tota milk supply which comes fron			
Name of town	Population	Tuberculin tested cattle, but need not be pasteurized	Either tuberculin tested cattle **or** be pasteurized	Both tuberculin tested cattle **and** be pasteurized	Is tuberculin test requirement being enforced?	What per cent of cattle supplying milk to your city are tuberculin tested?	Tuberculin-tested cows			Non-te cow
							Certified	Other raw	Pasteurized	Raw
		Please check mark in only one of these spaces ( )	( )	( )						

NOTE:—If your ordinance permits **any** milk from non-tested cattle to be sold raw to the final consumer place check mark here ( ) and leave above three spaces blank.

Signature of Reporting Officer.

Title

The inquiry blank which will be distributed.

SUMMARY OF CITY ORDINANCES WITH REGARD TO TUBERCULIN TESTS AND OTHER DATA.

State of		Does your ordinance require that all milk sold must come from—[1]			Additional information		Per cent of your city's tot milk supply which comes fro			
Name of town	Population	Tuberculin tested cattle, but need not be pasteurized	Either tuberculin tested cattle **or** be pasteurized	Both tuberculin tested cattle and be pasteurized	Is tuberculin test requirement being enforced?	What per cent of cattle supplying milk to your city are tuberculin tested?	Tuberculin-tested cows			Non-tes cows
							Certified	Other raw	Pasteurized	Raw

[1] Blanks in all three columns indicates that raw milk from non-tested cows is permitted to be sold.

The blank upon which the summary will be made.

---

* Secretary, American Dairy Federation, Washington, D. C.

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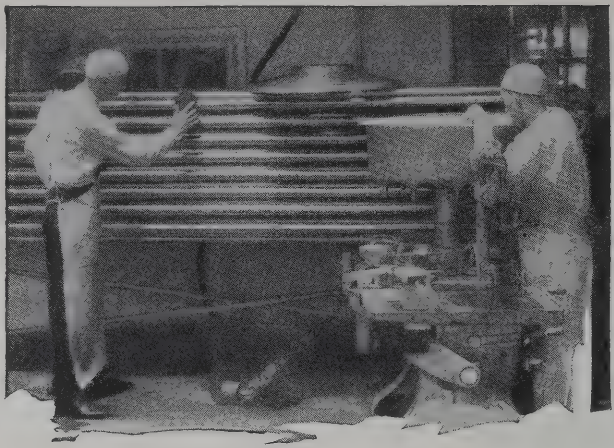

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*Stocks of Oakite materials are carried in these cities.

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Industrial Cleaning Materials and Methods

will be distributed by representatives of the burea
animal industry who are engaged in the tubercu
eradication campaign, to the public health officer
cities and villages of less than 10,000 people which h
any control over their milk supply.

It is believed that this plan will secure a definite
port from practically every city and village in
United States which has a milk ordinance, showing
how much protection is now required for the consum
milk against tuberculosis infection. It will be noted
those communities requiring all tuberculosis-free ca
will be listed in one column, those requiring either tu
culosis testing or pasteurization will be listed in a sec
column, while those requiring both tuberculosis tes
and also pasteurization will be listed in a third colu
Cities and villages which do not require any of t
protective measures are listed by themselves.

One official in each state will collect these rep
summarize them and then send both the original rec
and the summaries to Washington.

Dr. J. A. Kiernan of the tuberculosis eradication
vision of the bureau of animal industry will have
principal charge of this work with Dr. L. B. Ernst of
tuberculosis eradication division, Ernest Kelly, ma
milk specialist, of the bureau of dairy industry, and
Leslie Frank of the public health service as the execu
officers of these three bureau in the co-operative work

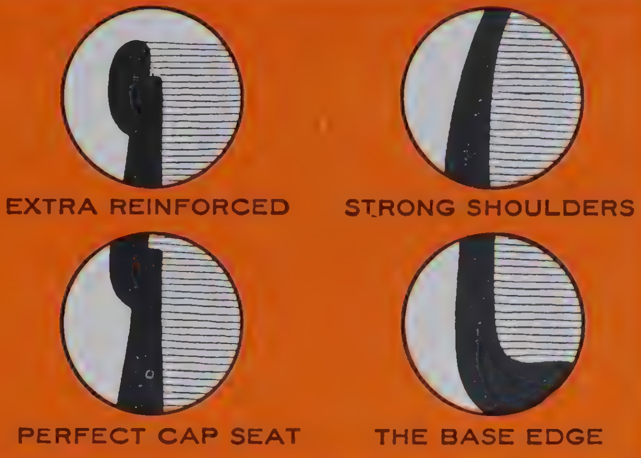
The bureau of animal industry made a survey i
somewhat similar form considerably over a year
taking several months for the work and considerable
ditional time before the summaries were comple
That survey brought out some very valuable resu
showing a surprising increase in the number of c
munities which had taken up the matter of protect
the consumers from the possibility of using milk f
tubercular cattle. The plans for the present sur
grew out of the experience in the previous one and
need and importance of having the very latest and m
reliable information ready to present to congress whe
next convenes.

The officials of the three bureaus most concerned
very desirous that the dairy industry shall co-ope
and assist in this survey, particularly the milk dea
and the organizations of milk producers. These pu
officers are cognizant of the rapidly growing demand
the cities and villages for tuberculosis-free milk,
they are also familiar with the hardship placed upon
producer when this demand is insisted upon before
producers are prepared to meet it. They also un
stand very well that the producers of milk can not
their herds from tuberculosis without great financial
unless the federal and state appropriations necessary
pay the indemnities for the cattle which are slaughte
are ready and large enough to meet the requireme
That is, the whole structure depends primarily u
adequate indemnities. The most important work w
can be done now is to present all of the facts to cong
and to the state legislature so that their action will
lag behind in this movement to safeguard the pu
health and improve the economic and health conditi
in the dairy industry.

Most of the survey work will be done in August
September. Every effort is to be made to have the c
paign summary finished by the first of November.

⁂

Anyone who studies the advertisements in this ma
zine does not have to be told that it is a profitable ha
He collects the profits daily.



More Trips Per Bottle Thatcher's Guarantee to You

THAT'S what most dairymen are looking for—more trips per bottle, because the more trips a milk bottle makes the greater profit the dairyman makes. Thousands of dairymen are getting that greater profit by using Thatcher Bottles because Thatcher Bottles give "more trips per bottle."

That Thatcher Bottles give at least five more trips per bottle has been proved by exhaustive tests as well as by the actual experience of thousands of dairymen throughout the country.

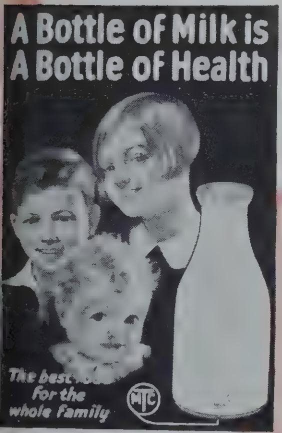
Thatcher Bottles are made of only the purest flint glass, perfectly tempered in scientifically designed lehrs and are extra reinforced at upper edge, shoulder and base edge, the most vulnerable spots of a milk bottle. Thus Thatcher Bottles are stronger, tougher and give more trips per bottle.

The Thatcher Trade Mark is blown on the base of every Thatcher Bottle and is your guarantee of flawlessness. And Thatcher national advertising has helped many dairies build bigger profits. It will pay you to use Thatcher Bottles and tie up to Thatcher advertising and to use the valuable advertising material that is furnished free to Thatcher users. Mail coupon today.

THATCHER MANUFACTURING CO.
Elmira, N. Y.

Operating several plants throughout the country, strategically located and devoted to making Superior Quality Milk Bottles. Prompt, efficient service—always.

free These valuable Selling Helps!


A Bottle of Milk is A Bottle of Health
The best for the whole Family
MTC

he New Thatcher Poster for use on agons, trucks and in stores and restau- ants. Get your supply now. Actual size 6″x 24″ in color.

Make These Delicious Drinks at Home
Four Famous Recipes on Other Side

The latest recipe circular, just off the press. Mail to your customers with your monthly statements or deliver with the morning's milk. Actual size 3½″x6¼″ in color. Send today for a FREE supply. Use coupon.

A Bottle of Milk is a Bottle of Health

MAIL THIS TODAY

THATCHER MFG. CO., Elmira, N. Y.
1. *Send me prices and full information regarding Thatcher Superior Milk Bottles.*
2. *Send me . . . . Thatcher Posters*
3. *Send me . . . . Recipe Circulars for distribution to my customers.*

Name . . . .

Address . . . .

City . . . . *State* . . . .

When writing to THATCHER MANUFACTURING COMPANY *please mention The Milk Dealer.*

Here it is!

KREM-KO

SERVE
ICE COLD OR PIPING HOT
KREM KO
CHOCOLATED DAIRY DRINK
9 FL OUNCES
KREM-KO CO
CHICAGO
PATENT PENDING

The improved and perfected chocolate dairy drink.

Can be bottled by any good dairy.

Keeps, without icing, in any weather.

Always uniform; always sweet and pure.

Chocolate doesn't settle or thicken.

A big seller and a big repeater everywhere, through drug stores, fountains, road stands, restaurants, amusement parks, groceries, pool rooms. (Or through beverage jobbers.)

WHO WILL OWN THE KREM-KO RIGHT IN YOUR TERRITORY

When writing to KREM-KO COMPANY *please mention The Milk Dealer.*

A Real Profit Opportunity for you Mr. Dairyman!

Here's a demonstrated profit-making opportunity for the dairyman who knows a good thing when he sees it.

KREM-KO—the improved and perfected chocolate dairy drink—has captured Chicago and other points by storm.

It's just the drink bottlers have wanted for years—a real creamy drink with a most wonderful milk-and-chocolate flavor.

Every obstacle you may have heard of in the preparation of a milk-and-chocolate beverage has been eliminated by the KREM-KO process.

To one reputable dairyman in each community we now offer the rights to the KREM-KO process, to the KREM-KO name, to the KREM-KO advertising formula that guarantees successful introduction.

Franchises are being issued. If you want to learn about the profit possibilities of the KREM-KO proposition, fill out the coupon, or write or telegraph.

KREM-KO utilizes skim milk, KREM-KO syrup, cane sugar, and the KREM-KO process. It brings a handsome profit—retail trade and public are educated to paying more for a milk-and-chocolate drink.

We offer you our counsel in production, distribution, and advertising—based upon actual experience in cities of various size. In many communities, dairy operators may arrange to have the entire distribution of KREM-KO handled by beverage jobbers.

Don't delay. Learn how the manufacture of KREM-KO takes out the slack from your organization, utilizing the time of equipment and personnel, that is now wasted.

It's a winner—start NOW!

KREM-KO COMPANY,
4830 Turner Avenue, Chicago.

I'm willing to be shown! No obligation on my part—of course.

(Your name) ____________________

(Name of company) ____________________

(Address) ____________________

"KREM-KO is the product of the long experience of the Dairy Drink Company—the officers and organization of the Krem-Ko Company are identical with those of Dairy Drink."

When writing to KREM-KO COMPANY *please mention The Milk Dealer.*

The Finest Drinking Milk

comes from those dairies *that* HOOD-SEAL *the bottles*

A VERY special milk service is offered you by one or more leading dairies in your city. A service that has done more to insure you pure, clean, full-flavored milk than all other agencies combined.

You can easily identify these dairies by the Hood-Seal they use on their bottles of better drinking milk—the paper hood locked on by the wire ring.

Leading producers of better drinking milk use this wire locked Hood-Seal. Dairies like Sheffield Farms and Borden's in New York, H. P. Hood & Sons and Whiting Milk Companies in Boston, were the pioneers of this clean sealed drinking milk idea. They are the largest distributors of sealed Grade A Milk in the world. Now more than two thousand other leading dairies in leading cities all over the United States and Canada have adopted this sealed Grade A drinking milk service.

The Hood-Seal is more than a perfect, sterile seal against contamination. It is a symbol of the tremendous efforts these progressive dairies have made to insure you clean milk.

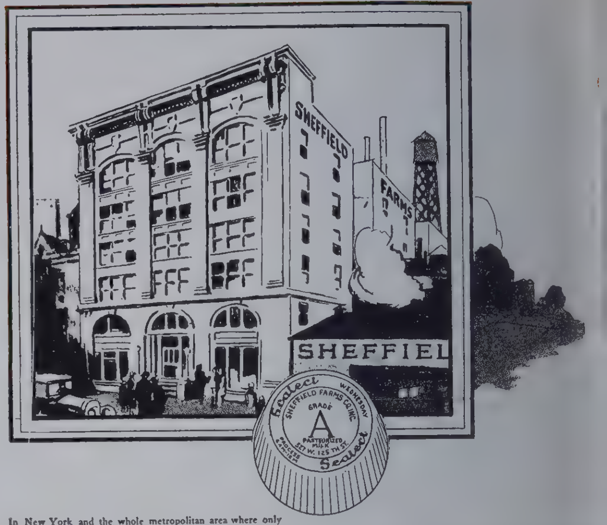
For up to the moment the Hood-Seal is fitted over the bottle, a great chain of super-sanitary measures has taken place. Each for one sole purpose. Better drinking milk.

All their work would be in vain if the milk were not delivered to you just as wholesome and clean.

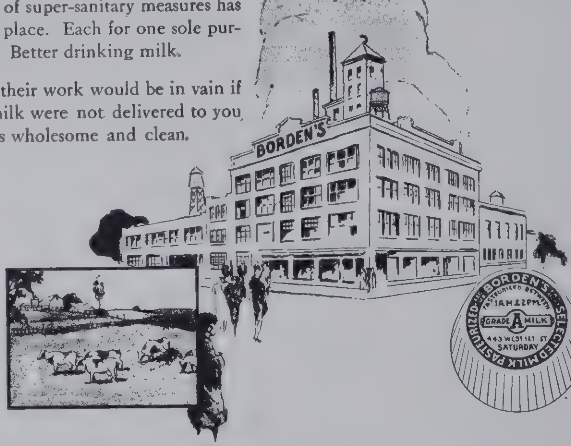
To safeguard this, they all adopted a seal for the bottle. And they chose the sterile paper hood locked on by the wire ring. Last year over four hundred million Hood-Sealed bottles were used.

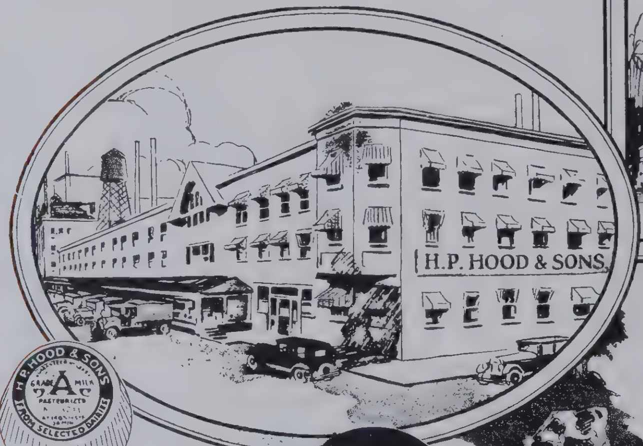
Milk is so essential to good health that more of it should be included in the daily menu. With the better, richer flavor of Hood-Sealed milk you will find new delight in drinking milk. You owe it to your children to have this better drinking milk always on hand.

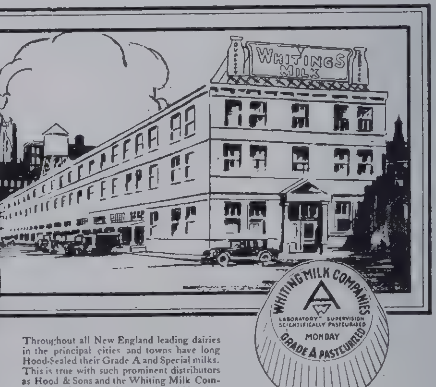
Write for illustrated book on Milk. It tells all about better drinking milk and how it is produced. It is sent on request by Standard Cap and Seal Corp., 1200 Fullerton Ave., Chicago.


SHEFFIELD
FARMS
SHEFFIEL
Sealect
SHEFFIELD FARMS CO. INC.
WEDNESDAY
GRADE
A
PASTEURIZED
Sealect

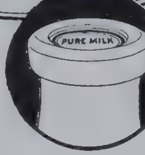
In New York and the whole metropolitan area where only Grade A milk will pass for drinking, there the wire locked Hood-Seal is universal. Such leaders as Sheffield Farms, Borden's, Chardavoyne, Renken Dairy, Reid Ice Cream Co., Model Dairy, Beakes, Dairyman's League, Willow Brook Dairy, Newark Milk & Cream, Wood Brook Farm, Henry Becker & Sons, Janssen Dairy, Keystone Dairy have always relied upon the Hood-Seal to protect and identify their superior product.


BORDEN'S
BORDEN'S
1AM & 2PM
GRADE A MILK
443 WEST 127 ST
SATURDAY
SELECTED MILK PASTEURIZED

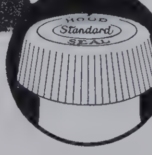

H.P. HOOD & SONS
H.P. HOOD & SONS
GRADE A MILK
PASTEURIZED
FROM SELECTED DAIRIES


WHITING'S MILK
WHITING MILK COMPANIES
LABORATORY SUPERVISION
SCIENTIFICALLY PASTEURIZED
MONDAY
GRADE A PASTEURIZED

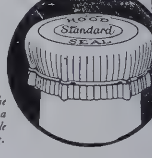
Throughout all New England leading dairies in the principal cities and towns have long Hood-Sealed their Grade A and Special milks. This is true with such prominent distributors as Hood & Sons and the Whiting Milk Companies in Boston and more than 150 other progressive dairies in these states. The same is true wherever you go; in Washington, Buffalo, Chicago, Los Angeles, Toronto, Montreal, Miami, Seattle, Kansas City, Cleveland—the wire locked Hood-Seal is your faithful sign of better drinking milk.



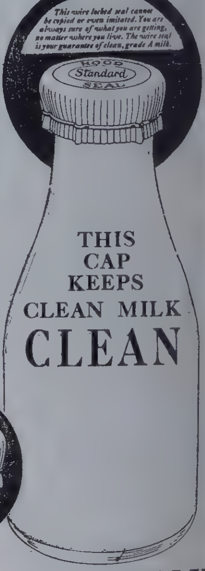
First an inner disc cap is placed on the bottle. This cap is sterilized because it comes in direct contact with the milk or cream.


HOOD
Standard
SEAL

Then a paper Hood is placed over the entire bottle top which keeps the pouring lip clean and sterile.


HOOD
Standard
SEAL

Next a wire sealing ring locks the hood on the bottle, providing a double seal that is non-replaceable—positively prevents tampering.


HOOD
Standard
SEAL
THIS
CAP
KEEPS
CLEAN MILK
CLEAN

This wire locked seal cannot be copied or even imitated. You are always sure of what you are getting, no matter where you live. The wire seal is your guarantee of clean, grade A milk.

THINK MORE ABOUT THE MILK YOU DRINK

When writing to STANDARD CAP & SEAL CORPORATION *please mention The Milk Dealer.*

Public Acceptance Everywhere—

in many cities—public demand

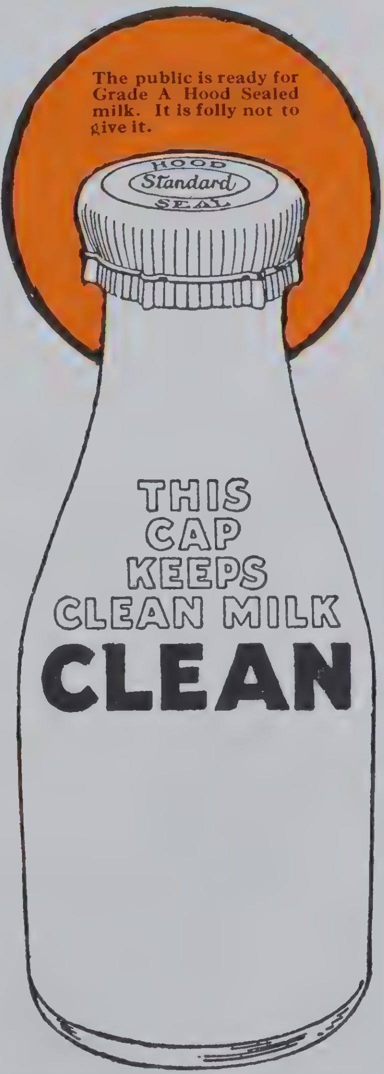
Now the Hood-Seal is more than a perfect sterile seal against contamination. It is a symbol of the tremendous efforts progressive dairies have made to insure clean milk.

And how the public has responded to those efforts for cleanliness and quality. Last year over five hundred million Hood Sealed bottles were used.

Consumers now look for the paper Hood sealed on the bottle with the wire ring.

It is a national trade mark for better milk

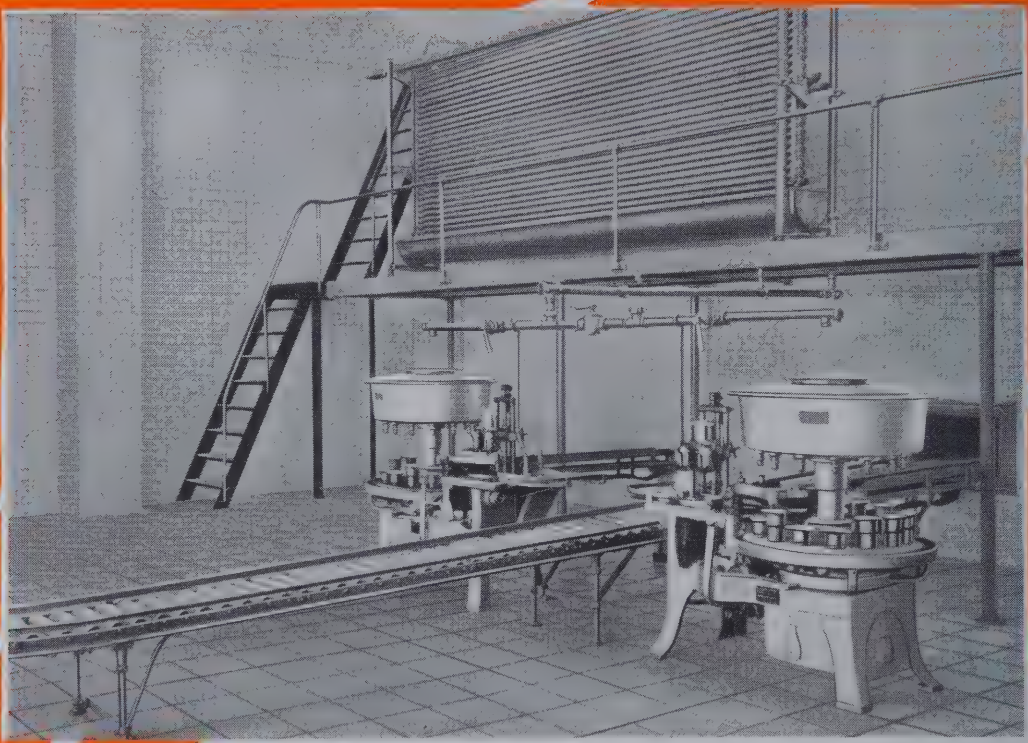
Write for sample, price and full information.


The public is ready for Grade A Hood Sealed milk. It is folly not to give it.
HOOD
Standard
SEAL
THIS CAP KEEPS CLEAN MILK
CLEAN

Standard Cap & Seal Corp.

1200 Fullerton Avenue Chicago, Ill.

MILWAUKEE FILLERS and CAPPERS



The Sanitary Gold Seal Dairy, Los Angeles

2 Type "L" Fillers
100 TO 120 PER MINUTE

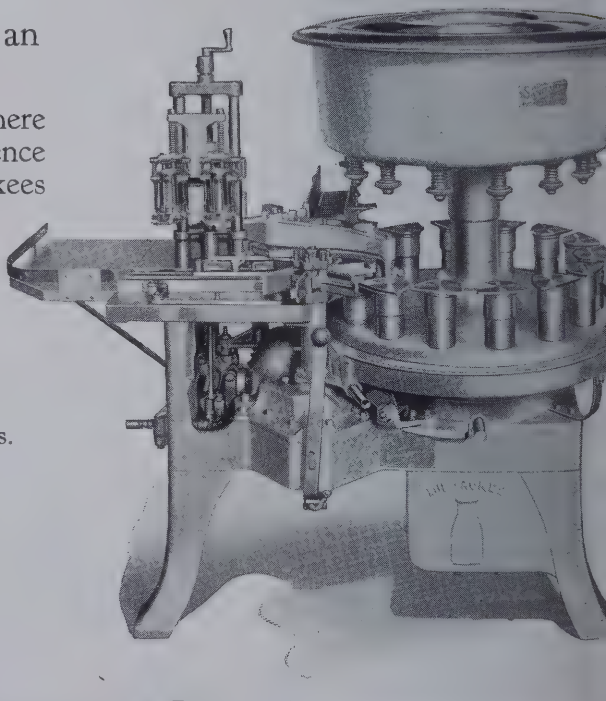
A SHIP-SHAPE installation in an immaculate setting.

Milwaukees continue to be the choice where careful consideration of universal experience determines choice. The fame of Milwaukees is fed by their consistent performance.

Strong
Compact
Simple
Precise
Sanitary

The Type "L"
14 Valves
2 Cappers
Capacity 50 Qts. to 60 Pts.
per minute.
Tank Capacity 26 Gallons.

Sold by Best Dairy Supply Houses
Everywhere—Ask Them.



Milwaukee Dairy Supply Mfg. Co., Milwaukee, W

Two Sure Ways

of increasing your milk business

The sale of Chocolate Milk in various forms has reached such a state that no wide-awake dairyman can afford to ignore or overlook this avenue of increasing his milk sales.

But to get his share of this business he must put out a product of such fine quality that it will successfully compete with similar beverages now on the market.

Being pioneers in developing Chocolate Milk products and processes, we are in an enviable position to assist you in building up a successful and profitable Chocolate Milk business.

MOREHEALTH PREPARED CHOCOLATE

NET WEIGHT 1 LB
MOREHEALTH
PREPARED
CHOCOLATE
FOR DELICIOUS BEVERAGES, FOODS
CAKES, FROSTING, PIES, ETC.
Chocolated Milk
Chocolate Sundaes
CONTAINS NO PRESERVATIVES
MANUFACTURED BY
CHOCOLATE PRODUCTS CO.
CHICAGO, U.S.A.

A Specially Prepared Chocolate for making Chocolate Milk, for ice cream, frostings, puddings, cakes, etc. Packed in 1-pound glass jars, double sealed. Will not mold or ferment but keeps sweet and fresh. Stimulates consumption of milk and makes dairyman a splendid profit.

No. 1 Hundreds of dairymen have been and are now using Morehealth Chocolate Syrup. Without question it makes one of the most delicious, appetizing Chocolate Milk drinks ever produced. This is due to the exceptional quality of the syrup, produced by the Special Process of Dr. Pashkow.

Morehealth Chocolate Syrup is made of pure cane sugar and the finest grade chocolate ingredients. It is rich, mellow, contains no coloring or preservatives and comes in plain and malted form.

Our "Silent Salesman"—a unique plan of effectively advertising Morehealth Chocolate Milk to the housewife is furnished free with each order of syrup.

No. 2 Realizing the opportunities open to them many dairymen are going into the Chocolate Milk business on a larger scale by installing sterilizing equipment.

For several years we have made a careful study of this subject and as a result have worked out a *Special Process* that produces a Chocolate Milk of unequalled quality. In fact, we are now in position to give the dairyman a *Contract* that positively *Guarantees* that his product will keep indefinitely.

Send today for free samples of Morehealth Chocolate Syrup and our Special Proposition for bottling Sterilized Chocolate Milk.

MAIL COUPON TODAY

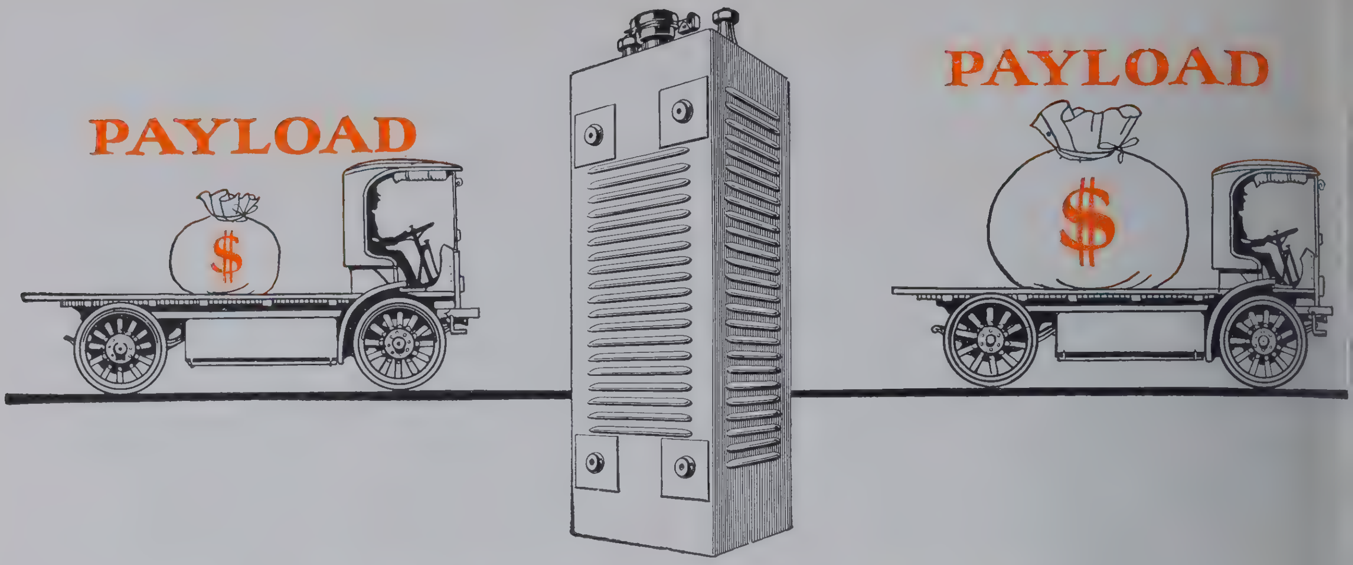
CHOCOLATE PRODUCTS CO.,
415 Beethoven Place, Chicago.

Gentlemen:—Please send us:

☐ 1-pound sample jar Morehealth Prepared Chocolate.
☐ Sample Morehealth Straight Chocolate Syrup.
☐ Sample Morehealth Malted Chocolate Syrup.
☐ Your proposition on bottling Sterilized Chocolate Milk.

Name . . . .
Street and No. . . . .
City . . . . State . . . .

When writing to CHOCOLATE PRODUCTS CO. *please mention The Milk Dealer.*



Edison Batteries increase truck revenues

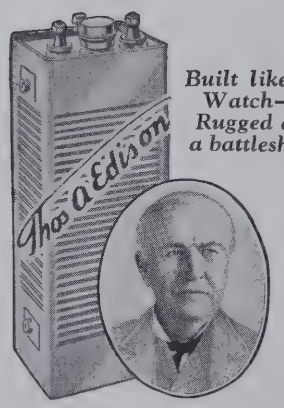
BECAUSE of the light weight of the Edison *steel* Battery, a company operating 75 trucks in two eastern cities has replaced all other batteries in electric delivery service with Edisons (all other batteries of commercial importance except Edisons, are lead batteries). The trucks have been equipped with larger bodies and the pay-load capacity has been appreciably increased.

This change in the type of battery used was the result of many years' experience with both lead and Edison Batteries.

Each truck now serves from 16 to 24 more customers and brings an increased revenue of from $28.00 to $40.00 per trip!

Edison Batteries have many advantages. Light weight is but one. Ruggedness is another. They regularly sustain road shocks and accidental rough usage that would injure or ruin any other battery. They are more dependable. Maintenance is lower, and long life notable. We will be glad to lay before you a certified report on this installation. Ask our nearest local office.

EDISON STORAGE BATTERY COMPANY, ORANGE, N. J.



*Built like a Watch—
Rugged as
a battleship*

Edison

STEEL-ALKALINE

TRUCK BATTERIES

Thomas A. Edison is the World's largest manufacturer of storage batteries for motive power purposes (industrial trucks and tractors, street trucks and mine locomotives) although the Edison Storage Battery Company has been in this business less than nineteen years.

ATLANTA BOSTON BUFFALO CHICAGO CLEVELAND DETROIT HUNTINGTON LOS ANGELES
NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH SAN FRANCISCO SEATTLE ST. LOUIS WASHINGTON

Export: 26 West Broadway, New York *Canadian Distributors: International Equipment Co., Montreal, Quebec*

HAUL MORE FOR LESS MONEY

E LABORATORY AS A SALES PROMOTER— SALES RETAINER.

S. L. Wise, Chevy Chase Dairy, Washington, D. C.

great step in the advancement of the scientific in- y, "dairying," was the realization of the necessity he laboratory as a medium in the sanitary produc- handling and scientific control of milk and cream its source to the ultimate consumer. In this regard lairy laboratory is not only a protector to the in- ual organization, but also a necessary assurance to nilk consuming public, and every possible precau- is being taken to protect and to serve them at all with nothing but the purest and most wholesome uct humanly obtainable. The value of the labora- from this standpoint has been realized by the ma- y of the milk dealers today.

ow many dealers have given the thought of utiliz- their laboratory as a sales promoter and sales re- r, and how may this be possible? The laboratory tors should not only be well versed in all phases acteriology but should also have a knowledge of ical science insofar as milk and its products are erned; that is, a knowledge of usual ailments and ases for which milk is of great importance from the dpoint of therapeutics and dietetics.

ow frequently have some of your customers called ritten for information or even advice concerning above, and has anyone in your employment been iently prepared to answer correctly and with as- nce? If this has been possible you have not only sed your customer but you have obtained the best ble source of advertisement, namely the housewife. ugh this medium the laboratory has become the e of sales promotion.

ow may the laboratory be utilized as a sales re- r? Every dealer in the dairy industry has un- tedly and will continue to receive complaints rela- o the poor quality of the products or the differences ur product as received from time to time.

hese complaints when received and adjusted by the ral office should immediately be forwarded to the atory and upon receiving the complaint at the lab- ry the laboratory director should immediately re- his records of all analyses made on the day the uct was handled and bottled. If possible a sample e product should be obtained from the customer and lete analysis should be made of same, and the cus- r should be informed as soon as possible regarding esults of the analysis.

his interest shown the customer will not only please rom the standpoint of personal attention, but will create a most favorable impression in the mind of customer, being assured that no matter how small w large the complaint may be it has been given diate and thorough attention from every angle. service to the customer will in 99 per cent of the convert a dissatisfied customer from a knocker to ster. Once this service has been practiced the or- ation will immediately realize a vast decrease in umber of stopped customers, and an increase in ustomers over and above the regular solicited new ess. The extra cost of this service undoubtedly will paid two-fold for the value received therefrom.

* * *

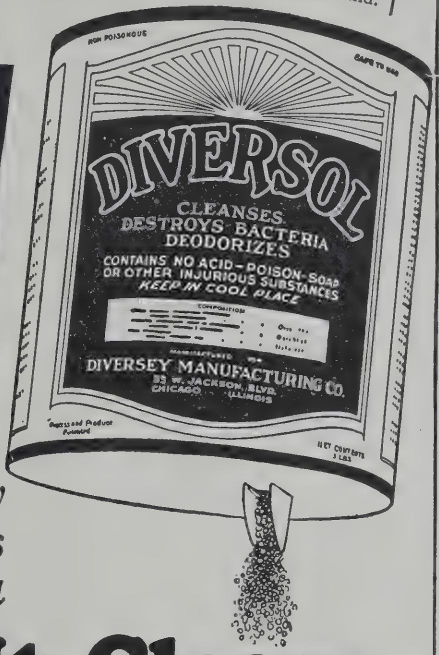
ccess lies in doing little things well. "Milk r" Want Ads are little things, but they carry big ges. Read them regularly.

"We cut our bacterial count down from 45000 to 8000"

NEW!

Read This
"Am frank to say that we were skeptical regarding the claims of Diversol, but afer using it we cut our bacterial count from 45,000 down to 8000 . . . ."
Mennen Pure Milk Co., Lafayette, Ind.

Free!
Enough Diversol to make
100 Gallons
Sterilizing Solution
Mail Coupon



Instantly Destroys Bacteria

As It Cleans

and Prevents "Off-flavors"

Send today for one pound FREE sample of this great new product—this one pound alone, mind you makes 100 gallons of sterilizing solution.

NOW!—with Diversol—one cold or warm water rinse or wash and your utensils and equipment are *instantly* rendered fresh and clean and free of bacteria and odors. You don't even need hot water, let alone steam. Diversol *with cold water* destroys the bacteria that spoil your product! ***It is MORE than a washing compound— —MORE than a sterilizer—it's both!***—Diversol destroys bacteria *as it cleans* and removes odors. Does all three at one time with that ONE operation! Think of the time, labor and worry Diversol now SAVES YOU. Moreover, Diversol is ***very economical.*** One pound makes 100 gallons sterilizing solution. You make ***your own*** solution. And Diversol never deteriorates. You need this great NEW product right now. You'll marvel at the many NEW things it will do for you. Mail coupon now for FREE Pound Package of Diversol—enough, mind you to make 100 gals. sterilizing solution.

FREE Supply Coupon!

Diversey Manufacturing Co., Dept. C-266
53 W. Jackson Blvd., Chicago, Ill.

Without any obligation please send me your FREE Pound Package of DIVERSOL—which is enough to make 100 gal. sterilizing solution. And send me free literature telling all about this great NEW discovery.

*Name*______________________

*Address*______________________

*State*______________ *R. F. D.*______________

Jobber ______________________

FLAVORS in MILK

Their Causes, Reactions, Preventions and Effect Upon the Trade and Consumption of Milk

By WM. H. E. REID, *Associate Professor Dairy Manufactures, University of Missouri, Columbia, Mo.*

Information
Distributors
Should Im-
:: part to ::
Producers

THE one great difficulty in producing market milk that will meet the demands of the consuming public is that of producing milk with a clean, desirable flavor. Under ordinary conditions milk invariably suffers changes in physical and chemical composition that render it unfit for human consumption and seriously impairs its market value. Particularly is this true where undesirable flavors are present. Not only does the consuming public demand that its milk be as free as possible from foreign flavors, so it will retain its keeping qualities for the longest possible time, but also the relation of the milk to public health, especially to the welfare of the infants and children, is greatly emphasized.

The milk industry has grown almost entirely from the empirical side, each producer learning from experience the details of the profession. In these days of intense competition the unsound methods and practices of producing milk of an undesirable flavor no longer has sway. Much knowledge has been acquired and much knowledge is to be learned in the production of suitable flavored milk from the standpoint of normal and abnormal fermentations that occur in the milk, the underlying principles which govern the detection and prevention of these defects and the scientific principles involved regarding suggestions for the possibility of improvement. Undesirable flavored milk is a curse to the industry and should be eliminated.

In the first instance, in discussing milk flavors, we have to deal with, first, the biological problems of the milk as affected by bacteria, and in the second place, the improper conditions to which milk is subjected as caused mainly by the absorption of flavors in a purely physical way, or due to some unusual condition of the cow.

The physical constitution of the milk is well adapted to promote the active growth of many living organisms, if they are once introduced into the milk. The nutritive elements are either in a soluble state or are readily converted into a condition that permits their absorption by bacteria. The lower forms of life such as bacteria, yeasts, and molds are the most common organisms which deleteriously affect the milk, and among these the bacteria are the most troublesome and most important from the milk producer's standpoint, because a large number of the flavors common in milk are caused by bacteria of some form. However, in a very few cases other forms have their effect, but their influence is not nearly so great.

Bacteria are so numerous that it is very difficult to prevent contamination of milk with them. While milk may be considered sterile when drawn from the udder, it invariably becomes contaminated with bacteria during the process of milking and subsequent handling.

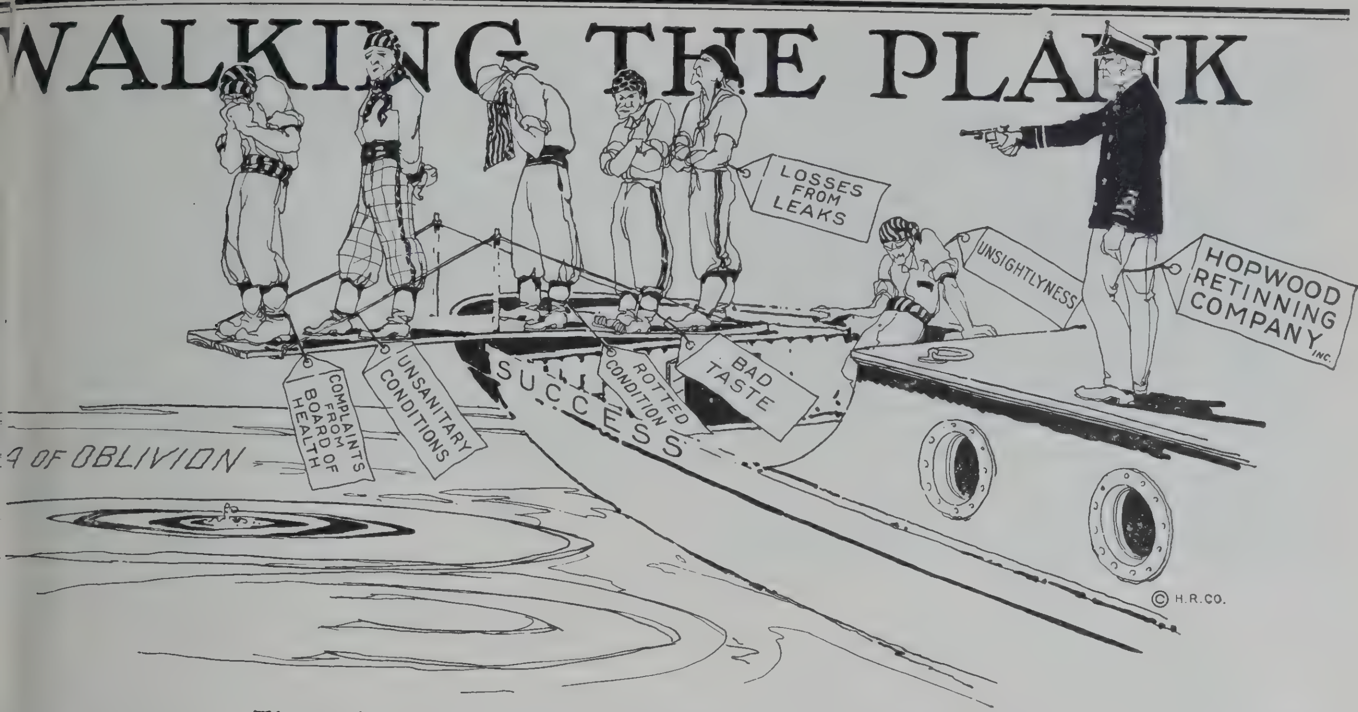
In studying the types of bacteria that produce objectionable flavors in market milk there are several factors to be considered. The first is their action upon the milk and their relation to all who deal with milk, and their effect upon the persons who consume the milk as a food. Some bacteria that are troublesome to the market milk producer are very desirable to the consumer, but on the other hand, some bacteria that are injuri
to the producer are also injurious to the consumer. Th
bacteria are those that produce undesirable flavors.

There are those bacteria that are considered nor
bacteria and those which are abnormal bacteria. In
sidering bacteria from the market milk dealer's poin
view, some of the normal bacteria may be conside
abnormal to him.

One of the most common flavors produced in mil
that caused by acid producing bacteria. It is gener
considered a natural change in milk, but it has b
shown that the souring results only in the presence
acid producing bacteria. Especially is this true wh
the conditions of the milk and surroundings are fa
able for bacterial growth. The souring is the result
the production of lactic acid from the milk sugar
the action of certain bacteria. The bacterium la
acid is the most troublesome bacteria in this resp
The production of acid causes the milk, first to s
then as the acidity gradually increases, the milk curd
That is, the acid precipitates the casein, which norm
is in solution, in an alkaline or neutral solution. M
of the other forms of bacteria, such as streptococ
lacticus, bacterium acidi lactici, bacterium bulgari
and others also have their influence on the souring
milk.

This defect in milk is one of the difficulties the da
man has to guard against, especially in warm weat
Some bacteria can do their work most efficiently i
few hours where the temperature is warm, while ot
require a longer time. Besides producing gross cha
in milk, they render it practically unsalable.

Fermentations in milk are not always accompa
by the production of an acid. Quite often the
curdles quickly without the presence of any apprecia
amount of acid present. The milk may become c
ulated into a soft, slimy mass which usually cause
to acquire a bitter taste. There is no sour flavor pres
but instead the milk reacts alkaline. The curd
duced by the alkaline bacteria is easily distinguis
from that produced by acid bacteria. The curds
softer and more gelatinous than the acid curds. A
the milk stands for a while, the curd begins to diss
into a somewhat clear liquid, and if it is allowe
stand long enough, it may acquire an appearanc
being a semi-transparent liquid. It may develop a
ter flavor, which is due to the presence of ammonia.
organisms producing these quick curdling and diges
fermentations are, as a rule, bacteria that are associ
with fecal matter which find their way into milk
number of ways. From all indications it seems that
or more bacteria work together, one producing a re
like curd and the other a digestion or dissolving of
curd. There are a great number of flavors that t
bacteria can form, but they seldom do any harm.
grow slowly and the acid forming bacteria usually
the start of them and produce so much acid that
cannot develop. However, at the same time they
withstand high temperatures which make it imposs


WALKING THE PLANK
LOSSES FROM LEAKS
UNSIGHTLYNESS
HOPWOOD RETINNING COMPANY, INC.
COMPLAINTS FROM BOARD OF HEALTH
UNSANITARY CONDITIONS
ROTTED CONDITION
BAD TASTE
SUCCESS
A OF OBLIVION
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nufacture and re-manu-
of Milk Cans and 1898
am Cans since - -

These Can-Troubles are pirates in your business and cause loss of trade.

Our Re-tinning Process will put your cans in good condition and save money for you.

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OPWOOD RETINNING COMPANY, Inc.

Office 56 Commercial Street BROOKLYN, N. Y.

THE FIRE RISK

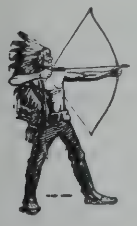
Few creameries operate without adequate fire insurance. Business judgment rules that such possible losses must be provided for.

Many creameries also insure against other losses and guard their profits by insuring sweet, safe, wholesome cleanliness in their plants with the use of

Wyandotte
Dairyman's
Cleaner and Cleanser

The danger of preventable causes of uncleanliness and insanitation are then definitely guarded against and many profits find their way into the creamery which otherwise would be lost.

Ask your supply man for "WYANDOTTE."



Are you using Wyandotte C. A. S.
[cream acidity standardizer]
for standardizing the acidity of
your cream?

The J. B. Ford Company *Sole Manufacturers* Wyandotte, Mich.

Friendly Talks on the Important Subject of Sterilization

Conducted by
J. W. YATES
formerly Dairy & Food Commissioner, Health Dept., Kansas City, Mo.

Talk No. 10

Sterilization by Spraying
Its Effectiveness and Economy

Last month we mentioned the application of B-K to pasteurizing equipment by spraying. We give you now data on milk control from a plant so sterilized, under observation for three weeks. Composite samples were taken every morning and the counts of these samples taken before pasteurization as delivered at the factory. Following are the condensed results. Additional information desired will be furnished on request.

The results show not only a high reduction of bacterial count in the composite farm milk before pasteurization, but also the thoroughness with which B-K spraying sterilized the factory equipment, thus preventing possible recontamination.

Immediately before milking time, each farmer used the regular B-K rinse on all buckets, cans and other containers making contact with the milk at the farms, thus accomplishing a reduction in count of the composite farm milk from the high records close to the million mark, previous to using B-K, down to a minimum of 28,000 and a maximum of 125,000. These counts covered samples from every run through the three weeks.

At the milk plant, the only method of sterilizing the equipment was spraying with B-K the vats. pasteurizer, cooler, filler, etc., and a flowing B-K solution through pipes, valves and similar places not accessible for the spray.

The average of all counts in plant for the whole period, using B-K as the only means of sterilizing equipment, is as follows:

Condition of composite milk in vat before pasteurization	Sample No. 1	50,000
Condition of composite milk after pasteurization	Sample No. 2	1,000
Milk over cooler	Sample No. 4	1,000
Milk from filler	Sample No. 5	1,500
Milk from bottle	Sample No. 7	2,000
Condition of composite milk in vat before pasteurization	Sample No. 1	28,000
Condition of composite milk after pasteurization	Sample No. 2	500
Milk over cooler	Sample No. 4	450
Milk from filler	Sample No. 5	500
Milk from bottle	Sample No. 7	550

The actual cost of B-K was less than six cents per thousand gallons of milk, and the labor cost of applying it was seven cents per thousand gallons, the total being vastly less than the cost of applying steam.

Write us

We will be glad to advise you as to how to sterilize your equipment by this highly effective method.

J. W. Yates, *Consultant in Sanitation.*

GENERAL LABORATORIES
Dept. 13H MADISON, WIS.

B-K Bacili-Kil

to completely sterilize the milk by heat. They are
capable of growing at low temperatures and do t
share of ordinary fermentation in cool weather.

The gas forming bacteria are very objectionabl
market milk due to the fact that they produce ol
tionable flavors. They ferment the lactose of the
and form gases in addition to acid. The arogenes
ganisms form a greater quantity of acids and gases
the coli organisms, but the coli are more active in
protein decomposition. In the early stages of
change, the milk has a sweetish-sour flavor and
that is very unpleasant, especially when the arogene
working, but later the flavor may become unclean, w
the odor is stable-like, and finally the flavor bec
salty and the odor is like that of decomposing mar
Milk undergoing this fermentation and decomposi
is very undesirable for human consumption.

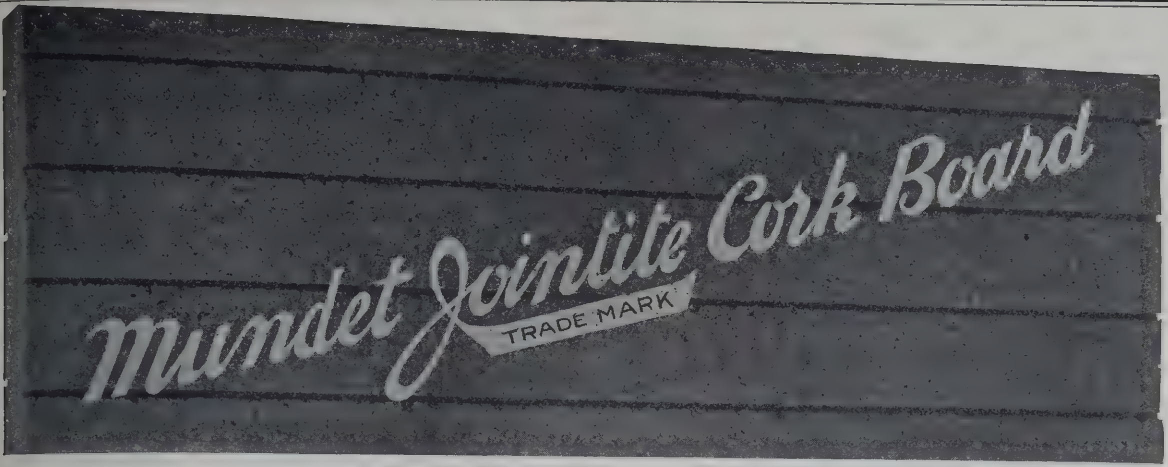
Milk sometimes acquires a strong cowy flavor,
milk having an appearance of soapy water. It ma
due to several causes. The milk from cows in the
stages of lactation may have a cowy flavor, which i
tributed to the relaxation of the gland tissues an
tration of the blood serum between the epethelial
of the olveoli. The flavor also occurs when cows
been incompletely milked at previous milkings, an
is claimed that the first part of the milking has a
ilar taste. In these cases it is thought that the ab
mal flavor is due to bacteria that enters the udder
tern. Certain staphylococci and streptococci and s
other bacteria of the coli arogenes group give the
this cowy flavor.

Slimy fermentations occur quite often in milk
ing summer weather, but less frequently during wi
The causes of these various abnormal fermentations
due to the presence of certain bacteria that for the
being gain ascendency over the normal bacteria.
some instances, the milk sugar is changed into a vis
substance by the action of these bacteria, and in o
instances the proteids are broken down. The resu
that the milk becomes ropy or stringy and very
sightly, thus injuring the product for consumption.
sides injuring the salability, value for consumption,
the cream line, it develops flavors that are very offen
to the taste. In the case where the proteids are br
down the milk may develop a stale, cheesy, or unc
flavor, and accompanying those flavors is an odor
is unpleasant and stable-like.

Fruity flavors in milk are not uncommon, and
take their name from the peculiar taste they leav
the palate of the mouth, like that of certain ripe f
such as pineapple or strawberry, and not from
odor they emit. To the taste they are sweet s
flavors, and by no means pleasant. They are very
to detect by taste or smell in the milk as delivere
the market milk trade and seldom make their appea
until the milk is well advanced in age. Like man
the defective flavors in milk, fruity flavors are bacte
Specific bacteria gain access to the milk from out
sources as dust or dirt, and are not transmitted thr
the system of the cow as is sometimes thought.

Fruity flavors are closely associated with flavo
milk, and a most prolific source of contamination i
organism known as B. Coli Communis. The nat
habitat of this organism is in the intestines of ani
Therefore it becomes apparent that milk will bec
contaminated by dust and air from the cow yard or
or from falling hairs from the flanks and udder of
cow, or milker with dirty hands. Another source of
tamination is from the first few streams from the u
This milk contains bacteria that have gained entr
through the opening of the teat.

Cheesy, stale or unclean flavors are also prod



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Specify MUNDET JOINTITE CORK BOARD and be assured of unsurpassed quality—cork board that is properly baked—edges true, and ends square—uniform length, width, and thickness—Mundet quality all the way through.

Since 1865 our constant aim has been to make Mundet products as good as they can be made.

Mundet representatives cover the entire United States and Canada. Our Practical Refrigerating Engineers are always glad to help solve any cold insulation problem. No obligation whatever.

Also, we have a contract department, the business of which is to take care of every installation detail for you.

Mundet Jointite Cork Products, plus Mundet installation service, assure insulation of highest efficiency and greatest ultimate economy. No job too large or too small.

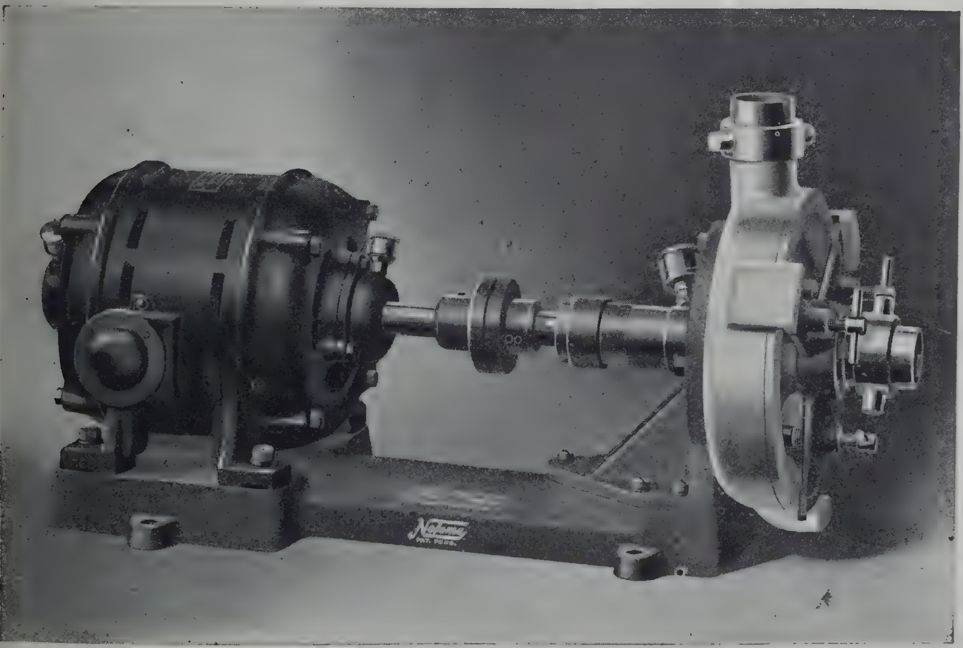
Also manufacturers of
Jointite Moulded Cork Pipe Covering

L. MUNDET & SON, Inc.

"All roofs need insulation"

New York Office: 461 Eighth Ave. HILLSIDE, N. J. **Established 1865**

Nofome Sanitary Milk Pump



No churning, because the enclosed impeller carries the milk to full periphial speed without the vanes passing through the milk.

No foam because no air can enter the pump from shaft bearing, nor grease from the same source.

Milk passes through the impeller housing, but the vanes do not pass through the milk, which prevents churning and injury to the cream line.

Let us solve your Pump and Fitting Problems.

Fittings to Fit Your Needs

Manufactured by **SPECIALTY BRASS COMPANY,** KENOSHA, WISCONSIN
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EXTEND
YOUR SALES CIRCLE

The **DACRO**
SEALING SYSTEM

PASTEURIZE or STERILIZE
The MILK product in the
Bottle—after sealing

The
DACRO
Metal Cap
gives a
HERMETIC
SEAL

Easily removed
and a
Good reclosure

USED
with
BIG SUCCESS
by the
Largest Producers
of
CHOCOLATED
MILK

The
DACRO SYSTEM
is particularly adapted for
SPECIAL MILK PRODUCTS
sold at "higher-than-regular" prices

HANDSOME LITHO. DESIGNS
to fit your own requirements

Inexpensive to Install—Full Particulars on Request

CROWN CORK and SEAL CO.
Dacro Division - BALTIMORE, MD., U.S.A.

by peptonizing or casease bacteria. The bacteria
sometimes called liquifiers, and are the cause of p
faction that develop the off flavors. Usually they sec
two enzymes or ferments, which attack the proteids
pecially the casein. There are two specimens of
teria that produce the two ferments. When the re
producing bacteria are dominant, a white curd is for
and slowly digested. When the casease is presen
largest quantities, the curd is soft and flocculent
peptonization takes place rapidly. In the early st
the milk acquires a bitter taste, and later a foul, ch
or stale flavor and an undesirable odor. The prod
formed are very harmful to persons who consume
of this sort.

Sometimes milk may develop a soapy flavor whic
very unpleasant. Two species of bacteria (Bact. S
lacticum and Bact. Lactis Saponecia) have been pro
to be the cause of the trouble. They attack and br
down the proteids and fat in the milk which deve
the flavor. At first the milk seems to be normal,
later acquires a disagreeable taste of soap. The bact
are found in fodder and hay, and if cows are milke
dusty barns, these bacteria are likely to contaminate
milk.

Another source of soapy flavor, which is not bacte
is that which results from the improper cleaning of n
utensils, especially when soap is used. It is almost
possible to remove the soap film from the utensils, th
fore it should not be used.

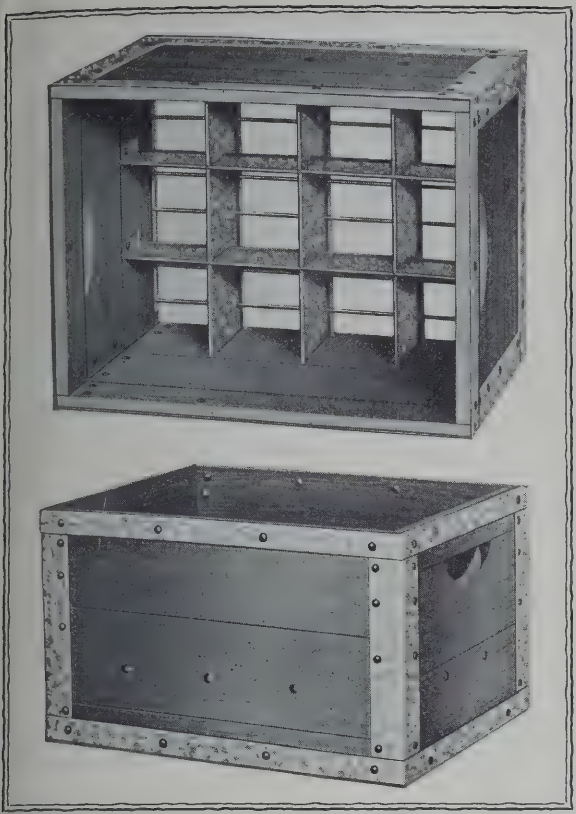
Milk is oftentimes found to develop a turnipy fla
a fact that is usually attributed to cows eating turn
The explanation is that the flavor is produced by b
teria. If the flavor is due to cows eating turnips,
flavor will be present at the time of milking, but if
flavor is due to bacteria, it will not be apparent u
some time after milking and is consequently due to b
teria. The organisms causing the flavor have been fou
to be B. Lactis Footidius.

Bitter flavor is a common occurrence in milk and
ascribed most commonly to bacteria, of which seve
species have been isolated. Perhaps the most comn
cause of bitter flavor in milk is the presence of pepto
and albumoses, which are formed from proteins by b
terial action. Liquifying cocci are the most comn
agent. They are difficult to eliminate from milk
to the fact that they can withstand the heat applied
milk in pasteurization and pass into the vegetative st
and grow. They digest the casein and produce the
ter taste. Some of the peptonizing bacteria grow
relatively low temperatures at which lactic acid bacte
grow but slowly, and therefore the lactic acid bacte
do not inhibit the growth of the digesting bacte
Where butyric acid is formed in milk, a bitter taste
often noticed, and in heated milks the flavor is someti
noted. Some of the organisms that have been fou
to produce the bitter flavor are: Micrococcus la
amari, Troula amara, and any member of the coli a
genes group that break down or decompose the prote

In some cases the cause of bitterness is traced
yeast. It is found on leaves of trees generally.
other type of bitter milk of less importance to the m
ket milk dealer is bitterness caused by the action
steam for sterilization purposes. Most of the bacte
are destroyed, and the milk will keep for a long ti
and finally become bitter, which usually increases w
age to a degree that makes it unpleasant to the ta

The rancid flavor in milk is due to the same con
tions as milk with a cowy flavor, which is the result
the growth of butyric acid bacteria.

(To be concluded in the September issue of The Milk Deale



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SEMI-STEEL

ILK BOTTLE CASES

THIS new milk bottle case is entirely steel-protected. It is designed and built to meet the severe demands of constant usage, to stand the wearing, tearing-down action of conveyors, case washing machines, truck and wagon rides, and drivers who don't care. The super construction of Defiance Cases makes them the longest lasting and most economical case on the market. Every corner is cased in heavily galvanized steel and riveted throughout. Write for specifications and quantity prices.

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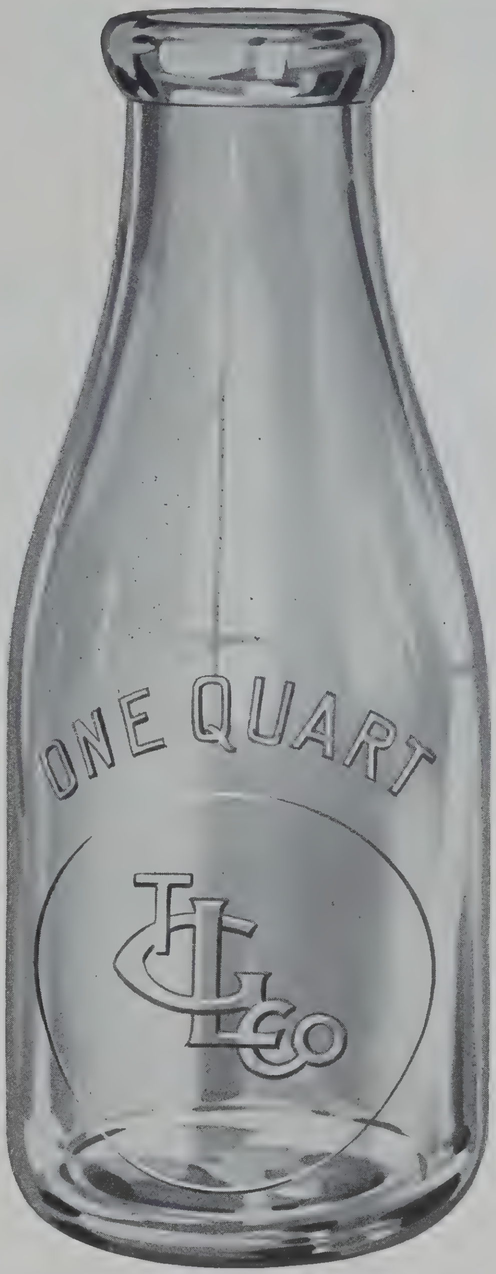


SUPER MILK BOTTLE

Speaks for itself, and is recognized by all as the achievement of **The Lamb Glass Co.,** who specializes in its manufacture—**independently.**

The Lamb Glass Co.

Factories and General Offices:

Chicago Mt. Vernon, Ohio New York

Prof. Burke's Inquiry -:- Department -:-

This Service is Free to Readers of The Milk Dealer

Inquiry from B. M. Co.: You helped us on cottage cheese so we'll call on you again. We still have from 50 to 100 gallons of skim milk each day that we don't know what to do with. Our town is 5,000; our milk customers about 1,000. We now sell milk, cream, commercial buttermilk, chocolated milk and cottage cheese. We would like to know what we could do to get some profit out of this extra skim. How about Swiss or skim milk cheese or semi-solid buttermilk or powdered skim milk?

This extra skim will not be regular but will vary from almost nothing in late summer to 100 gallons daily now.

We could leave the cream in most of it if we could profit more by it.

We have a 12-h.p. boiler but usually do not keep steam at night.

Reply: I am very sorry to be unable to answer your letter directly. As you failed to give your address I can only publish your inquiry and my reply in the hope it will be noted in time to be of some value.

You seem to be making a pretty good variety of dairy by-products, hence it is somewhat difficult to decide what to do with the extra skim milk. Have you ever tried making whole milk neufchatel or pimento cheese? You might work up a good trade for either of these since they are easily made on a small scale and require very little equipment.

To make the neufchatel: Pasteurize 30 pounds of whole milk in a shot-gun can at 140-145 degrees F. for 30 minutes. Cool to 80-85 degrees F., add one-half pint of lactic starter and then 8 drops of fresh rennet diluted in about 3 or 4 tablespoonfuls of water. Agitate thoroughly while adding the rennet. Set the can of milk in the ice box at a temperature of about 50 degrees F. over night. In the morning very carefully pour the curd onto fine meshed cloth and hang up to drain. Cheese cloth is too course for draining as the curd is very soft; however, I have sometimes used it double with good results. In pouring the curd onto the cloth be especially careful to avoid breaking it up any more than necessary. After the curd has been drained so that it breaks away easily from the sides of the cloth remove it from the draining rack, fold the cloth over it and place it between two boards, putting a weight on top to press it. If you have a cheese press handy so much the better. However, I have secured good results by placing the curd between two butter box covers and putting an ordinary bucket of water or several bricks on top. Press the curd until after about 4 to 6 hours it weighs 5.5 to 6 pounds. You will note this cheese is very mildly acid, soft in texture and exceptionally creamy. It should then be slightly salted. From the amount made and on the basis of the cost of the milk you can easily figure the price at which it must be sold.

To make the pimento cheese you may use the above product or you may use the cottage cheese. After removing the seeds and small black specks from the pimentos, grind them up finely by running through a meat chopper. Mix thoroughly with the cheese. One small can of pimentos, which I believe usually sells for 20 cents, is sufficient for 5.5 to 6 pounds of cheese.

In this discussion of cheese manufacture, I have used rather simple methods and equipment as I do not believe it would pay to purchase elaborate supplies for what your letter suggests is of temporary duration. I you find a good trade is being worked up I shall be g to supply you with all details of the scientific manu tur of these products on a large scale.

Another suggestion for the disposal of your surp skim milk is to sell it to a plant making condensed the ice cream trade. Other plans would be to sell t milk powder plant, an ice cream plant or make it up i casein. However, I suggest you will not find the lat very remunerative.

* * *

Pennsylvania.

Dear Sir:—We have observed that our pasteuri milk of about 3.5 per cent butterfat, while it has a cre line that does not vary much from that of our co petitors', appears very thin and bluish below cream li

When emptied from bottle customers claim that l milk on bottom is unusually thin.

We pasteurize at 145 degrees and cool it in our p teurizer to 125, then cooling it down on tubular coo to about 40 degrees.

Can this be remedied and how? What is clarif milk?

Reply: I am sorry to learn of the trouble you a having with "blue" milk. Early in spring, followi the long winter period on dry feed, cows usually secr a milk rather bluish in color, this because the fat co tains very little yellow pigment called "carotin" whi is obtained from green feeds. As soon as pasture l comes available the trouble disappears. Over this f tor you have no control and the producer can overco it only insofar as he is able to simulate spring and su mer feeding conditions.

Another contributing cause is too efficient separati of cream from milk. This you can remedy to some e tent by preventing a complete rise of fat on the mi thus keeping more of it in the skim milk to produce t color. There are several things you can try, some which will add slightly to the cost of bottled milk wh others will effect it in the manner mentioned. I su gest you try the following:

Method 1.—Pasteurize and cool your bulk milk usual and to it immediately after cooling, and just pri to bottling, add 20 to 30 per cent of pasteurized mi previously prepared as follows:

1. Quickly cool to 40 degrees F. and hold some pa teurized milk in storage at 38 to 40 derees F. or low for about three to four hours, or until it **creams.** Th **agitate** to remix the **cream** and to it add enough crea to raise the fat test about three-tenths to one-half p cent (0.3 to 0.5 per cent). Mix thoroughly.

This, you will note, is planned to give a good crea line and at the same time leave considerable fat remai ing in the skim milk to make it look yellow, the reas being that recreamed milk never creams as thorough as milk on which the fat is allowed to rise only on and is not remixed. The slight addition of cream w not add materially to the cost.

Method 2.—Three or four hours ahead of time s some cooled, raw milk in storage at 38 to 40 degrees to cream. When your bulk raw milk is added to the v add to it 20 per cent by volume of the creamed ra milk. Pasteurize as usual and cool. If this noticeab decreases the cream volume on the bottled milk you c add to the next day's output a very small amount pasteurized cream.

Method 3.—Pasteurize all milk as usual at 142 d grees F. for 30 minutes, but instead of cooling in the v to 125 degrees F. continue the cooling to 90 or 100 d grees F. with the coils operating. Then run over t cooler. This process, while giving a fine flavor, tends

R. CREAMERYMAN!!!

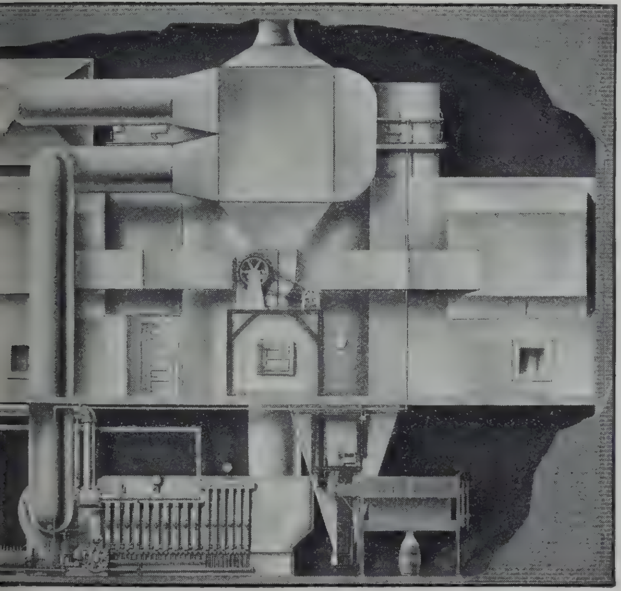
do you use granulated sugar in your dairy ucts instead of powdered sugar?

the answer—because the texture of granu- sugar makes it more readily soluble?

t's just the reason why users of milk powder only PREFER, but DEMAND Rogers y Process Milk Powder—because it's not completely soluble even in ice cold water, due to its texture it is more readily soluble.

t's the reason it's been impossible to supply demand for Rogers Spray Process Milk der—even at a time when manufacturers of powder produced by other processes were ed to store their product, or dispose of same duced prices as poultry or animal feed.

t's one of the *many reasons* you should in- a Rogers Spray Process Milk Powder Plant.



Rogers Spray Process can give you a uniformly high milk powder, of lower bacteria content, and *of any re desired.*

pay royalties—when a Rogers Spray Process Milk ler Plant costs no more than other spray process milk ler plants—yet it produces nearly three times the ity of milk powder, of higher quality, and at con- bly lower manufacturing costs—besides Rogers 't ask you to pay any royalty.

today for RELIABLE information on MILK DER—its manufacture, uses and marketing.

E. ROGERS COMPANY
8731 WITT STREET
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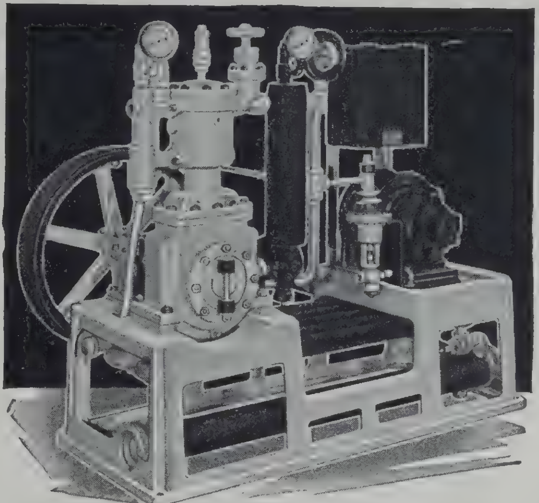
FULL AUTOMATIC REFRIGERATION



Installed Easily and Economically

A wise old Milk Dealer once said, "You can't beat our milk, BUT you CAN whip our cream."

Without doubt the above remark was made because the Milk Dealer had already installed a Mechanical Refrigerating Machine.

The ROME FULL AUTOMATIC is quickly, easily and economically installed and on such reasonable terms that no Milk Dealer need be without a Rome. Fill in your name and address below and mail today for the complete facts.

Rome Manufacturing Company
Refrigeration Dept. · Rome N. Y., U. S. A.

ROME MFG. CO.
Gentlemen:—
The undersigned would like to learn the facts about Rome Full Automatic Refrigerating Machine.
Name______________________________
MD ______________________________

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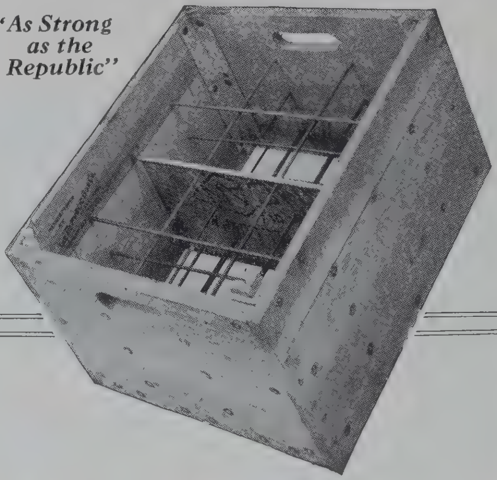
BOTTLE CRATES

"As Strong as the Republic"



Shock-Proof and Enduring

REPUBLIC Bottle Crates will withstand the hardest bumps, jars, and shocks, which your most careless driver will give them. The construction is simple but designed to give the longest wear. Materials used in Republic Crates are the finest obtainable. The metal, called "Toncan," is the best grade of galvanized metal on the market—costs us a little more, but is rust-proof and adds extra strength. This is but one example of the quality that is built into Republic Crates. A high grade crate at a price you can afford.

We would be glad to show you how Republic Crates will save money for you. Write for prices and quantity discounts.

THE REPUBLIC BOX CO.
1693-1711 Merwin Street
CLEVELAND - - OHIO

break up the fat globules causing more to remain in
skim milk. It also may cause a slight cream plu
form and will decrease the cream volume on bot
milk. However, this latter you can overcome by ad
a little cream as above.

You could try heating a little higher, say to 147
grees F., but not above, with more agitation in the
teurization vat but this would undoubtedly affect
flavor as well as the cream line. I do not believ
would prove satisfactory.

Now, as to a clarifier. This is simply a mechan
strainer and works on the same principle as a separa
except that it does not separate milk. It operates
high rate of speed and the centrifugal force throws s
ment and insoluble particles heavier than milk, to
outside of the bowl.

* * *

Illinois.

Dear Sir:—We are very much interested in the s
ject of the manufacture of commercial buttermilk,
will appreciate your opinion on the following questio

What is the object in heating skim milk to be u
in the manufacture of buttermilk to temperature ab
190 degrees? Is it primarily to kill off and weaken
desirable bacteria, or is it essential to control the b
of the finished buttermilk?

Our experience indicates that milk pasteurized
145 degrees, and then treated with a small amount
gelatine, will give a much better finished buttermilk,
desired body and marked resistance to wheying off.

Reply: The primary reason for heating the s
milk to about 190 degrees F. is to destroy as many b
teria in the vegetative state as possible.

There is a secondary reason, and that is the effect
different temperatures on the body of the butterm
For example, if skim milk be heated to 145 degrees
or slightly lower, and then cultured, the resulting c
particles are much larger than those in the case of m
heated to 180 degrees. In other words, as the tempe
ture rises the curd particles become more finely divid
and softer. The curd accordingly, breaks up easier
is more uniformly distributed. Also, after many
peated experiments, I have obtained a more viscous b
termilk and generally better results by using the hig
temperatures, thus corroborating the work of oth
Because of the effect of temperature on curd formati
it is customary to pasteurize milk for cottage che
making at 140 to 145 degrees F. rather than at hig
temperatures. The variation in size of the curd pa
cles of milks heated to the temperatures above listed
readily visible to the naked eye.

As to the use of gelatine in milk heated to 145
grees and cultured, I can not say, as in all my g
tinated buttermilk experiments, I have used higher t
peratures. Since gelatine is a protective colloid, ess
tially the same results may be obtained at 145 degr
with it, as at the higher temperatures without it.

* * *

Wisconsin.

Dear Sir:—We have trouble with our whipp
cream, too many people can't whip it, so they cla
It is 36 per cent, 24 hours when bottled and nearly
hours when delivered. It is standardized with fr
pasteurized milk from the same day. The whole m
is pasteurized and skimmed at that temperature.
cream goes right over a surface cooler and is immedia
ly cooled to 54 with water, then placed in a harden

New York Style

Play safe and specify K-W cans

Everyone wants to get full value for his money.

Full value in cans is assured to buyers of

K-W Milk Cans

These cans are made of the best materials obtainable — hand tinned—specially constructed to resist wear and to outlast ordinary cans. They are made right even in the parts you can't see. They represent "canned experience." And they cost no more than others. That is why we say: "Play safe and specify K-W cans." You are sure to get your money's worth.

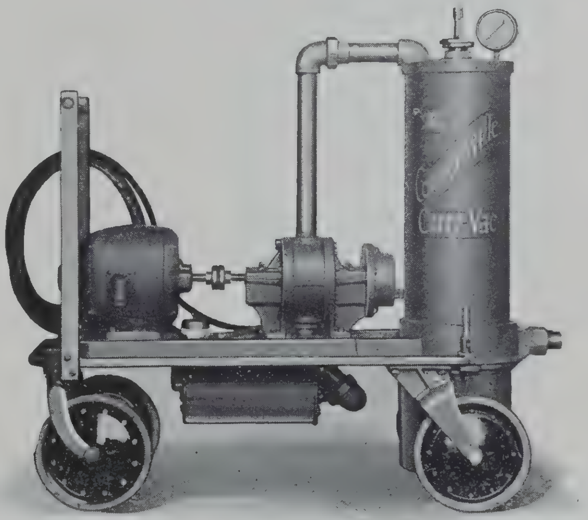
KEINER
ILLIAMS STAMPING
COMPANY

8746 123rd Street
RICHMOND HILL,
LONG ISLAND, N.Y.

Jersey Style

Connersville Curry-Vacs

Pay for themselves once every four months in cattle barns.



They will do the same thing for you.

SEND FOR INFORMATION

Please send information on ( ) Truck, ( ) Stationary Type Curry-Vacs for cleaning ( ) Cows, ( ) Horses.

NAME ....
ADDRESS ....
CITY AND STATE..

United Vacuum Appliance Corp.
CONNERSVILLE Dept. M-8 INDIANA

Increase Your Dairy Profits

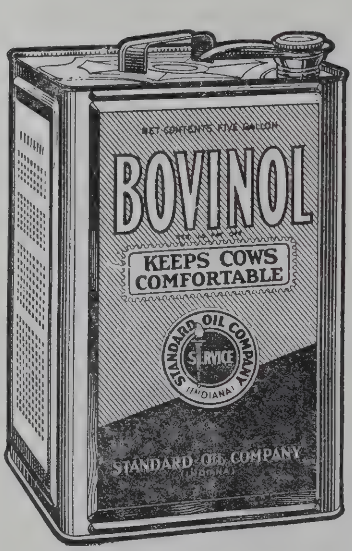
USE

BOVINOL

REG U S PAT OFF

You can increase milk production at least 10% by the consistent use of Bovinol! Agricultural experiments and practical dairy tests have proved it.

Cows waste energy fighting flies. Wasted energy means less milk. Scientists estimate that the energy used by an animal in fighting flies is equal to the food value of a pound of oats per head per day.



It will pay you to use Bovinol to protect your cows from flies. Flies may light on a cow sprayed with Bovinol but they cannot bite. They are smothered by the oil if they try it.

Care must be taken in applying Bovinol to cover every square inch of the hide. It can be done in less than a minute with the compressed air type of sprayer in which the oil is forced out by air pressure and is further atomized by an air blast. Spray against the direction of the hair so that the Bovinol will penetrate the coat.

Bovinol is a colorless, stainless and tasteless oil. It will not contaminate the milk, for it has no odor. It is non-poisonous—will not injure or irritate the hide. Spray your cows twice a day with Bovinol if you would increase your dairy profits.

BOVINOL

REG. U.S. PAT. OFF.

Sold in Cans and Barrels

Tasteless • Odorless • Colorless

A Scientific Product Characterized By All the Efficiency Customary in Products of the

STANDARD OIL COMPANY
(Indiana)
910 So. Michigan Avenue, Chicago

Ask the Nearest Standard Oil Agent

4703B

room to get the temperature low enough before bottl What else can be done to improve it? Shall we put s Viscogen in it, and how do you make it and how you use it? Our coffee cream is fine. No kick since pasteurize and cool immediately.

Reply: Pasteurize the fresh whole milk as soon received. Then, instead of separating, cool as qui as possible to a low temperature—preferably 38 to degrees F., and hold at this temperature for not than four hours. It would be better if you could hol at 38 to 40 degrees over night. Now warm to 85 to degrees F., no higher, and separate. Follow this quick cooling to 40 to 45 degrees F. Standardize age at this temperature for 24 to 36 hours.

The trouble you are having is caused by a lack sufficient viscosity, which is due to separating as soon the milk is pasteurized. This causes dispersion of fat globules. Following the above procedure cause clumping of the fat globules which experiments h shown is one important requirement for viscous cre

One thing about standardizing; I suggest you try separate a 36 to 38 per cent cream and standardize 33 to 34 per cent as this will eliminate the addition very much milk. It is not necessary to sell a 36 per c cream for whipping, as even 30 per cent will give g results when the product is handled in the proper m ner to produce viscosity. However, the richer the cre the thicker the whip.

I would not advise the use of Visogen, since m states prohibit its addition to milk and cream. It sugar of lime, and is made by mixing lime with a su solution. It is easily prepared, and if you desire formula I shall be glad to send it. However, since i readily detected in milk and cream and may alter flavor if added in too large quantities, I feel certain will not care to make it.

* * *

New York.

Dear Sir:—Could you furnish us with some infor tion regarding the cooling of milk after pasteurizati or advise us where we could get a reliable opinion the subject? We realize opinions along this line va

We are at present cooling our milk to 38 degrees before bottling, and keep our refrigerator at about degrees. We have been advised that if we would k our refrigerator at a little higher temperature, not c ing our milk so much, we would have better results to filling and cream line.

Reply: Many factors influence the creaming of p teurized milk. I would not suggest that you keep refrigerator temperature at any temperature above degrees F. A higher temperature would favor m rapid souring and the formation of a cream pl Numerous experiments in milk plants have shown t low storage temperatures favor cream line developme Therefore, you should cool the milk as quickly as po ble and hold at about 38 degrees F. as you are doing

There is undoubtedly some other cause of failure get cream line. You do not mention what temperat of pasteurization you use nor how you cool; I sugg you do not pasteurize at a temperature above 143 grees F., nor less than 140. Also, in cooling it is best use some form of surface cooler rather than to atten cooling in the vat. If you cool in a vat I suggest y use as little agitation as possible between the tempe tures of 115 degrees F. and 60 degrees F. Just agit barely enough to keep the cream from rising. If y are partially cooling in the vat it is advisable not to c any lower than 120 degrees F. before running over

NEW

Nicollet Hotel

MINNEAPOLIS

The Northwest's Leading Hotel

Home of W. C. C. O. Studios

Six Hundred First Class Rooms at Very Moderate Rates!

HEADQUARTERS

.... *of the* ....

DAIRY INDUSTRY

W. B. CLARK, *Manager*

PERFECT!

The

ATWOOD

— FOR —

HORSE GROOMING

FIRST IN THE FIELD—and many years of experience since, has made the Atwood vacuum machine for horse grooming perfect in every detail. Substantial, strong, and rugged, it will last a lifetime. The tool will get down to the skin and loosen every particle of dandruff, dirt and dust. This dirt is not only dislodged, but completely removed, and with it go all vermin, to a sealed container where they die. It eliminates skin diseases and other horse ailments, and requires less than one-fourth the time to do a more perfect job of grooming. Let us show you how other dairies have found the Atwood a profitable investment.

Atwood-Stewart Vacuum Machine Co.

Horse Grooming Equipment

6467 Ravenswood Ave. Chicago, Illinois

Atwood-Stewart Vacuum Machine Co.,
Horse Grooming Equipment,
6467 Ravenswood Ave., Chicago, Ill.

Please send us bulletin regarding the proper cleaning of horses and cattle. We have .... horses and .... cows.

Firm ....

Street ....

City.................................. State............

Nutting

Milk Case Truck

the QUICK, easy way to move and "place" stacks of cases anywhere about the plant. Ask your jobber or write us.

NUTTING TRUCK CO.
1290 Division St. Faribault, Minn.

Floor Truck Leadership Since 1891

cooler. The reason is that fat globules are broke and injury to the cream line occurs more quickly at peratures between 115 and 60 degrees F. than at other temperatures.

If the above suggestions do not enable you to ol a good cream line I shall be glad to have you writ in detail the method of handling the milk, and I sure we can overcome the trouble.

◆

TRADE PUBLICATIONS HAVE IMPORTANT SH IN BIG PROGRAM OF PUBLICITY.

One of the largest and most comprehensive adve ing programs ever undertaken by any truck manu turer has just been announced by the Federal M Company of Detroit.

While all forms of advertising are to be used, tr publications have a prominent place on the list of m ums. The leading trade magazines in twenty field industry have been selected. The Milk Dealer chosen to carry Federal advertising to the milk trad

"Vocational publications are logical mediums Federal and for other advertisers who wish to reac special group with a large potential buying power," John M. Howard, advertising manager for Federal.

"We wish to place our message before the most gressive type of business men and the largest buyer motor trucks in each of the major truck markets. Tr magazines go to just this kind of audience, and for reason we will use full pages in the ones that we have the most adequate circulation and a high stand in their respective industries.

"This is a comparatively new field for Federal vertising, but, with our new line of fours and sixes— most complete in Federal's 17 years as a builder trucks exclusively—it is our conviction that trade j nals are indispensable to our future plans. We are using national magazines, newspapers, outdoor pos and direct mail, thus bringing into action all th mediums which are so essential to a well-rounded comprehensive merchandising program."

◆

NOT SO BAD.

Ashland, Ky., July 19, 1927.

Editor The Milk Dealer:

We note with interest that one patron of the M ford, Wis., creamery received a check for $254.90 two weeks' cream.

We have three farmers who received over $200 three who received over $300 and one who recei $927.85 for the first half of June and $910.70 for the half of June and $975.80 for the first half of July. T is for whole milk.

That's not so bad for old Kentucky, way down Sou Most of these farmers have only been producing ab five years or less.

We are a little slow starting but watch us grow.

Very truly,
ASHLAND SANITARY MILK C

◆

The wealth of a nation lies in the prosperity of people. The power of a Want Ad is in the numbe subscribers reading them. Do you read "The M Dealer" Want Ads—regularly?

Our Whole Effort

—so far as the Dairy Industry is concerned, is directed toward one purpose—the production of high grade

Powdered Milk Barrels

—and our relations with the trade attests the t that we are producing barrels which fully et the exacting requirements of this industry.

ALL STANDARD SIZES

linois Cooperage Mfg. Co.

General Office: 220 S. State St.
CHICAGO

FACTORIES IN SEVEN STATES

"STERLING"
REFRIGERATION
AND COLD STORAGE EQUIPMENT

OVER THIRTY years of experience stand back of each piece of "Sterling" Refrigerating Equipment and dependable "Sterling" Service.

"Sterling" Service comes to you from highly trained men and includes the designing, estimating, installing and repairing of your entire refrigeration requirements.

"Sterling" Ice and Refrigeration Equipment includes a complete installation for any size of plant. You need place only one contract.

"Sterling" Service and "Sterling" Equipment combined is your assurance that you will have the utmost in economy, efficiency, and durability in your refrigeration system.

Write For Quotations.

UNITED IRON WORKS, INC.
SPRINGFIELD, MO.
GENERAL OFFICES: KANSAS CITY, MO.

The Care and Handling *of* MILK

By HAROLD E. ROSS

¶ The newest book on the subject. Over 400 pages. Many illustrations.

¶ A guide for all interested in the care and handling of milk and its use as a food.

SENT ANYWHERE POST-PAID ON RECEIPT OF

≈ $3.00 ≈

The Olsen Publishing Co.
501-515 Cherry St. Milwaukee, Wisconsin

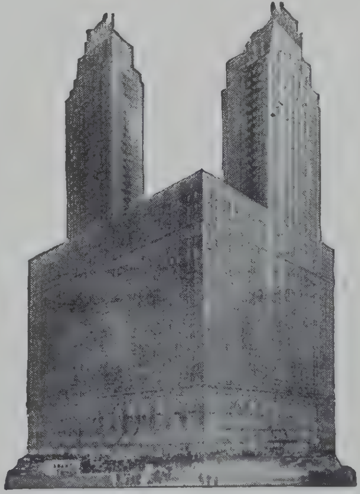
When in CHICAGO

Enjoy your stay—at the superb new

MORRISON HOTEL

Cor. Madison and Clark Streets

The Tallest Hotel in the World
Forty-six Stories High



The New Morrison, when completed, will be the largest and tallest hotel in the world, containing 3,400 rooms

Closest in the city to offices, theatres, stores and railroad stations

1,944 Rooms $2.50 Up

—all outside, each with bath, running ice water, bed-head reading lamp and Servidor.

Home of the
TERRACE GARDEN

NEWS FROM THE CAMP.

Chicago, Ill., July 25, 1927.

Editor The Milk Dealer:

President Wanzer has just returned from the camp bubbling over with enthusiasm and making all arrangements for a return engagement.

We have received a number of inquiries about our bridle paths and riding horses. This service will be installed this week. Tell this to the wife and daughter. Have them take the well marked trails through our shady forests. How they will enjoy the rides; and tell them not to frighten the deer as they are becoming very tame. MY, what an appetite you will bring in from a canter through the pines to our airy dining room.

Here is a report from Geo. Wieland, who stayed a week longer than he planned and he says that it is typical of life at the camp.

Well, Little, you want my opinion of the camp. Here is our first but not our last experience at the camp:

We are originally Missourians and typical of the "old show me" class, so we decided to find out whether those rosy pictures of the dairy playground were true.

Our plans were well made and one evening my wife and daughter and a friend of mine and his family, after making our advance registration through the secretary's office, boarded the C., M. & St. P. fisherman's special at 6:25 at the beautiful Union Station in Chicago, and were on our way to be shown. Our ride put us in pretty good spirits because we found a nice train, splendid service and a wonderful dinner in the diner. Arriving at Minocqua at 7:05 the next morning, we were ushered into one of the most luxurious motor coaches that we think we ever had the pleasure of enjoying. This took us on a speedy ride over wonderfully paved roads through some of the most scenic woodland that it has ever been our good fortune to behold, past beautiful lakes, woodlands, with deer and elk standing in state reservation parks with wonder and awe at our approach. After about an hour of a seemingly all too short ride, we arrived at Boulder Junction where we were met by the association car and Mr. Ashton, a most charming and amiable gentleman, who seemed to make us feel that we were the only ones that they were expecting. Another beautiful drive through Wisconsin forests and we are entering the playground property past stately evergreens, birch and hemlocks.

What a joy to be alive!

In a few more moments and we are in the midst of the camp's beautiful log cabins and to our right and left is a group of our dairy friends greeting us and welcoming us on every side. We are in high glee to be there. Beyond us rose the beautiful silvery Big Crooked Lake on which we could see a number of the boys casting for the ever elusive musky and bass.

As a big boat slipped down to the landing just at this moment, so did our business and worldly cares seem to slip away from our shoulders. We paused just long enough to take in a bird's eye view of the cabins all around us and Mr. Ashton, with the ever-willing help of our friends, took us to one of the most beautiful cabins we have ever seen, brand new and newly equipped, scrumpulously clean, comfortable and inviting. Surely, what more could be desired? Here we are with nothing to wish for.

We lost no time in getting into our bathing suits to join the very happy bunch at the beach, not more than a dozen steps from our front door—here we go, splash, splash. OH BOY, why didn't we come before? Why did they only tell us half the story? What a wonderful warm, soft, sandy beach. What a joy to see the kiddies scooting down the slippery slide into the water. Everywhere not a care. We could stay in here all day but there are other things to do. Now to get a shower and into our camping clothes.

First for a canter through the woods, 315 acres of God's own virgin forest where all the trails are so well marked that there is no chance of getting lost. We could not leave this beautiful spot until time for lunch. Back we are at noon. There goes the dinner gong. Sure it was music to our ears.

Another beautiful sight burst into our vison. We wandered into a rustic, new, airy, sunlight dining room, decorated with trophies of the north woods, the tables covered with spotless linen—alert and ready to serve, are the dining room girls, dressed fresh as the woods themselves and OH, the meal. No wonder it cannot be described.

Now we unpack our fishing tackle, while the ladies take a saunter down through Cathedral Lane, up to the clea
for our proposed golf course, a trip through a veritable
land. We cast until we know it is time for the di
gong. How we hate to go in; but we have our full
catch and game laws are game laws in Wisconsin. Afte
noon meal, we thought we never would want to eat a
but the dinner gong found us ready and willing as be
If we were surprised at the noon luncheon, we were am
at the dinner. After the evening meal and a view of
grounds and other cabins, the "gang" got together at
Casino and enjoyed the radio, games, and the moon
on the lake. Before dusk the ladies and children enj
the outdoor pastime of finding the deer along the
through our mammoth telescope. Where has the eve
gone? It is time to go to bed and we are loath to d
even though we are so blamed tired. We all pile into a
mon's bed with snowy sheets and downy pillows. OH
home was never like this. We feel that for the rest of
summer that if business interferes with this pleasure
will do without the business. It is not long before we
unconscious.

It may seem strange to say, but fully refreshed we
earlier than usual the next morning and we beheld somet
we had not seen for years—an early morning sunrise. Not
could be more beautiful. Nature surely was trying to s
a special performance for our benefit.

We barely had time to wash and dress for breakfas
answer to the first gong. We had about exhausted our
lish for the luncheon and dinner but such a breakfast,
strange to say, we took it as it came. Fruits, cereals,
jacks, doughnuts, bacon and eggs, coffee, cream and
and the sweet girl waitress urging us to call for more.
next day we must change our fun some and take in a
golf at Trout Lake, which was all up to our expectat
Before having lunch, we took a hike over to Boulder L
Little Crooked Lake and Big Bear Lake, and then over
over again.

A couple of our party preferred to go for the rest ra
than the sport. Are they enthusiactic? I hope to tell yo
large, easy, luxurious chairs, deep, cool shade, an orche
of song birds. You know the camp is now a bird refuge
hike through Cathedral lane and the beautiful trails wa
the exercise that they desired. The rest of the time, c
cool, sweet relaxation, with possibly here and there a
story from our well stocked library, a saunter up and d
the walk, resting and swinging on the mammoth Ca
porch, and a day-time nap in the privacy of their own ca

Here we are back at home and wonder why we lef
soon. We are making another reservation for August, s
ing up a bunch of our friends. The half of it cannot be
Let them find out for themselves.

The last report was: Attendance at the camp.
weather, average temperature past week, 70.

Very sincerely yours,
NATIONAL PLAYGROUND ASSOCIAT
R. E. Little, Secy.

⁂

RHODE ISLAND GOES UNDER STATE INSPECT RULE.

Rhode Island milk producers and distributors
under a state inspection regime July 15 which will
toward providing the state with Grade A milk at a
price to both the producer and the consumer.

Commissioner of Agriculture Harry R. Lewis an
four deputies will act as milk inspectors in the
to enforce the new rules. They propose to accom
the following purposes through the new plan. To
tect the consumer as to quality, quantity and health
ness of dairy food products in the state; to aid and
tect the producer in his desire to provide Rhode Is
with a high quality fluid milk; and to protect and
guard the distributor in the handling and mercha
ing of such dairy products.

It is their future plan to educate the consuming
lic as to the uses and care of dairy products, an
encourage more extensive use of milk.

n unbeatable combination for your plant—

The R&A *Rotary* Can Washer
The R&A *Soaker-Hydro* Bottle Washer

IF YOU want solid, clean construction without frills of any kind—if you want the kind of bottle and can washer efficiency that relieves you, permanently, of all worry about the cleanliness of your containers—if you want these features without the penalty of an extravagant investment—

Then give consideration to these two R & A Washers.

R & A Rotary Can Washers have always been dependable can washers. Any user will tell you that. And the R & A Rotaries of today are vastly improved in ruggedness, efficiency and simplified design; probably the only rotary can washers available that are built to meet the requirements of every Board of Health.

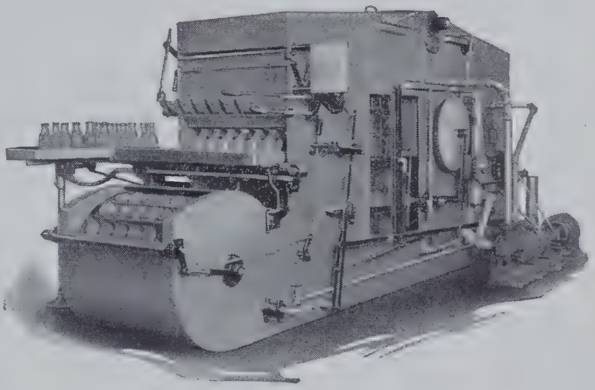
The R & A Soaker-Hydro Bottle Washer matches the Rotary Can Washer in performance and strength. Its highly efficient combination of soaking and hydraulic washes is so effective that we say to you: Buy it—try it. And if after thirty days you don't believe it measures up to every claim made for it, we will gladly take it back without argument. And, you can buy the four-wide for less than $3500 fully equipped.

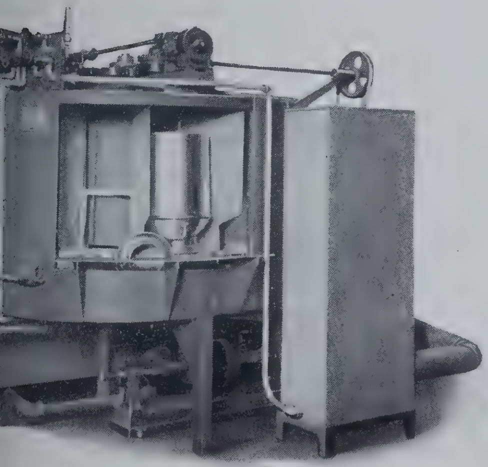
The R&A Soaker-Hydro

32 bottles per minute in the 4-wide, 48 in the 6-wide and 64 in the 8-wide. Every bottle gets a prolonged soak, powerful hydraulic solution washes thru pump, pump rinses and finally clear water rinses both outside and inside—

Feed and discharge at one end of machine; four rows of pockets always exposed ready for loading. Protected thruout by automatic safety-stops. Electrically lighted discharge and inspection. Simple, trouble-free, accessible and tremendously strong.

Less than $3500 for the fully equipped 4-wide model; and it invites comparison on construction and performance with any bottle washer on the market!





The R&A Rotary Can Washer

With this washer you get *clean* cans, *sterile* cans, *dry* cans; and if you want a clear conception of how wisely our engineering department has worked in designing it, send for specifications and go over them with your health department.

Covers are washed with the cans, and receive the same thorough cleansing, rinsing and drying. The whole machine is extremely accessible, and every part is built oversize to insure years of steady, trouble-free service.

As a progressive milk plant operator, you will be interested in the specifications on this machine. They're yours for the asking, and the obligation is all ours.

Please Note:—

All R & A Bottle Soakers are built under the basic patents of Charles E. Felt. —Also they can be equipped with hot-water sterilizers and coolers, if desired.

For your own satisfaction, before purchasing any washer, investigate these machines.

ICE & ADAMS CORP., Buffalo, N.Y.

When writing to RICE & ADAMS CORP. *please mention The Milk Dealer.*

Milk Fed Men Make Better Washers

Workmen Get Regular Deliveries of Milk at World's Largest Washing Machine Factory

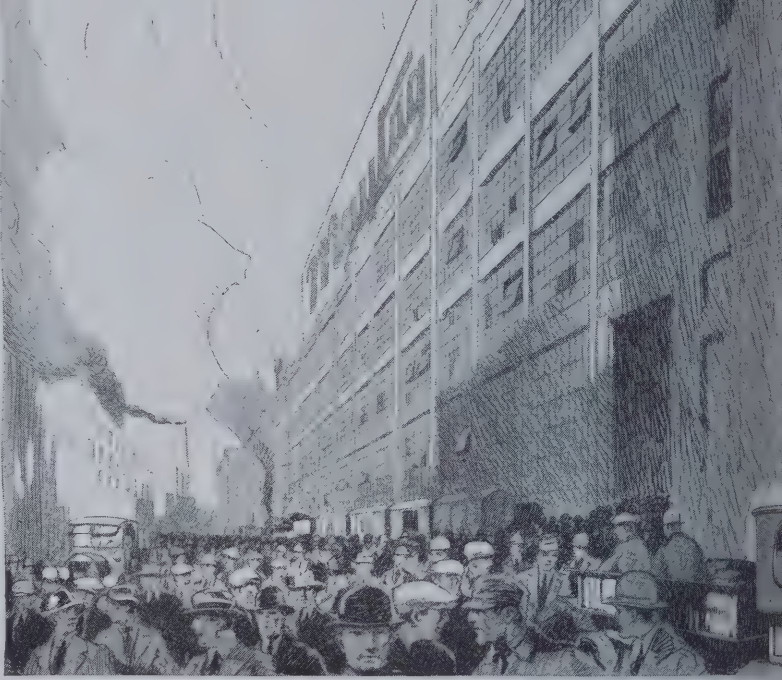
TWICE a day, in the world's largest washing machine factory, milk is delivered to the workmen. Each morning a large milk wagon arrives at the Maytag factory at Newton, Ia., and a thousand bottles of fresh, wholesome milk are placed in five large ice boxes stationed at convenient points about the factory.

In England, the men in offices have their afternoon tea, but here in America you have workmen "going them one better," by having their fresh, wholesome milk both morning and afternoon. This milk habit works to the advantage of the Maytag Company, as well as the workmen. It refreshes the men, enabling them to do better work, and it makes it unnecessary for them to leave their work to get refreshment. At noon the men are privileged to visit the ice boxes and purchase milk at the reasonable price of six cents a pint.

The big Maytag factory produces about 1,400 washers a day, more than one washer to every bottle of milk. Milk producers will probably want to know whether the production of washers increases in direct ratio to the number of bottles of milk consumed. However, since there are 2,000 workmen employed, it is safe to say that new recruits are continually climbing to the "milk wagon," and perhaps some day the daily requirements of the Maytag factory will reach 2,000 bottles of milk.

Not only is the Maytag factory equipped with the most modern machinery throughout, and working conditions provided which make for health and comfort, but the men are allowed privileges not commonly accorded to industrial plants. The new six-story factory addition and mammoth grey iron foundry are equipped with shower baths, dressing rooms, lockers and the most up-to-date plumbing. No expense is spared by the Maytag Company to make the working quarters comfortable, clean and modern.

E. H. Maytag, the president of the Maytag Company, is a farm product himself and that ma
the reason he appreciates the value of good milk to
vigor into milkmen, and perhaps his memory of a f
mother, inspired him to equip his world-renowned alu
num washer with a modern gasoline motor so tha
would be practical for farm homes without electric



GOLDEN STATE ENTERS MARKET MILK FIELD IN CITY OF SAN FRANCISCO.

Announcement has been made by the Golden State Milk Products Company of the purchase of the capital stock of the National Dairy Company of San Francisco. By the acquisition of this business, the Golden State Company is following the natural progressive evolution of its business as producer, manufacturer and distributor of milk and its products, which has resulted in its becoming the largest concern of its kind west of the Rocky Mountains. This is in line with the announced policy of the Golden State Company, of using its many plants, field operations and selling forces to the fullest extent.

The National Dairy Company is one of the old established dairies of San Francisco, having been formed by an amalgamation of certain pioneer milk concerns
1912. It has a substantial distribution of milk and cre
in San Francisco, and bears an excellent reputation
highest standards in its products.

* * *

FACTORY EMPLOYEES TO HAVE FRESH MIL

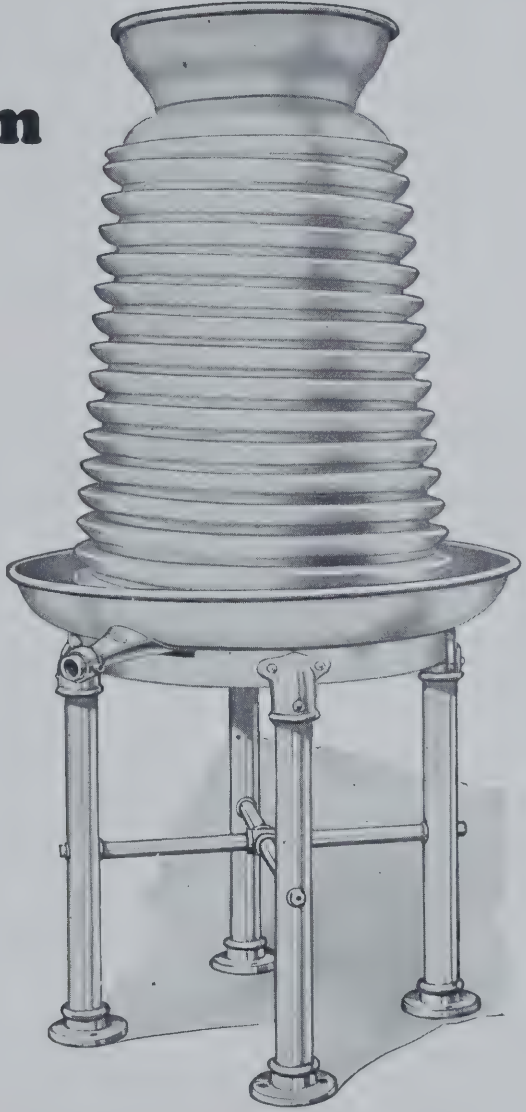
The Wisconsin State Manufacturers' Associat
dairymen and the Fond du Lac (Wis.) Association
Commerce are planning to give employees of Fond
Lac factories an opportunity to obtain fresh milk
drink during working hours. Under the plan, wh
has been found successful in other cities, pint bottle
milk will be left at the factories each day for such
ployees as want them.

Miller Miller

THE
H·H·MILLER INDUSTRIES CO.
CANTON, OHIO.

Chilly King Milk and Cream Coolers

Unexcelled for the cooling of Fluid Milk, Heavy Cream and Pasteurized or Homogenized Ice Cream Mix.



Made in sizes 1,000 to 10,000 lbs. per hour.

Also manufacturers of MILLER BRINE ICE CREAM FREEZERS, MILLER PASTEURIZERS, AUTOMATIC MILK HOLDING MACHINES, VATS, TANKS, M&M BOTTLE WASHERS, ETC.

Please Ask for Bulletin and Prices

When writing to THE H. H. MILLER INDUSTRIES CO. *please mention The Milk Dealer.*

The Truth about Chocolated Mil

WE started it in the South at the Army Camps during the World War and it has now spread over the entire country and is a growing success where the Milk Dealers are using

CHOC - O - LISHUS

[TRADE MARK REG. U. S. PATENT OFFICE]

There is no reason for using imitations.
The original Choc-O-Lishus is just as cheap and it goes further.

It has the true Chocolate Flavor.
It is the best by test.
It deserves your support.

The manufacturers of Choc-O-Lishus are the oldest and largest manufacturers of Chocolate Syrup in the world.

THE CHOC-O-LISHUS CO.
NORFOLK, VIRGINIA

Subsidiary of H. B. HUNTER CO., INC.

NICOLLET HOTEL, MINNEAPOLIS, MINN.

he first Nicollet Hotel was built in 1857—in the last
of Minnesota territory status, and ten years before
eapolis received its charter as a city. The original
ere laid out by Colonel John Stevens in 1854. So
icollet Hotel historical existence is identical with
of the city of Minneapolis. The hotel was named
oseph N. Nicollet, a French explorer, who, during
to 1838, gave much valuable service to the state
United States government by collecting informa-
oncerning the natural history, as well as the condi-
of the Indians.

he general form of the new building, which was
d to the public on June 17, 1924, was determined
mensions and proportion of the lot. The site is an
lent one, commanding an unrestricted view across
iangular area known as Gateway Park.

e arrangement of rooms in a hotel is also governed
ly by the lot and its site. Consideration for the
, in regard to room and restaurant service, and con-
ation for the employee must be constantly borne
ind, together with such physical factors as stair-
, elevators and structural columns. In planning
Nicollet, the value of the ground necessitated the
vation of all street frontage for rentable area, with
xception of the space required for the entrances to
otel. The public space is concentrated on the main
the second floor and the basement. A long prome-
stretches from the entrance on Nicollet Avenue to
on Hennepin Avenue, and from this promenade, oc-
ng the central portion of the building, open the
lobby, the elevator lobby, the entre salle, the dining
and the coffee shop. The banquet and ballroom,
its assembly space; the private dining rooms, a
y parlor and a mezzanine lounge and writing room
y the greater part of the second floor. In the base-
are located the billiard room, containing a soda
ain and lunch bar, and the barber shop with a
' hairdressing parlor adjoining it. A public stenog-
r is located on the mezzanine.

e building is an imposing structure in the English
ssance style. It is a twelve-story structure, of red-
brick, with terra cotta trim and a stone base and
ourse. Its general character is one of simplicity
nting almost to severity. The interior of the hotel
so been designed in the English Renaissance man-
d provides a suitable environment for the clientele.

e main lobby is a spacious room of excellent pro-
ns, two stories in height, with a mezzanine gallery
d the four sides of the room. The walls are of
lly selected walut, rubbed with wax. The huge
ers are also of hand rubbed walnut, with bases of
valnut, excellent in workmanship and general ap-
nce. Molded plaster in an antique ivory tone com-
the ceiling from which are suspended two large
ng fixtures. Ample lounge and seating space has
provided in the lobby.

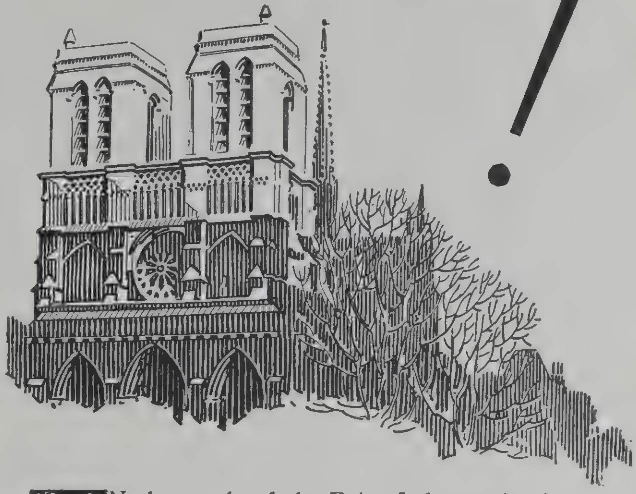
e woodwork is one of the most impressive things in
w hotel, and has caused much favorable comment
itors who know how seldom such quality of mate-
nd such exquisite workmanship are to be found.
ll the work of Aaron Carlson, Inc., and is a tribute
Carlson staff.

e Nicollet dining room is a work of art, so far as
and color are concerned, so that diners imme-
y are deeply impressed by their surroundings. In
ng with that delightful first impression, the service
ns everything that art as well as efficiency can

MAKE YOUR *CONGRESS*

a Pleasure Trip of

Europe!



IN the annals of the Dairy Industry the date "June 9, 1928," will be written in red ink! For that is the day on which American dairymen, their families and friends, will embark on a great adventure, which for many spells the realization of life-long dreams. From New York, the magnificent, luxurious steamer, the S. S. Leviathan, will carry us across the Atlantic to Cherbourg.

Our main mission in Europe is, of course, to attend The World's Dairy Congress, the greatest international convention in the history of dairying, which will be held in London, England, from June 26th until July 4th. Having crossed the ocean, we shall not want to return home without a glimpse of those lands we have read and studied about.

To this end the Congress has been arranged so as to allow time for a ten day tour before it opens, on June 26th. A glorious itinerary has been prepared by the American Express Company, which begins immediately upon our arrival at Cherbourg, France, on June 15th.

Paris? Paris—of course! That is our first stop. Then all through the smiling land of France. We visit historical Brussels. A trip of exceptional interest to us dairy men will be taken by steamer from Amsterdam, Holland, to the quaint Isle of Marken, and through Volendam, Edam and Monnikendam, the dairy and cheese-making country. This pre-convention tour terminates upon arrival in London, just in time for the first meeting of the Congress.

Interesting post-convention tours have been arranged, all moderately priced, with an eye to giving us the best in travel, in comfort, in enjoyment, and the most for our money.

There is one post-convention tour to Germany and the Scandinavian countries. Many of us have long wanted to visit there.

Another tour takes in Switzerland, the lofty Alps; sunny Italy; bewitching Venice; Florence, the city of art; ancient, historical Rome; Nice, the heart of the Riviera, where nobility and celebrities gather; Lake Geneva; and the dazzling, gay metropolis of Paris!

All information you may desire, such as dates, prices, etc., will gladly be sent you if you write to

The Olsen Publishing Company
501-515 Cherry Street Milwaukee, Wis.

AMERICAN EXPRESS

TRAVEL DEPARTMENT

furnish to make a meal there an event to be remembered. In George Osborn's Symphonic Dance Orchestra the new Nicollet Hotel boasts a dinner, dance and concert orchestra second to none.

Located directly above the dining room on the second floor is a magnificent ball room, measuring 52x180 feet, with accompanying promenade and assembly. The Nicollet banquet room can easily accommodate 1,000 persons. It is designed in the Georgian style, painted a silver gray, with wall panels decorated to simulate rose and silver damask.

The mezzanine writing room and lounge on this floor are developed in tones of old ivory, to harmonize with the lobby which they overlook. The large private dining rooms on this floor and the beauty parlor, also on this floor, are also charmingly decorated. The sample rooms occupy the remainder of this floor and are especially designed to meet the needs of salesmen who wish to display merchandise.

The remainder of the building is devoted to guest rooms, all with private or adjoining bath, and planned with reference to the placing of furniture. The walls for the most part are panelled plaster with applied wood molds. Here, as elsewhere, the dominant idea has been the welfare of the guest, and to this end every square inch of space has been utilized to the best possible advantage.

Steps were taken to properly care for families or for guests wishing one, two or three-room suites. Every home comfort has been provided for the guests.

The pleasure of one's stay in a big hotel is quickly made or marred by the operating personnel. The officers of the Nicollet Hotel, Inc., realized this from the first and spent long hours in studying men for the various executive positions. W. B. Clark, an able and experienced man, is manager; J. F. Carmichael is the well-liked assistant manager; Sidney I. Dellitt, known to everyone, and well liked by them all, is the chief clerk; Theodore F. Stelten is the room clerk and J. B. Bedford is the night clerk; Jean Vernet, a first-class cook and business man, is the chef in charge of preparation of all foods; John Hirsch is the maitre d'hotel under whom the dining room and banquet service is unexcelled, and Dr. Harold E. Hocum has as his duties the regular examinations of the health of all the hotel employees.

The officers of the Nicollet Hotel, Inc., are: A. E. Zonne, president; Joseph Chapman, vice-president; Glen S. Dixon, vice-president; Lyman E. Wakefield, treasurer; J. Cameron Jenkins, secretary.

Dairymen, you will enjoy this luxurious, comfortable and reasonable hotel.

MILK+GELATINE=HEALTHY BABIES.

There are proteins and proteins. The child
ticularly requires the correct quality. The additio
gelatine to milk works wonders, especially for the
dernourished child, according to Dr. Royal S. Copel
U. S. Senator from New York and former commissi
of health, New York City. He says:

"The nature, quality and food value of a given
tein depend on its own peculiar combinations of c
icals. If it contains sulphur and iron, or if it is ric
phosphorus or some other essential mineral, its contr
tion to the welfare of the body may be of unusual
portance. That particular protein may be capabl
producing growth and strength which some other
tein could not give, even if taken in enormous qua
ties.

"In feeding a child there may be given exactly
proper amounts of fats and carbohydrates, and, so fa
the scales show, there may be enough protein. But
less that protein is of the right quality, it does not
ply the material to give growth and stature to the c

"The bottle-fed baby may not thrive. The milk
its proportions seem perfect, but something is lack
What is it?

"In many such cases of undernourishment the c
and only cause of trouble is the lack of the special k
of protein necessary to satisfy the chemical needs
that particular baby. Small quantities of the right
of gelatine added to the milk may solve the problem

"It is perfectly amazing what a change takes p
when this is done. The gelatine adds to the benefi
effect of the milk, making it capable of meeting
chemical and physical needs of the undernourished ch

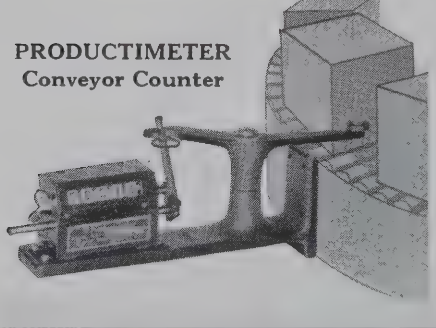
"With prepared milk alone there may not be nor
growth. Upon the addition of a small percentage
gelatine to the feedings the baby thrives like a gr
bay-tree.

"Some day the mysterious effects of the prot
upon the body-chemistry will be better understood. T
is for the future. But we may begin now to get the p
tical benefits which follow the addition of the gela
protein to the bottles of the undernourished child."

In order to combine the gelatine with milk, soak
level tablespoonful of gelatine in one-half cup of
milk taken from the baby's formula; cover while s
ing; then, place the cup in boiling water, stirring u
gelatine is fully dissolved. Add this dissolved gela
to the quart of cold milk or the regular formula. T
same proportions also apply to condensed or evapora
milk, upon proper dilution. The adding of gelatine
not necessitate the changing of the formula for infa
This should not be changed without consulting
physician.

COUNT 'EM ACCURATELY—BOTTLE or CAS

PRODUCTIMETER
Conveyor Counter



Productimeters recording daily volume on important machines or operations give you an accurate count, in plain figures, quickly and dependably. They tell you at a glance just what has been done in a given period of time; make it easy to figure costs, bottle and case requirements, etc.

Built in various models—to fit washing, filling, sealing machines, conveyors, and to tally bottles, cases, packages, boxes. Our Service Department advises you which model is best for particular applications. Write for the Productimeter Catalog, telling us what you wish to count.

Durant Mfg. Co., 663 Buffum St., Milwaukee, Wis.

Productimeter Bottle Counter

World's Dairy Congress Official Liner—S. S. Leviathan, "The World's Largest Ship"

Are You Going?

A Survey is now being made to find out those who are planning to go to Europe in June, 1928

NOW is the time to start planning your trip to Europe to attend the World's Dairy Congress in London, June, 1928. It is not too early. Reservations must be made months in advance, for in the spring the tourist traffic to Europe is unusually heavy and last minute accommodations on this famous liner are practically out of the question.

A survey is now being made to find out how many people are planning on taking this trip so that adequate accommodations can be arranged for. If you are interested, please send in the coupon immediately. Complete information concerning rates, accommodations, sailing dates, tours, etc., will be mailed to you without obligation. Address all correspondence to

THE OLSEN PUBLISHING COMPANY
501 CHERRY STREET MILWAUKEE, WIS.

nd in this Coupon Now!

No Obligation Entailed

UNITED
STATES
LINES

OLSEN PUBLISHING COMPANY,
501 Cherry St., Milwaukee, Wis.

Please send me complete information on the World's Dairy Congress Tour to Europe in June, 1928, including rates, accommodations, return sailing dates, and continental tours.

Name ....

Address ....

There will be { .... adults / .... children } in our party.

(This statement is for survey purposes only and does not obligate me in any way.)

WASHINGTON — MAINE

Notes From Far and Near

CALIFORNIA — FLORIDA

Camden, Ark.—H. G. Furloy opened an ice cream factory here recently.

Belvidere, Ill.—The Borden condensed milk plant here has been bought by the Dean Evaporated Milk Company of Chicago.

Center, Wis.—Shady Side Cheese Factory, Inc., was recently established with capital shares numbering 160, par $50. Its incorporators are: Gustave Henke, Wm. M. Wichman, Sr., and Fred Frahn.

York, Wis.—F. O. Justman purchased an interest in the York cheese factory from Leo Zehern.

Cedar Rapids, Ia.—The Wright Dairy Company, 1030 Mount Vernon Ave., has purchased the Otis Dairy Company, 227 Fourteenth Ave., according to the announcement of T. H. Wright.

Mitchell, S. D.—Armour & Co. have announced that a new $200,000 creamery will be added to the company's equipment here in 1928.

Rapid City, S. D.—Beginning July 8, the Superior Creamery Company is branching out in the milk business. A remodeled interior has provided more floor space. The company has contracted with Forsyth Brothers for the exclusive sale of milk from their pure bred Brown Swiss dairy herd.

Mt. Pleasant, Tex.—Represented by F. H. Chandler, Stephenville, the Texas Butter and Cheese Company have deposited a $5,000 cashier's check in the First National Bank as a guarantee to establish a milk plant here when a sufficient milk supply is assured.

Paris, Tex.—B. B. Harlan, local manager of the Boedeker Ice Cream Company, told the Paris Chamber of Commerce here of a plan to establish a creamery and milk products plant.

Marshall, Tex.—Phil. P. Taylor, B. Blalock, C. Jaynes, and J. J. I. Hey left for Tennessee and Mississippi towns to ascertain the possible benefits of milk condensery plants. The Marshall Chamber of Commerce is sending the local men.

Litchfield, Minn.—A meeting of stockholders of the Kingston Co-operative Dairy Association will be held soon to decide whether to increase the capital stock $8,500 and give authority to the directors to proceed with the erection and equipping of a new building.

Cadillac, Mich.—The dairy cow has ushered in a new reign of prosperity for Wexford county farmers, Kenneth Ousterhout, agricultural agent, told the board of supervisors recently.

Maysville, Ky.—Things appear to be favorable for the establishment of a plant by the Carnation Milk Products Company here.

Hornell, N. Y.—Excavation will be started soon for the erection of a twenty-five thousand dollar milk plant to be built by the Borden Condensing Company.

La Salle, Ill.—In one of the largest business deal
summated in Spring Valley this year, Mrs. Delaney purc
and assumed the interests of the Spring Valley Dairy
pany owned and managed by Anton Donges, veteran S
Valley dairyman. Mrs. Delaney is a pioneer in the
industry.

Mt. Pleasant, Ia.—H. B. England, who has formerly
connected with the Fankhauser Dairy Company, of this
has sold his share in the business to Messrs. Adolp
Charles Fankhauser and has purchased the Campbell
at Bloomfield.

Bloomer, Wis.—John Lang, one of the city's mil
pensers, has added a lot of new equipment to his milk
in order to give his customers a product that is in ever
clean and sweet.

South Boston, Va.—The Busy Bee Dairy, of whic
phonse Kritzells is the owner, suffered a $10,000 loss d
a fire.

Mechanicsburg, Pa.—The second annual Cumbe
County Dairy Show is scheduled to be held at Mountain
Park, Mt. Holly Springs, August 10 and 11.

Mt. Vernon, O.—The Gerhart Milk Company sol
to the Jewell Ice Cream and Milk Company, accordi
information received from a member of the Gerhart
pany.

Litchfield, Minn.—The Kingston Co-operative
Association has decided to build a new $17,000 crea
plant on a new site in Kingston village.

Marshall, Tex.—The Kiwanis Club has offered its su
toward the establishment of a milk condensing plant he

Portales, N. M.—The results of the campaign for
and better dairy cattle in Roosevelt County is easily a
ent during this season. The sales from dairy produc
the county are running $6,000 per week during the pr
season. This means the marketing of approximately six
dred ten-gallon cans of cream per week.

Taylor, Tex.—Frank J. Kveton, on route 5, Taylor, s
that he wants to see the proposition of establishing a
milk plant here put through. He is willing to put in
additional cows.

Annandale, N. J.—Frank G. Sharp recently installed
glass-lined pasteurizers in his pasteurizing plant. The
has been sold to Haines Brothers of Rahway.

Mercerville, N. J.—Eugene Wieland has recently inst
a small batch pasteurizer in his milk depot.

Seymour, Tex.—D. H. Jernigan has sold his dairy
H. Brownless of Chickasha, the deal becoming effe
August 1.

Corinth, Miss.—Widespread interest has been awak
all over Mississippi by Gov. Murphree's announcement
he favors the exemption from taxation of all dairy
for a period of five years. The people of the state are
properly interested in the proposed plan to aid dairy far
to secure a start in this great business by holding their
down for a number of years.

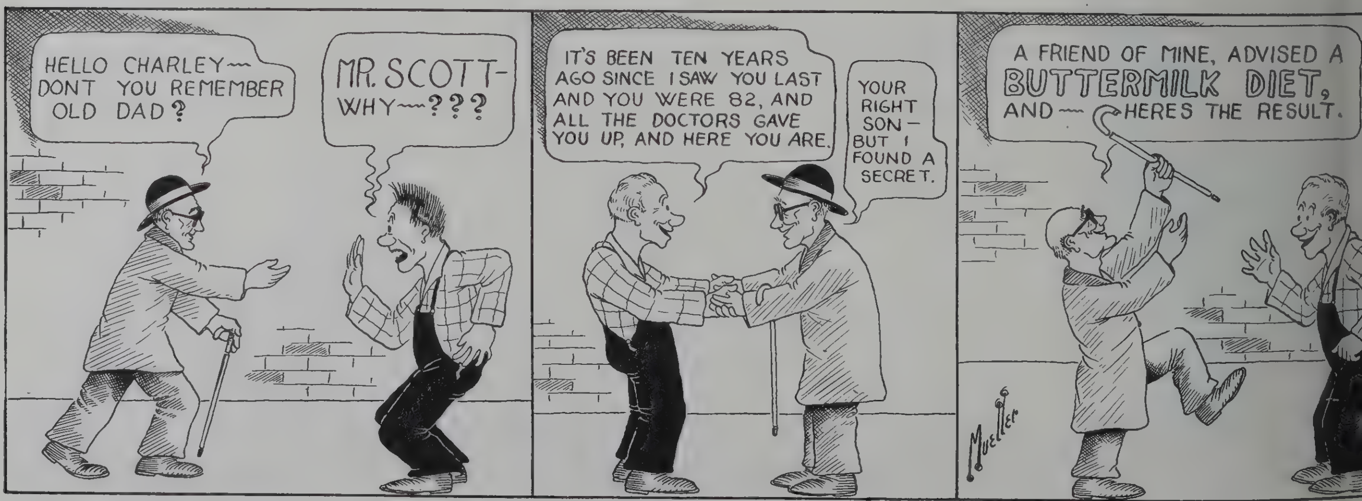
New Brunswick, N. J.—Mayer Dairy Co. has taken
the management of the milk plant at 208 Sandford Stre

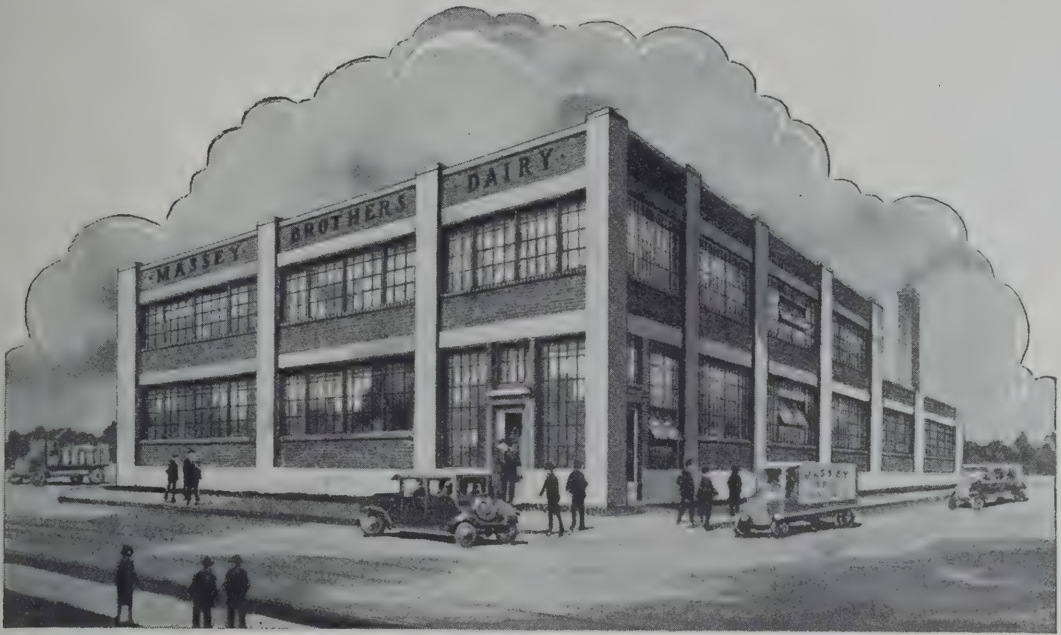
Asbury Park, N. J.—Wm. R. Sickles of 1100 Sunset
nue replaced his old pasteurizer with one of a compart
type.

Modesto, Calif.—Members of the local district of the

THE MILK MAN

By E. S. Mueller


HELLO CHARLEY— DONT YOU REMEMBER OLD DAD?
MR. SCOTT— WHY—???
IT'S BEEN TEN YEARS AGO SINCE I SAW YOU LAST AND YOU WERE 82, AND ALL THE DOCTORS GAVE YOU UP, AND HERE YOU ARE.
YOUR RIGHT SON— BUT I FOUND A SECRET.
A FRIEND OF MINE, ADVISED A BUTTERMILK DIET, AND— HERES THE RESULT.
Mueller



Massey Brothers Dairy, Granite City, Illinois

Payroll Leaks Reduced by Straight Line Operation!

DEAD or non-productive time so prevalent in the average Dairy or Ice Cream plant of a decade or so ago is a devitalizing leak which is being eliminated in the new plants planned and constructed according to modern engineering practice. Following the straight line operating system is a custom now observed with remarkable economy.

Reliable contractors in your own locality submit competitive bids from complete plans and specifications prepared for your individual requirements. When the contracts are let, successful bidder binds himself to execute them under the direction of our construction superintendent assigned to your job.

As important as any other factor which determines operative efficiency is that of economy in handling. The investment in equipment is definite while the investment in labor is so dependent upon the variable human element. It is possible, however—and practical—to co-ordinate the two that the completed plant will be a smooth-running unit free from non-productive time.

When you engage the McCormick Company, Inc., you are protecting your investment by obtaining the services of an organization experienced in the planning of Dairy and Ice Cream plants, whose first consideration is always economy in handling. This experience, with careful analysis and an intimate study of results over a period of years, has created a vast fund of knowledge upon which our determinations are based.

If you are interested in a new, or the modernization of your present plant, please feel free to consult us, as there is no obligation attached.

THE McCORMICK COMPANY, Inc.

ARCHITECT'S & ENGINEER'S
COMPLETE SERVICE
— FOR —
DAIRY & ICE CREAM PLANTS

121 So. Negley Ave.
Pittsburgh, Pa.

41 Park Row
New York City

When writing to THE McCORMICK COMPANY, INC. *please mention The Milk Dealer.*

Producers Association of Central California will hold a meeting soon for the purpose of considering the building of a plant here for evaporating and canning milk.

Chowomella, Calif.—The Danish Creamery Association has done more to expand the dairy industry in this section than all other influences except that of the natural conditions. The association provides a home market for all the milk the dairymen supply and pays them semi-monthly for it. The association collects the cream and milk at the dairymen's door.

Medford, Ore.—C. L. Hoover, a local dairyman, spoke at the realty board luncheon recently and the gist of his talk was that dairying, which is now the second largest farming industry in Rogue River Valley, running around the $1,000,000 per year mark, is destined to climb to first place with a mammoth financial increase.

Buena Park, Calif.—William Wicker of Orange and Walker Streets, is erecting one of the most up-to-date dairy barns and plants in the northwestern part of Orange County.

San Mateo, Calif.—F. L. Kehoe recently sold the Burlingame Creamery to Sewell E. Bogart, prominent San Mateoan and owner of the San Mateo Creamery. The Burlingame Creamery is one of the oldest establishments in the city. Mr. Bogart has had much creamery experience.

Allenhurst, N. J.—Allenhurst Dairy Company has installed a Foxboro automatic signal device which warns the operator when the temperature has reached 142 degrees F.

West Portal, N. J.—C. Vanatta has just installed three glass-lined vat pasteurizers.

Oshkosh, Wis.—Corporation Counsel Mitchell, in an opinion given Dr. E. J. Campbell, city health commissioner, has declared he does not believe it within the jurisdiction of the city health department to investigate conditions on dairy farms located outside the city limits. He stated, however, that the department is entirely within its rights to take steps to secure the prohibition of the sale of unclean milk in the city.

Freeport, Ill.—The Freeport Standard Dairy Co., 213-217 S. Walnut Avenue, this city, is capitalized at $100,000 to carry on a general dairy business. The incorporators are John Vohlken, Emil Vohlken, R. J. Cridle, C. A. Steele, Roman P. Edler. Correspondent, Freeport Standard Dairy Corporation, 213-17 S. Walnut Avenue, Freeport.

Norristown, Pa.—With ambition to make Montgomery County the dairy county of Pennsylvania as an ultimate goal and to improve the standard of milk production as an immediate step, a new organization of Montgomery County cattle breeders and milk producers has been organized here. Edward A. Stanford, of Erdenheim, is the president of the new organization.

Marietta, O.—The Crystal Dairy Products Company plant, built by the Crystal Ice Company on lower Third Street, is practically completed.

Oxnard, Calif.—Oxnard district is destined to become one of the largest dairy producing districts in the state, according to Max Heinzeman, Ventura county milk inspector. One advantage is its nearness to market, made possible by the completion of the Oxnard-Santa Monica stretch of highway, and the other is the farsightedness of the Ventura board of supervisors in passing the recent milk ordinance.

Boise City, Ida.—The Dairymen's Co-operative Creamery, Caldwell, celebrated its second anniversary on July 15 with a big celebration.

Roys Crossing, N. J.—Bellewood Dairy of Jersey City have just converted their three-tank continuous-flow pasteurizer into a four-tank positive system.

Blairstown, N. J.—Welch Dairy Co. of Long Valley
ordered glass-lined pasteurizing equipment for their
town plant.

Pellettown, N. J.—Sussex Milk and Cream Co. has
over the operation of the local creamery from Borden's.
continuous-flow two tank holders have been converted
three-tank positive system.

San Francisco, Calif.—Announcement was recently
by the Anglo London Paris Company of the purchase
Golden State Milk Products Co. of the entire capital
of the National Dairy Co. of this city.

Jefferson, Wis.—Jefferson's annual dairy day celeb
held at the fair grounds recently and which was sponsor
the Jefferson Citizens' Association, was attended by se
thousand Jefferson County people. The weather was
for holding a celebration of this kind.

Tarpon Springs, Fla.—D. Baillie is building a m
Jersey dairy plant here.

Marysville, O.—Fay Smith has just put in a two-to
frigerating plant in his dairy plant.

Columbia, Mo.—The Central Dairy, it is reported,
erect a two-story, 54 x 130 foot, dairy plant, to be constr
of brick, tile and terra cotta.

Chicago, Ill.—The Sellar Bros. Dairy Co. has increase
capital stock from $100,000 to $175,000 and 750 shar
non par value. The company also changed its name t
Mid City Dairy Co. The correspondent is Rieger & Ri
11 S. La Salle St.

Sun Prairie, Wis.—The construction work on the
shipping plant here which is being erected by the
Prairie Produce Co. is under way. The building will
floor space 60x80 feet. It will have a capacity of han
30,000 to 40,000 pounds of milk daily.

Fort Wayne, Ind.—Articles of incorporation have
filed by the Pleasant Hill Dairy Company, with A. C.
berich, county recorder. Buying and selling milk and
manufacture of dairy products will be the chief busines
the company. The incorporators are Carl Nieter, Ed
F. Clemmer and Ralph J. Urbine.

Henderson, Ky.—The purpose of the dairy camp
which is now being conducted in Henderson County, is t
duce those engaged in the dairy business to improve t
herds by procuring pure-bred stock and to induce other
go into the dairy business. Night meetings will be hel
Spottsville, Hebbardsville, Robards and Henderson.

Williamson, W. Va.—An extensive expansion prog
is in progress at the Dairy Products Company, which
cost $4,000 or more when the work has been complete
R. Leroy, owner, says.

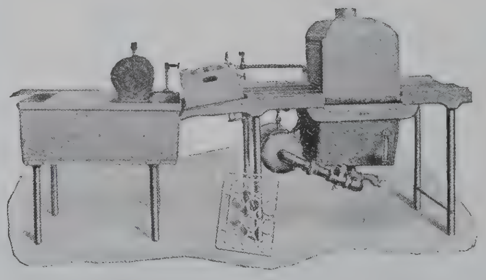
Hereford, Tex.—C. C. Lisenbe, who recently moved
from St. Francis, has shipped a car load of good dairy
and expects to let the dairy business play a large part in
diversified farming program.

Chisholm, Minn.—A meeting will be held soon at w
the officers and members of the Chisholm Co-operative
Milk Association will discuss the kind of refrigeration p
wanted in their plant. This, it is estimated, will cost in
neighborhood of $3,600. Contracts for a pasteurization p
to cost approximately $4,000 were awarded.

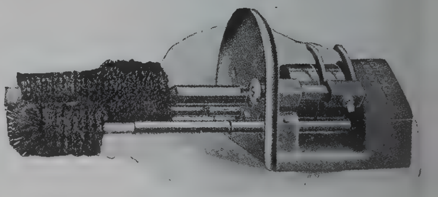
Decatur, Tex.—Frank Kelley, farmer dairyman at P
dise, Wise County, won the prize of $25 offered by the D
tur Chamber of Commerce to the highest average butte
producing herd for the year in the Wise County Cow Tes
Association.

Port Allegheny, Pa.—Abbots Alderney Dairies, Inc.,
cording to its secretary, F. A. Paulson, 31st and Ches
Streets, Philadelphia, is the owner of the dairy buil

R. G. WRIGHT & COMPANY
BUFFALO, N. Y.



Wash Sink, Rinser and Sterilizer will do better work with less labor on account of its patented automatic features.



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$4,311,000.00 *Surplus and Reserve*

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Bruce Dodson and Company
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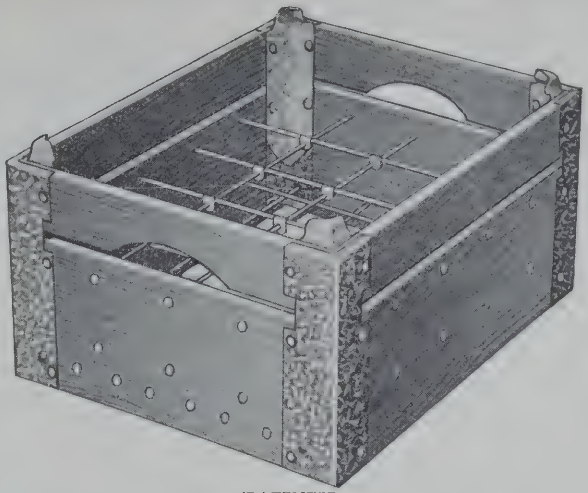

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Heavy galv. corner irons overlapped at top and bottom.
Long galv. stacking irons riveted through corner irons.
Strong — Durable — Yet light in weight.
Bottom runners if desired.
Will stack on any standard size cases.
Simplest and strongest construction — lowest in price.

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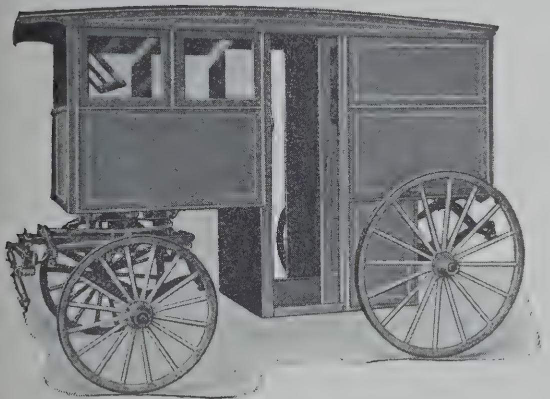
THE STANLEY MILK CASE CO.
Front, Second and Lawrence Sts. CINCINNATI, OHIO

Sturdy Construction MEANS ECONOMY



We have built milk wagons for over 25 years and fully understand the needs of the dairyman in this line. We make a specialty of installing equipment for carrying cases in any of our wagons.

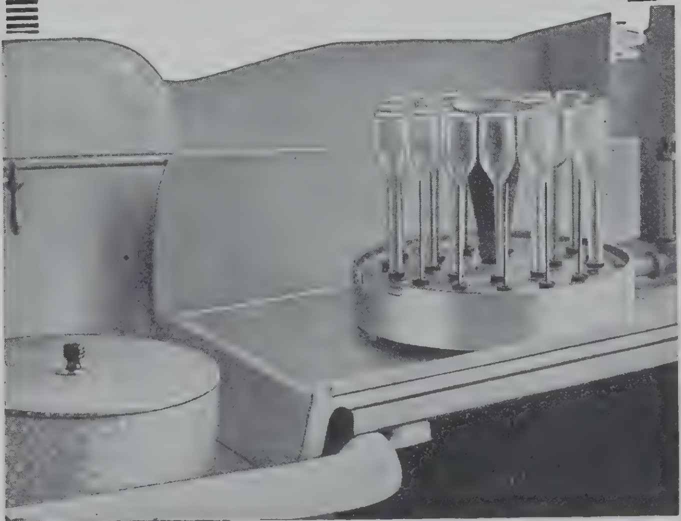
Send for our No. 48 free catalog showing eight styles and many sizes of gear from which to make selections

Special Wagons Built to Order.

DeKalb Wagon Company
300 Garden Street DE KALB, ILL.

Wilson
Test Bottle Washer

A Steam and Hot Water Pressure Washer



Simple to Install—Washes Quick and Clean.
Made in 2 sizes to wash 24 or 36 Milk or Cream Bottles—*and it does it in 2 to 3 minutes.*
No Brushing — Stops Breaking of Bottles.
Send for Leaflet explaining operation.

Stout Mfg. Co., 610 Sycamore St. Milwaukee, Wis which is being erected here at a cost of $30,000. It will be a one-story brick building.

Chicago, Ill.—H. Hahn, 9 S. Clinton, St., the architect of the new $200,000 two-story reinforced concrete building which will be erected on the northwest corner of 21st and Dearborn Streets, is taking bids on general and separate contracts. Murphy-Ward Dairy Co. is the owner of the new building.

El Monte, Calif.—Numbered among El Monte's million dollar industries is the Valley Dairy, Inc., 509 East Main Street, which gives employment to seventy-seven men and women and has an annual payroll of $150,000. Its present annual gross business is $1,000,000.

Ridgeland, S. C.—Efforts will soon be launched to bring a large number of dairy cattle to counties in lower South Carolina within the next year and efforts are now being made by farm agents in the lower section of the state to educate the farmers in the value of the cow and dairy products.

Marianna, Fla.—All dairies selling milk in the city of Marianna must submit to regular inspection by state health officers and when necessary to comply with such requirements as the rulings of the state board of health require.

Whittier, Calif.—The Whittier Sanitary Dairy is putting into commission this week a new two-ton Graham Bros. truck recently purchased, with which the dairy will haul its own milk to the plant from local shippers.

Cincinnati, O.—When W. G. Funke, of the Hyde Park Dairy Co., 3755 Edwards Road, entered the dairy business in 1899, he had eleven milk cows on a small farm near what is now Oakley. Today he is operating one of the finest dairy plants in this section of the state, using milk from approximately six hundred cows on seventy-five selected dairy farms in the vicinity of Cincinnati.

Taylor, Tex.—Throughout Williamson County, interest is growing in the proposed milk plant to be established here.

Jennings, La.—The appointment of a committee to investigate the proposition of a dairy industry for Jennings was announced recently by Louis Krielow, president of the Chamber of Commerce.

Yellow Springs, O.—At a conference of state and county health authorities and milk producers held in Dayton recently, plans were adopted for closer co-operation between health commissioners and milk dealers and the establishment of the best regulations possible.

Chicago, Ill.—The Wieland Dairy Co. has increased its capital stock from $2,500,000 to $3,000,000. The correspondent is Taylor, Miller, Dusch & Boyden, 231 S. La Salle Street.

Muskegon, Mich.—Construction of a new building for the Highland Park Dairy Company is well under way at Laketon Avenue and Division Street.

Orwell, O.—The milk receiving and cooling plant built here last fall by Cleveland dealers is in full operation.

Chisholm, Minn.—At a special meeting of the board of directors recently held, the lease was signed for the proposed creamery building of the newly incorporated Chisholm Co-operative Pure Milk Association.

Welch, W. Va.—The Welch Milk Company has enlarged its plant on McDowall Street. The plant is under the management of C. W. Bennett. It is planned to erect a new building within the next year for their plant.

Maysville, Ky.—Walter Page, general manager of the Carnation Milk Company, Oconomowoc, Wis., recently made a trip to Bracken and Robertson Counties. Mr. Page said that his company was much impressed with the showing made by the counties represented in the district proposed by the company for a survey for a condensery. He said he believes that if the company intends enlarging its plant with another division, Maysville will be considered.

Menominee, Mich.—Gilbert Berkey and Harry LaFleur sold their interests in the Pine Hill Dairy to Joseph Sterett & Son.

Chicago, Ill.—The Fox River Valley Dairy Co. has increased its stock from $70,000 to $100,000 and 1,500 shares of non par value stock and has decreased the number of directors from four to three. The correspondent is W. A. Leopold, 160 N. La Salle St.

Pittsburgh, Pa.—E. R. Quackenbush, manager of the Shadyside Milk Company, 126 Denniston Ave., reviewed the milk situation at an interesting talk before members of the East Liberty Trade Association.

Denton, Tex.—Improvement of the plant at a cost of more than $6,000 already is under way, according to announcements made by Mrs. Stout, manager of the Inglefield Dairy.

St. Johns, Mich.—J. G. Matthews, proprietor of the Matthews Dairy on Clinton Ave., has started excavation for his new dairy building on West Walker St. The building is to be a one-story structure, 28 by 66 feet, of tile construction with a brick front. It will probably be ready for occupancy about October 1.

Madisonville, Ky.—The U. C. Milk Company has awa contracts for the construction of a modern pasteurizing here. The building will be 35 by 70 feet of fireproof struction, concrete and hollow tile.

West Frankfort, Ill.—The West Frankfort Pure Milk has been placed on the accredited list of milk plants in nois and they have received their certificate of approval the state department of public health, which shows they have conformed with all the state requirements. T are only 135 accredited milk plants in Illinois.

Washington, D. C.—Four billion pounds increase in production was the record of 1926 as just compiled by department of agriculture.

Boston, Mass.—The A. & O. W. Mead Company has incorporated with a capital of $60,000 to deal in dairy food products. The incorporators are George V. Mead Francis V. Mead of Somerville, and A. M. Stoddard of Bos

Berlin, Germany, Europe—The consumption of mil the restaurant of the German Reichstag has increased 6 70 per cent, according to Wilhelm Sollmann, socialist de and former minister of the interior.

Daytona Beach, Fla.—A modern dairy farm is soon t established a short distance west of this city and borde along what is known as Little Tomoka Creek, it was nounced recently by Dr. G. M. Randall.

Santa Ana, Calif.—Mr. and Mrs. A. G. Einspahr have chased the Simon Dairy at First and Main Sts. from J. Race, it was recently announced.

Fostoria, O.—Ground was broken here for the new pl of the Ohio Farmer's Co-operative Milk Association of Cle land. C. E. Young of this city will manage the new pla

Endicott, N. Y.—The Allen Farms Dairy has been corporated here by R. T. Hackett of Binghamton, with 000 shares.

Manhattan, N. Y.—The Nicosia Dairy Corporation capitalized with $250,000 for the purpose of manufactur dairy products. The incorporator is Philip Nicosia, 72 M ison Ave., New York City.

Elizabethton, Tenn.—Frank Spires announced that c struction work was ready to be started on a new milk de and pasteurizing plant at the intersection of Elk Ave. "E" St. Floyd Ward of Boone, N. Car., and his associa will operate the plant and will also manufacture and ice cream.

Sparta, Ill.—An addition is being built to the plant of Waterloo Milk Co.

Ft. Wayne, Ind.—Steam sterilization of bottles in all m plants is being provided by the installation of new machin The board of health suggested the system as being m sanitary.

Newberry, Mich.—Fred Miller, dairy farmer located j north of here, has just completed a fine new dairy barn.

Auburn, Ind.—After 30 years continuously serving c tomers with milk, L. D. Robbins of Auburn, veteran dai man, quit the business the latter part of July on account old age.

Madison, Wis.—An intensive campaign is being staged Charles Kremer, state dairy and food commissioner, and sociates to obtain only clean milk from dairymen of W consin.

Sidney, O.—The Sidney Milk Producers was organized years ago. The company conducts a wholesale and ret business in fresh milk, cream and butter from their mode plant on West Ave., handling over 500 gallons of Shel county milk products purchased from tuberculin tested her

NEW MILK COMPANY IN CORNWALL, NEW YOR

B. Rothwell, John Bingham and A. E. Prevost, rectors of the Ottawa Dairy, Ltd., announce that th have purchased Provincial Dairies and suitable pro erty in the town of Cornwall, N. Y., for a new compa called the Cornwall Dairy Products., Ltd., with a capit of $250,000.

The new company will have for its manager a gra uate of the Guelph Agricultural College and a return army officer, Major T. O. Clark.

Provincial Dairies was formed for the purpose shipping cream to the southern part of the United Stat but with the organization of the Cornwall Dairy Pro ucts Company passes out of existence. High gra milk is to be distributed in the town of Cornwall the new company.

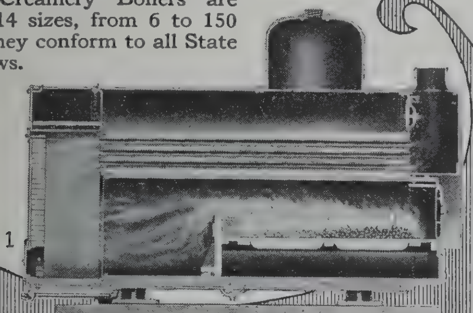
Looking for New Equipment? Read the Advertisements.

Leffel CREAMERY BOILERS

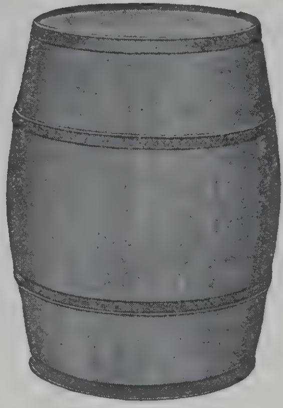
This cross section view clearly shows why Leffel Creamery Boilers are easy steamers, why they retain heat for a long time with one firing, and why they make possible fuel savings of from 20 to 40 per cent wherever they are used.

Every heat unit is utilized as the hot gases of combustion pass twice the entire length of the boiler through properly proportioned water-surrounded passageways. There is even water below the ash pit, to take advantage of the heat from any coals which may fall through the grates. Write for prices and descriptions.

Leffel Creamery Boilers are made in 14 sizes, from 6 to 150 H. P. They conform to all State Boiler Laws.



he James Leffel & Co. BOX 330 SPRINGFIELD OHIO, U. S. A.



Particularly Made for

Powdered MILK

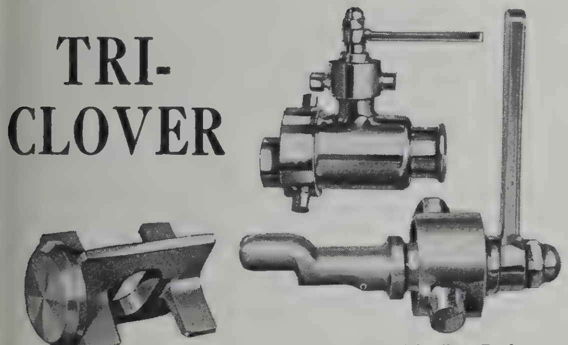
Jacobs Barrels

Made for the purpose they are to serve. They are tight and stay tight. Strong—to withstand shipping. Clean and attractive as a sales package.

OUR PRICES ARE RIGHT
SEND FOR THEM

K. W. Jacobs Cooperage Co.
19th and St. Paul Ave. - Milwaukee, Wis.

TRI-CLOVER



Pat'd Sept. 1, 1925, Other Pats. Pending

STRAIGHTWAY VALVE

Let the drip you can save pay for this better, cleaner, positive closing type of straightway valve.

The kind of valve you have been looking for at a price worth inquiring about.

Tri-Clover Machine Co.
Kenosha, Wisconsin
Makers of Tri-Clover Fittings

COWLES CLEANER for

thorough cleaning of bottles and all dairy equipment.

THE COWLES DETERGENT CO.

565 Commonwealth Building
Euclid Avenue at East 102nd Street
Cleveland, Ohio.

Fluid Milk Market Report for United States for July, 192

By Bureau of Agricultural Economics, Market News Service, United States Department of Agriculture.

Table I—Producers' Prices for Standard Grade Milk Testing 3.5% Butterfat, Delivered F. O. B. Local Shippin Point or Country Plant.

Prices which appear in this report are secured through the co-operation of milk distributors, producers' associati and municipal officers. Dealers' buying prices unless otherwise indicated, represent prices applying to all milk delive by producers. For cities where a "surplus plan" is in effect, the prices reported in table III are for "basic" quantiti All per cwt. buying prices have been converted to a 3.5% butterfat basis for comparative purposes.

Sections	Range of July Prices		Prices Compared for Same Markets			
	Number Local Markets	Prices per Hundredweight	Number Local Markets	1927 Average for July	1927 Average for June	1926 Average for July
New England	7	$2.87–$3.95	7	$3.50	$3.47	$3.27
Middle Atlantic	15	2.10– 2.95	14	2.77	2.78	2.61
E. North Central	19	1.57– 3.10	19	2.48	2.48	2.40
W. North Central	21	1.49– 2.62	17	2.10	2.09	2.13
South Atlantic	14	2.55– 4.77	14	3.43	3.44	3.65
E. South Central	5	1.83– 3.39	5	2.30	2.29	2.26
W. South Central	6	1.70– 2.70	6	2.21	2.20	2.55
Mountain	4	1.70– 3.20	3	2.39	2.39	2.29
Pacific	9	1.70– 3.00	9	2.49	2.49	2.68
United States	100	1.49– 4.77	94	2.64	2.63	2.66

Above prices include "basic" prices where a surplus plan or cooling plan is in effect. Cities where prices are ba upon current butter quotations not included.

Table II—Prices for Special Grades of Milk and Certain Milk Products.

The following table shows the wholesale and retail prices reported for "special" and "certified" milk and certain ot products delivered at wholesale buyers' places of business and at the home of retail customers.

Cities	Special Milk	Certified Milk	Cultured Buttermilk		Cottage Cheese		Light Cream 18-25% B. F.	
	Retail Price per Quart	Retail Price per Quart	Wholesale Price per Gal.	Retail Price per Quart	Wholesale Price per Lb.	Retail Price per Lb.	Wholesale Price per Gal.	Retail Price p ½ Pt.
	Cts	Cts	Cts	Cts	Cts	Cts.	$	Cts.
Akron	15–18	20	20	8	8	10	1.30–1.60	16
Albany	18	..	..	10	..	..	1.60	17–20
Albuquerque	..	..	..	..	18	..	1.75	15
Allentown	18	..	..	13	9–11	..	2.00	17
Altoona	15	22	25	8–10	..	..	1.35–1.45	13–15
Asheville	19	25	..	..	15	..	2.00	20
Baltimore	..	30	44	14	10	15*	1.70	16
Birmingham	..	25	20	6–10	18	20	1.50	15
Boston	18½	26	..	10	..	..	1.17–1.79	..
Chicago	17	25	..	10–20	..	16	1.30–1.80	16
Cleveland	19–20	25	..	12–13	12–14	15	1.26–1.88	17–22
Colorado Springs	17	..	18	6	..	..	1.25	10–12
Dallas	24	..	15	5	..	..	1.20	11–12
Denver	14	..	20	8	14	20	1.30–1.40	14
Des Moines	14	..	20	9	10	14	1.40–1.45	14
Duluth	14	25	13	8	..	..	1.40	16–17
El Paso	17	25	20–25	10	15	20	1.35	15–16
Erie	16	30	28	10	..	..	1.60	14
Harrisburg	..	..	36	12	..	..	1.50	14
Hartford	20–25	25–35	..	..	..	..	1.40–1.80	18
Indianapolis	15–16	..	25–30	9–10	12	15*	1.10–1.20	10–13
Jacksonville	25	..	30–35	10–12	20	30	1.60–2.25	20–30
Kansas City	15–25	25	25	10	14	20*	1.80	10–15
Lincoln	14	15	20	10	12	15	1.15	10
Long Beach	..	28	25	10	..	..	1.30	17
Los Angeles	..	28	25	10	..	..	1.30	17
Louisville	16	24	..	13	..	..	1.08–1.63	15
Memphis	..	..	..	..	15	20	1.25	12–15
Miami	30	28–32	45–50	15	15	20	1.75–2.00	20–30
Milwaukee	14–18	25	16–18	6	7	9	1.20–1.65	14
Minneapolis	..	22	..	13	10*	12*	1.32–1.40	15
Nashville	18	..	20	10	17	20	1.40	16
New Orleans	18	31	..	14	..	..	1.20	17
Omaha	15	15	15–20	10	10	..	1.25–1.30	10
Philadelphia	15–16	30	..	9–13	..	..	1.56	17
Pittsburgh	..	25	20–25	10	..	..	1.20–1.40	17
Portland	..	..	..	..	..	..	1.40	15
Richmond	16–18	..	25	8	..	..	1.20–1.30	14
Salt Lake City	15	..	..	..	..	..	1.35	..
San Diego	15–20	30	20	9	12	15	1.80	15
San Francisco	..	25	..	14	..	20	1.80–2.50	20
Scranton	18	25	20–24	8–10	..	..	1.40	20
Seattle	25	20	50	20–25	12–14	15–20	1.30	14–15
Spokane	..	..	..	..	..	..	1.40	14
St. Louis	18	25	20	10–18	13	15	1.26–1.75	17
Trenton	17	30	38	13	..	..	1.76	15–16
Trinidad	20	25	35	10	..	..	1.25–1.65	10–15
Washington	18–20	30	60	15	15–20	15–20	1.80	16
Wilmington	20	..	..	10	..	13*	..	17

* 12 oz. package

Every Plant Can Afford a Chicago Filter

Its simplicity makes it inexpensive. This same feature of simplicity makes it suitable for the smallest Dairy. The large volume of milk it will filter qualifies it for installation in the largest plants.

The thoroughness with which it does its work brings the commendation of health authorities. And the fact that it requires no extra floor space adds a final reason for your selecting the Chicago Filter for your plant.

Send for Circular and Prices.

ARTHUR T. BARLASS CO.

30 W. AUSTIN AVENUE
CHICAGO, ILL.

DO YOU REALIZE THE VALUE *of Using the* NAFIS AUTOMATIC ACIDITY TEST?

Automatic burette reads direct in percentage acidity.

Concentrated Neutralizer is accurate and economical.

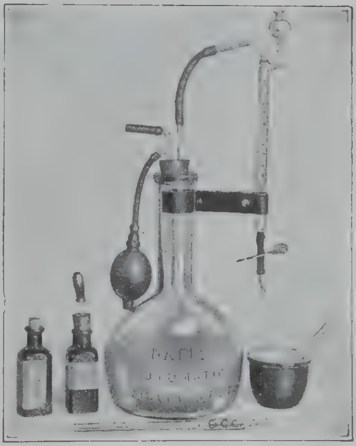
Nafis Stirring Rod contains correct color for sample in completed test.

It soon pays for itself because of the accuracy of the tests and saving of time.

Specify NAFIS GLASSWARE to your Jobbers.

Do not accept substitutes.

Write for our catalog, containing directions for many tests.



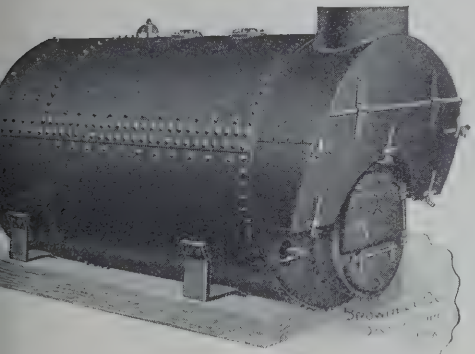
LOUIS F. NAFIS, INC.

Manufacturers of Scientific Glass Apparatus for Testing Milk and Its Products

17-23 N. Desplaines St. CHICAGO

Ask the Men Who Use It.

Dairy and Ice Cream Machinery and Supplies Association Inc.



Brownells comply with latest ASME and state codes.

Boilers for the Creamery Trade

Brownell started building steel boilers long before the Civil War and the craftsmanship born of long experience dominates the product.

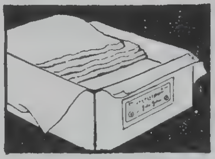
In the *Creamery Field* the Brownell Boiler is well known—recognized as a product of distinction—correct in design, of accurately known strength, proven dependability.

Representatives near you — ready to serve. Bulletin B-3 ready to mail.

THE BROWNELL COMPANY, Dayton, Ohio
Established 71 Years Ago

BROWNELL BOILERS

A SURE WAY *to higher milk profits!*



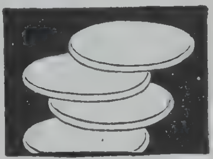
FILTER CLOTH

Sell these two filtering aids to farmers and dairymen. Then watch your milk improve. Coupon brings free samples.

A J. & J. Filter Cloth stretched over the pail at milking time is a *proved* method of reducing bacteria count. It catches the bacteria-laden dirt particles before the bacteria have a chance to multiply! When *your* supply men use this precaution your milk is bound to be better. But we don't ask you to take our word for it. Mail the coupon—get the free samples and try them out — *then watch the grading of your milk!*

Our advertising is teaching farmers and dairymen everywhere to use this Filter Cloth. Teaching them to use J. & J. Cotton Discs in their strainers, too. You will find it easy to sell them these two filtering aids.

Cut out the coupon now. We shall send price list and free samples by return mail.



COTTON DISCS

Johnson & Johnson

Johnson & Johnson, Inc., New Brunswick, N. J. A
Gentlemen:
Please send me free samples of your Filter Cloth and Cotton Discs.
*Name*__________
*Address*__________
*City*__________ *State*__________

Table III—July Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat Test of Milk Sold
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5–20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
ALABAMA—							
Birmingham	3.49–3.91	Varies	45–50	12–14	17	12–17	3.5–4.2
Mobile	....	..	40–50	12–14	18	18	3.25
ARIZONA—							
Phoenix	....	..	32	8	10–15	10–15	..
CALIFORNIA—							
Fresno	Butter Market Basis		35	11	13	12–13	3.8
Long Beach	3.15*	9	43.33	13	15	15	3.6–4.1
Los Angeles	3.15*	9	43.33	13	15	..	3.6–4.0
Oakland	2.82–2.94	2.9+	35	9	13	11	3.6–4.0
San Diego	....	..	41.66	13	15	15	3.6–3.9
San Francisco	3.11–3.21	2.9+	41.3–41.6	11.2–12	14	13–14	3.75–4.
Santa Barbara	3.15	9	..	..	15	15	..
COLORADO—							
Boulder	1.65	4.7	32	9	11	10	3.8
Colorado Springs	2.45*	6	30	9	11	10–12	3.4–3.8
Denver	1.92	5.5	35	10	12	12	3.2–3.7
Trinidad	....	..	35	12	10–13	10–13	3.0–4.2
CONNECTICUT—							
Bridgeport	4.22*	4	48	14	16	..	3.6
Hartford	4.22*	4	46–56	12–14	16	16	3.8–4.0
New Haven	4.22*	4	50	14	16	16	3.7
DELAWARE—							
Wilmington	....	..	44	..	13	14–15	3.6–3.8
DIST. OF COLUMBIA—							
Washington	3.49*	7	44	12	15	13–15	..
FLORIDA—							
Jacksonville	3.08–3.37*	10 to 4.2%	50–55	15	17–20	17–18	4.0–4.5
Miami	4.83*–4.94*	Varies	55–60	15–18	20–22	17–32	3.8–4.2
Tampa	4.67*–4.77*	Varies	50–60	15–18	18–21	15–21	3.5–4.0
ILLINOIS—							
Chicago	See Table II		32–38	13	14	14	3.5
Quincy	....	..	30	8	10	10	3.5
Springfield	2.45–2.50	4–5	36	13	14 2/7	15	3.8–4.0
INDIANA—							
Elkhart	....	..	30	7½	10–12	10–12	4.0
Fort Wayne	2.05	5	36	11	13	12–13	3.7–3.8
Indianapolis	1.92–2.10	5.5–6	28–32	9–10½	12	11–12	3.8–4.0
South Bend	2.43	4	32	10	12	11–12	3.8
IOWA—							
Burlington	2.35	4	30	8	10	10	..
Cedar Rapids	2.62*	7.5	35	10	12	12	3.5–3.6
Des Moines	2.55*	5	32	9	10–12	10–12	3.5–3.7
Fort Dodge	2.30*	5	36–38	9½	11	11	3.8–4.0
Iowa City	2.45*	7	30	9	12	11–12	3.5–3.8
Mason City	2.25	5	30	10	11	12	3.5–3.7
Ottumwa	2.25	5	35	10	12	12	3.5
KANSAS—							
Kansas City	....	..	35	8	10	10	3.6
Topeka	2.10–2.20	4	30	8	10	..	4.0
Wichita	2.00*–2.25*	3	35	10	12	12	3.5
KENTUCKY—							
Lexington	2.00	5	35	12	14	10–14	4.3
Louisville	2.01	4	28	10	12	12	3.8–4.0
LOUISIANA—							
New Orleans	2.81*	4	35	12	14	14	..
MARYLAND—							
Baltimore	3.55*	5.8	44	14	14	15–16	3.9
Cumberland	3.25*	7 to 4%	35	11	13	13	4.0–4.2
MASSACHUSETTS—							
Boston	3.63*	B. M. Basis	39	11½	14	12	..
Easthampton	....	..	46	12	14	14	3.5
Fall River	....	..	..	12	14	13–14	..
Lawrence	3.72	Flat	44	12	14	12–14	..
Lynn	3.95	Flat	..	11½	14	..	..
MICHIGAN—							
Battle Creek	2.80*	4	36	10	12	12	3.8
Detroit	3.00*	4	..	..	14	..	..
Grand Rapids	2.48*	4	26–30	8–9	9–12	9–12	3.5–3.7
Kalamazoo	3.00*–3.20*	4 to 4%	38	11	13	13	4.0

* Basic prices for fluid milk.

The Milk Dealer Is a Monthly Market Place for New Ideas.

DIFCO

Bacto Galactose Whey Agar Dehydrated

A special medium for the cultivation and propagation of the Lactobacilli. Readily prepared and instantly available for use, yielding a uniform medium upon which comparable results may be secured over long periods of time.

Cultures of Lactobacillus acidophilus form colonies of the filamentous type and grow luxuriantly. The medium is most desirable in checking the viability of cultures of acidophilus, and in determining the degree of implantation in the intestine.

Specify "DIFCO"

The Trade Name of the Pioneers

In the research and development of Bacto-Peptone and Dehydrated Culture Media

DIGESTIVE FERMENTS COMPANY
Detroit, Michigan, U. S. A.

ARGUS COUPON BOOKS

Are Admirable for School-Milk Service

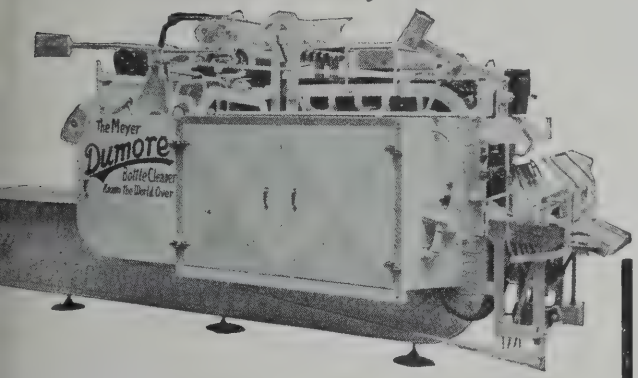
Parents who have used them find them much more convenient than to have to give their children money to take to school.

WRITE US ABOUT THIS

Also ask us about Coupon Books for your factory customers.

The Arcus Ticket Company
350 N. Ashland Avenue CHICAGO, ILL.

There's a Dumore to Fit Every Bottler's Purse



Get Complete Bottle-Cleaning Service—In ANY Capacity!

The Meyer Dumore system scrubs bottles clean—and when we say *clean* we mean CLEAN! Every particle of dirt or bacteria-breeding residue in the bottle is brushed out and flushed away—*no matter how hard-baked it is or how long it has been in the bottle!*

This is a thorough system. Submerged soaking in hot caustic solution, outside brushing, inside brushing, rinsing, inside rebrushing and complete rerinsing—that's the operation every bottle must go through. Quantity capacity never lowers the efficiency of the dependable Meyer method. A case a minute or a carload an hour can be delivered with unfailing regularity, day after day, at extremely low operating cost.

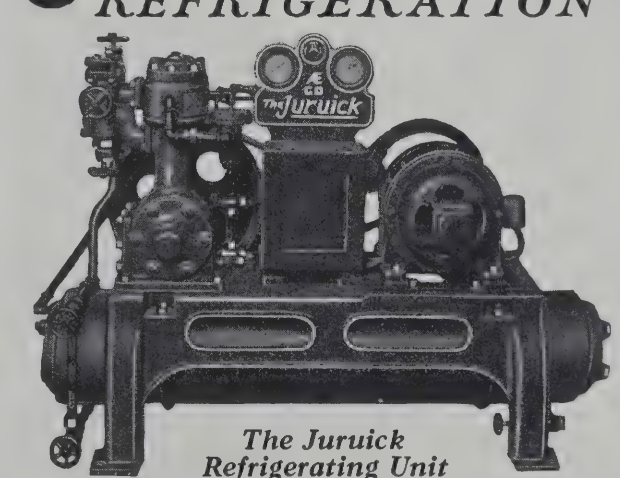
We are equipped for the construction of scientific sterilizing equipment—our plant is the largest in the world! Write for bulletins and ask for our free engineering service.

GEO. J. MEYER MANUFACTURING CO.
Largest Builders of Bottle-Cleaning Machinery in the World
569 Barclay Street Milwaukee, Wis.
Offices: New York and Chicago

UMORE-JUNIOR BOTTLE CLEANER
Capacity 24 to 60 bottles per minute. Bulletin B36

MEYER-DUMORE BOTTLE CLEANER
Capacity 60 to 200 bottles per minute. Bulletin B30

Juruick REFRIGERATION



The Juruick Refrigerating Unit

You turn the switch, that's all, when you use JURUICK REFRIGERATION. Automatic operation means economy because no power or water is used except when necessary to keep down the temperature. The JURUICK is a handsome, well built machine that will stand up under hard service. Sizes for every commercial need.

Write for folder, "Turn this Switch."

American Engineering Company
2417 Aramingo Ave., Philadelphia, Pa.

Table III—July Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat Test of Milk Sold
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5–20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
MINNESOTA—							
Duluth	2.50	5	30	10	12	11–12	3.7
Minneapolis	2.60*	5	32–34	8–9½	11	10–11	3.5–3.6
Northfield	2.27	5	32	9	10	10	3.7
St. Paul	2.60*	5	34	9½	11	..	3.5
MISSISSIPPI—							
Meridian	....	..	25–30	10–12½	15–17	17–20	4.4
MISSOURI—							
Kansas City	2.27	3.5	40	10–11	13	10–13	3.6–3.8
St. Louis	2.30	4	35	11	13	13	3.8
MONTANA—							
Lewistown	....	..	30	10	12½	12½	3.25
NEBRASKA—							
Lincoln	1.84	5.25	26	8½	10	10	3.6
Omaha	1.90–1.95	5	25–28	8	10	10	3.4–3.6
NEW JERSEY—							
Atlantic City	....	..	48	..	15	..	..
Camden	....	..	38	..	13	..	..
Hoboken	3.95*	4	34	11.41	15	15	3.5
Trenton	3.41*	4	38	11	13	14	3.7–3.8
NEW MEXICO—							
Albuquerque	3.20	5.8	40	12–12½	15	15	4.0
NEW YORK—							
Albany	3.02*	4	38	15	15–17	16–19	3.7
New York	See Table II		..	..	..	..	..
Rochester	2.85	4	40	11	12½	..	..
Schenectady	....	..	40	12	14	12	3.8
Utica	2.97*	4	34	10	12	12	3.3
NO. CAROLINA—							
Asheville	3.80*	4	48	14	17	17	4.2
Greensboro	3.70*	6	50	14	17	20	4.0
Winston-Salem	3.30	4	50	12½	16.15–17	17–18	4.3–4.5
NO. DAKOTA—							
Jamestown	2.25	4	30	8	10	10	3.5
Mandan	2.50	4	35	8	12	10	3.6–3.7
OHIO—							
Akron	3.25*	5	38	10	12	12	3.5
Cincinnati	Not Determined		38	12½	14	12	3.7
Cleveland	3.14*–3.24*	5	40–44	11–12	14–15	12–13	3.5
Columbus	....	..	35–40	..	12	11	3.9
Toledo	2.45*–2.50	3–5	36–40	10½	12	12	3.5–3.6
OKLAHOMA—							
Oklahoma City	1.75	5	35	10	12½	12	4.0
Tulsa	2,10	6	40	11	15–18	15–20	4.0
OREGON—							
Portland	2.00	5	30	9	12	10	4.0
PENNSYLVANIA—							
Allentown	3.16*	4	36	11	13	13	3.5
Altoona	3.16*	4	38–42	11	13	13	3.6–4.0
Erie	Not Determined		38	10½	12	12	3.5
Harrisburg	2.35	4	34	11	12	12	..
Philadelphia	3.49*–3.52*	4	38–40	12	13	..	3.8
Pittsburgh	3.45*	5	35–40	13½	14	15	3.5–3.8
Scranton	2.95	4	36–40	12	12	12	3.5–3.7
RHODE ISLAND—							
Newport	....	..	..	13	15	15	3.9
Providence	3.86*	B. M. Basis	44	12	15	..	3.7
SOUTH DAKOTA—							
Sioux Falls	2.50*	5	30	10	12	12	..
TENNESSEE—							
Chattanooga	2.27	6.5	40	12	20	18	..
Memphis	2.58*–2.73*	4.5	35	11	15	12–15	4.3
Nashville	Butter Market Basis		35	12	14	14	4.2
TEXAS—							
Dallas	2.80	4	..	..	11	7–9	4.0
El Paso	2.85–3.00	5	35	11	14	13–14	3.6–4.0
Houston	2.80	8	..	..	15	..	..
UTAH—							
Salt Lake City	....	..	30	8	10	10	3.7

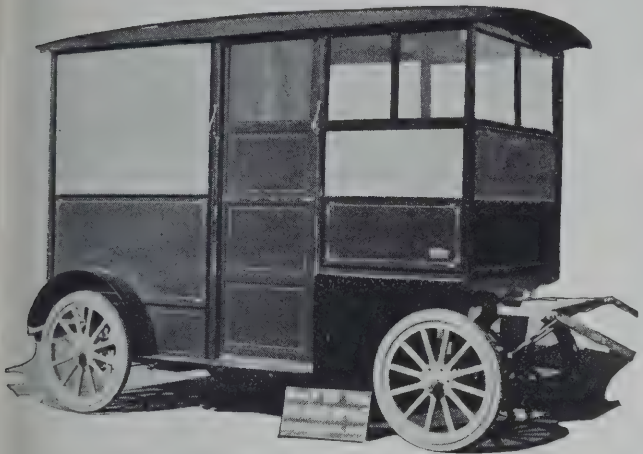
* Basic prices for fluid milk.

Looking for New Equipment? Read the Advertisements.

WAGONS

BUILT TO SUIT YOUR

Requirements and Wishes



The Double Drop Sill Style

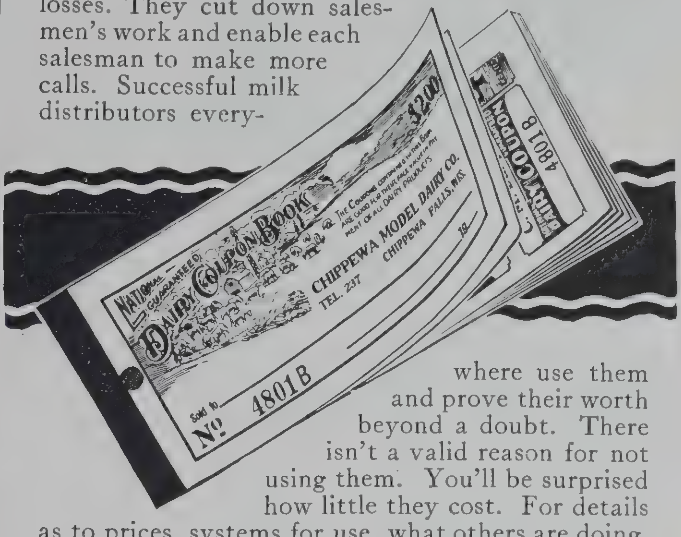
We are constantly striving to improve our wagons
—to make them more practical—more comfortable
—better looking lighter weight and draft.

We will gladly talk this over with you.

THE HESSE MFG. COMPANY
LEAVENWORTH, KANSAS

Wagon Builders for 70 Years

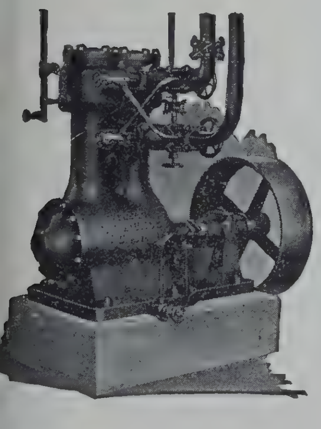
Why Not Use Coupons?



They bring the cash in advance. They cut out credit losses. They cut down salesmen's work and enable each salesman to make more calls. Successful milk distributors everywhere use them and prove their worth beyond a doubt. There isn't a valid reason for not using them. You'll be surprised how little they cost. For details as to prices, systems for use, what others are doing, etc., write to

NATIONAL CHECKING CO.
ST. PAUL MINN.

Vilter Enclosed Type Ammonia Compressor

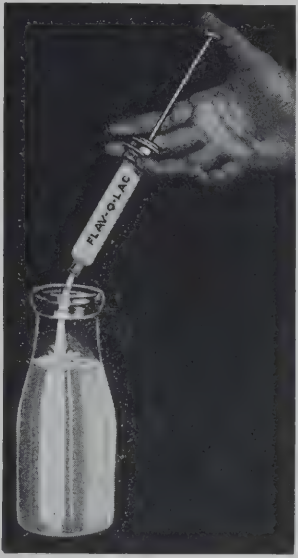


An ideal ice machine for the moderate size plant. Modern in design, made of high grade materials and thoroughly inspected and tested. Let us send a copy of our Bulletin No. 29R to you. It tells of the force feed lubrication to the piston pins, the easily operated Vilter plate valves, the oil sealed stuffing box and gives other information of value.

Let us Submit quotations on your requirements —no obligations to you.

The
Vilter Manufacturing Company
ESTABLISHED 1867
875 Clinton Street Milwaukee, Wis.

FLAV-O-LAC CULTURES



F L A V - O - L A C

FOR BUTTERMILK
Producing a uniform unexcelled product in aroma, body and keeping properties.
$2.00 per Qt.

BULGARIAN MILK
For making pure Bulgarian Milk or for use with Buttermilk Culture for **Double Cultured Buttermilk.**
$2.00 per Qt.

SOUR CREAM
A special culture designed to produce a distinctive flavor and a very **viscous product.**
$2.00 per Qt.

BUTTER and CHEESE
Special cultures designed for aroma and those characteristics most desirable in these products.
$2.00 per Qt.

Our New Package

Our Famous Liquid Cultures in a New Package
for distant shipment by first-class mail.
One Syringe of Any Variety of Culture $1.00

The DAIRY LABORATORIES
Chemists "The Home of Liquid Culture" **Bacteriologists**
2300 LOCUST STREET PHILADELPHIA, PA.
Branches: New York Baltimore Washington

Table III—July Cost and Selling Prices.

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	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
VIRGINIA—							
Newport News	4.01*	6	50	15	17	18	3.8
Richmond	3.93*–4.05*	5	44	13	14	..	3.6–4.
WASHINGTON—							
Everett	....	..	30	8	10	10	3.8
Seattle	2.49	7.1	32	9–9½	12	11–12	3.8–4.
Spokane	2.15*	5	30	8	10	10	4.0
Tacoma	2.35	5	32	8	10	9–10	3.6
WEST VIRGINIA—							
Clarksburg	2.55*	5	32	12½	14	15	3.8–4.
Wheeling	3.26*	5	40	12	14	14	3.7
WISCONSIN—							
Beloit	2.50*	5	30	8	10	10	3.8
Kenosha	3.00	4	40	11	12	12–13	3.6
Madison	Butter Market Basis		32	8	9	9	3.5
Milwaukee	2.85*–2.90*	4	30	9½	11	10–11	3.5–3.
Oshkosh	Butter & Cheese Market Basis		..	9	10	10	4.0
Racine	Not Determined		38	10	11	11	3.5
Superior	2.50	5	..	..	..	..	..
Wausau	1.95	3	..	8½	10	10	3.7

* Basic prices for fluid milk.

Table IV—July Cost Prices of "Standard Grade Milk" 3.5% B. F. for Cities Where Part of the Supply is Purchased Through Country Stations.

Cities	Prices Paid Producers per cwt. raw Milk (Flat prices of 3.5% B.F. basis): F. O. B. City	Prices Paid Producers per cwt. raw Milk (Flat prices of 3.5% B.F. basis): At Country Stations	Freight Zones to Which Country Station Prices Apply
New Haven, Conn.	$4.22*	$3.70*	28c rate.
Washington, D. C.	3.49*	2.91*	35c 10-gal. can.
Chicago, Ill.	Unavailable	2.50–2.60	All.
Baltimore, Md.	3.55*	2.97*	35c rate.
Boston, Mass.	3.63*	2.87*	181-200 mile zone.
St. Louis, Mo.	2.30	1.80–1.90	34c rate.
Trenton, N. J.	3.41*	2.85*	41-50 mile zone.
New York, N. Y.	Unavailable	2.95*	201-210 mile zone (53c rate).
Cleveland, O.	3.14*–3.24*	2.86*–2.93*	All.
Philadelphia, Pa.	3.49*–3.52*	2.91*–2.95*	51-60 mile zone.
Pittsburgh, Pa.	3.45*	2.70*	All.
Scranton, Pa.	2.95	2.65	30c rate.

* Basic prices for fluid milk.

NOTE: At all places in the above tables where prices are not shown, the information was either not reported or is no available.

BORDEN MILK CO. TO GET SURPLUS MILK FROM DAIRYMEN'S LEAGUE.

An arrangement has just been made between the Dairymen's League and the Borden Milk Company, whereby surplus milk received at the Conewango, Wis., plant of the league will be received at the Randolph plant of Borden's. The league is more interested in the fluid milk supply of the city than in the manufacture of milk products, and the Conewango plant has been used largely as a shipping station.

This is a very practical way for the league to dispose of its surplus milk, and the Borden Company are glad to get the extra product. In the neighborhood of 16,000 pounds will be sent each day during the season of plenty.

Transportation is by means of trucks.

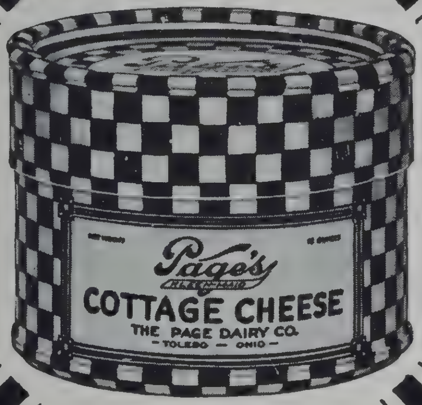
DAIRYMEN'S LEAGUE TO BUILD FIVE PLANTS I NEW YORK STATE.

Construction has commenced on the new milk plan at Crown Point, N. Y., being erected by the Dairymen' League. Two carloads of lumber are there and no delay is foreseen for the immediate construction of th factory.

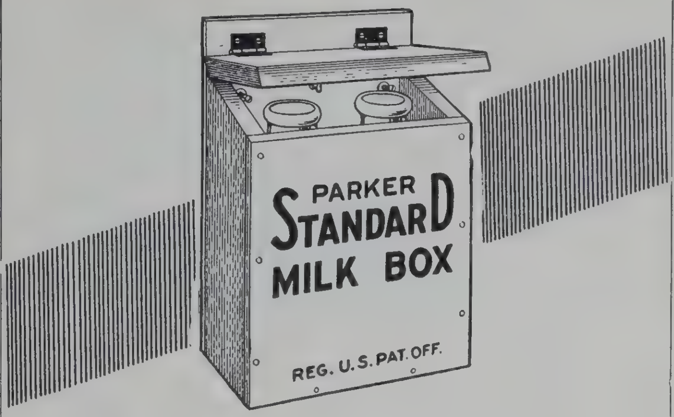
Plans of the league include plants at Ticonderoga West Port, Beekmantown and Chazy. George H. West of Reber is president of the Roquet-Essex league; Chas Biglow heads the league at Crown Point; Harry Mc Dougal is president of the organization at Westport and the Ticonderoga league has for its president, Horace D. Smith.

Fred L. Porter of Crown Point has been awarded the contract to furnish the lumber for all the milk plants near here by the league.

NAPACANS
FOR
COTTAGE CHEESE


Page's
COTTAGE CHEESE
THE PAGE DAIRY CO.
TOLEDO — OHIO

MANUFACTURED BY
W. C. RITCHIE & COMPANY
831 W. VAN BUREN ST.
CHICAGO, ILL.


PARKER
STANDARD
MILK BOX
REG. U.S. PAT. OFF.

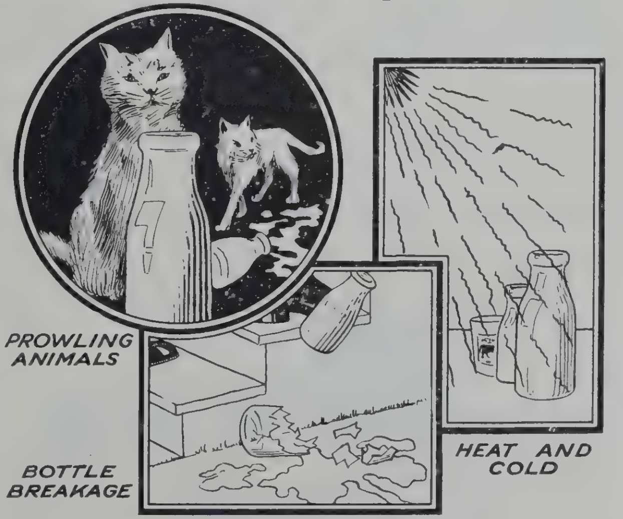
The PARKER STANDARD MILK BOX

YOU can be sure that your milk will be delivered in perfect condition with this strong, well-made milk box. Parker Standard Milk Boxes guard your milk from neighborhood animals, prevent it from freezing, or turning sour, and protect it against contamination. They will lower customer turnover, and bring many new patrons.

The Parker Standard Milk Box decreases breakage losses, and helps to remind your customers to return the empties.

Write for more details and our quantity discounts.

Protection Against—


PROWLING ANIMALS
BOTTLE BREAKAGE
HEAT AND COLD

Parker Standard Milk Box Co.
228 WARREN AVE. : : SAGINAW, MICH.

A Bottle of Milk is A Bottle of Health

A Milk Slogan That has Gained the Attention of Millions of Consumers Through Advertising in National Magazines

IN THE June issue of The Milk Dealer we emphasized the need for a National Slogan which might be accepted as standard for milk advertising. A slogan that associates milk with good health meets the popular fancy and many such advertising phrases are employed by milk dealers the country over.

A slogan that has attracted unusual attention in a national way is the one used by the Thatcher Manufacturing Company, "A Bottle of Milk is a Bottle of Health." It was coined, we understand, by H. K. Dugdale, vice-president of The Green & Van Sant Company, who has handled all of Thatcher's advertising since 1923 when the present national campaign was inaugurated.

The nature of that advertising is familiar to readers of The Milk Dealer, and we believe they are interested in knowing the results accomplished. The Thatcher people realized that if they could help the milk dealer become a better merchandiser of his products they would profit indirectly.

How well they succeeded is told in an article in the Success Bulletin from which we quote as follows:

> "Magazine advertising was started in 1923. The objects of the campaign were twofold: To help dairymen in a constructive way by increasing the sale of their milk, and to educate consumers to buy only bottled milk, and to use more of it.
>
> "The active co-operation of the trade was necessary for the accomplishment of these ends. At first, this came slowly and no marked results were apparent. However, by 1925 approximately 3,000 dairymen were using large, colored posters on their wagons, trucks, etc., and in windows of stores where their milk was sold, advertising the Thatcher company's slogan, 'A Bottle of Milk is a Bottle of Health,' the slogan which had been nationally popularized through the magazine advertising. That year the company enjoyed the largest sales in its history.
>
> "The campaign, now in its fifth consecutive year, has accomplished exactly what it was planned to accomplish, namely: Increase the sale of bottled milk generally; increase especially the sales of bottled milk for customers of Thatcher Manufacturing Company, and increase the consumption of their milk bottles.
>
> "Persistent magazine advertising supplemented by trade paper and direct mail advertising, both to the dairy trade and to related influential groups, can be credited with the success of this campaign."

Last year a questionnaire was sent to all dairies that had made use of Thatcher posters and other supplemental tie-up material. Among the questions asked was what percentage of increase their sales had shown si starting to actively tie up with Thatcher's campai Nearly 600 respondent dairies reported substantial crease in their sales, and the average of the increas sales reported was considerably higher than the avera increase in milk sales for the country as a whole.

It is now planned that the leading manufacturers milk bottles, including Thatcher Manufacturing Co pany, will unite in conducting a co-operative campai of advertising to the consumer through the Glass Co tainer Association of America.

Mr. Dugdale, the originator of the slogan "A B tle of Milk is a Bottle of Health," has been a close st dent of merchandising conditions in the dairy busine for the past seven years, and was for several years pr fessor of advertising and marketing at the Universi of Maryland.

In "A Bottle of Milk is a Bottle of Health" he ma a real contribution to the dairy industry.

⁂

HIGH SCORING MILK DELIVERED TO LOS ANGELES COUNTY (CALIF.) PATRONS.

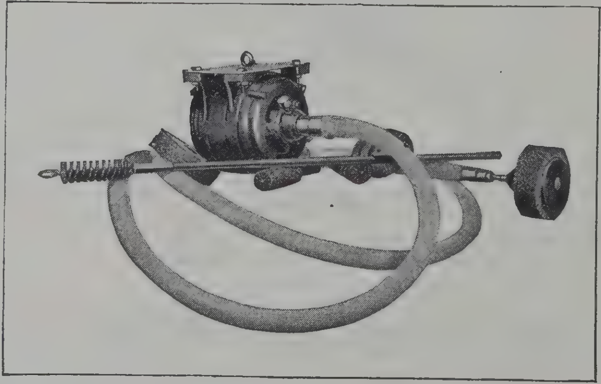
Los Angeles county, Calif., health department working with the dairymen in that county to help the produce high scoring milk. For members of the depar ment think that the most progressive and the healthie nations and communities are those which use larg amounts of dairy products.

If the milk available is not clean and of a good flavo its use will be limited, so every effort is being made this California county to produce a better grade milk. Evidently they are succeeding quite well, for a recent test milk from only five out of fifty-one di tributors scored less than 90.

⁂

NEW ISSUE CONSOLIDATED BONDS OFFERED

Offering has been made of a new issue of $500,0 of 10-year seven per cent general mortgage convertib sinking fund gold bonds of the Consolidated Dairy Pro ucts Company, Inc., New York, N. Y. The price is $10 and interest, to yield seven per cent. The bonds are d on December 15, 1936.



The King Cleaner vs. Steel Wool and Harsh Brushes

RESULTS—Both will keep Sanitary Piping and tubular pasteurizing equipment perfectly clean,—but—the King Cleaner will not ruin the tubing, and requires far less time and effort for the work.

Send us diameters and lengths of tubing in your equipment and we will advise you size and price of Cleaner needed.

King Sanitary Pipe Cleaner Co., Inc.
SANDY HOOK, CONN.

To Preserve

Chocolate Milk

Or Similar Products Packed
— IN —
Glass Bottles or Tins

USE THE

FORT WAYNE AGITATING TYPE STERILIZER

Backed by
TWENTY YEARS OF EXPERIENCE

Built to Meet Any Requirements as to Capacity or Type of Container

Fort Wayne Dairy Equipment Co.
1600 WINTER ST. FORT WAYNE, IND.

NORTH AMERICAN CREAMERY CO.
BETTER MILK AND CREAM

Roomy, Convenient
Light of Draft

Hoiby Wagons

Substantially built with plenty of room for large loads. Convenient for drivers and easy on the horse.

Let us send you list of styles and prices

E. HOIBY Company
2010 North Washington Ave., Minneapolis, Minn.

The Famous Flueless — Boiler —

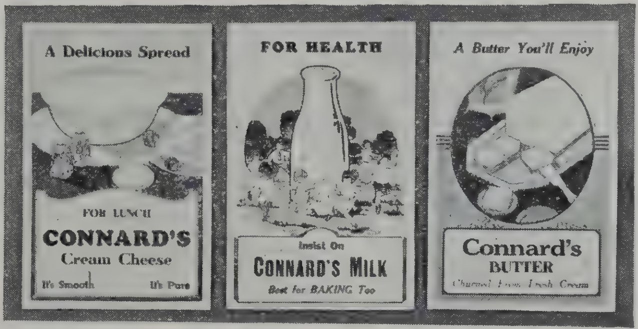
Famous as a Quick Steam Producer.
Famous as a Fuel and Repair Economizer.

BOILER is regularly constructed with extension to form ash pit, but can be furnished with cast iron base, in all sizes up to and including 48 in. diameter, without extra charge. Boiler comes complete with fire door and frame, ash door, grates, elbow and damper, hand hole plates complete. Steam trimmings include safety valve, steam gauge and syphon, water gauge, gauge cocks, blow-off valve, injector complete with check and feed valve. All constructed to comply with the A. S. M. E. code for 100 lbs. working pressure and tested to 150 lbs. hydrostatic pressure.

Boilers carried in stock at all times.

See your nearest jobber for further particulars.

Schwab Boiler & Machine Company
16th & Canal Streets
MILWAUKEE, WIS.


A Delicious Spread
FOR LUNCH
CONNARD'S
Cream Cheese
It's Smooth
It's Pure
FOR HEALTH
Insist On
CONNARD'S MILK
Best for BAKING Too
A Butter You'll Enjoy
Connard's
BUTTER
Churned from Fresh Cream

Increase Your Sales

Supply your dealers with these attractive sales producing display cards. Size 9 x 14 inches, printed in four colors with easels attached.

Also attractive LETTER HEADS for creamery and dairymen.

Send for samples now as each particular number is sold to but one firm in a city. Use Coupon below.

SAN-DEL PRTG. CO. 604 Gratiot St. ST. LOUIS, MO.

"Creators of Snappy Advertising"

CLIP HERE AND PIN ON YOUR LETTER HEAD

San-Del Prtg. Co.
604 Gratiot St., St. Louis

We wish to secure the sole rights in our city of your advertising material, which we may select from the free samples you may send to us.

Sending for the samples and prices obligates us in no way.

Name ....
Address ....
City .... *State* ....
Approximate number of dealers ....

DAIRYMEN'S LEAGUE PRESIDENT URGES LOGICAL PRICE FIXING.

In his talk to men of the New York milk shed, G. W. Slocum, president of the Dairymen's League Co-operative Association, Inc., urged them to take heed of the economic forces involved in price fixing and in other phases of the dairy industry.

He spoke of three definite ways of getting more money for the farmer: By more efficient production, by more efficient distribution, and by a higher price to the consumer. He said that while deciding on a higher price to the consumer, they must judge the other two factors to protect their market.

The New York milk shed includes 15,000,000 acres and supplies milk for 15,000,000 people, or 15 per cent of the population of the United States. Such a flow of milk requires 1,500,000 cows and an investment of $1,250,000,000 in farms, buildings, plants, stock and other equipment.

During the last year the Dairymen's League had a gross sales record of $73,716,900.

⚜

MAN'S NEED OF MILK IS NEVER OVER.

That man's need of milk is never over is shown by the report of the bureau of agricultural economics of the United States Department of Agriculture, which reports that the per capita consumption of milk in 1926 was 55.3 gallons agains 54.75 gallons in 1925, and 45 gallons in 1920.

The report shows the daily per capita consumption of milk and cream on farms was 1.47 pints last year, and in cities the consumption was .967 pints per capita. Daily per capita consumption of milk and cream in cities in 1925, was .951 pints.

ACTUAL USAGE
Proves this IS
A
Long-Life
Dairy Apron

LONG LIFE
BRAND
DAIRY APRON
REAR VIEW
SHOWING
ADJUSTABLE
STRAPS

Special fabric, scientifically treated to resist the disintegrating effects of fats and acids about dairy plants, gives the Long-Life dairy apron an ability to render continued useful service long after other aprons have been discarded

A TRIAL ORDER WILL PROVE IT!

You Will Learn a New Item on Which to Save Money.

The M. F. Murdock Company
RUBBERIZED FABRICS
266 So. Main Street AKRON, OHIO

A COMPLETE MILK SERVICE IS PRIME OBJ OF COMPANY.

The prime object of the Milk Service, Inc., 1823
Fourth Street, Dayton, O., is a complete milk ser
including both the preparation of milk for home
and the manufacture of all milk products.

Over 7,000 gallons of milk, from approximately
hundred specially inspected farms of the Miami Va
is being received at this plant daily and goes thr
the various channels of the organization, being prep
for bottle delivery to homes, industrial plants, an
tail groceries, manufactured into condensed milk,
cream products, butter, buttermilk, etc. The f
equipment obtainable for the handling of milk and
products is included in this large plant.

All milk coming into the plant is carefully teste
an expert chemist to determine the butterfat and
teria content. This chemist also makes tests of the
densed milk for commercial purposes and prepares
buttermilk cultures daily.

Sixty-five people, under the management of L.
Jackson, are required to handle the huge volume of
ness which is carried on daily, and sixteen motor tr
and twenty-one wagons are required to distribute
company's products.

⚜

MUCH INTEREST SHOWN IN DAIRY MACHINE EXHIBITS AT NANTES FAIR.

According to Consular Agent Harold M. Collins, d
machinery was prominent at the great Commercial
of the West, which was recently held at Nantes, Fra
and at which, it is estimated, the attendance was ab
300,000. He said: "The dairy machinery section
fairly extensive — exhibits including coolers, chu
cream separators, pasteurizers, etc. French firms w
the chief exhibitors and included the Bonnet Cie.
Paris, T. Laose of Chateaubriant, Maury Frers of
Mars, and the Societe Alfa-Laval of Paris."

It was reported that the increased interest in da
machinery, which was manifested, is a result of
growing importance of dairying in the west of Fra

⚜

NOTICE OF INCORPORATION FILED.

The Binghamton Milk Producers' Co-operative, I
Binghamton, N. Y., has filed a notice of incorporat
with the county clerk. This is an organization of
dairymen in the Binghamton milk shed. The certific
specifies that the corporation shall not incur an indebt
ness in excess of $5,000, and also, that no member's
bility shall exceed $10. The directors, sixteen in nu
ber, are:

James Quinn, Nimmonsburg; L. A. Beach, Chena
Bridge; W. F. Treadwell, Binghamton; F. F. Whitaker, Bi
hamton, R. D. 1; M. P. Green, Binghamton, R. D. 5; Art
C. Wood, Endicott; John McCormick, Brackney, Pa.; J
Atchison, Binghamton, R. D. 5; Leo Maxian, Binghamton,
D. 2; Timothy Coughlin, Vestal, R. D. 1; B. F. O'Hara, V
tal, R. D. 2; Henry Springer, Binghamton; Alonzo Palm
Port Crane; Myron Meeker, Binghamton, R. D. 2; Char
K. Smith, Binghamton R. D. 4; M. C. Foley, Kirkwood.

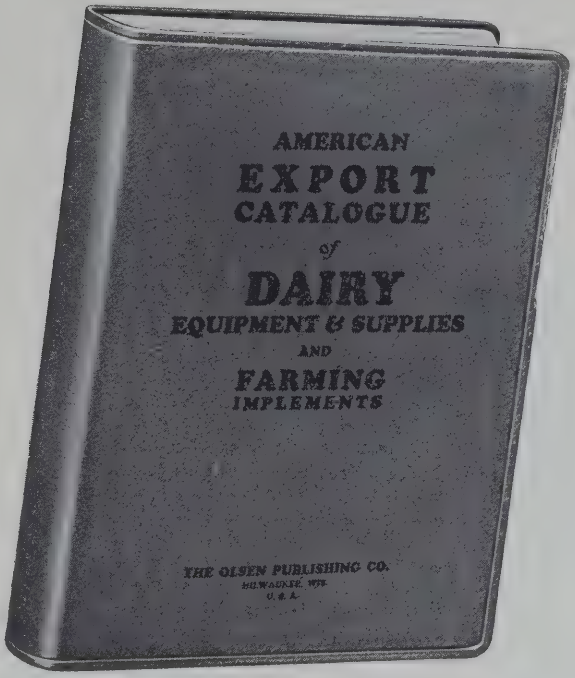
⚜

DENMARK PROHIBITS EXPORTATION OF MIL PRODUCTS.

According to an article contained in the "Komm
siella Meddelanden," a Danish paper, Denmark pass
a law the latter part of May prohibiting the expor
tion of dried, sterilized, or condensed milk or cream,
milk powder.

ATTENTION: Manufacturers and sellers of machinery, equipment, supplies, materials, etc.

The Span to Foreign Markets



THE time is "ripe" for American manufacturers of dairy machinery, equipment and supplies to sell to foreign dairy products manufacturers. The dairy industries are assuming the same prominence in foreign countries as they have already attained on the North American continent. Modern methods are being employed. Up-to-date equipment is being used.

American manufacturers have a wonderful opportunity to sell machinery, equipment and supplies to these new and vast markets. Foreign dairy products manufacturers are looking to this country for them. American manufacturers can hold these valuable markets by establishing and maintaining constant contact with overseas buyers.

The AMERICAN EXPORT CATALOG

of Dairy Equipment and Supplies

will establish that contact for you. It will enable you to keep your buying information in the hands of every important foreign buyer of dairy machinery, equipment and supplies. It will make it possible for you to receive a volume of overseas business that will be both large and desirable.

FOREIGN DEPARTMENT
THE OLSEN PUBLISHING CO.
501 CHERRY STREET MILWAUKEE, WIS.

A request will bring you full information.

NEW ZEALAND HAS CLOSED GOOD DAIRY YEAR.

The president of the Royal Agricultural Society of New Zealand states that from the point of view of production, the dairying season just completed (June 30) ranked comparatively high, in fact, this was New Zealand's peak year up to the present, states a report by Consul General W. L. Lowrie, made public by the department of commerce. Prices for both butter and cheese had been on substantially low levels, and despite the increase in output, the value of the exports in dairy products showed a decline of nearly $2,000,000. The prices for this season's butter had undoubtedly been prejudicially affected by the huge carry-over of New Zealand, Australian and Argentine butters from last season. This carry-over had to go into consumption during a period when, under usual conditions, this season's butter would have been required.

Fairly substantial quantities of butter had been shipped during the season to Canada, United States, Australia, and the East, while quite a lot of New Zealand butter had found its way into North America from England. The increase in production of dairy produce was to a fairly large extent neutralized by the retention of "robber" cows. Herd testing was not being carried out on systematic, business-like lines throughout the Dominion. The lowest production recorded last year by a herd testing association was a yield of 11.13 pounds of butterfat in 120 days.

⚜

EASTERN DAIRYMEN PLAN TO SUPPLY DEMAND AS WISCONSIN SEEKS EASTERN OUTLET.

While middlewestern organizations are making plans to invade the eastern market with quality milk products, factions in the east are meeting to devise methods to take care of the milk supply themselves and keep out their competitors.

One of the midwestern organizations is the Wisconsin state department of markets, which expects soon to start on a milk grading venture. Should that venture prove successful, a market for millions of dollars worth of milk will be open to farmers, says Edward Nordman, commissioner of markets. Because southeastern and eastern cities are having a hard time to get milk that is suitable for their needs, it is planned to ship to them a high grade milk that will arrive in excellent condition, and receive in return a fair market price.

The main difficulty that stands in the way, now that transportation has been perfected, is the expense and inconvenience of an adequate inspection system. But a plan was recently submitted to the officials of a large eastern city whereby proper inspection could be given and the milk reach that city at a nominal price. It seemed to meet with favor.

By this plan it is not anticipated that any big price will be paid to the farmer, but it will open up an almost unlimited market.

⚜

PROPERTY OWNERS' CONSENT NEEDED BEFORE DAIRIES CAN BE ERECTED.

Hereafter when new dairies are proposed in the territory included between San Fernando Valley Annex and Los Angeles, Calif., before they can be established there will have to be a general consent by property owners in a wide area, before a permit from the city council can be secured. This consent must be obtained by the circulation of a petition to residents or to those who own land near the contemplated site. This is in accordance with a new ruling.

CHAIRMAN OF THE LONDON ENTERTAINM
COMMITTEE.

London, Eng., July 21, 19

Editor The Milk Dealer:

I know a great number of your readers will be
ested in the enclosed photograph of John J. Ph
chairman of the program and entertainment comn
of the World's Dairy Congress, 1928.

JOHN P. PHILLIPS.

Many of your readers will remember meeting Mr. Phillips at the World's Dairy Congress in Syracuse, N. Y. He is a member of the board of United Dairies, Ltd., and a member of the executive committee.

"Genial John," as he is called by his intimate associates, is a tireless worker and clever diplomat. His pleasant smile and charming personality enable him to smooth out difficulties and get things done where other men have failed.

When he sets out to do anything one can
always rely on its being done well, and completed,
the fact of his taking over the chairmanship of the
tertainment and program committee for the Wor
Dairy Congress, will insure that it will be thoroug
carried out, and no one will have cause for compla

He is a man with a large, generous heart, alw
ready to give a helping hand to those in need, or to
young fellow trying to get on.

He has a wonderful companion and helper in M
Phillips, whose ready sympathy and charm have
deared her to the thousands of employees of the Uni
Dairies.

Mr. and Mrs. Phillips keep an open house for th
friends, and have arranged many delightful sports
social functions for the employees of the company.

Yours faithfully,

P. B. TUSTIN.

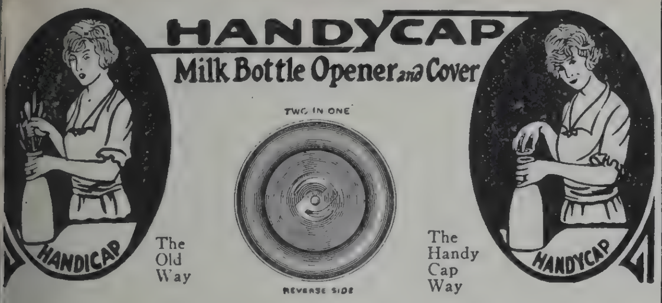
⚜

BARNUM'S CIRCUS COWS PLAY IMPORTAN
PART ON DU PUIS DAIRY FARM.

In 1847 P. T. Barnum imported some cows fr
Holland as "freaks." They are white-belted cattle
get their name from the odd marking of a broad wh
belt around the body of an otherwise coal black c
Holland belted cows, numbering about 800, now c
prise the greater part of the stock on a million dol
dairy plant which Dr. and Mrs. John Dordon Du P
operate at Lemon City, near Miami, Fla.

Dr. Du Puis started his great dairy venture in 1
with one Jersey cow. He wanted to supply his sick c
dren patients with pure milk. Now he supplies a spe
baby's milk for tiny infants, and a standard milk
children, equal to the best from other cows. The da
farm comprises 930 acres, has its own electric refrige
tion plant, its own sterilizing and bottling plants, la
dry, commissary, private laboratory and other mode
dairy farm machinery.

HANDYCAP
Milk Bottle Opener and Cover



Good Housekeeping has approved the Handycap. It's a real convenience to the housewife and an excellent means of advertising for the milk dealer.

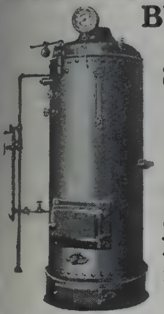
Ask Your Advertising Specialty Dealer to Show You Samples.

THE HANDYCAP CO. *Sales Office* **Irvington, N. J.**

RETINNING
Ice Cream and Milk Cans
HOT GALVANIZING

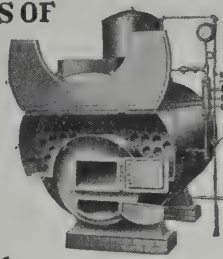
Sanitary Tinning Co.
3753-63 E. 93rd St. Cleveland, Ohio

MURRAY IRON WORKS COMPANY
BURLINGTON, IOWA
INCORPORATED FEB'Y 1, 1870



STEAM BOILERS OF ALL STYLES AND SIZES

The cuts show vertical and horizontal boilers requiring no brick work



We build also Water-Tube and Tubular Boilers to be set in Masonry

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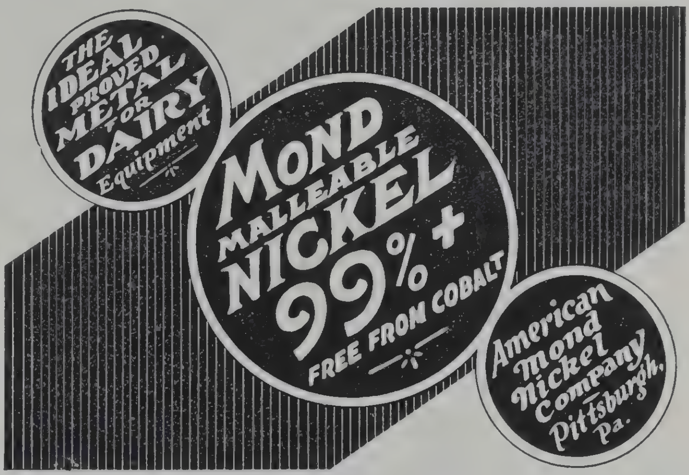

THE IDEAL PROVED METAL FOR DAIRY Equipment
MOND MALLEABLE NICKEL
99% +
FREE FROM COBALT
American Mond Nickel Company Pittsburgh, Pa.

DAIRYWEAVE
Means OBLONG Weave
MILK-FILTERING FABRICS

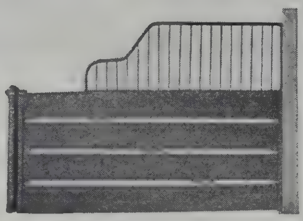
In Bolts, Bags, Tubes, Flats, Discs, or Special Shapes and Any Yardage.

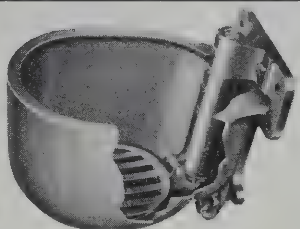
SUPER-FILTERGAUZE —
(width 36 inches)

SUPER-FILTERFLANNEL
(Two widths—27 and 36 inches)

Ask our Service Department to send you a Dairyweave working sample to fit your filter. It is FREE.

Prickett Manufacturing Co., Hampden, Mass.

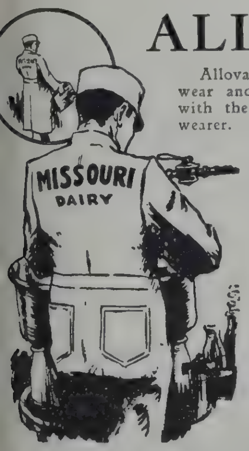




HORSE STABLE FIXTURES
Window and Stall Guards—Oat and Hay Mangers, Steel Stall Posts

AUTOMATIC DRINKING CUPS
We manufacture a complete line of horse and dairy barn equipment—Get our prices—Save 20-30 per cent.

IDEAL BARN EQUIPMENT COMPANY
NO. 5 BARSTOW STREET HORICON, WISCONSIN



ALLOVA Work Suits 3.25 each
Less in Quantities

Allova Work Suits, Coats and Caps are made for long wear and sturdy service, in attractive colors and lettered with the individual name, trademark or monogram of the wearer.

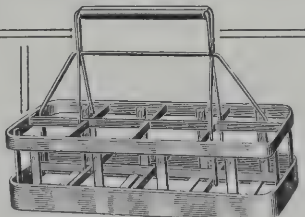
Every seam is stitched to stay. Pockets reinforced with double thickness of material. All buttons covered. Your choice of many colors: solid blue; solid white; solid khaki, blue and white striped; blue and khaki striped. Sizes 34 to 56. ℂ We embroider names, trademarks or monograms in fast colors for 25c per garment. Choice of any color embroidery. 24 to 72 hour service.

Equip your men at these wholesale prices:

12 Suits or Coats	**$3.00** each
25 Suits or Coats	**2.88** each
50 Suits or Coats	**2.75** each
Sizes 46 to 56 are 10% additional.	
Caps	**.40** each

One Suit or Coat FREE with each dozen lettered all alike.

MOTOR SUIT MANUFACTURING CO., Dept. 293
Plants: Manufacturers Exchange Bldg., Kansas City, Mo.
107 N. Austin, Dallas, Texas. 327 S. Market St.,
Chicago, Ill. 83-85 Walton St., Atlanta, Ga.



"UNITED"
ELECTRICALLY WELDED
(Round or Flat Wire)
BOTTLE CARRIERS

THE "United" Carrier is stronger and more durable than any other carrier made. Many of them have been in constant use for two, three, four or more years.

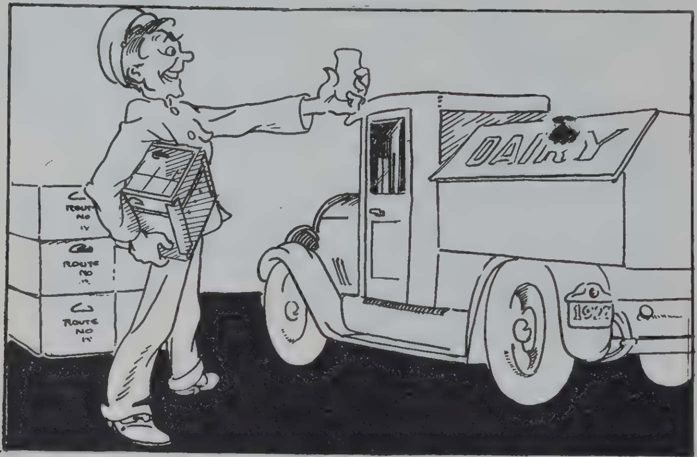
If your jobber cannot supply you, write direct.

UNITED STEEL & WIRE CO. Battle Creek, Mich.

MIKE THE MILKMAN

GOOD EQUIPMENT

My firm is strictly up-to-date in bottle case and bottle crate; up to the minute, through and through, in every single bottle too! These things seem small, I know, to some, and many say, "How come?" but I contend and tell the boss good crates and bottles head off loss; I tell him they promote my sales by telling buyers pleasant tales! The cases that we have on deck are hard to mar and hard to wreck; they cost the boss a trifle more but pay their passage o'er and o'er! The bottles that we use, I'll say, are graceful as the Queen of May, of good design to please the eye, the kind that coax the folks to buy! They're tempered all their breadth and length until they have the proper strength! The glass is sparkling, bright, and clear without a bubble or a smear, while there's no doubt about their size—they're uniform as mother's pies; "ONE QUART" with them, that means "ONE QUART," it's not a guess, it's no report! The heads are made with proper dip so they're not liable to chip; the cap-seats grip the paper cap as tightly as a rabbit trap; I tell you these increase my pride, they put new vigor in my stride, they help me hold my chin on high, they put new sparkle in my eye! I place a bottle at the door with confidence of selling more! I know the contents are the best by every scientific test, but more than that—I also know the bottle has a special glow, it is a glass aristocrat, companion to the butterfat! Yes, bottles, cases, may all seem small and worthy of no thought at all, but as I've often, often said, they figure high in overhead, and what is more, it's doubly true that they tone the driver's point of view!—J. Edw. Tufft, Grand Forks, N. Dak.



⚜

GROWTH OF EMPIRE DAIRY IN 13 YEARS HAS BEEN RAPID.

In 1914 the Empire Dairy, Cedar Falls, Ia., had its inception in the basement of a building on Clay and Twelfth Sts., that city. At that time only one wagon was required to transport the milk and the products about the city. Today, in its new plant in Cedar Falls, nine men are required to dispose of the duties of the dairy, and three wagons and three trucks are needed to distribute the products of the dairy.

J. C. and E. F. Nasby, proprietors of the Empire Dairy, give the people of Cedar Falls a great deal of credit for their prosperous advancement.

"IN UNION THERE IS STRENGTH."

On January 1, 1927, the following dairies of Mt. A y, N. C., banded together, signed a contract between th selves and standardized their product, milk: Beech F ls Dairy, operated and owned by Ed. Davis; Maple Gro e, operated by Herbert D. Sykes; Meadow View, opera d by C. W. Taylor; Golden Guernsey, operated by G. D. Sikes and owned by Pete Beamer, and Jersey Dairy, y Will Beamer.

These dairies are still operating under the origi l contract, each dairy selling only grade "A" milk a d selling it at the same price. The dairies are all o erated under strictly sanitary conditions, and their mo o is "To Serve Well," which motto, according to th r patrons, is always carried out to the last detail.

⚜

HEALTH — A COMMUNITY ASSET.

The importance of health as an element of prima importance in a community's prosperity is emphasiz in a bulletin issued by the insurance department of t Chamber of Commerce of the United States.

An annual saving of at least $1,200,000,000, the d partment points out, has been effected by the reducti of the tuberculosis death rate since 1900.

General Gorgas's sanitary program, a part of the pr ject for the construction of the Panama Canal, saved t United States government, it is said, $80,000,000.

The advantage of proper sanitary conditions is of n less importance, from an economic viewpoint, to ever community.

'The ability of a man to work," the bulletin co tinues, "depends in large measure upon his healt Whatever reduces his earning capacity in any way r duces the assets of the community. And decrease i earning power is naturally reflected in reduced purchas ing power with the result that every case of illness o premature death involving a loss of wages has an effec upon the community. This may not be noticeable in in dividual cases, but the total sum is tremendous. Accord ing to an eminent statistician, the average workma loses seven days a year due to sickness, a loss of abou two per cent of his earning capacity. This amounts i the aggregate to at least $2,000,000,000 for the entir country. Premature death accounts for an even large loss, conservatively estimated by the same authority t be $6,000,000,000 annually."

⚜

DID YOU EVER STOP TO THINK

"That each additional industry in or near a city means an increase in population and wealth of a community?

"That the dairy industry should be encouraged?

"That this industry contributes much to the support and maintenance of our cities and country?

"That the dairy business is a great industry?

"That dairying is a cash business?

"That the dairyman knows every day what his product is selling for?

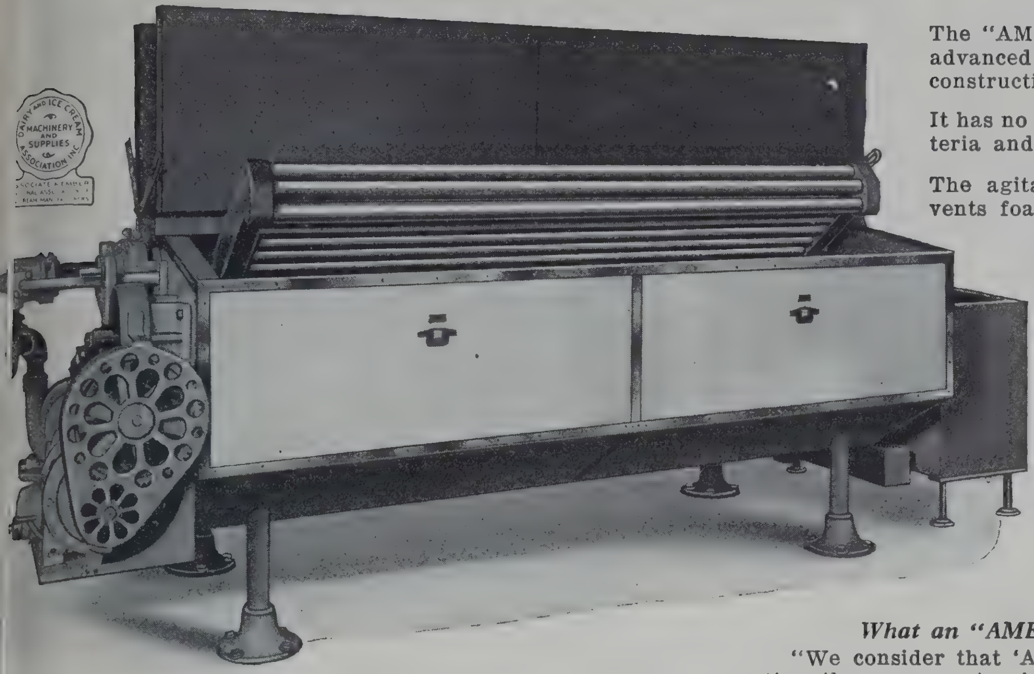
"That he receives his money for it regularly?

"That the dairy cow brings new wealth into a community every day?

"Milk not only nourishes our physical lives, but it nourishes our economic life as well."

The above are some expressions of E. R. Waite, manager of the chamber of commerce of Shawnee, Okla.

“AMERICO” THE PASTEURIZER WITH A PURPOSE



The new “AMERICO” with improved coil control

The “AMERICO” embodies the most advanced principles in design and construction.

It has no stuffing boxes to gather bacteria and contaminate the batch.

The agitation is gentle. This prevents foaming, churning and breaking of fat globules.

Heating is done with water below 160° F. There is no burning on the coils nor scorching of the product.

The flush type outlet valve is standard on all vats.

Thorough cleaning of all parts is accomplished with ease as the coils can be raised out of the vat.

What an “AMERICO” User Says:
“We consider that ‘AMERICO’ is nearer perfection than any pasteurizer we have ever used.”

MERICAN COPPER & BRASS WORKS
Manufacturers of Dairy Equipment

610-616 E. FRONT STREET
CINCINNATI, OHIO

WILLIAM H. TIMM
CONSULTING ENGINEER AND ARCHITECT

PERRY BUILDING
Chestnut & 16th Sts.

PHILADELPHIA
PENNSYLVANIA

DAIRY AND ICE CREAM PLANT SPECIALIST
Consulting Service for By-Product Processes

One Quart May Spoil A Thousand Gallons!

In a report to the U. S. Bureau of Agriculture Professor Pearson of Cornell University states that the losses due to the acceptance of unclean milk at the creamery annually exceed losses due to skimming and watering. ¶ Filtering at the source—ON THE FARM—will eliminate much of this loss. Progressive creameries are supplying their patrons with Perfection Cloth Faced Filter Discs and using Perfection Filtering Products at the factory. *Fill in and mail the bottom of this page for samples and further information.*

SCHWARTZ MFG. CO. **Two Rivers, Wisconsin**

PERFECTION FILTERING PRODUCTS

NAME ADDRESS I AM INTERESTED IN

NOTES OF THE TRADE

News of Interest Concerning What Our Readers and Advertisers are Doing to Develop the Industry. We Invite Correspondence Relative to New Products and New Equipment.

ARTHUR HARRIS & COMPANY EXPANDING.

Arthur Harris & Co., Chicago, have just completed an addition to their plant at 210-218 North Curtis street. The plant extends from Curtis to May streets and consist of three departments—the coppersmith shop, bronze foundry and float department. During the last year the output of the float department increased to a point where additional space and equipment were necessary, and the new section will allow extension and rearrangement of this department. New equipment has been installed that will increase the output of floats, and additional storage space will allow a larger stock of finished floats to be carried.

This company was established in 1884 under the name of Geo. P. Harris & Bro. In addition to floats, bronze castings and general copper work for various industries, vacuum pans and milk plant equipment have from the first been one of the speed milk condenser is its latest development in this field. company's principal products. An improved type of high

* * *

GELATINE EXPERT JOINS U-COP-CO.

T. R. Tennant, until recently vice-president and general manager of Grays Lake Gelatine Co., has joined the staff of The United Chemical & Organic Products Co., Chicago, as a consultant, actively engaged in the production and technical divisions of the gelatine plant.

Mr. Tennant's experience in the gelatine industry has won for him national recognition and qualifies him to assist those who have a gelatine problem, having had wide experience also in use of gelatine in the candy, biscuit and cracker, ice cream and jelly powder industries. He can be reached by addressing the Chicago office of the United Chemical & Organic Products Co.

* * *

"NATIONAL" A NEW HOSE CLAMP.

A new hose clamp embodying noteworthy improvements is now being introduced to the trade by the National Clamp Company, 16 East 41st St., New York.

The features which make the National clamp of especial interest are simplicity, the speed with which it may be applied or removed and the fact that one size will fit an extremely wide range of hose sizes. It consists of a band upon which is embossed a series of transverse ridges and depressions, forming in effect, a toothed rack. The screw engaging with this toothed band is mounted on a trunnion.

In applying the clamp, the band is slipped over any part of the hose and compressed by hand. Allowing the screw to swing into position, and taking a few turns with a screw driver tightens the band.

An interesting feature to dealers is the fact that they need carry only one, two or three sizes, depending upon the local demand. Having a perfect circular pull this clamp absolutely prevents leaks and being made of a high grade metal, thoroughly rustproofed, it adapts itself naturally to the dairy field.

* * *

NICKEL FACTS FOR THE DAIRYMAN.

"Nickel Facts for the Dairyman" is a 20 page booklet issued by The International Nickel Company, Inc., of 67 Wall St., New York. The subject matter is arranged in the form of questions and answers and makes interesting reading. A copy of the booklet will be sent by The International Nickel Co., Inc., on request. Below we give the first two questions in order that the reader may gain an idea of it:

"What Is Pure Solid Nickel?

"Pure solid nickel is a white malleable metal. It is a solid elemental metal, not an alloy or mixture of metals, and is produced in an exceptionally pure form. Pure solid nickel should not be confused with nickel plating, which is an electrically deposited nickel coating. Pure solid nickel has no coating to wear off—it is nickel through and through.

"Pure solid nickel should also not be confounded with nickel alloys on the market such as the nickel silvers
merly called German silver) and sometimes referred t
nickel, Waukesha nickel and other white nickel-bea
alloys.

"Where Does Nickel Come From—Is the Supply Limi

"The Sudbury district of Ontario, Canada, is the so
of over 80 per cent of the world's nickel supply. The m
and smelters of The International Nickel Company loc
there have an annual production capacity of over 25,000
of nickel. Conservative estimates derived from exten
diamond drilling of these nickel properties assure an a
supply of high grade ore for many score of years.

"From the smelters, matter is shipped to the compa
nickel refinery at Port Colborne, Ontario. Here the ni
matter is refined into pure nickel in raw form ready for
ther processing. From this plant, pure refined nicke
shipped to the rolling mills at Huntington, West Va., wh
the metal is rolled into all of the commercial forms as sh
on page 9 of this booklet. A modern foundry for the cas
of pure nickel is maintained at Bayonne, N. J.

"Nickel produced by The International Nickel Comp
is known as Inco nickel."

* * *

"LIQUID" BUYS LOEW MANUFACTURING COMPANY

On July 1 The Liquid Carbonic Corporation announ
the purchase of the Loew Manufacturing Company of Cle
land.

The Loew company is one of the oldest soaker manu
turers in the United States, having started in 1899, when
bottling industry was young. Their first machines w
of the pocket type, followed by soakers using the hyd
pressure principle. These machines proved so satisfact
that several thousand have been sold and are now in da
operation wherever dirty bottles are being cleaned. Wit
the last year they introduced the "Superkleen" soaker
marvel in bottle cleaning efficiency.

Realizing the possibilities of a soaking machine t
would be guaranteed to clean 100 per cent of the dirty b
tles returned to the bottling shop, the "Liquid" made ov
tures to the Loew company and a deal was consumma
whereby the latter will be operated as a division of
Liquid Carbonic Corporation.

The Cleveland factory will be operated as before a
will be in charge of John R. Gruetter, former chief engine
for Loew but more recently general manager of the Uni
Engineering Company.

The combined engineering forces of the "Liquid" a
Loew companies may be expected to develop even more e
cient bottle cleaning equipment.

* * *

ROOF INSULATION.

An interesting four-page circular on cork roof insulati
has just been published by L. Mundet & Son, Inc., of Hillsi
N. J. It includes specifications for cork on wood deck co
struction, over concrete construction, and over steel ro
decks. It states in full why cork insulation is better th
any other insulation for roofing. Keeps heat in. Keeps he
out. Eliminates ceiling sweat. Lasts indefinitely. Fits pe
fectly. Is immune to moisture, etc. A copy will be sent
request to any reader of this publication.

* * *

CANADIAN FIRM INSTALLS MEYER DUMORE MACHINES.

The J. J. Joubert Co. of Montreal, Quebec, has been ma
ing plans for the past six months to increase the efficien
and economy of its plant.

When considering bottle cleaning equipment they car
fully studied all types of machines and made their decisi
in favor of two Meyer Dumore Junior machines. The Ge
J. Meyer Manufacturing Co. of Milwaukee, builders of the

THE DAIRYMEN'S SLIDE RULE

PROBLEMS ON STANDARDIZATION OF CREAM

By B. I. MASUROVSKY, *Consulting Dairy Chemist and Technologist*, 216-218 Water Street, New York, N. Y.

Nearly every phase of dairy manufacture employing cream for making dairy products, whether it is butter, cream cheese, ice cream or even special kinds of modified creams, results in problems involving standardization of the raw material—cream.

Let us take, for example, the manufacture of butter. The cream before ripening is thinned down with a starter or otherwise from about 45% butterfat to the generally accepted richness of cream for churning purposes, namely, about 30% butterfat. The percentage of butterfat in the starter or skim milk used in standardization of cream is negligible and is considered as zero in practical work. This condition should be observed in all problems of standardization involving the use of skim milk. The next important condition is to test the cream for butterfat so that the exact percentage of butterfat in a given cream is known. This of course is determined by chemical analysis or butterfat test. With these conditions in mind we are ready to start standardizing cream not only for butter making, but for any other purpose.

PROBLEM I—Standardize a 40% cream for butter making by bringing it down to 30% and using skim milk for this purpose. How much skim milk is required for standardizing 100 lbs. of cream to test 30% B. F.?

SOLUTION

Step I—Employ the Dairymen's Slide Rule by finding 2.5 as the butterfat factor for 40% cream on the B. F. f. scale of Slide Rule and located opposite 40 found on the B. F. scale of the Dairymen's Slide Rule.

Step II—Follow the settings of scales A and B of the Dairymen's Slide Rule as given below:

A	Place 1	Under 30
B	Over 2.5	Find 75

In other words, it requires 75 lbs. of cream testing 40% B. F. to make 100 lbs. of cream testing 30% B. F.

Step III—Since the amount of 40% cream is known it remains to subtract it from 100 and the result will be the amount of skim milk necessary to complete the standardized 100 lbs. of 30% cream.

PROOF

100 — 75 = 25, or for every 75 lbs. of cream testing 40% B. F. there is need for 25 lbs. of skim milk to obtain 100 lbs. of cream testing 30% B. F. In other words, the ratio of 40% cream to skim milk is 75 : 25 or 3 : 1.

PROBLEM II—Prepare 425 lbs. of 28% cream by using 39% cream and sweet skim milk. How much skim milk and how much 39% cream will be required for this purpose?

SOLUTION

Step I—Figure out the amount of cream testing 39% necessary for every 100 lbs. of 28% cream. Employ the Dairymen's Slide Rule by finding 2.57 as the butterfat factor for 39% cream on the B. F. f. scale as located opposite 39 found on the B. F. scale of the Dairymen's Slide Rule.

Step II—Follow the settings of scales A and B of the Dairymen's Slide Rule as given below:

A	Place 1	Under 28
B	Over 2.57	Find 72

In other words, it requires 72 lbs. of cream testing 39% B. F. to make 100 lbs. of cream testing 28% B. F.

Step III—How much skim milk is required for every 100 lbs. of standardized 28% cream?
Since the amount of 39% cream is 72 lbs. for every 100 lbs. of 28% cream the remainder must be the amount of skim milk, namely, 100 — 72 = 28, or the proportion of cream to skim milk is as 72 : 28.

Step IV—What are the amounts of 39% cream and skim milk for the required 425 lbs. of standardized 28% cream?
Establish the derived proportion (See Step III) on the Dairymen's Slide Rule in the following way:

A	Place 72	Find 2.57
B	Over 28	Over 1

Or 2.57 plus 1 constitute 3.57 parts weighing 425 lbs., or each part being equal to 119, i. e., the amount of 39% cream is 2.57 times 119 or 306 lbs.
The last two calculations can be established on the Slide Rule as follows:

A	Place 425	Find 119
B	Over 3.57	Over 1

A	Place 1	Under 119
B	Over 2.57	Find 306

The amount of skim milk is 119 lbs. for the 425 lbs. of 28% cream and the amount of 39% cream is 306 lbs., as shown in these calculations.

PROOF

306 lbs. of 39% cream contain 119.34 lbs. of butterfat and 425 lbs. of 28% cream contain 119.00 lbs. of butterfat, thus checking up within 0.34 lbs. of butterfat on a 425 lb. standardization in a practical way.

PROBLEM III—Standardize 1000 lbs. of 40% cream to 22% using skim milk.

SOLUTION

Step I—Look up the butterfat factor (B. F. f.) of 40% cream on the Dairymen's Slide Rule. This is accomplished by finding 40 on the B. F. scale and straight above 40 notice 2.5 on the B. F. f. scale. Therefore, the butterfat factor of 40% cream is 2.5.

Step II—Find the amount of 40% cream necessary to standardize every 100 lbs. of 22% cream with skim milk. Place 1 of scale A over 2.5 on scale B. This is done in the following way: Draw the sliding part of the rule to the right until the extreme left number 1 of scale A coincides with 2.5 (2 and five main divisions) on scale B. Then bring the glass indicator (runner) to the left until its hairline cuts 22 (2 and two main divisions) on scale A and below find that the same hairline cuts 55 (5 and five main divisions) on scale B. This answer 55 is the number of pounds of 40% cream required for every 100 lbs. of standardized 22% cream.

Step III—What is the proportion of 40% cream to skim milk in the standardized 22% cream?
Since we found that it requires 55 lbs. of 40% cream to build up 100 lbs. of 22% cream it stands to reason that the amount of skim milk necessary is the difference, i. e., 100 — 55 = 45, or the proportion of 40% cream to skim milk in the standardized 22% cream is 55 : 45.

Step IV—How much skim milk is necessary to add to the 1000 lbs. of 40% cream in order to standardize it to 22% cream? Placing the proportion obtained above on the Dairymen's Slide Rule we find the following setting:

A	Place 55	Under 100
B	Over 45	Find 82

Which means that for every 100 lbs. of 40% cream it is necessary to add 82 lbs. of skim milk and for 1000 lbs. ten times as much or 820 lbs. (100 in the above setting is the extreme number 1 on the right end of the Dairymen's Slide Rule on scale A).

PROOF

1000 lbs. of 40% cream plus 820 lbs. of skim milk give rise to 1820 lbs. of 22% cream is the answer to Problem III. Let us check up. 1000 lbs. of 40% cream contain 400 lbs. of butterfat and, obviously, the 1820 lbs. of the standardized 22% cream will contain these 400 lbs. of butterfat. Dividing 400 by 1820 and multiplying the quotient by 100 will give us the percentage of butterfat in the 1820 lbs. of standardized cream. This can be accomplished on the Dairymen's Slide Rule as follows:

A	Place 400	Find 22
B	Over 1820	Over 1

Answer: 22% B. F.

THE DAIRYMEN'S SLIDE RULE IS DISTRIBUTED BY

THE OLSEN PUBLISHING CO.

501-515 CHERRY STREET
MILWAUKEE, WIS.

AND WILL BE SHIPPED ANYWHERE POSTPAID ON RECEIPT OF $5.50

ONCE A USER BECOMES FAMILIAR WITH MAKING THE CALCULATIONS BY THIS SLIDE RULE MUCH TIME IS SAVED AND THE HIGHEST DEGREE OF ACCURACY RESULTS.

Notice—In a subsequent article a description of the Dairymen's Slide Rule will be given so far as its development and uses are concerned.

machines, planned the arrangement of equipment and these machines were installed in the Joubert plant just recently.

* * *

A HANDY BOOK ON BALL BEARINGS.

With so much equipment running on ball bearings these days it is well to keep handy some information about different sizes, specifications for ball races and collars that might be needed some day in a hurry. Manufacturers of dairy products should find worth having catalog No. 8 published by The Gwilliam Company, 23 Flatbush Ave., Brooklyn, N. Y. It contains more than 50 pages of illustrations, specifications and a variety of other information about ball bearings.

⁂

BUTTERMILK—A MODERN DRINK OF BIBLICAL TIMES.

Buttermilk has been known as a health giving drink since Biblical days but it is only recently that it has been found that the addition of a fraction of a per cent of gelatine makes buttermilk a much smoother and creamier dring and keeps it from separating or "wheying off," according to such authorities as Professor T. G. Yaxis of the Massachusetts Agricultural College and Professor Wm. H. E. Reid of the University of Missouri.

This new combination is rapidly gaining popularity with the American public as it furnishes a cooling, refreshing and healthful drink. According to dietitians and health experts it has long been known that buttermilk is a real food as well as an appetizing drink, for it contains a very fine quality of protein, valuable mineral salts, sugar and a lactic ferment which gives it a sharp satisfying taste. Doctors recommend it because it stimulates digestion, acts as a tonic on the body and helps to correct constipation and other disorders of the digestive tracts.

An ideal sustaining lunch for the business man or housewife is, for example, a sandwich or salad and a glass of buttermilk to which a little gelatine has been added, or gelatinated buttermilk, as it is called.

⁂

BUREAU OF AGRICULTURAL ECONOMICS ANNOUNCES NEW TITLES.

The bureau of agricultural economics, United States Department of Agriculture, has announced that federal dairy products inspectors are now known as official graders and the government inspection certificates on dairy products are now known as official grading certificates. The ruling became effective on July 1. The change in designation has been made to clarify the work of the department with reference to its various activities relating to dairy and poultry products, and to conform to international terms, with respect to grading of these products for quality and condition.

The Neil House in Columbus OHIO

Opposite the Capitol

650 ROOMS
Each With Private Bath

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Unexcelled Cusine

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For reservations address
F. W. BERGMAN, Managing Director

STUDY OF MILK AND COFFEE HABITS OF PITT BURGH CHILDREN MADE.

John C. Fetterman, chairman of the milk service co mittee of the Pittsburgh District Dairy Council; M. I lian Conwell Shillinger, formerly director of the nut tion extension department of the Pittsburgh Distr Dairy Council, and R. Roy Irvin, industrial fellow, M lon Institute of Industrial Research, University of Pit burgh, have just completed an extensive survey of t milk and coffee drinking habits of 80,070 school childr in the Pittsburgh district.

Analysis of the returns showed that the average ci public school child drank 1.47 glasses of milk and cup of coffee; the average city parochial school chi .93 glass of milk and 1.52 cups of coffee; the avera county public school child 1.58 glasses of milk and . cup of coffee, and the average county parochial scho child .89 glass of milk and 1.37 cups of coffee. The figures apply only to the elementary grades, and do n include kindergarten and high school grades.

A comparison of the milk and coffee habits of chi dren living in some of the better sections of the cit with those of children living in the slums and indu trial sections was made and it was shown that the fir named group drank 2.13 glasses of milk and only .3 cup of coffee, while the second group consumed 1.1 glasses of milk and 1.10 cups of coffee. It was notice that the children in both groups consumed more mil for lunch than at breakfast or supper.

⁂

NEW FIRM TO PROMOTE MILK STERILIZATION PROCESS.

Killing bacteria in milk and cream by "crushing" them instead of by prolonged heat applications is th theory back of a process which will soon be offered t dairy plant owners. The Wisconsin Steril Milk Co. o Waukesha, Wis., with George Grindrod, formerly wit the Carnation Milk Co., as president, is promoting th process.

A new demonstration plant and laboratory has bee erected in the outskirts of Waukesha and the proces will be in operation by Sept. 1.

The claim is advanced that milk and cream can b made absolutely sterile by exposure to steam for one minute at a temperature of 230 degrees F., using only one or two minutes for advancing the temperature t that point. Of course, special equipment is necessary for the process.

Tests that have been made indicate that there is no cooked taste in the sterilized product and that it will keep sweet for many days under ordinary milk handling methods.

⁂

BUSINESS HAS GROWN RAPIDLY SINCE MERGER.

Since the merger of the Mandt Dairy Company and the East Side Capital Dairy Company, both of Madison, Wis., business has been growing rapidly, and more than 3,000 homes are being supplied with Mandt dairy products. Two trucks have been added to their force, one to take care of the general wholesale business and the other to handle their rapidly increasing butter business. A new series of cooling coils have been added that will easily handle 25,000 pounds of milk per day.

The company is located at 9 North Brearly Street, and the personnel of the company consists of a group of young men who aim to give the best possible service to Madison.

RODUCERS PREPARING TO COMPLY WITH NEW DAIRY RULES.

Madison (Wis.) producers of raw milk are now pre-ring to put their dairy farms in condition to meet the quirements for the production of what will be known "Madison Grade A raw milk," under the terms of e new ordinance which will go into effect in Madison, is., on November 1st. The new standard requires a cteria count not in excess of 50,000 per cubic centi-ter.

Following are the rules which the producers must rictly adhere to:

Herds will be tested for tuberculosis annually, and any actors will be disposed of according to existing regu-tions. Barns must have at least three square feet of ndow space per cow and 500 cubic feet of air space r stanchion.

Floors of dairy barns must be of concrete or other pervious material and walls and ceilings finished and pt whitewashed as hitherto required. In case of a cond story, the ceiling of the first floor must be sealed.

A separate milk house or room is required under the w regulations and explicit rules for its construction d maintenance are set forth including the elimination flies.

The water supply of the dairy, the brochure states, all be easily accessible, adequate and of a safe, sani-ry quality, and detailed instructions for the process milking and handling the product are included in the gulations.

Milkers and milk handlers must wear clean outer gar-ents, and milk must be removed from the barn prompt- and strained in the milk house.

The milk must be cooled within one hour after milk-g, to 55 degrees F., or less, and maintained at or be-w such temperature until delivered.

Every person, the regulations state, who is connected th a dairy and whose work brings him in contact in y way with the product must have within six months ssed a medical examination by a licensed physician. certificate of such examination must be filed with the ard of health.

Notice must be sent the Madison board of health im-ediately by any milk producer or distributor upon ose dairy farm any case of sickness, or any infection, ntagious or communicable disease occurs, the regula-ns conclude.

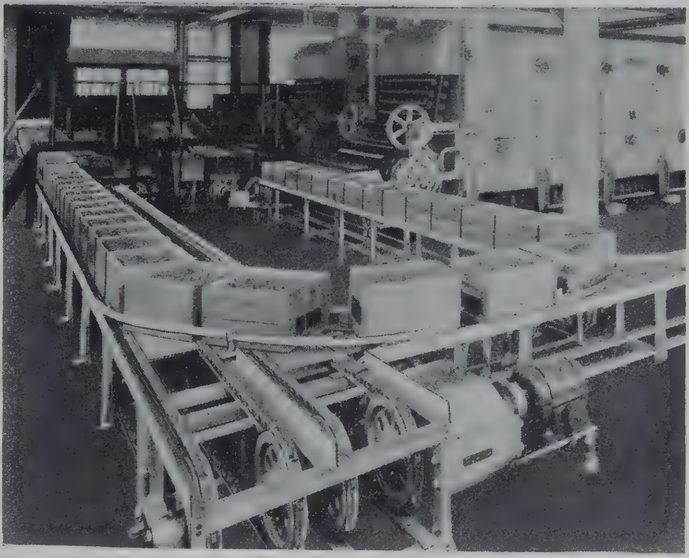
* * *

NEW JERSEY ADOPTS NEW REGULATIONS CONCERNING PASTEURIZATION.

The following additional regulations governing the steurization of milk and cream in the pasteurizing nts in New Jersey have been adopted by the Depart-nt of Health of the State of New Jersey:

All plants, where pasteurized milk or cream is bot-d, shall be provided with mechanical bottle fillers d cappers for use in filling and capping bottles of lk. Caps shall be obtained in sanitary tubes and kept erein until used.

Every pasteurizing plant operator shall, in addition the pasteurizing apparatus, provide an accurate in-ating thermometer for the purpose of checking the cording thermometer. The indicating and not the cording thermometer shall be used as an index of the nperature of the milk or cream by the plant operator.



Mojonnier

Bottle Case Conveyors

Speed Up Production and Reduce Handling Costs

THE Mojonnier Bottle Case Conveyors make the handling of bottle cases in the milk plant entirely automatic. The only hand handling necessary is putting the cases on the wagons or taking them off.

The conveyor on loading platform conveys cases of bottled milk to wagons, and empty cases from wagons to bottle washers. Double track system from wagon platform to bottle washers, and to storage.

Conveyors bring cases of empty bottles automatically to hand of each operator. Operator does not have to touch cases. Double track conveyor takes cases through enclosed 15 foot case washer, and then to filled bottle accumulating table.

Cleaned cases are conveyed automatically, after being filled, to cold storage room, passing through self-closing door.

We will be glad to work with you on a conveyor system suitable for your particular plant. Write for further information.

Mojonnier Bros. Co.
MILK ENGINEERS
HEAD OFFICE and FACTORY:
4601 W. Ohio Street Chicago, Illinois
SALES BRANCHES:
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St. Louis, Mo. Oakland, Calif.

WANT DEPARTMENT

HELP WANTED
(Rate: 2c per word)

WANTED—Salesman to handle a side line article of merit now on the market and selling to the dairies. A good repeater; will help to increase milk sales. Address: D-323, The Milk Dealer. 8-27tf

WANTED—Salesmen calling on dairies to sell our bottle crate on commission. Liberal proposition. American Box and Crate Co., Louisville, Ky. 8-27tf

If you want a Manager, Superintendent, Expert Chemist, Bacteriologist, Buttermaker, Pasteurizer Man or Ice Cream Maker—or help of any kind—"The Milk Dealer" can help you find the best available man.

MISCELLANEOUS.

NOTICE—Clients who have an expansion program, surplus problem, better machinery arrangement, man hour study of operations, design suitable dairy or creamery buildings, machinery required and lay-outs, installations and made to operate. Write us for our proposition. Address: D-407, The Milk Dealer. 9-27

POSITION WANTED
(Rate: 2c per word)

POSITION WANTED—As plant superintendent or foreman by a young married man, college trained, with nine years practical experience along all lines of the dairy industry, including plant foremanship. References. Address: D-437, The Milk Dealer. 8-27

POSITION WANTED—By young married man 30 years old as sales manager or route supervisor. Has had ten years milk and ice cream sales experience. Address: D-436, The Milk Dealer. 8-27

POSITION WANTED — By ambitious young man with four years experience in doiry work including short course at Penn State, as helper or foreman in small modern milk plant. Can give references. Address: D-432, The Milk Dealer. 8-27

POSITION WANTED — By experienced production manager and ice cream maker. Can give best references. Address: D-419, The Milk Dealer. 8-27

POSITION WANTED — Dairy chemist and specialist, 38, married, American, with 14 years experience in food and dairy products, plant and laboratory management, production of casein, milk sugar, albumen, etc., desires scientific position of responsibility. References, publications and photo supplied. C. L. Beals, 7 Buena Vista Ave., Providence, R. I. 8-27

POSITION WANTED—Man with training and experience in production and distribution of certified and market milk. Prefer connection with opportunity to build sales. Address: D-444, The Milk Dealer. 8-27

POSITION WANTED—By an experienced dairy and creamery man, as plant foreman; have 18 years of experience, last 8 years as plant foreman; have experience in all branches of the dairy business, also economy, sanitation and handling of men. Can furnish the best of references. Can come to work on short notice. Address: D-448, The Milk Dealer. 8-27

POSITION WANTED—By dairyman as all around man with 8 years experience in pasteurizing and buttermaking, the growing of cultures, commercial buttermilk and sour cream. Well acquainted with the different ways of chemical tests. At present foreman of a dairy handling about 20,000 quarts daily. Address: D-453, The Milk Dealer. 8-27

Looking for a better position? Why not try a Milk Dealer Want Ad?

RATES

2c per word for ads placed under headings "Help Wanted" or "Position Wanted."

5c per word for ads placed under all other headings — "Wanted to Buy," "For Sale or Exchange," etc.

In computing amount of remittance, add six (6) extra words if wanted published under Blind Address.

Bold Type—Double regular rates.
Minimum Charge—50c.
Blind Address — EXTRA — 25c in U. S. only; 65c Foreign — To cover postage in sending out replies from this office.
REMITTANCE MUST ACCOMPANY ORDER.

IT PAYS TO ADVERTISE

NOTE: Names and addresses of advertisers using blind addresses cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of this paper.

NOTICE

The publisher disclaims any responsibility for the reliability of parties advertising in the Want Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting suspicious dealings.

We reserve the right to refuse to accept advertisements which we believe are detrimental to the dairy industries.

Want Ads are accepted up to 7th of month preceding date of issue. Forms close on that date.

FOR SALE or EXCHANGE
(Rate: 5c per word)

BUSINESSES

FOR SALE—A completely equipped milk plant bottling 350 gallons of milk in town of 6,000 in middle states. Only plant in town with pasteurized milk ordinance This plant is clearing $600-$700 per month. Good reason for selling. $10,500, with terms to right party. Address: D-402, The Milk Dealer. 9-27

MACHINERY AND SUPPLIES

FOR SALE—One new $640 Cresco 200-gal. pasteurizer with motor direct connected. Sacrifice price, $490.

One new $75 Milwaukee bottle drainer. Sacrifice price, $55.

One new $325 Alvey bottle case elevator. Sacrifice price, $275.

One rebuilt C-P 150-gal. coil pasteurizer. Sacrifice price, $225.

One No. 12 $110 De Laval separator; universal drive, used only about 6 months. Sacrifice price, $67.50. Address: D-270, The Milk Dealer. 8-27tf

You cannot afford to miss a single copy of The Milk Dealer. Have you sent in your renewal?

FOR SALE — Refrigeration Machines - Used—We have several used and new m chines of nationally known make, whi we can sell at a big saving to you. W erect and guarantee the plants fully. A dress: Erecting Engineers Company, 47 West Lake St., Chicago, Ill. 8-2

If that business of yours does not s you, somebody else will be glad to get Let them know about it through a "Mi Dealer" Want Ad.

FOR SALE—Here is an opportuni New Davis rotary filler, Junior size, Mo 640, motor driven, cost $700. A reasona offer takes it. Also nearly new De Lav separator, capacity 2,500 lbs. per ho direct motor drive, for $125. Cost $1 We also have several tubular milk coo ers, large and small sizes. Address Merk Dairy Company, 2727 N. Halsted St., Ch cago, Ill. 8-27

FOR SALE—One Yundt air brush bott washer, capacity 120 bottles per minu complete with motor driven air compre sor, 3 phase, 60 cycle, 220 volt motors a conveyors. Used about 2 years. In go mechanical condition. Original cost i stalled $15,000. Will sell for $7,000, f. b. St. Louis. Write to the Meyer-Blan Company, St. Louis, Mo. 9-

FOR SALE—Cherry Junior pasteurize Five horse power boiler, brine pum equipment nearly new. Address: Occ pant, 2219 McKinley Ave., Keokuk, Ia. 8-

FOR SALE—Several single horse mil wagons. Bowman Dairy Company, 18 Berteau Ave., Chicago, Ill. 8-2

FOR SALE—Twelve one-horse straig sill milk wagons, equipped with tail gate Priced $25.00 to $50,00, f. o. b. Chicag Address: D-425, The Milk Dealer. 8-2

FOR SALE—Kunsman Milk Advertisin Talks, Series No. 2. A year's campaign— 57 ready written ads—only $5.00. Mone back if not satisfied. Kunsman Ad. Ser vice, 29 Reed St., Reading, Pa. 10-2

A small cash investment and the serv ices of a live young man in the milk busi ness are what many proprietors are i need of. You can locate good opportuni ties through a Milk Dealer Want Ad.

FOR SALE—To the Milk Dealers—W have 15 milk wagons and 10 sleighs. The are 8 months old and in best of condition Address: Grand Rapids Creamery Co., 30 Scribner Ave. N. W., Grand Rapids, Mich 8-2

FOR SALE—Rebuilt and guarantee dairy equipment at worth while savings Write for price list. Lincoln Equipmen Company, 2611 Stevens Ave., Minneapolis Minn. 8-27t

A motor truck, milk wagon—in fact, anything of interest to milk dealers, can be disposed of through "The Milk Dealer" Want Department.

FOR SALE—York 5-ton refrigerating plant, twin cylinders. York twin cylinder 5-ton refrigerating plant, complete. Brunswick single cylinder four-ton, complete, $275. Brunswick twin cylinder. chain drive, eight tons refrigeration, compressor only, $190. Berryman Bros., 305 Drexel Building, Philadelphia, Pa. 8-27

WANTED TO BUY
(Rate: 5c per word)

WANTED—Used pasteurizing vats, coolers, ice breakers, ice cream cans and tubs, churns, etc. Send us list of what you have for sale. B. Riley Hauk & Son Company, 201 S. First St., St. Louis, Mo. 8-27tf

WANTED—To buy or lease with option of buying a good paying retail milk plant. Must be in a good business town. Address: D-439, The Milk Dealer. 9-27

WANTED—Milk route or small dairy. Northern Ohio preferred. Address: D-445, The Milk Dealer. 8-27

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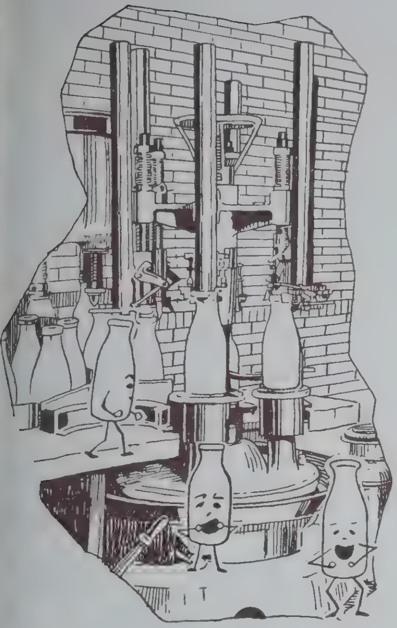
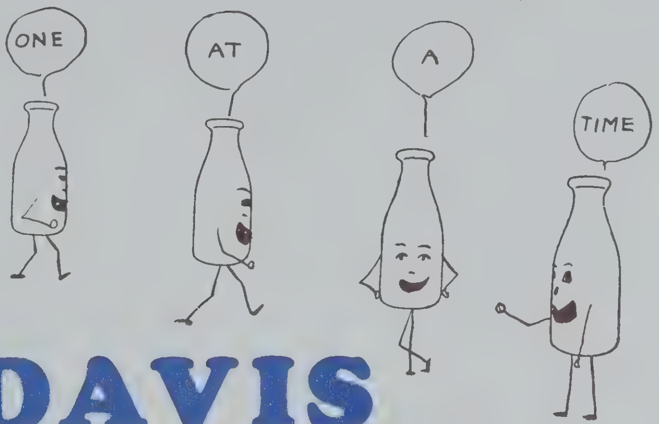
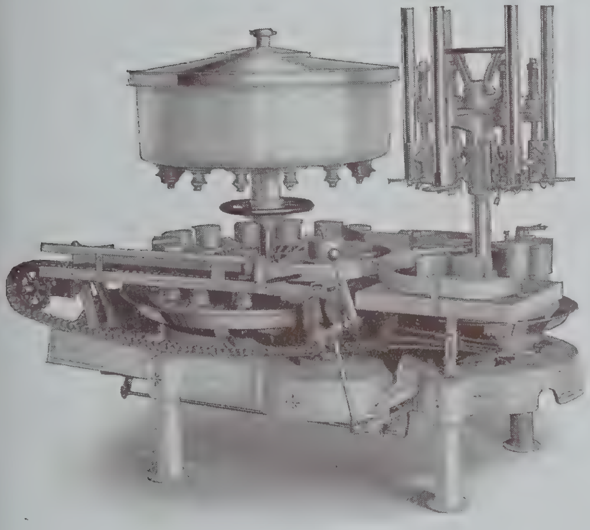


All Rotary Principle *eliminates crowding*



DAVIS

Rotary Milk Bottle Filler and Capper



This is the No. 5 Model—the fastest filler and capper made today. 66+ pints or 53+ quarts is the rated capacity. Two smaller sizes, Nos. 6 and 7, have capacities of 24 and 38 quarts per minute, respectively.

One—at—a—time—there's the reason why the Davis is the fastest, smoothest and most satisfactory of all bottle fillers and cappers.

Because the bottles are filled and capped individually, they are never bunched, crowded nor broken. Consequently, neither fillers nor cappers are overworked, milk is not spilled and the entire machine operates with such smoothness and rapidity that the inexperienced onlooker is amazed at the sight.

The all rotary principle as embodied in the Davis is the result of many years study in bottle filling and capping methods. Through constant effort, *CP* Engineers have improved and elaborated upon the original machine so that today finds the Improved Davis without a peer in its particular field.

Bulletin 1167, just issued, gives complete details. Write for a copy.

THE CREAMERY PACKAGE MFG. COMPANY

SALES BRANCH OFFICES (Write Nearest One)

Atlanta, Ga., 326-338 Nelson St. S. W.
Boston, Mass., 138 Washington St. N.
Buffalo, N. Y., 14-16 Ellicott St.
Chicago, Ill., 1243 W. Washington Blvd.
Denver, Colo., 1649 Blake St.
Jersey City, N. J., 122 Morgan St.
Kansas City, Mo., 1408 W. 12th St.
Los Angeles, Cal., 627 E. Ninth St.
Minneapolis, Minn., 318 Third St. N.
Omaha, Nebr., 113 S. Tenth St.
Philadelphia, Pa., 1907 Market St.
Portland, Ore., 6-8 N. Front St.
San Francisco, Cal., 699 Battery St.
St. Louis, Mo., 508 N. Second St.
Toledo, Ohio, 119 St. Clair St.
Waterloo, Ia., 406 Sycamore St.

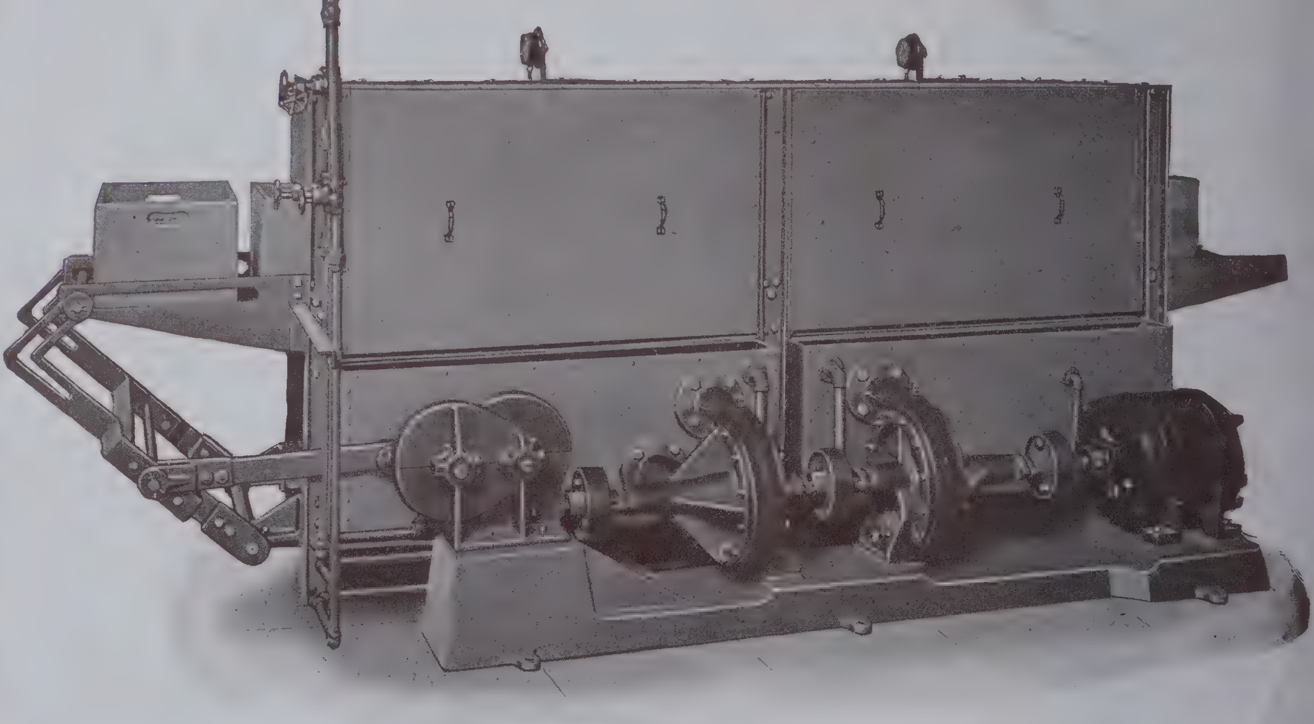
Sterile Bottles

MAY *now* be secured at a very low cost, *but* you must use efficient and dependable washing methods. The YORK Four Bottle Washer and Sterilizer is the best machine to produce these results.

The YORK Four Bottle Washer and Sterilizer will handle 3 crates per minute, which is equivalent to 2160 quart bottles or 3600 half pint or quarter pint bottles per hour.

It is the machine best adapted to the needs of the medium sized dairy or milk plant and can be furnished for belt or motor drive, with or without power feed.

Crates—Milk Bottle Washers and Sterilizers—Crate Transfer Trucks—Milk Pumps—Ice Cream Can Trucks.



Complete Motor Driven Machine

For further information, address:

YORK MILK MACHINERY CO.

Engineers and Manufacturers

York, Penna.

1.05
ID
Ag. Sem.

THE MILK DEALER

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23
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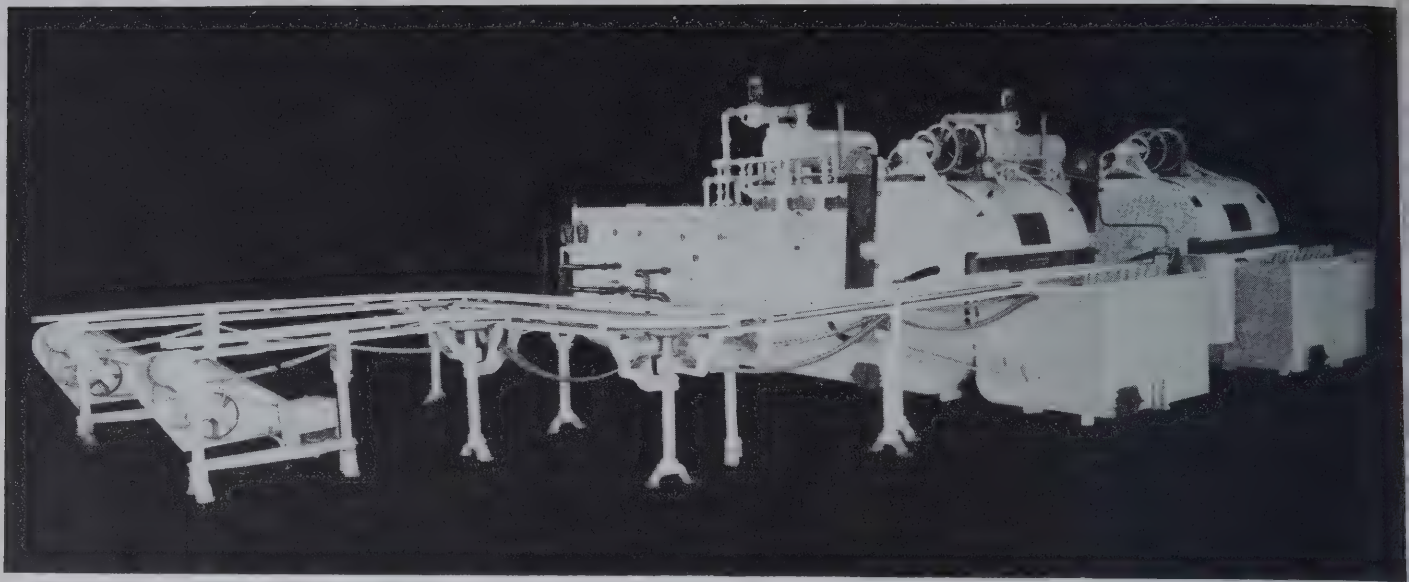
THE
RENCH BROS.
BAUER CO.

olume 16 September, 1927 Number 12



1 **Simplicity**
Fewer parts: practically no mechanical attention.

2 **Compactness**
One-third less floor space than other machines of equal capacity.

3 **Hydraulic**
Washing, pre-rinsing, soaking, pressure washing.

4 **One-Man**
Machine; clean bottles come out at feed in end.

5 **Capacity**
20 to 60 bottles per minute; easily regulated to filler and capper.

6 **Accessibility**
No working parts inside of machine.

7 **No Adjustments**
for various sizes of bottles.

8 **No Breakage**
Perfect temperature control eliminates breakage.

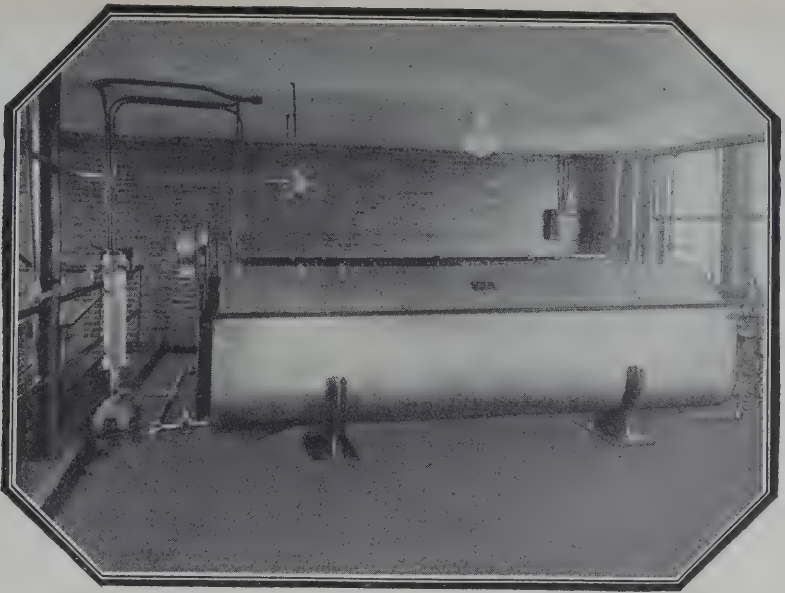
8 Reasons Why the *Ladewig-Soelch* SUPER 8 EIGHT

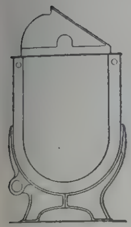
Ranks first among all Bottle Washers

SIMPLICITY, Compactness, Hydraulic Principle, One-Man Operation, Capacity, Accessibility, No Adjustments, No Bottle Breakage—these things mean *low washing costs.* Each one of them is the cumulative result of twenty-two years of building successful washers. And today in this latest Ladewig-Soelch, you have a *super* washer embodying the soundest engineering principles, yet far advanced in design and construction, and bottle washing efficiency. Let us send you complete information about this remarkable machine.

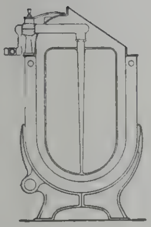
A. H. ARNOLD & COMPANY
718 W. RANDOLPH ST., CHICAGO, ILL.

Manufactured by Ladewig-Soelch Co., 38th & Lapham Streets, Milwaukee, Wis.

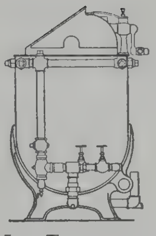




Simple, Sanitary Construction



Gentle Agitation



Low Temperature Heating Water

These 3 Features Have Made the BURRELL Outstanding

SIMPLE, sanitary construction, gentle agitation and low temperature heating water have made the Burrell Spray Pasteurizer outstanding for deep cream lines, cleanness and fine flavor.

Deep Cream Lines

Deep Cream Layers are promoted by the use of *low temperature heating water* and *gentle agitation.* Low temperature heating water can be used in the Burrell, because the water is sprayed in a rapidly-flowing sheet over *larger heating surfaces* —20% to 50% larger—than in other vat pasteurizers. Gentle agitation is accomplished in the Burrell by the wide, flat paddles swinging with a long, slow, sweeping movement, which forces every particle of milk across the broad heating surfaces by such a gentle motion that no churning or violent agitation results.

Low Bacteria Counts

Low Bacteria Counts are aided by the *simple sanitary construction* of the Burrell Spray Pasteurizer. Its plain, smooth interior surface is completely free from all bearings and stuffing boxes. There is no obstruction below the milk line to prevent thorough cleaning—just a smooth easy-to-wash and easy-to-dry surface.

Fine Flavor

Fine Flavor—the full natural flavor of the milk or cream—is preserved by the use of low temperature heating water which prevents scorching; and simple, sanitary construction which makes cleaning easy.

Write for illustrated catalog section No. 325. It contains the full story of the Burrell Spray Pasteurizer.

D. H. BURRELL & CO. INC. **LITTLE FALLS, NEW YORK**

TRADE MARK REG. U. S. PAT. OFF.

BURRELL

SIMPLEX

Dairy Creamery Cheesery and Milk Plant Apparatus

When writing to D. H. BURRELL & CO., INC., *please mention The Milk Dealer.*

They can't be wrong!

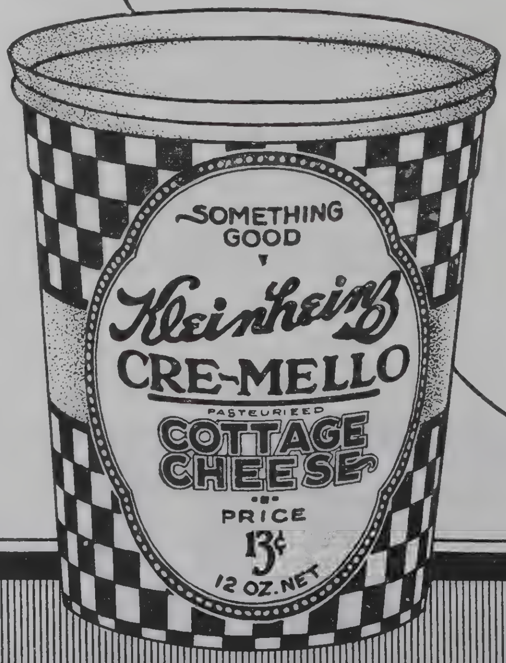
KLEEN KUP

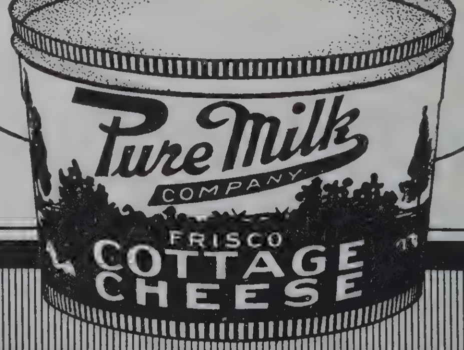
The Package That
Sells Its Contents

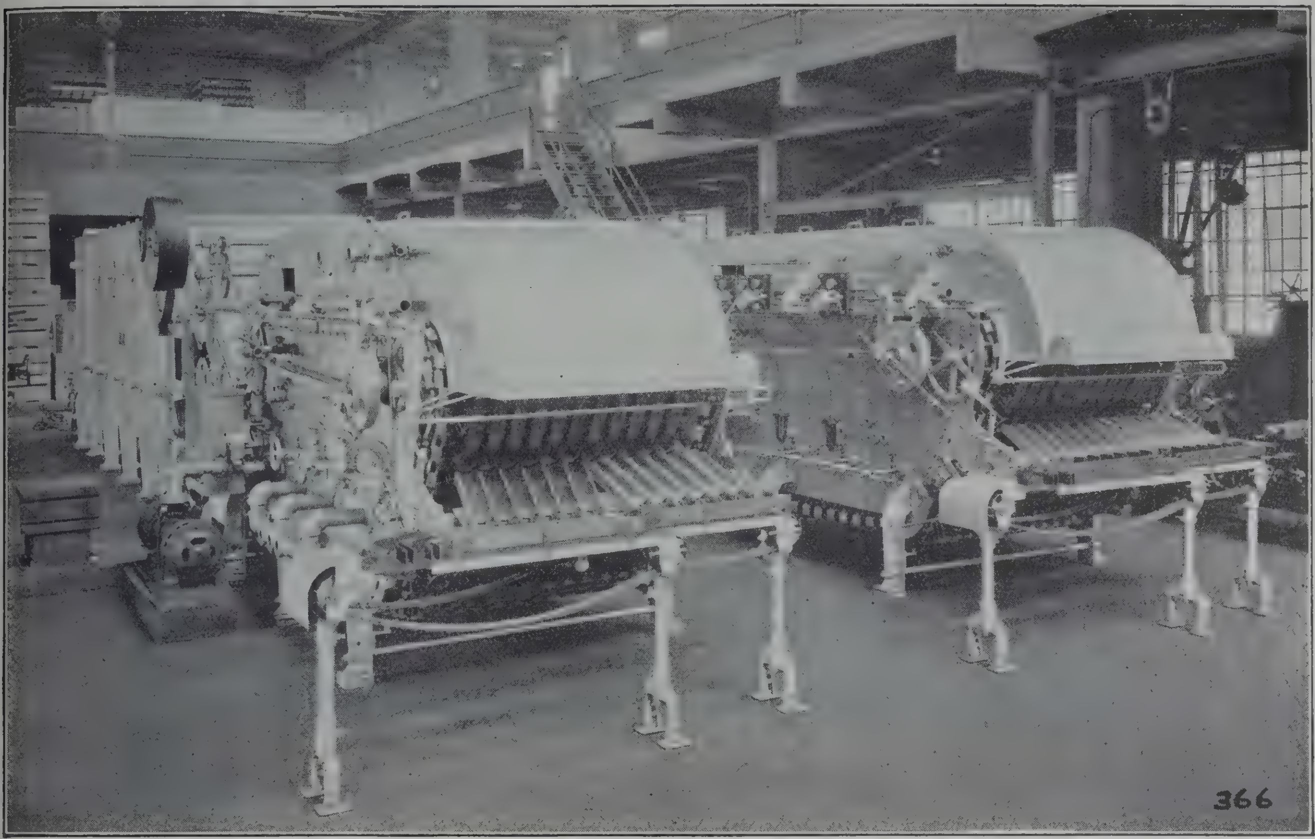
Leadership for sixteen years. First in volume of sales — leading always in high standards, both in product and service. Such is the unbroken record for this, the most practical and most attractive of all cottage cheese packages. Your use of this package will assist you to dominate cottage cheese sales in highly competitive markets. Those in the industry with the largest cottage cheese sales, with the highest earnings, with continued repeat orders, are users of this package — they can't be wrong.

Made in sizes holding one ounce [sampler] to ten pounds. Tell us to place a set of samples on your desk.

Mono Service Co.
NEWARK NEW JERSEY


SOMETHING GOOD
Kleinheinz
CRE-MELLO
PASTEURIZED
COTTAGE CHEESE
PRICE
13¢
12 OZ. NET


Pure Milk
COMPANY
FRISCO
COTTAGE CHEESE



The "ARISTOCRAT"

OF BOTTLE CLEANERS

APTLY NAMED BECAUSE IT IS IN A CLASS BY ITSELF

Above cut shows TWO large ARISTOCRAT units consisting of independent 5-COMPARTMENT SOAKER connected to our latest hygienic BRUSHLESS WASHER with Sterilizing and 3-Compartment Cooling attachments. Photo was taken on the assembly floor of our large modern factory.

These units are now operating in the new wonderful plant of SIDNEY WANZER & SONS, INC., CHICAGO, ILL., where the best was the main consideration. Write us for full particulars. Our engineering staff belongs to you. 26 years experience.

Sheffield Farms selects Barry-Wehmiller Bottle Washers, Soakers and Sterilizers for their *new Jamaica*, Long Island Plant. After using 2 Barry-Wehmiller machines for more than 2 years in their New York City Plant, 2 more at the Brooklyn Plant, 2 more at the Harlem Plant, and 2 more at the Bronx Plant, all of 6 to 8 compartments in size, they have for the *fifth time ordered 2 more for their new Jamaica Plant.*

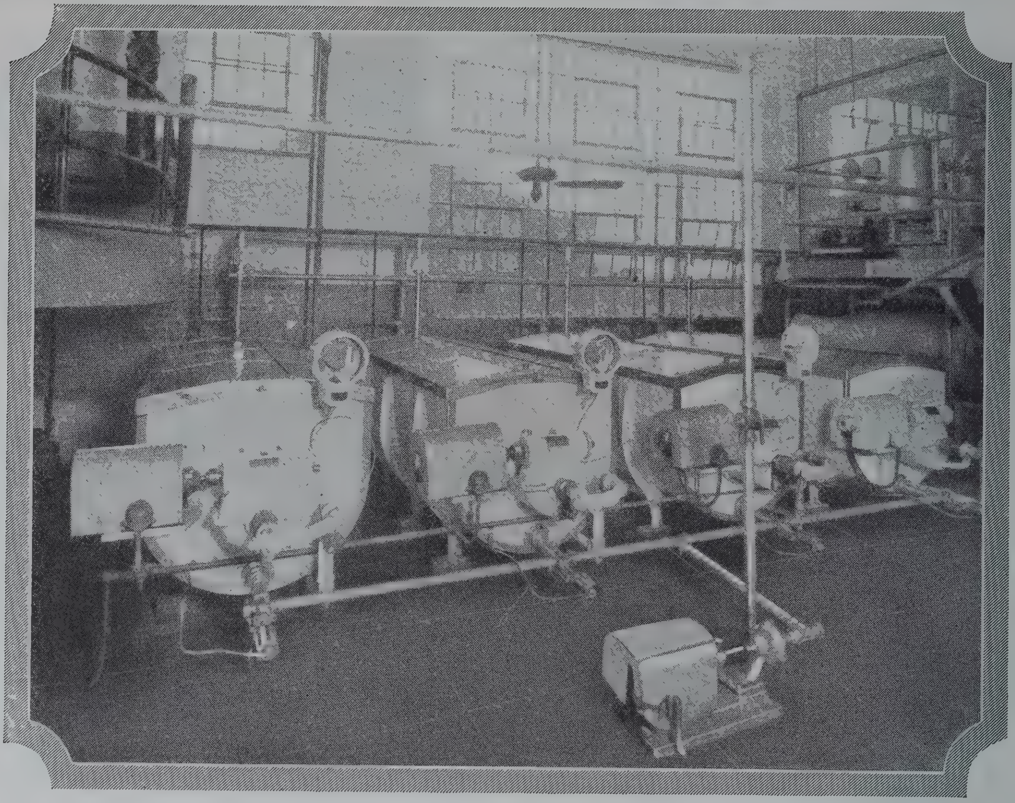
Barry-Wehmiller Machinery Company

Pioneers of Bottle Cleaners and In-the-bottle Pasteurizers

4660 W. Florissant Ave., St. Louis, Mo., U. S. A. **New York Office: 18 West 25th Street**

See also pages 78-79 in Olsen's Dairy Industries (Condensed) Catalogs.

When writing to BARRY-WEHMILLER MACHINERY COMPANY *please mention The Milk Dealer.*



flexibility!

THE battery of four 400-gallon Cherry Twin Coil Pasteurizers shown above were installed in the Atlantic City plant of the Supplee-Wills-Jones Milk Company in June, 1924.

The flexibility of Cherry Pasteurizers is one of their important advantages. This feature is appreciated by the operators of this installation, for it permits an optional selection of time required for processing.

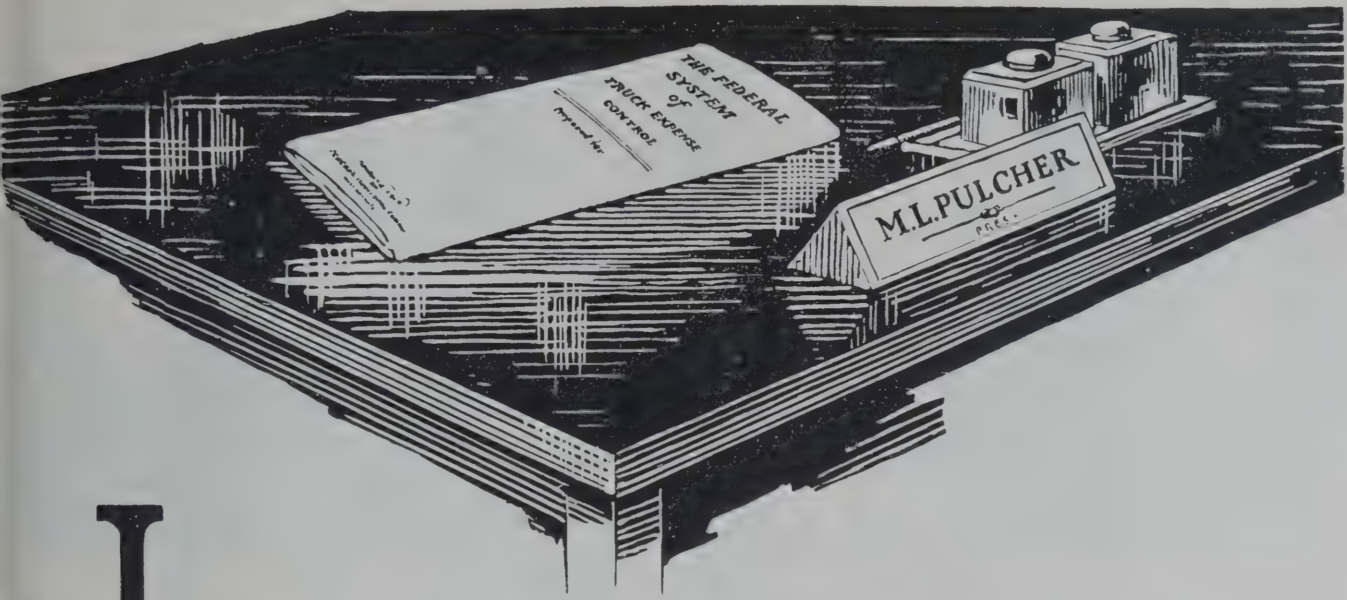
This installation has been operating nearly two and a half years and has been turning out a finished product with an average bacteria count of right around 3,000, with an excellent cream line and fine flavor.

No better or more economical system of pasteurization has yet been devised—and we would like to prove it if you'll let us!

J. G. Cherry Company, ***Cedar Rapids, Iowa***

St. Paul, Minn. ∾ **Tama, Iowa** ∾ **Peoria, Illinois**

When writing to J. G. CHERRY COMPANY *please mention The Milk Dealer.*


THE FEDERAL SYSTEM of TRUCK EXPENSE CONTROL
Prepared for
M.L. PULCHER
PRES.

. . I have a plan on my desk that will help MILK DEALERS cut their hauling costs . . . . and it's free —

M. L. Pulcher
President

What's the use of keeping elaborate records of truck expense if they don't really tell you anything—if they don't help you do your hauling at less cost?

Federal offers you — without cost and without any obligation on your part—a very simple plan. It tells you how to know every day what each of your trucks costs to operate—and what the cost *ought* to be. It tells you how to keep your truck expense within bounds.

It's a plan designed for busy executives who wish a sensible basis for managing fleet operation. You have your finger on other departments — why not on transportation.

The Federal System of Truck Expense Control will stop all "guessing". It makes use of your own experience as a reliable guide in judging which type and make of truck to buy. It's yours for the asking, no matter how few or how many trucks you own, or what nameplate they bear.

Clip the coupon to your letterhead and mail it today. Get this money-saving plan. Follow the lead of some of the biggest fleet operators in the country who use and indorse this system.

(124

FEDERAL MOTOR TRUCK COMPANY
5816 Federal Avenue Detroit, Michigan

FEDERAL

ALL SIZES **TRUCKS** FOURS & SIXES

Federal Motor Truck Co.
5816 Federal Ave., Detroit, Mich.

Please send me, *without any obligation whatever on my part*, my copy of "The Federal System of Truck Expense Control."

Firm Name____________________

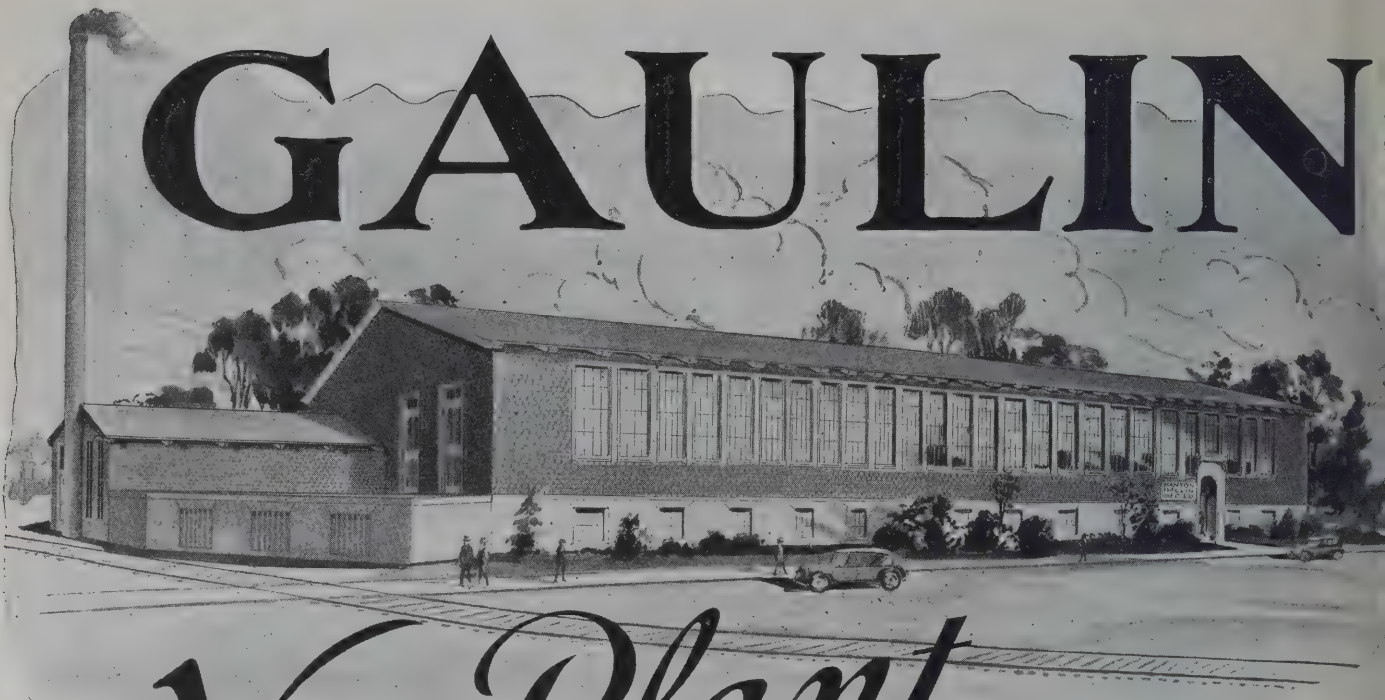
Attention of____________________

Street Address____________________

City and State____________________

When writing to FEDERAL MOTOR TRUCK CO. *please mention The Milk Dealer.*

GAULIN



New Plant

24,000 square feet

wholly devoted to building

GAULIN HOMOGENIZERS

For 17 Years
Gaulin
Manufacturing Exclusively Emulsifying Machinery

Our force of Gaulin trained engineers and workmen will go to St. Johnsbury with us and will be augmented by local workmen whose skill in metal operations is well known.

Building is 196 feet long, 65 feet wide, with fireproof basement. Walls are practically all glass, providing splendid illumination. Machinery will be individually motor driven.

We operate our own water power plant of 200 horse power, which provides electric power and light for our entire factory.

ON or about September 15th, we move into our new plant in St. Johnsbury, Vermont. Besides giving us greatly increased manufacturing space, which was much needed, our new plant provides better shipping facilities, with a spur track at the shipping room door; and far better location of machinery and processes. Its modern layout and equipment will further enable us to build utmost quality and workmanship into every Gaulin Homogenizer shipped.

We cordially invite you to visit our new plant
"On the Roosevelt Highway,
from Portland, Me., to Portland, Ore."

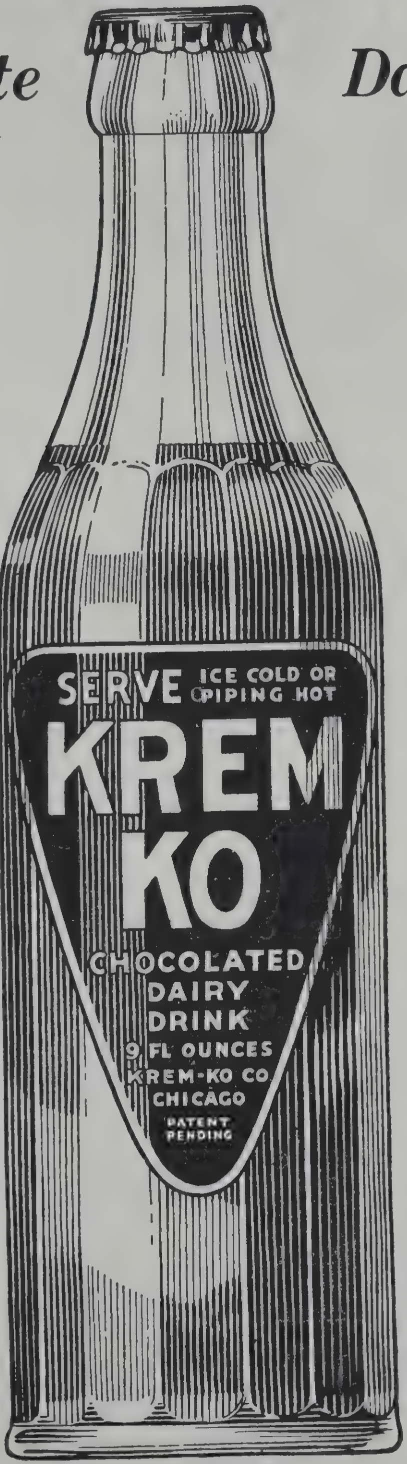
MANTON-GAULIN MFG. CO.
"On the Roosevelt Highway"
ST. JOHNSBURY, VERMONT

When writing to MANTON-GAULIN MFG. CO. *please mention The Milk Dealer.*

"The Most Popular Flavor in the World!"

KREM-KO

"The Chocolate Dairy Drink"



EVERY week, more well-known dairies join in this proposition that bids fair to make KREM-KO the most popular drink in the country.

And why shouldn't KREM-KO top the list? It has the most popular *flavor* in the world—milk-and-chocolate!

You can bottle KREM-KO. It utilizes skim milk, KREM-KO syrup, and the KREM-KO process.

KREM-KO does all that is claimed for it! It pleases. It "repeats" again and again.

The manufacture of KREM-KO takes the slack out of your present organization and equipment. We offer a complete plan of manufacture, selling, and advertising.

Chocolate never settles; never thickens.

Keeps without icing in any weather.

Can be bottled by any good dairy.

Popular drink the year round.

A good seller and sure repeater through fountains, lunch counters, road stands, pool rooms, groceries, and amusement parks. (Or through beverage jobbers.)

KREMO-KO COMPANY
4830 Turner Avenue, CHICAGO

MAIL THIS COUPON TODAY

KREM-KO COMPANY,
4830 Turner Avenue,
Chicago, Ill.

Tell me about it. Send samples. No obligation on my part, of course.

Name ....
Company ....
Address ....

(Krem-Ko is the perfected product of the Dairy Drink Company and the officers and personnel of the two organizations are identical.)

When writing to KREM-KO COMPANY *please mention The Milk Dealer.*

H. P. HOOD & SONS, INC.
Dairy Experts
4 RUTHERFORD AVENUE
BOSTON 29 MASS

BORDEN'S
FARM PRODUCTS COMPANY, INC.
QUALITY BORDEN'S SERVICE

JERSEY FARM DAIRY CO.
INCORPORATED
6001 SO. GRAMERCY PLACE
LOS ANGELES, CALIF.

WINDSOR FARM DAIRY
1855 BLAKE STREET
DENVER, COLORADO

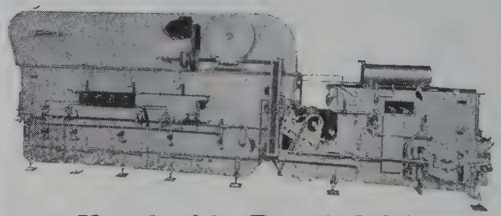
Pevely Dairy Company
001 S GRAND BLVD
ST. LOUIS

Gridley Dairy Co.
DAIRY PRODUCTS
MILWAUKEE, WIS.

ADOHR STOCK FARMS
and
ADOHR CREAMERY COMPANY
1126 Pacific-Southwest Bank Building
LOS ANGELES

RIECK-McJUNKIN
DAIRY COMPANY
RIECK PLANT
COR FORBES & STEVENSON STS
PITTSBURGH
MAGNOLIA 4000

D. H. EWING'S SONS
INCORPORATED
MILK-CREAM-BUTTER-BUTTERMILK-COTTAGE CHEESE
LOUISVILLE, KENTUCKY



Yundt Air Brush Milk Bottle Washer

Crescent Creamery Company
GENERAL OFFICES
237 WINSTON STREET
LOS ANGELES

BOWMAN DAIRY COMPANY

NORTHLAND
MILK AND ICE CREAM
COMPANY
WHOLESALE AND RETAIL
DAIRY PRODUCTS
Minneapolis
Minn

CLOVERLAND DAIRY PRODUCTS CO.
INCORPORATED
3400 CARROLLTON AVENUE
NEW ORLEANS

Trapp Bros. Dairy Co.
PASTEURIZED
MILK-CREAM-BUTTER

88-92 BURLEIGH STREET
TELEPHONE EDGEWOOD 330
MILWAUKEE

LEADERS in the INDUSTRY!

THE superior performance of the Yundt Air Brush Milk Bottle Washer has won for it the leadership in the bottle cleaning machine field.

Leading dairies have installed the Yundt Air Brush Milk Bottle Washer because of its quality and dependable performance.

A steady flow of clean, sterile, polished bottles are delivered from the Yundt Air Brush Milk Bottle Washer.

You, too, can secure clean, sterile bottles by installing a Yundt Air Brush Milk Bottle Washer.

Descriptive literature is yours for the asking.

A Few Leading Dairies Who Are Using YUNDT Washers

	No. machines
BORDEN'S FARM PRODUCTS CO., NEW YORK and CHICAGO, ILL. in various sizes, ranging in capacity from 90 to 160 bottles per minute each	15
BOWMAN DAIRY CO., CHICAGO, ILL. capacity each 120 bottles per minute	3
GRIDLEY DAIRY CO., MILWAUKEE, WIS. capacity 160 and 120 bottles per minute	3
H. P. HOOD & SONS, INC., BOSTON, MASS. capacity 160 and 120 bottles per minute	3
PEVELY DAIRY CO., ST. LOUIS, MO. capacity each 160 bottles per minute	3
WINDSOR FARM DAIRY CO., DENVER, COLO. capacity each 160 bottles per minute	2
CLOVERLAND DAIRY PRODUCTS CO., NEW ORLEANS, LOUISIANA capacity each 120 bottles per minute	2
ADOHR CREAMERY CO., LOS ANGELES, CAL. capacity 60 bottles per minute	2
NORTHLAND MILK & ICE CREAM CO., MINNEAPOLIS, MINNESOTA capacity 160 bottles per minute	1
RIECK-McJUNKIN DAIRY CO., PITTSBURGH, PA. capacity 160 bottles per minute	1
JERSEY FARM DAIRY CO., LOS ANGELES, CAL. capacity 160 bottles per minute	1
TRAPP BROS. DAIRY CO., MILWAUKEE, WIS. capacity 120 bottles per minute	1
D. H. EWING'S SONS., INC., LOUISVILLE, KY. capacity 120 bottles per minute	1
CRESCENT CREAMERY CO., LOS ANGELES, CAL. capacity 120 bottles per minute	1

See the YUNDT AIR BRUSH in actual operation at the Dairy Show, Booth No. 303 - 4 - 5

MICHAEL YUNDT COMPANY,

MILWAUKEE, WIS.
WAUKESHA, WIS.

See also pages 90-91 in Olsen's Dairy Industries (Condensed) Catalogs.

When writing to MICHAEL YUNDT COMPANY *please mention The Milk Dealer.*

FACTS
about house to house delivery

"That Idea Will Cut My Delivery Cost $50 a Week!"

PERHAPS you, too, are *losing profits!*

Probably there are "leaks" in your retail delivery system, where *dollars are slipping through your fingers!*

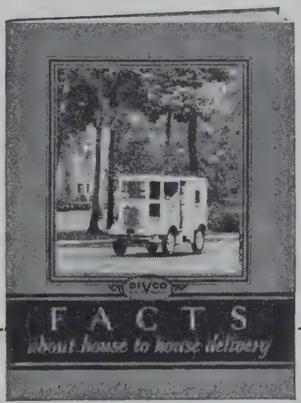
Dairies everywhere are finding these leaks—*and stopping them.*

Here's a new book telling how "delivery dollars" are being saved. It is short, easy to read, and full of *new ideas that are worth money to you!*

The book is free. Send for it.

DIVCO MOTOR TRUCKS

See also page 123 in Olsen's Dairy Industries (Condensed) Catalogs.



COUPON

Please mail me, without expense or obligation, a copy of the book, "Facts About House-to-House Delivery."

NAME ________________

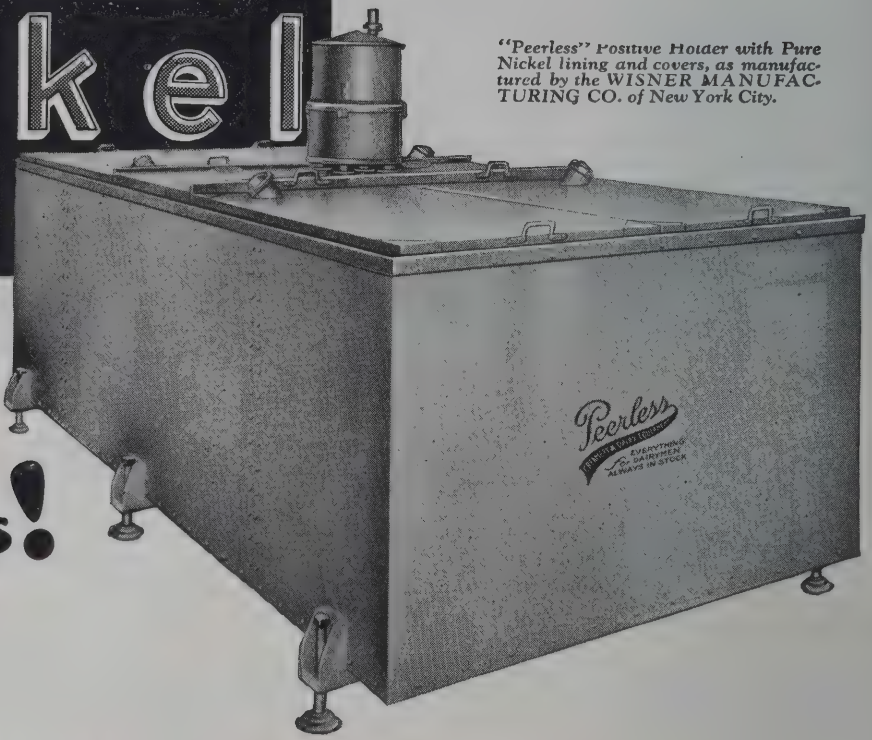
FIRM ________________

ADDRESS ________________

Mail Coupon to
DIVCO-DETROIT CORP.
2434 Merrick at 16th, DETROIT, MICH.

When writing to DIVCO-DETROIT CORPORATION *please mention The Milk Dealer.*

Wisner Manufacturing Company Adopts Pure Nickel



"Peerless" Positive Holder with Pure Nickel lining and covers, as manufactured by the WISNER MANUFACTURING CO. of New York City.

Now-a-days!

MODERN DAIRY EQUIPMENT IS NICKEL EQUIPMENT!

A LIST of dairy equipment manufacturers who are using Pure Solid Nickel in making pasteurizers, vats, coils, etc. reads like a "Who's Who" in the industry.

The Wisner Mfg. Co., makers of the well-known "Peerless" line, use Pure Nickel. In their many years of manufacturing experience, they have found it the most satisfactory material for dairy machinery construction.

When they fabricate Pure Nickel equipment, they know in advance that the user—their customer—will find it easy to clean and keep clean, and that it will aid materially in lowering bacteria counts.

The Wisner Mfg. Co. build long life into their "Peerless" equipment by using Pure Nickel. For Nickel resists the corrosive attacks of milk acids—it will not rust, and it has no coating to wear off under hard use.

Naturally, you want the most modern equipment. Consequently, you want Nickel equipment. Specify Pure Inco Nickel the next time you order. Ask your manufacturer for more information or write direct to us.

SEND FOR BOOKLET—"NICKEL FACTS FOR THE DAIRYMAN"

INCo NICKEL TRADE MARK

Nickel

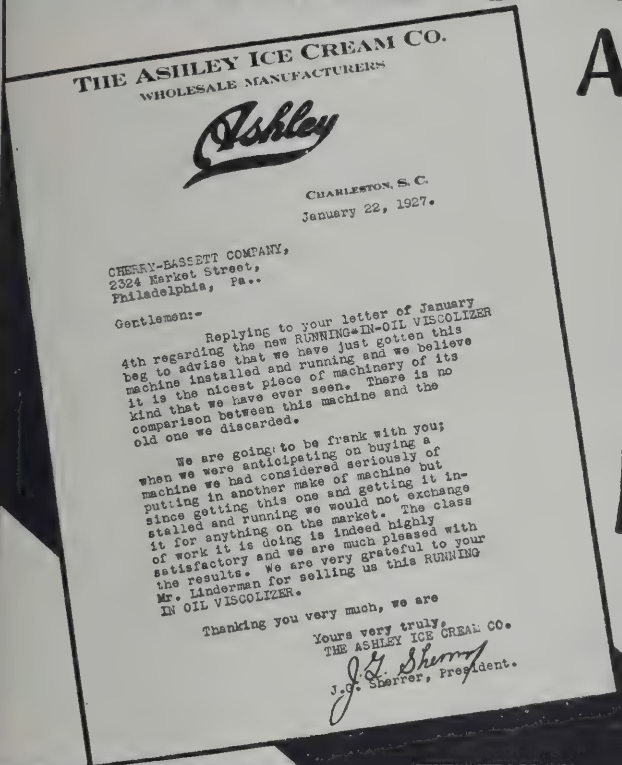
INCo NICKEL TRADE MARK

THE INTERNATIONAL NICKEL COMPANY (INC.), 67 WALL STREET, NEW YORK CITY

See also pages 46-48 in Olsen's Dairy Industries (Condensed) Catalogs.

When writing to THE INTERNATIONAL NICKEL COMPANY *please mention The Milk Dealer.*

ASHLEY TELLS YOU



THE ASHLEY ICE CREAM CO.
WHOLESALE MANUFACTURERS
Ashley
CHARLESTON, S. C.

January 22, 1927.

CHERRY-BASSETT COMPANY,
2324 Market Street,
Philadelphia, Pa..

Gentlemen:-

Replying to your letter of January 4th regarding the new RUNNING*IN-OIL VISCOLIZER beg to advise that we have just gotten this machine installed and running and we believe it is the nicest piece of machinery of its kind that we have ever seen. There is no comparison between this machine and the old one we discarded.

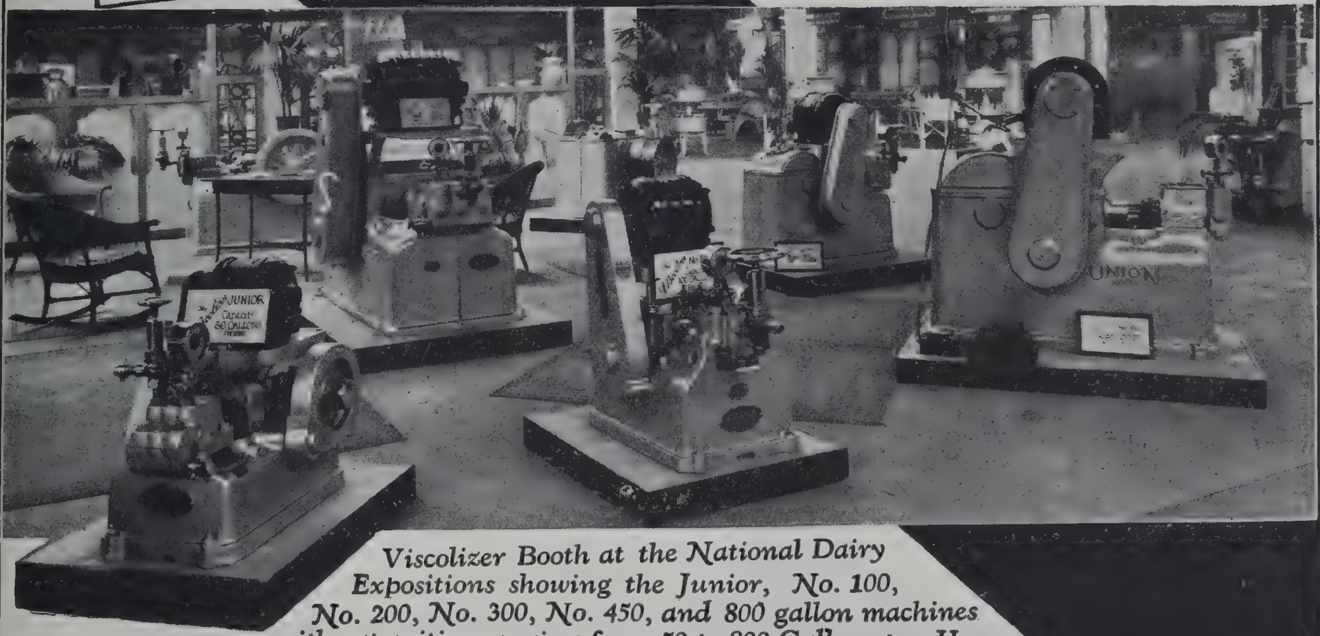
We are going to be frank with you; when we were anticipating on buying a machine we had considered seriously of putting in another make of machine but since getting this one and getting it installed and running we would not exchange it for anything on the market. The class of work it is doing is indeed highly satisfactory and we are much pleased with the results. We are very grateful to your Mr. Linderman for selling us this RUNNING IN OIL VISCOLIZER.

Thanking you very much, we are

Yours very truly,
THE ASHLEY ICE CREAM CO.
J. G. Sherrer
J. G. Sherrer, President.

ABOUT THE NEW *Viscolizer* RUNNING IN Oil

The MODERN MACHINE *for the* MODERN PLANT



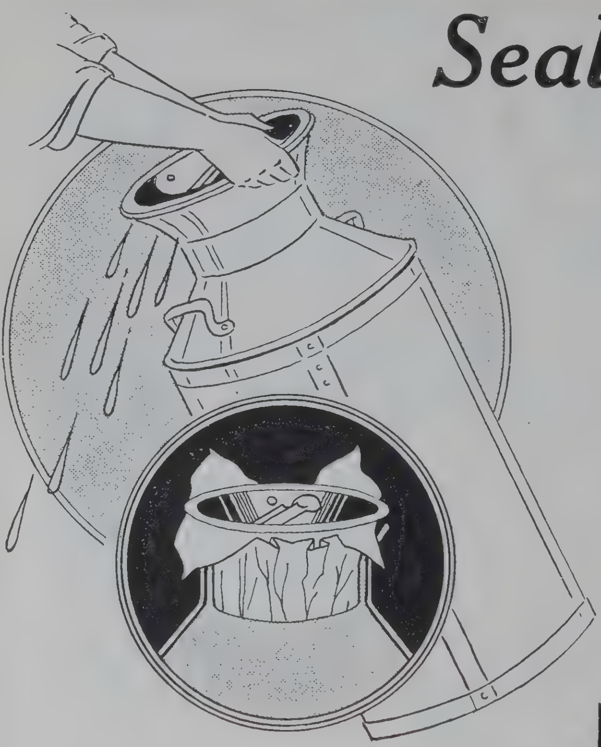
Viscolizer Booth at the National Dairy Expositions showing the Junior, No. 100, No. 200, No. 300, No. 450, and 800 gallon machines with capacities ranging from 50 to 800 Gallons per Hour

Distributed by

JOHN W. LADD COMPANY
Detroit, Mich.

CHERRY-BASSETT COMPANY
Philadelphia, Pa.

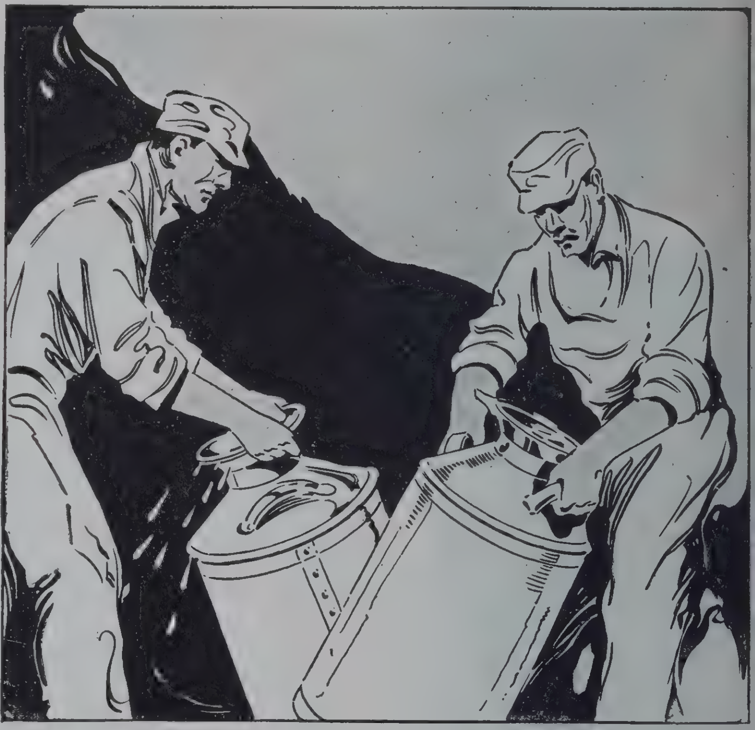
and 29 Recognized Dairy Equipment Houses—



Seal Your Lost Profits

with Parchment Gaskets

Cream that slops when the can is "rolled" is lost—gone forever—and so is the money you would have received for it, if *Parchment Gaskets* had been used.



Nine reasons why you should use Parchment Gaskets

1. They prevent waste.
2. Reduce sediment.
3. Maintain a low bacterial count.
4. Save time in fitting lids.
5. Prolong the life of the cans.
6. Eliminate railroad claims.
7. Prevent cream from churning in lids.
8. Prevent contamination from "rusty lids."
9. Prevent sifting of dust between metal lid and neck of can.

Milk Can Gaskets are made from sturdy *Paterson Vegetable Parchment* from both 40 and 50 pound substance (50 pound recommended), size 11″ x 11″, fits any type can.

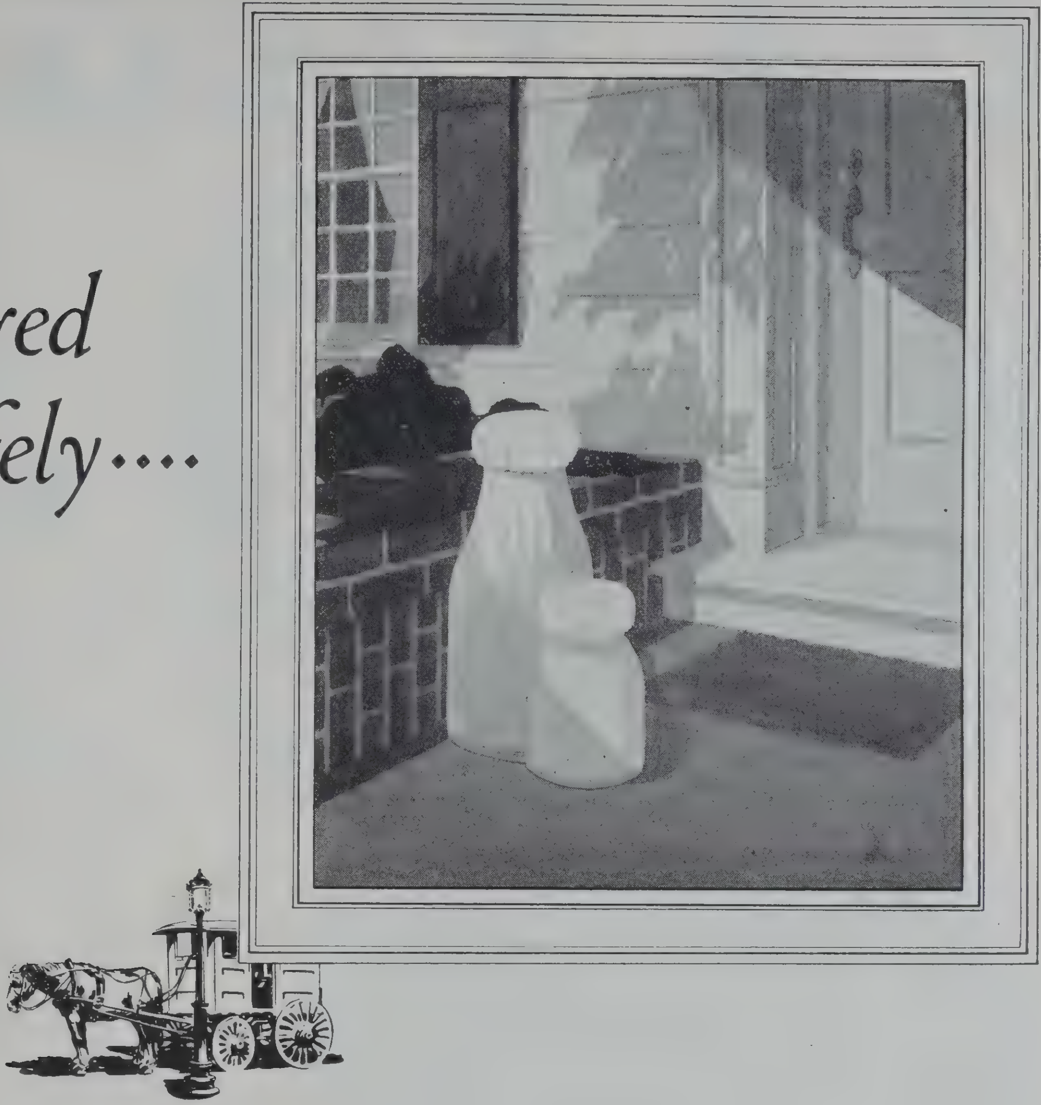
Write for samples and prices and circular No. 347, "Making Milk Shipments Pay."

THE PATERSON PARCHMENT PAPER CO.
PASSAIC, N. J.
San Francisco Chicago

See also pages 134-135 in Olsen's Dairy Industries (Condensed) Catalogs.

When writing to THE PATERSON PARCHMENT PAPER CO. *please mention The Milk Dealer.*

Delivered Safely....



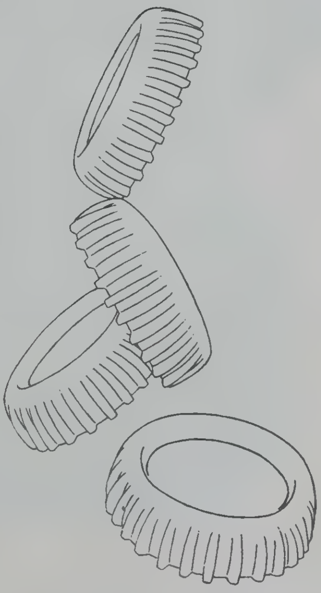
YET that is only half the story so far as the careful housewife is concerned. She is much more interested in knowing that the milk is completely protected against any possible unsanitary conditions.

You can satisfy all careful housewives — absolutely.

For the Westlake Sanative Seal, made of five-ply pure pulp spruce paper, is air, moisture and contamination-proof. After being applied at the dairy it cannot be removed from the bottle and replaced without detection. It assures the customer a perfectly protected milk supply.

The Westlake Sanative Seal is moulded individually over the entire pouring mouth and lip of each bottle. It fits tightly, yet a simple turning and lifting movement is sufficient to remove it instantly.

Send for latest bulletin on "The Scientific Combination."



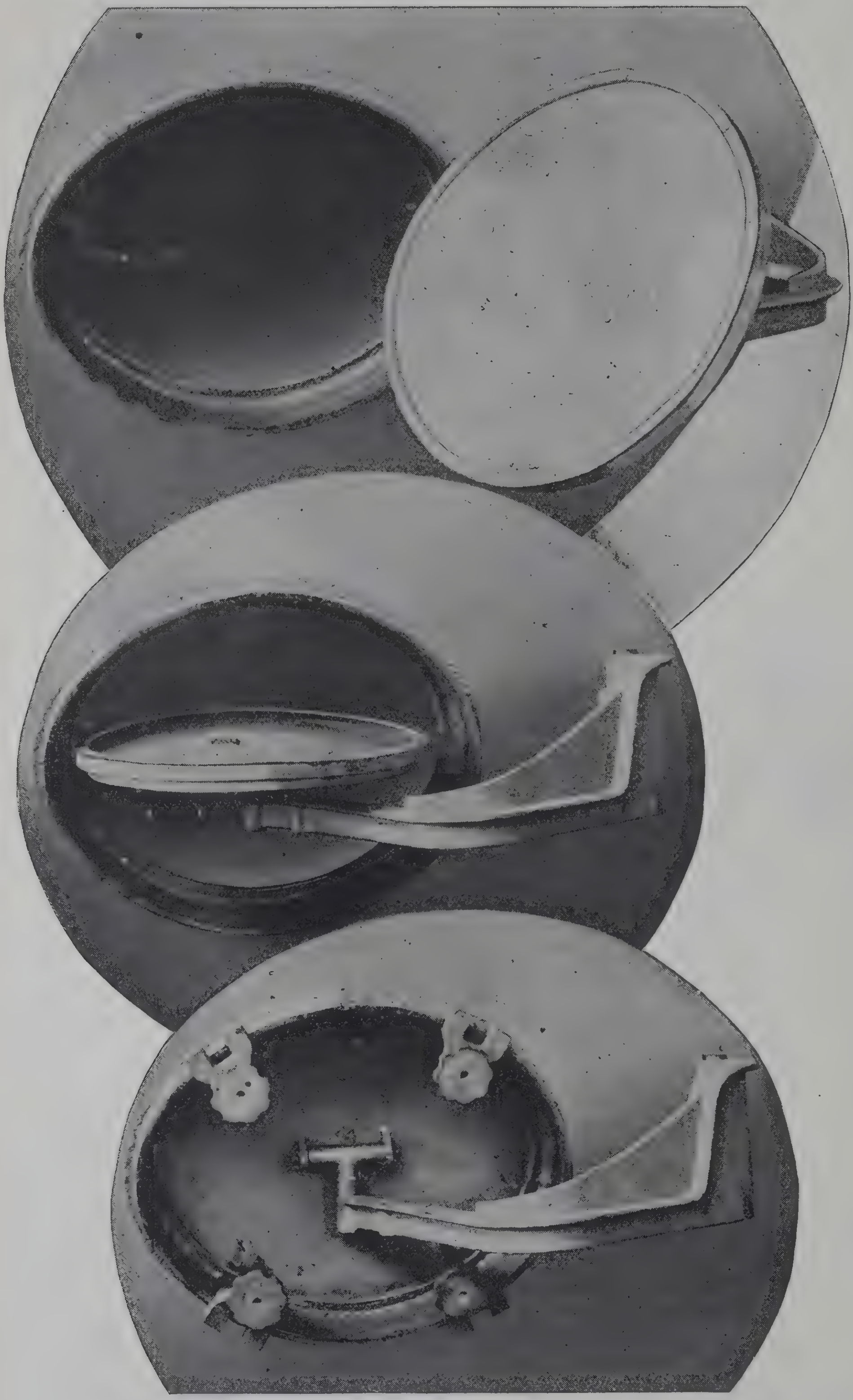
American Machine & Foundry Co.
5502-5524 Second Ave., Brooklyn, N. Y.

Sole Licensees to Manufacture and Sell for
THE LAKEWEST CORPORATION

WESTLAKE SANATIVE SEALS

When writing to AMERICAN MACHINE & FOUNDRY CO. *please mention The Milk Dealer.*

GLASCOTE



New Inside Manhole

Made for all sizes of Glascote Horizontal Storage Tanks. Quick acting. Glass coated inside, giving completely sanitary lining to interior of tank. Resilient pure rubber gasket prevents leakage. Light, positive, easily controlled. Ample size, with opening 15 by 19 inches.

New Bulletins

Send for the latest information on aging, storing and mixing tanks, pasteurizers, coil vats, truck transportation tanks and other equipment required for getting best results at lowest cost in the dairy, ice cream, condensed milk, butter and cheese industries.

THE GLASCOTE COMPANY, EUCLID, OHIO [Cleveland Distric

NEW YORK OFFICE
15 Park Row
Barclay 1784

CHICAGO OFFICE
127 North Dearborn St.
Dearborn 9731

DETROIT OFFICE
1217 Book Building
Cadillac 0799

ST. LOUIS OFFICE
905 Carleton Building
Garfield 3561

LOS ANGEL
487 Chamber
Commerce Bld

See also pages 68-69 in Olsen's Dairy Industries (Condensed) Catalogs.

When writing to THE GLASCOTE COMPANY *please mention The Milk Dealer.*

Niagara Falls—The Source of the Greatest Power Known to Man

The Miller HYDROSTATIC Principle of Sterilizing Bottles is now Standard the World Over!

TWELVE years ago Charles Miller became plant superintendent of the Bainbridge Bottling Company. He soon discovered that the general practice at that time in the beverage industry was to brush the dirt out of a bottle with an ill-smelling bristle brush, which soon became as filthy as the refuse in the bottle could make it, and while leaving the bottle in many instances clean to the eye, left it fairly alive with bacteria of all kinds.

Charles Miller immediately began to devote his entire time to the perfection of a machine that would rid his plant forever of this brush nuisance. Some important form of friction was necessary to remove the dirt. His thoughts at once turned to hydraulic or hydrostatic friction. He had witnessed the terrific action of water under pressure in engineering and mining projects, had seen hillsides torn away, boulders dislodged, everything give way to the tremendous power of torrents of water. He visualized this irresistible force turned loose on the inside and outside of dirty bottles . . . . . obviously, no dirt could resist it.

And so, with this terriffic force as a basic principle, Chas. A. Miller designed a bottle washing machine which has since revolutionized bottle washing in the beverage and brewery industries. And now the Dairy Industry, with its tremendous demand for clean, sterile bottles, is turning to the Miller Hydro, and finding in it a newer, better method of bottle cleaning, free from the mechanical ailments inherent in all brush washing machines.

Write us today for catalogue and full particulars of how the Miller Hydro can be made to pay for itself in your plant long before you make the last payment.

MILLER MANUFACTURING CO., Bainbridge, Ga.
Makers of

The MILLER-HYDRO
Bottle Washer and Sterilizer

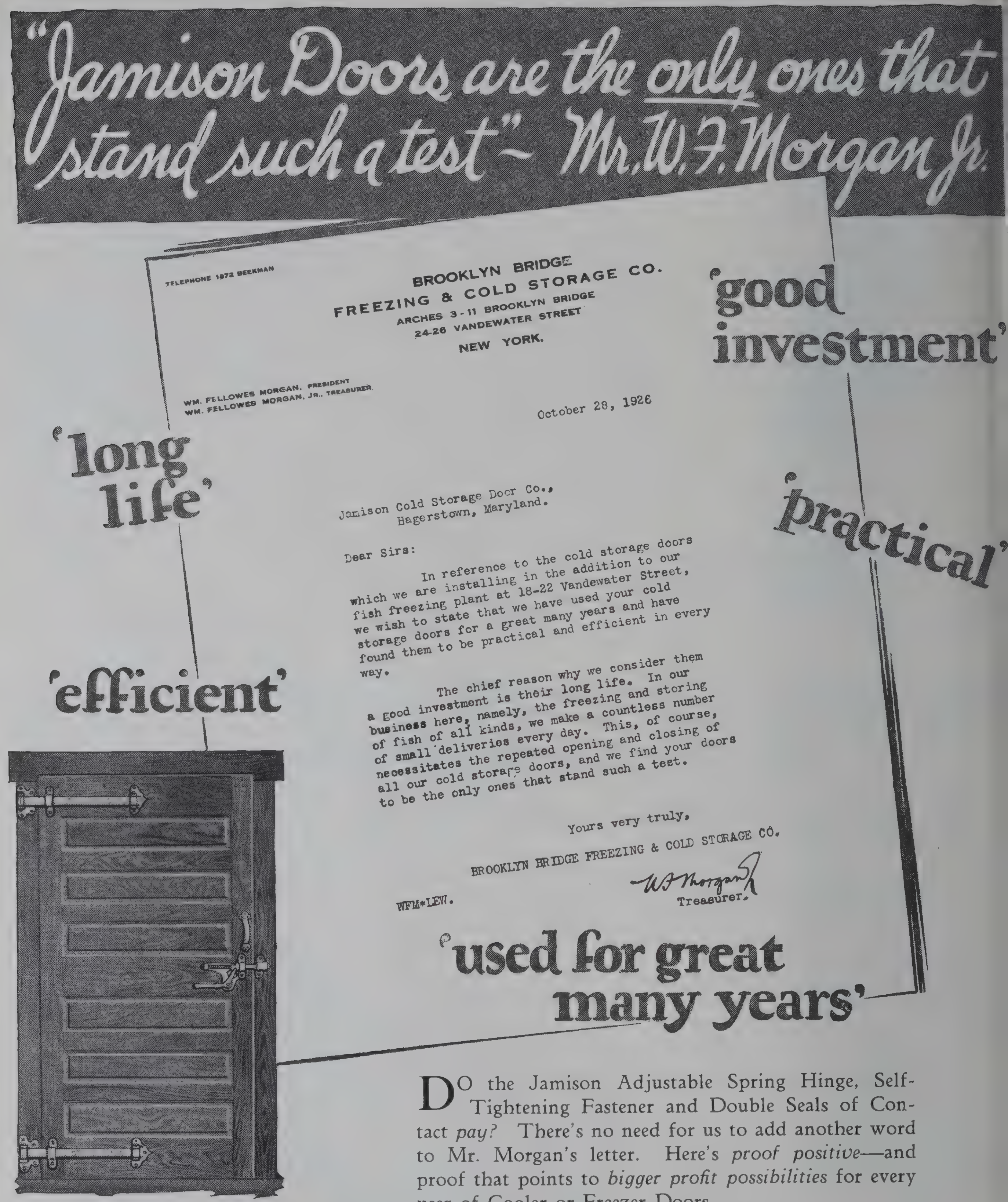
Chicago Office:
1305 Monadnock Block

New York Office:
105 West 40th Street

THE LARGEST FACTORY IN THE WORLD DEVOTED EXCLUSIVELY TO THE MANUFACTURE OF BOTTLE WASHING MACHINERY

When writing to THE MILLER MANUFACTURING CO. *please mention The Milk Dealer.*

"Jamison Doors are the only ones that stand such a test"— Mr. W. F. Morgan Jr.



'good investment'
'long life'
'practical'
'efficient'
'used for great many years'

TELEPHONE 1872 BEEKMAN

BROOKLYN BRIDGE
FREEZING & COLD STORAGE CO.
ARCHES 3-11 BROOKLYN BRIDGE
24-26 VANDEWATER STREET
NEW YORK.

WM. FELLOWES MORGAN, PRESIDENT
WM. FELLOWES MORGAN, JR., TREASURER.

October 28, 1926

Jamison Cold Storage Door Co.,
Hagerstown, Maryland.

Dear Sirs:

In reference to the cold storage doors which we are installing in the addition to our fish freezing plant at 18-22 Vandewater Street, we wish to state that we have used your cold storage doors for a great many years and have found them to be practical and efficient in every way.

The chief reason why we consider them a good investment is their long life. In our business here, namely, the freezing and storing of fish of all kinds, we make a countless number of small deliveries every day. This, of course, necessitates the repeated opening and closing of all our cold storage doors, and we find your doors to be the only ones that stand such a test.

Yours very truly,

BROOKLYN BRIDGE FREEZING & COLD STORAGE CO.

W F Morgan Jr
Treasurer.

WFM*LEW.

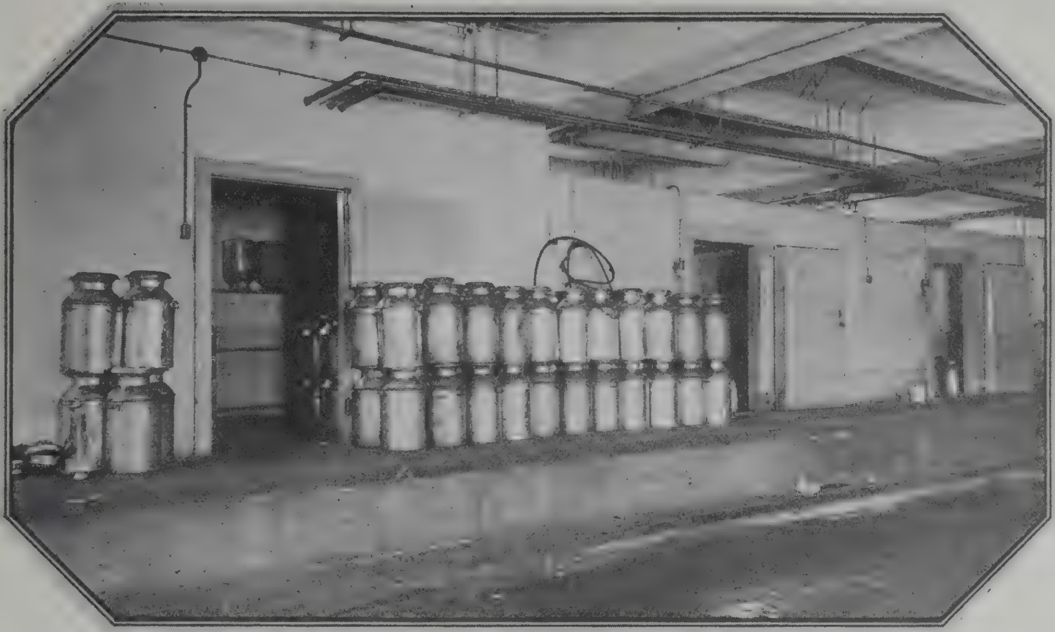
DO the Jamison Adjustable Spring Hinge, Self-Tightening Fastener and Double Seals of Contact *pay?* There's no need for us to add another word to Mr. Morgan's letter. Here's *proof positive*—and proof that points to *bigger profit possibilities* for every user of Cooler or Freezer Doors.

Our Catalog—if you haven't a copy now—will bring you all the reasons why more than half the world's Cold Storage Door users own JAMISONS. It also describes fully the cost-cutting features of Noequal All-Steel Automatic Ice Chutes. It's a genuine handbook on plant efficiency. Write and tell us you want it.

Jamison Doors

Jamison Cold Storage Door Company
Hagerstown, Maryland, U. S. A.

When writing to JAMISON COLD STORAGE DOOR COMPANY *please mention The Milk Dealer.*



Battery of Milk Storage Rooms, Brown & Bailey Condensed Milk Co., Brooklyn, N. Y.

- - PRICE - -

TEMPTED by price . . . misled by promises. Even cautious buyers of insulation are occasionally deceived by the false economy of low initial cost, and by the glowing promises of overly anxious salesmen.

Twenty years of efficient, time-saving insulation service . . . resulting in low operation and maintenance cost of Cold Storage Rooms . . . is conclusive evidence of proven economy of Crescent 100% Pure Corkboard installed complete by "United's Service." This un-rivalled service holds the confidence of Architects, Engineers and Owners of modern Cold Storage Plants throughout the country.

If you are contemplating insulation work, we will gladly have a trained representative call on you upon request, to give you suggestions and estimates on your work. And our prices will be attractive for high grade jobs.

CRESCENT CORK INSULATION

UNITED'S SERVICE

Provides

"Insulation of the utmost efficiency"

Branch Office

New York	Baltimore	Chicago
Philadelphia	Pittsburgh	Cincinatti
Boston	Cleveland	Hartford, Conn.

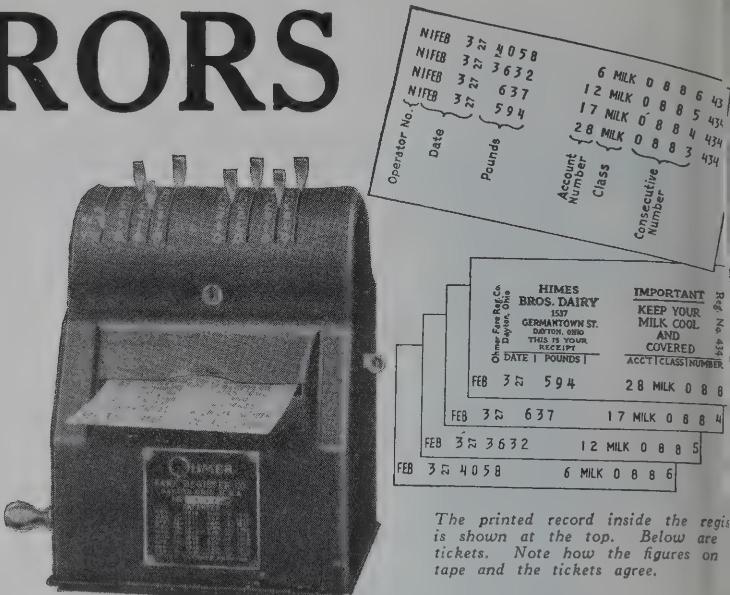
CRESCENT CORK COVERING

UNITED CORK COMPANIES

LYNDHURST, N. J.

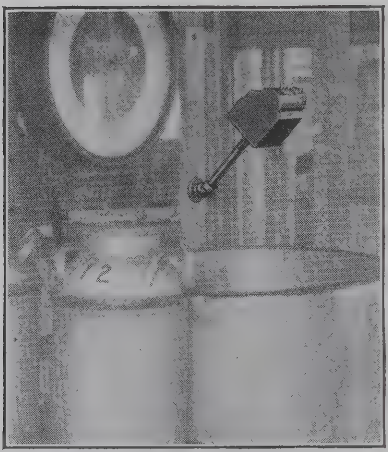
See also page 137 in Olsen's Dairy Industries (Condensed) Catalogs.

AVOID ERRORS
and
Eliminate
Bookkeeping
with an
OHMER
REG. U.S. PAT. OFF.
Ticket-Printing Register


NIFEB 3 27 4058
NIFEB 3 27 3632
NIFEB 3 27 637
NIFEB 3 27 594
6 MILK 0 8 8 6
12 MILK 0 8 8 5
17 MILK 0 8 8 4
28 MILK 0 8 8 3
Operator No.
Date
Pounds
Account Number
Class
Consecutive Number
Ohmer Fare Reg. Co. Dayton, Ohio
HIMES BROS. DAIRY
1537 GERMANTOWN ST. DAYTON, OHIO
THIS IS YOUR RECEIPT
DATE | POUNDS
IMPORTANT
KEEP YOUR MILK COOL AND COVERED
ACCT | CLASS | NUMBER
FEB 3 27 594 28 MILK 0 8 8
FEB 3 27 637 17 MILK 0 8 8 4
FEB 3 27 3632 12 MILK 0 8 8 5
FEB 3 27 4058 6 MILK 0 8 8 6
OHMER

The printed record inside the regis is shown at the top. Below are tickets. Note how the figures on tape and the tickets agree.

Many dairies and creameries have found it unnecessary to keep journal and ledger accounts with producers. The OHMER No. 79 Ticket-Printing Register eliminates that task which often occupies the manager's time and energy when he could be doing more profitable work.



See how the register in the receiving room is out of the way, yet convenient for instant use.

Other OHMER Products

- OHMER ODOMETER gives accurate distance traveled by motor vehicles and railways.
- OHMER RECORDOGRAF gives a stylographic analysis of the operation of the vehicle on which it is placed.
- OHMER TRUCK AUDITOR produces complete printed record of the operation of motor vehicles.
- OHMER HUB-ODOMETER, an accurate counter for commercial vehicles. It goes on in place of hub cap.
- OHMER PRINTING TAXIMETER prints receipt for the passenger and produces locked-in record for the owner.
- ATCO TAXIMETER, accurate and most durable non-printing taximeter on the market.
- ATCOGRAF TAXIMETER produces a stylographic record of the movements of the cab.
- OHMER FARE BOXES, convenient and durable receptacles for fare collections.
- OHMER INDUSTRIAL COUNTERS are for use wherever accourate count is desired.
- OHMER recording instruments are leaders of their type throughout the world.

Easiest and Most Accurate System

The OHMER Register is installed in the receiving room. When a delivery of milk or cream is weighed, the clerk steps to the register. Then, in less time than it would take to write a receipt by hand, he *prints* a receipt. And the one operation also *prints a duplicate record* on tape locked in the register.

At any convenient time, the manager or his assistant gets the receipts and takes the record out of the register. The receipts are filed by account numbers and the duplicate records are held for reference. When the time comes to settle with a producer, the amount due is *calculated directly from the receipts.* No ledger account is needed.

Revolutionizes Accounting Methods

The advantages and savings of the OHMER Register are so plainly evident that it is being adopted rapidly by mil and cream companies. revolutionizes accountin methods—does away wit losses due to illegible writin —prevents disputes with cu tomers. There's no chance losing track of any materi received. There can be alteration or obliteration figures.

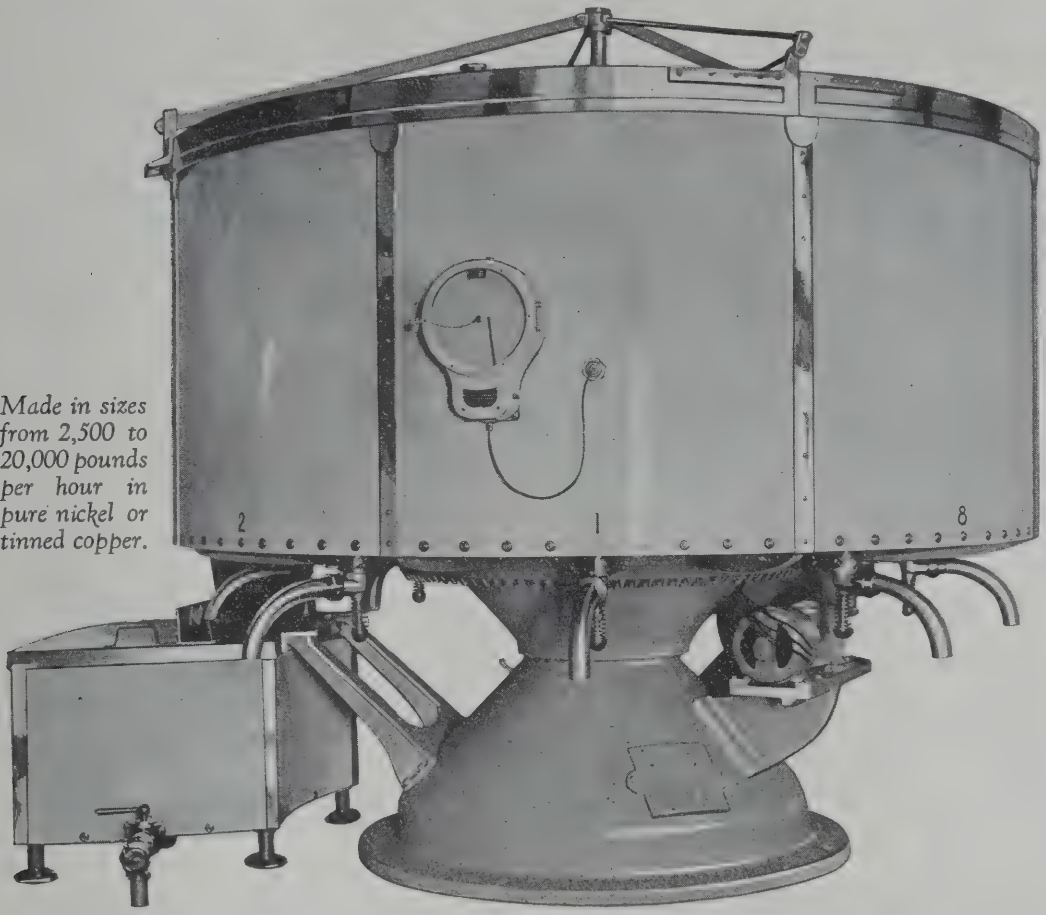
Investigate at Once

Ask us for specific informa tion about the OHME Ticket-Printing Register ar the method of using it. W shall gladly answer any que tions on the subject that o cur to you. It has been ou business for 29 years to desig and manufacture recordin instruments. With all th experience, we are in a pos tion to give you useful info mation. Feel free to consu with us. You will not placed under any obligatio

Write or wire today.

OHMER FARE REGISTER C
Dept. A. :: Dayton, Oh

When writing to OHMER FARE REGISTER CO. *please mention The Milk Dealer.*



Made in sizes from 2,500 to 20,000 pounds per hour in pure nickel or tinned copper.

In Planning for Perfect Pasteurization

The

MORTENSEN
Positive Automatic
All Nickel Holder

There are numerous installations to which we can refer you for complete assurance of satisfaction.

Many economies will result in installing Mortensen Pasteurizing Equipment because you can

Save on Floor Space.

Be assured of larger production with less labor.

Save on power requirements.

Provide absolutely dependable, effective and uniform pasteurization producing a milk of quality with plenty of cream line.

Let us Send you Full Information NOW.

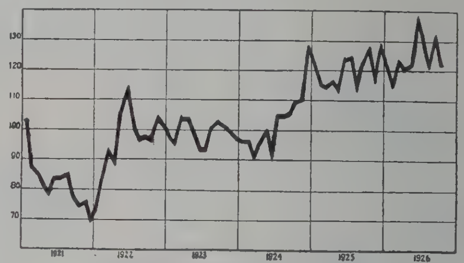
STANDARD MILK MACHINERY CO.
INCORPORATED
LOUISVILLE - - - KENTUCKY

See also pages 182-184 in Olsen's Dairy Industries (Condensed) Catalogs.

Mr. Milk Dealer—
What Are You Going To Do?

What was your good will loss last year? Last month? What percent of it have you regained? If any. Are your departmental costs right? Are you growing too fast? Too slow?

TEN million people have left the farms and joined the mad competition in the cities. Result—Farm products are going to higher levels and the purchasing power of the public is decreasing.



Increased Returns on Live Stock and Trend on Farm Products Still Upward

A narrowing margin on milk is certain. How will you meet the situation?

Our Organization Can Help You

Problems that confront you have been solved by someone. Have you a budget? How fast should your business grow? Can you, quickly, find your weekly profit and loss? Does your bank appreciate the possibilities of your business? Do you? Have you competitive problems? Have you the "guess habit"? Sufficient capital? Cost accounting system? Are your sales below the danger line?

Have you surplus problems? Do you wish to reorganize? Or sell your business? Does your milk show a fine cream line and has your cream a fine body? Have you eliminated theft in your organization? Do you know your daily shrinkage? How to cut merchandising cost without reducing country prices or raising city prices? Are you making enough money?

A MAN'S JUDGMENT IS NO BETTER THAN HIS INFORMATION. Tell us your troubles. Strictly confidential. We can solve them. Don't add to your plant until you have consulted us. Our methods increase capacity without additional equipment. We do not spend—we save.

REFERENCES: *28 years member Chamber of Commerce.*
18 years Advertising, Selling League.
15 years a Rotarian.
Omaha National Bank, Omaha's Largest Bank.

Chas. F. Schwager....

Service & Sales Corporation

Milk Industry Consulting Service
Suite 503 Omaha National Bank Building
OMAHA, :: NEBRASKA

List of satisfied customers furnished on request. *Write for appointments at the Dairy Show.*

When writing to SERVICE & SALES CORPORATION *please mention The Milk Dealer.*

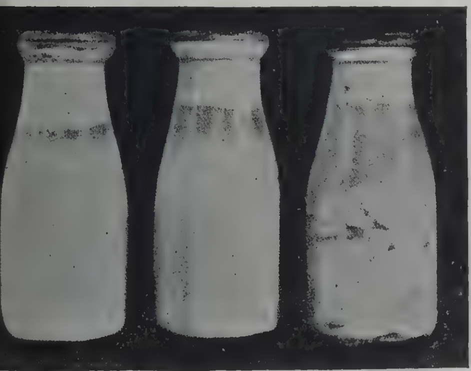
HE PROFITS THAT ARE WASTED-

NOT INTENTIONALLY-BUT WASTED NEVERTHELESS

The profits that are wasted present a great loss to you annually! Can you imagine an employee deliberately pouring your profits away—why you would fire him in a minute!

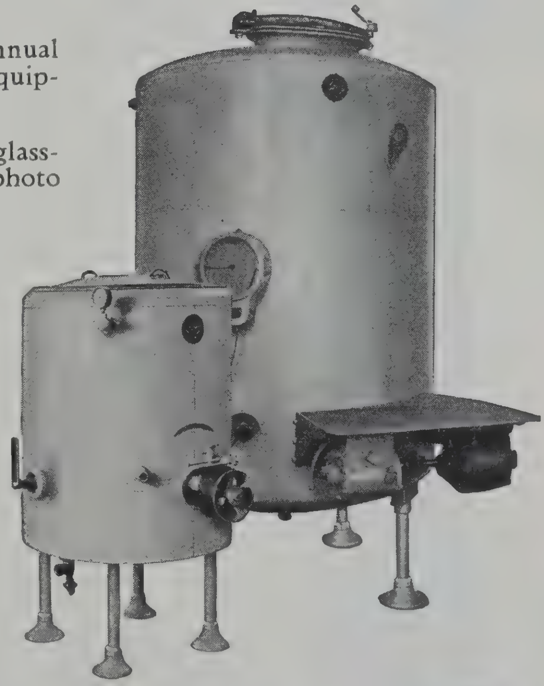
Yet the fact remains that many milk dealers still suffer a great annual loss just because of a poor cream line, broken down by their equipment. Still this is not junked.

Users know and experiments have further proven that Pfaudler glass-lined pasteurizers produce the maximum cream line. See the photo below for positive proof; then write for information!



Left: Three bottles of 3½% milk all of the same age were photographed 5 days after bottling. The bottle at the left with heavy cream line and very narrow streak of separation, was pasteurized in a Pfaudler pasteurizer. The center bottle was pasteurized in a competitive batch-type pasteurizer; the third in a continuous system, showing excessive gas in cream and solids.

Right: Two of the popular Pfaudler Pasteurizers. The smaller is the "C-Gal", made in 60, 100 and 200 gallons. The other is the "Closed Top", made in 200, 300 and 500 gallons. Either one will give you the maximum cream line!

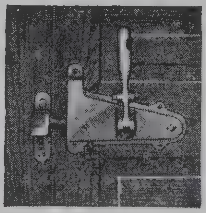


THE PFAUDLER CO. *Dairy Division,* **ROCHESTER, N. Y.**

See also pages 102-103 in Olsen's Dairy Industries (Condensed) Catalogs.

When writing to THE PFAUDLER COMPANY *please mention The Milk Dealer.*

*Shipped from Stock



VICTOR STANDARD HARDWARE

We manufacture all hardware used on Victor Doors. The picture above shows No. 200 fastener, a positive double action fastener. A slight outward pull on the handle, actually releases the fastener and pulls the door open. Victor Standard Hardware is a very important part of all Victor Standard Refrigeration Products.

*This phrase appears on 90% of all orders for Victor Standard Doors. Victor Standard Doors of all kinds are carried in stock ready for immediate shipment in 40 different stock sizes, each size in various specifications making a total of approximately 250 different stock doors.

If quick delivery, coupled with a superior product, made of the best materials, by expert craftsmen, interests you, it will pay to investigate the various stock sizes of Victor Standard Refrigeration Doors.

SEE OUR EXHIBITS AT THE FOLLOWING CONVENTIONS:

Cleveland, October 24 to 29—Dairy and Ice Cream Machinery and Supply Association, Booth 119

Atlanta, November 1 to 4—National Association Ice Industries, Booths 7 and 8

San Francisco, November 29-30, and December 1-2—National Association of Practical Refrigerating Engineers, Booth 1 and 2

Ask for your rose

VICTOR COOLER DOOR CO., INC.

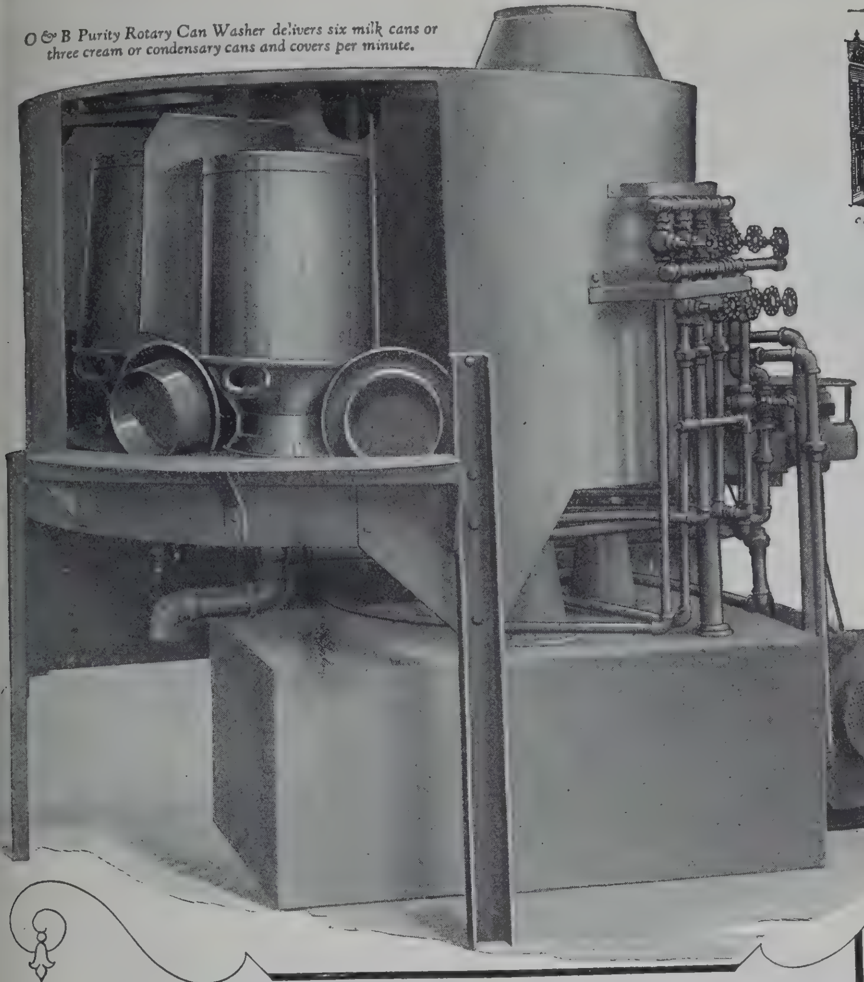
Main Office and Plant, Hagerstown, Md.

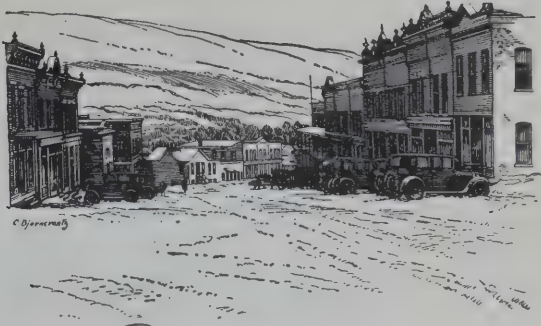
NEW YORK, N. Y. CHICAGO, ILL.

See also pages 60-61 in Olsen's Dairy Industries (Condensed) Catalogs.

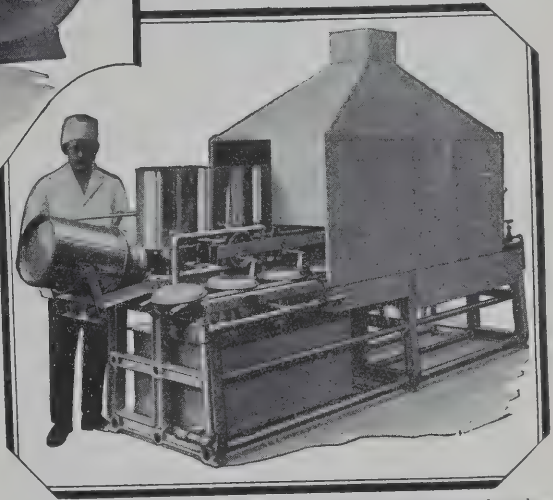
When writing to VICTOR COOLER DOOR COMPANY, INC., *please mention The Milk Dealer.*

O & B Purity Rotary Can Washer delivers six milk cans or three cream or condensary cans and covers per minute.





Showing the main street of Cattaraugus and the surrounding hills in winter time. You are looking from the Erie R. R. Depot down the steep slope of the street which is in reality only part of the immense hill on whose breast the village is nestled. By this street comes traffic from Southern New York to Buffalo and usually you must "shift." Even in the winter, the hills across the beautiful snow-blanketed Cattaraugus Valley stand out grandly in the clear winter ozone.



The Armstrong Purity washes, drys and sterilizes without pumps of any kind. Simple, substantial and dependable. Just the thing for straight line installations.

A High Grade Washer is a Good Investment

THE O & B Purity Rotary Washer shown above is backed by years of practical every-day experience.

The only machine with a two-speed attachment. Efficiently handles both milk and cream or condensary cans and covers. It, therefore, possesses a much wider range of usefulness than the average washer.

Operates very simply and efficiently. Many new advantages. An exceedingly thorough washing action, delivering cans bone dry and sterile. Easily cleaned. Attractively finished. Shipped completely assembled—ready for immediate service.

The efficient O & B Rotary will prevent can rust, kill germs, keep milk sweet and improve the quality of butter and cheese.

It is a good investment. Investigate at once — write for our special proposition.

O & B Purity Line Cattaraugus N.Y. U.S.A.

Fiftу Years of Honest Equipment

Oakes & Burger Co. Inc.

ESTABLISHED 1873

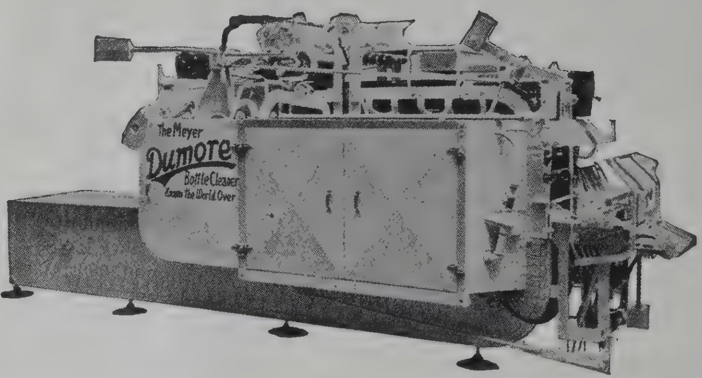
CATTARAUGUS, N.Y. ERIE, PA., U. S. A.

When writing to OAKES & BURGER CO., INC., *please mention The Milk Dealer.*

DODDS-ALDERNEY DAIRY COMPANY

BUFFALO, N. Y.

ORDERS TWO MORE DUMORE JUNIOR BOTTLE CLEANERS!



Dodds-Alderney Dairy bought its first Dumore-Junior in August, 1924. The machine has been doing a highly satisfactory job since that time. Every day it delivers its full capacity of clean, sterile bottles. Its capability is unquestioned—*the machine has proved itself.*

It was only natural, therefore, that Dodds-Alderney should come to Meyer when increased production demanded additional bottle-cleaners. An order for two more Dumore-Juniors followed—convincing evidence that Dodds-Alderney is satisfied with the wonderful performance of this small-size big-performing bottle *cleaner!*

Dumore bottle-cleaning machinery renders dependable service to large and small dairy operators everywhere. We build equipment to meet the particular demands of every plant. Meyer engineering service assures you getting the most efficient machinery—take advantage of our free service. Follow the industry's leaders—install the Dumore system in *your* establishment. Remember—*there's a Dumore to fit every dairyman's purse!*

Geo. J. Meyer Manufacturing Company

World's Largest Builders of Efficient Bottle-Cleaning Machinery

569 BARCLAY STREET
OFFICES:
NEW YORK and CHICAGO
MILWAUKEE, WIS.

Meyer-Dumore
Bottle Cleaner
Capacity 60 to
200 bottles per
minute.
Bulletin B-30

MEYER-DUMORE BOTTLE CLEANER

Dumore-Junior
Bottle Cleaner
Capacity 24 to
60 bottles per
minute.
Bulletin B-36

Repeat Orders Are the Surest Evidence of Satisfaction

See also page 126 in Olsen's Dairy Industries (Condensed) Catalogs.

When writing to GEO. J. MEYER MANUFACTURING CO. *please mention The Milk Dealer.*

FREE Enough Diversol To Make 100 Gallons *of sterilizing solution*

Mail this Coupon Today!

DIVERSEY MFG. CO.,
53 W. Jackson Blvd., Chicago
Dept. 26-66

See What This NEW Dairy Discovery Will Do for You!

If mailed today—this coupon entitles you to enough Diversol—FREE (Sent FREE and Postpaid) to make 100 Gallons of Sterilizing Solution.

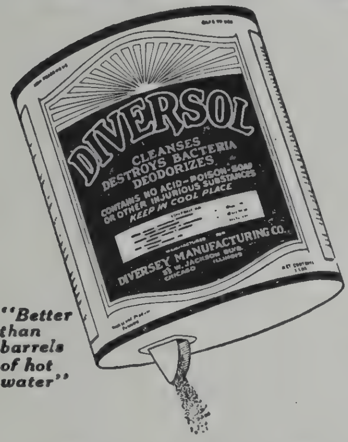
Name --

Address --

Sign—Cut Out—Mail This Coupon NOW!

Avoid Hot-Weather Milk Troubles!

DIVERSOL



"Better than barrels of hot water"

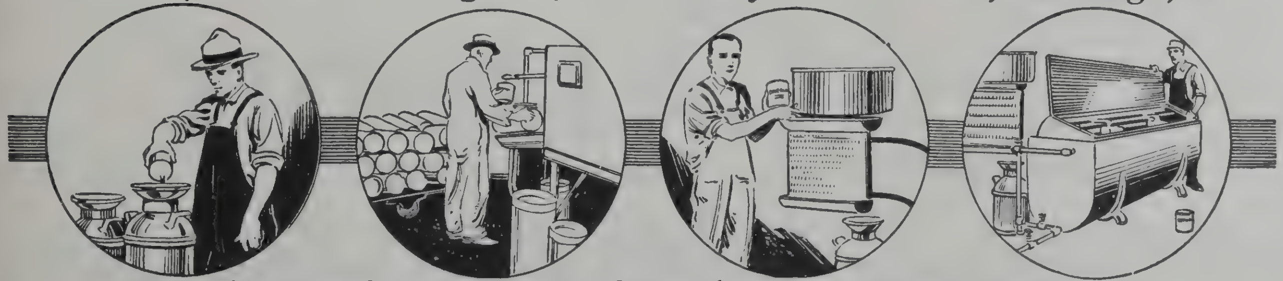
Destroys the bacteria that cause milk troubles!

[1]—*Destroys "sour-milk" bacteria* . . . *with cold water*
[2]—*Destroys "ropy-milk" bacteria* . . .
[3]—*Prevents "off-flavors"* . . . . . .
[4]—*Overcomes "moulds"* . . . . . .

FARMERS, plants handling milk and milk products, everywhere, are *all* talking about this great new dairy discovery that now ends hot weather spoilage, sour-milk, and other milk bacteria troubles. You will be especially impressed with the *economy of* Diversol. One lb. makes 100 gallons of sterilizing solution. Keeps forever — never deteriorates. You make your own solution—quickly and easily, with cold water. You don't need steam or hot water—Diversol destroys bacteria with cold water that even steam misses. Non-poisonous. Never injures the hands.

Diversol is *more* than a washing compound, *more* than a sterilizer—it's both!—it destroys bacteria as it cleanses, and removes foul odors—instantly, with ONE warm or cold water wash or rinse. Think of the time and labor this saves you. Mail coupon above now for generous FREE quantity of Diversol and SEE what this great NEW dairy discovery will do for YOU! *You'll actually be amazed!*

Diversey Manufacturing Co., 53 West Jackson Blvd., Chicago, Ill.

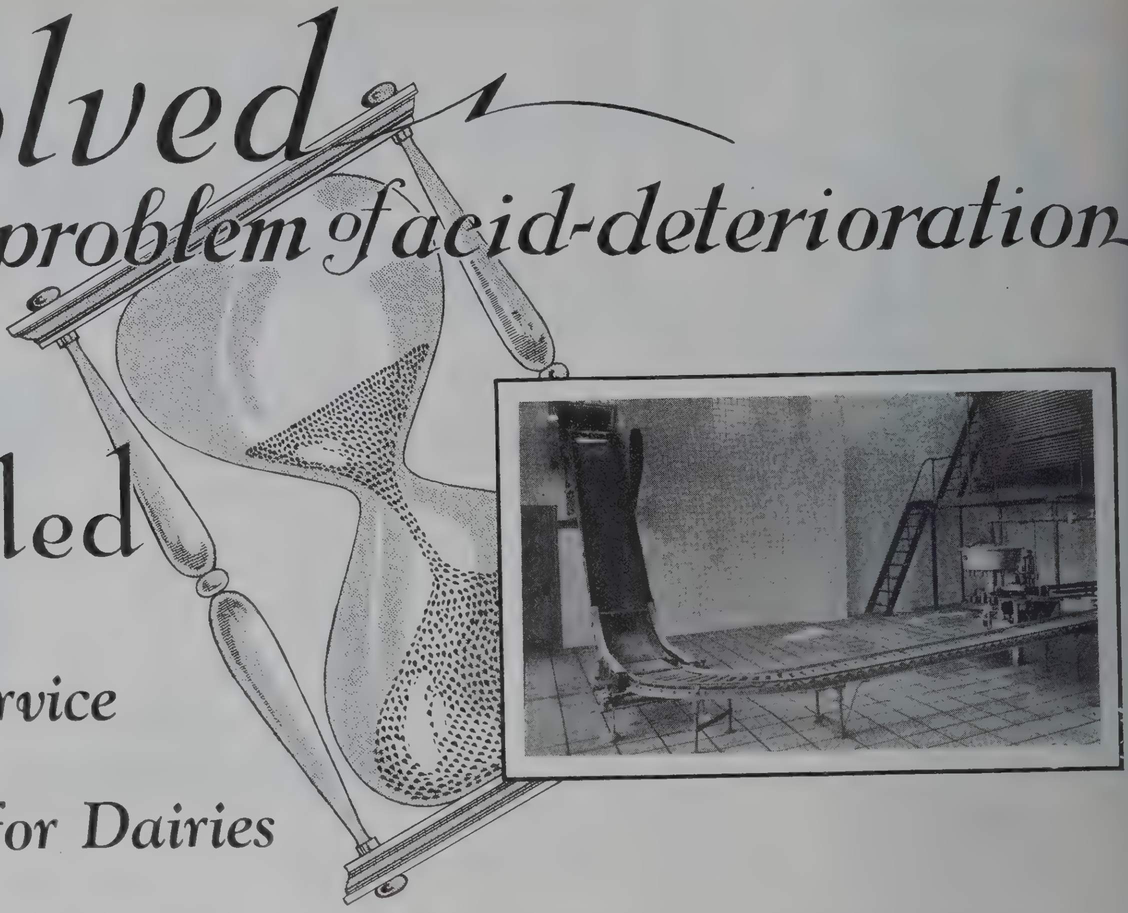


85% of Bacterial Contamination Comes from Utensils and Equipment!

DIVERSOL ends all that trouble!

See also page 87 in Olsen's Dairy Industries (Condensed) Catal

Solved the problem of acid-deterioration



Sealed

for Service

built for Dairies

A Few Dairies Using This New Gravity

BORDEN CO.
Norwich, N. Y.

ALTA VISTA CREAMERY CO.
San Antonio, Texas

BLUE VALLEY CREAMERY CO.
Parsons, Kan.

TRINIDAD CREAMERY CO.
Trinidad, Colo.

ADAMSON CORPORATION
Hollywood, Cal.

BORDEN SOUTHERN CO.
Pulaski, Tenn.

SOUTHERN DAIRIES, INC.
Miami, Florida

SANITARY GOLD SEAL DAIRY
Los Angeles, Cal.

BOWMAN DAIRY CO.
Chicago, Ill.

BEATRICE CREAMERIES
Topeka, Kansas

ABBOTTS ALDERNEY DAIRIES, INC.
Philadelphia, Pa.

HERSHEY CREAMERY CO.
Hershey, Pa.

Steam . . . water . . . lactic acid have little or no effect on this special gravity conveyor. The braced sections resist rough treatment. The sealed rolls—water and moisture proof—assure cleanliness. They make it possible for daily steam baths and drenchings to really clean.

Dead rolls are almost unknown. For there are no ball-bearings to rust and dust away. A special bronze (non-roller) bearing guarantees that the rolls will always roll. The rigid construction planned to overcome milk plant difficulties . . . guarantees longer life. And a more useful life.

These are the reasons that so many nationally known dairies and so many ice cream makers insist on Lamson Sanitary Gravity Conveyor throughout their plants. You too, can cut your handling costs . . . speed your deliveries and keep your plant cleaner. Send a portion of this page with your letterhead. Learn more of this Sanitary Gravity Conveyor built specially for you.

THE LAMSON COMPANY
Syracuse, New York

last longer.

LAMSON
SANITARY
CONVEYORS

When writing to THE LAMSON COMPANY *please mention The Milk Dealer.*

Pure Nickel is used in constructing the Faultless Holder, giving utmost sanitary protection and longer life to the equipment.

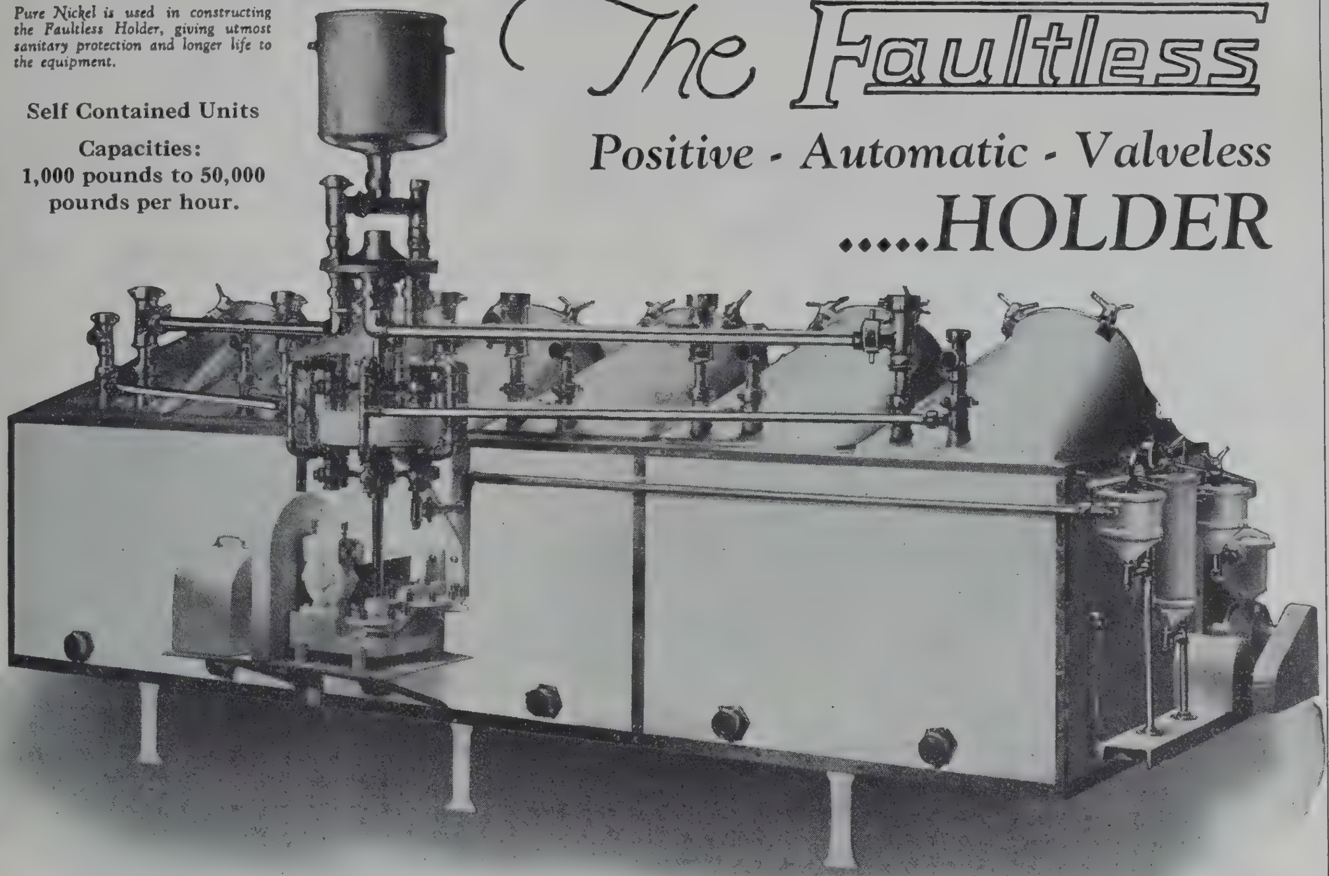
Self Contained Units

Capacities:
1,000 pounds to 50,000 pounds per hour.

The Faultless

Positive - Automatic - Valveless

.....HOLDER



Pasteurization—*that IS Automatic*

℃ When you intrust the pasteurization of your milk to the Faultless Positive Automatic Valveless Holder you can rest assured that the results will be the same from one batch to another.

℃ The automatic timing of inflow and discharge of milk will astound you. The precautions provided against failure of operation are a surprise to all who have seen this apparatus operate.

℃ The product produced is also of excellent quality in cream line and taste.

℃ The Faultless also has the additional feature of being built on the unit principle so that you can add capacity without inconvenience.

℃ Let us send you the full working details of this equipment.

E. A. KAESTNER

516-24 North Calvert Street BALTIMORE, MARYLAND

When writing to E. A. KAESTNER *please mention The Milk Dealer.*

PHONE HADLEY 1288 M. C. OLDHAM, MGR.

THE PHENIX DAIRY
PASTEURIZED MILK
WHIPPING CREAM, PLAIN CREAM,
BUTTERMILK
POLK & SMITH STS.
HOUSTON, TEXAS

February 2, 1927.

Union Engineering Co.,
Cleveland, Ohio

Gentlemen:

Regarding the Bestoval Bottle Washer we purchased from you and installed in our new plant on November 7th,1926, wish to say that this machine is performing very satisfactorily in fact after a few minor adjustments when installed we have had no trouble with it.

The bottles discharged from it are sparkling and clear and we would heartily recommend this type machine to anyone in the market for a large size bottle washer.

Yours very truly,

MCO:K THE PHENIX DAIRY.

MORE PROOF!

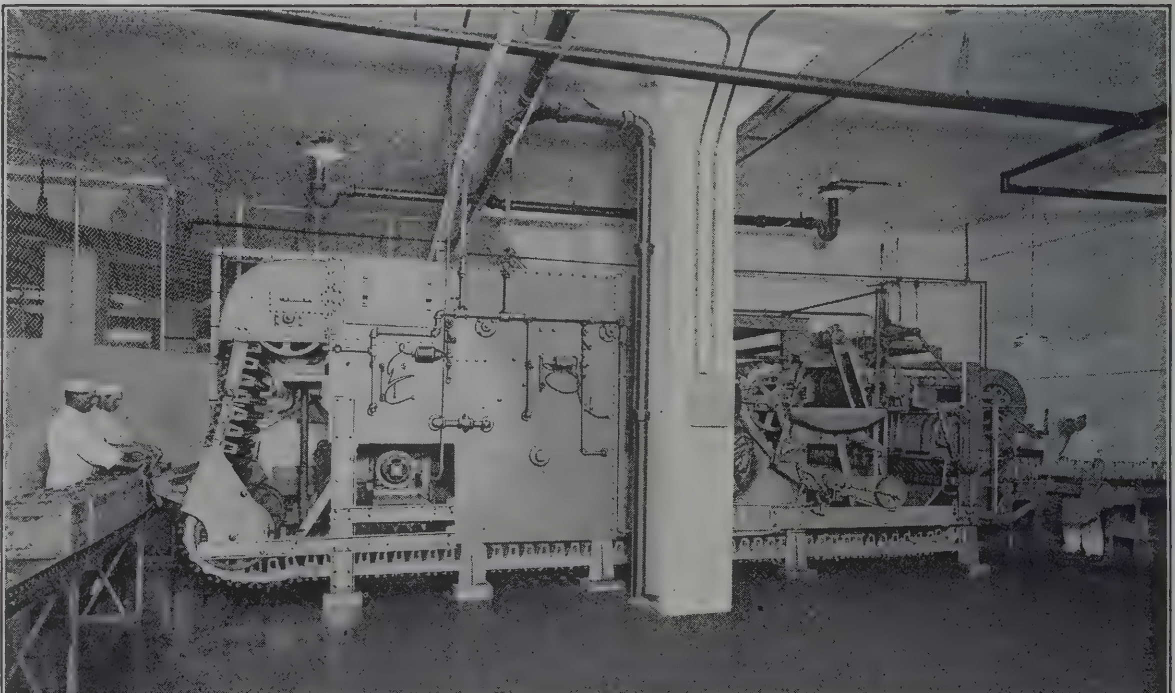
of the SUPERIORITY of the

CLEVELAND BOTTLE WASHER

MR. OLDHAM of the Phenix Dairy, Houston, Texas, after having carefully studied all makes of bottle washers for more than three years, decided on the **CLEVELAND** for his new plant, which is one of the largest and most up-to-date in the South.

He was thoroughly convinced that the **Cleveland Method of Pressure and Dormant Soaking in Conjunction with Clean and Sterile Brushes** would give him the cleanest and most sterile bottles to match his unexcelled product. Furthermore he knew that the Cleveland Bottle Washer was the machine for service due to its rugged construction and simplified design and this has been conclusively proven by the fact that **The Phenix Dairy erected and put their bottle washer into operation themselves without the assistance of any representative of the Union Engineering Co.**

The Cleveland Bottle Washers are Built in All Sizes and for Every Requirement!



No. 120—CLEVELAND BEST-OV-AL in The Phenix Dairy, Houston, Texas

Guaranteed Cleaning Efficiency 99$^{9}/_{10}$%

Clean and Sanitary Soaking Solutions with from 30 to 50% Less Alkali.

Clean and Sterile Brushes.

THE UNION ENGINEERING CO.

CLEVELAND, OHIO

LIST OF AGENTS

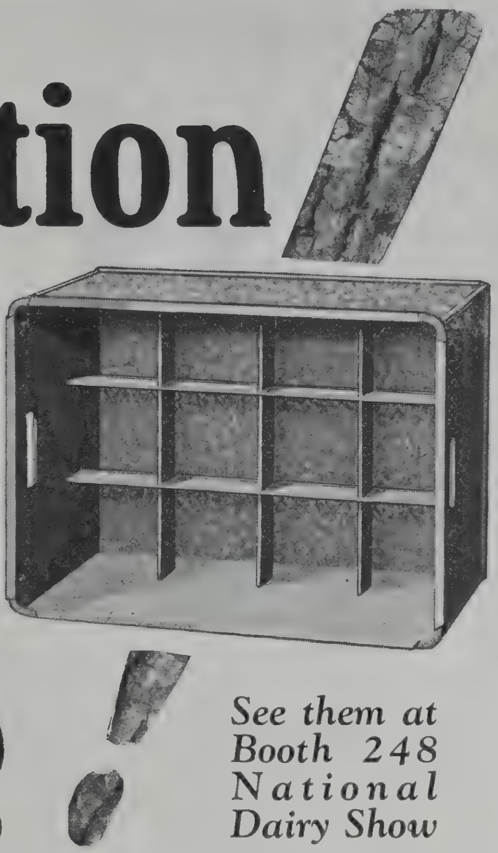
Americo Dairy Supply Company............Cincinnati, Ohio
Bessire & Company......................Indianapolis, Indiana
Cherry-Bassett Company........Philadelphia, Pennsylvania
Illinois Creamery Supply Company..........Chicago, Illinois
Jensen Creamery & Supply Company....Oakland, Californi
Meyer-Blanke Company...................St. Louis, Missour
Wright-Ziegler Company.............Boston, Massachusett
Hughes Sales Company..................Seattle, Washingto

When writing to THE UNION ENGINEERING CO. *please mention The Milk Dealer.*

Refrigeration

is no problem
if you use
Solid Bottom-
Watertight

CLIPPER CASES
(ALL STEEL)



See them at
Booth 248
National
Dairy Show

THIS solid bottom member of the Clipper Case family will be appreciated by those having difficulty in holding down temperatures along their milk routes.

These cases have watertight bottoms and they make a tight joint on top when stacked. A little ice in each case will last a long while along the route and maintain proper temperatures.

Manufactured in the following sizes:
12 Quart 20 Pint
30 Half-Pint

Ask These Jobbers:—

ASSOCIATE MEMBER NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS

American Dairy Supply Co.	Washington, D. C.
Apothecaries Hall Co.	Waterbury, Conn.
A. H. Barber-Goodhue Co.	Chicago, Ill.
Arthur T. Barlass Co.	Chicago, Ill.
Bessire & Co., Inc.	Atlanta, Ga. Indianapolis, Ind. Louisville, Ky. Richmond, Va. Memphis, Tenn.
E. W. Biesecker	East Stroudsburg, Pa.
J. S. Biesecker	New York, N. Y.
Bingham & Risdon Co.	Green Bay, Wis.
Birmingham Dairy Supply Co.	Birmingham, Ala.
D. Frank Black	Philadelphia, Pa.
Brown-Rogers-Dixson Co.	Winston-Salem, N. C.
Carter Supply Co.	Lexington, Ky.
Cherry-Bassett Co.	Baltimore, Md. New York, N. Y. Syracuse, N. Y. Philadelphia, Pa. Pittsburgh, Pa.
J. G. Cherry Co.	Cedar Rapids, Iowa St. Paul, Minn.
Chester Dairy Supply Co.	Chester, Pa.
Churchill Drug Co.	Burlington, Iowa
Creamery Package Mfg. Co.	Chicago, Ill.
Cresco Dairy Machinery Co.	Chicago, Ill.
Dairy & Farm Supply Co.	Atlanta, Ga.
Dairy Supply Co.	Minneapolis, Minn.
Dairy Supply & Equipment Co.	Pittsburgh, Pa.
A. L. Davis' Son	Binghamton, N. Y.
Fort Wayne Dairy Equipment Co.	Fort Wayne, Ind.
Gowing-Dietrich Co., Inc.	Syracuse, N. Y. Buffalo, N. Y.
Hackney Bros. Co., Inc.	Charlotte, N. C.
Hagan's Dairy Supply House	Greensboro, N. C.
Haines-Carpenter Dairymen's Co.	St. Louis, Mo.
E. A. Kaestner	Baltimore, Md.
N. A. Kennedy Supply Co.	Kansas City, Mo.
D. & F. Kusel Co.	Watertown, Wis.
John W. Ladd Co.	Detroit, Mich. Cincinnati, Ohio Columbus, Ohio Cleveland, Ohio
G. F. Lessenhop & Sons, Inc.	Lincoln, Neb.
Lone Star Supply Co.	Austin, Texas
Meyer-Blanke Co.	Birmingham, Ala. St. Louis, Mo. Dallas, Texas
Miller-Lenfesty Supply Co.	Jacksonville, Fla. Miami, Fla. Tampa, Fla.
National Dairy Equipment Co.	Utica, N. Y.
M. G. Newell Co.	Greensboro, N. C.
Oakes & Burger Co.	Cattaraugus, N. Y.
Onondaga Dairy Supply Co.	Syracuse, N. Y.
John Pico	New Orleans, La.
Shelley Equipment Co.	Lincoln, Neb.
Southern Dairy Supply Co.	Houston, Texas
Teague Hardware Co.	Montgomery, Ala.
Thompson-Bremer & Co.	Chicago, Ill.
West Side Feed & Bldg. Material Co.	Grand Rapids, Mich.
Wisconsin River Supply Co.	Wausau, Wis.
Wisner Mfg. Co.	New York, N. Y.

THE DEFIANCE PRESSED STEEL COMPANY
DEFIANCE, OHIO

See also page 116 in Olsen's Dairy Industries (Condensed) Catalogs.

When writing to THE DEFIANCE PRESSED STEEL CO. *please mention The Milk Dealer.*

SOLVAY
Super
Cleanser
TRADE MARK REG. U.S. PAT. OFF.

SOLVAY
SUPER
CLEANSER
The Ideal
Cleaner
and
Cleanser

—decreases the COST
—increases the CERTAINTY
of
CLEANLINESS
in Milk Plants and Creameries

THIS necessity for absolute cleanliness is an important item in costs in the milk business. Here's a suggestion:

By using Solvay Super Cleanser, the IDEAL cleaner and cleanser, you make sure that your equipment is kept perfectly clean at all times at the minimum of expense.

You actually save money by using Super Cleanser because it is produced and sold direct to the trade by the largest producer of alkali products in the United States. You get the benefit of large scale operation together with prompt handling of your order through the nearest of our many distributing points.

OUR Technical Service Department will gladly discuss with you your particular cleaning problems — entirely without charge — or we will send you a booklet on Solvay Super Cleanser with generous testing samples. Ask for Booklet No. SC2.

SOLVAY SALES CORPORATION

Alkalies and Chemical Products Manufactured by The Solvay Process Co.

40 Rector Street, New York

Boston Syracuse Chicago Indianapolis Cleveland Cincinnati Pittsburgh Detroit Philadelphia Kansas City St. Louis Atlanta

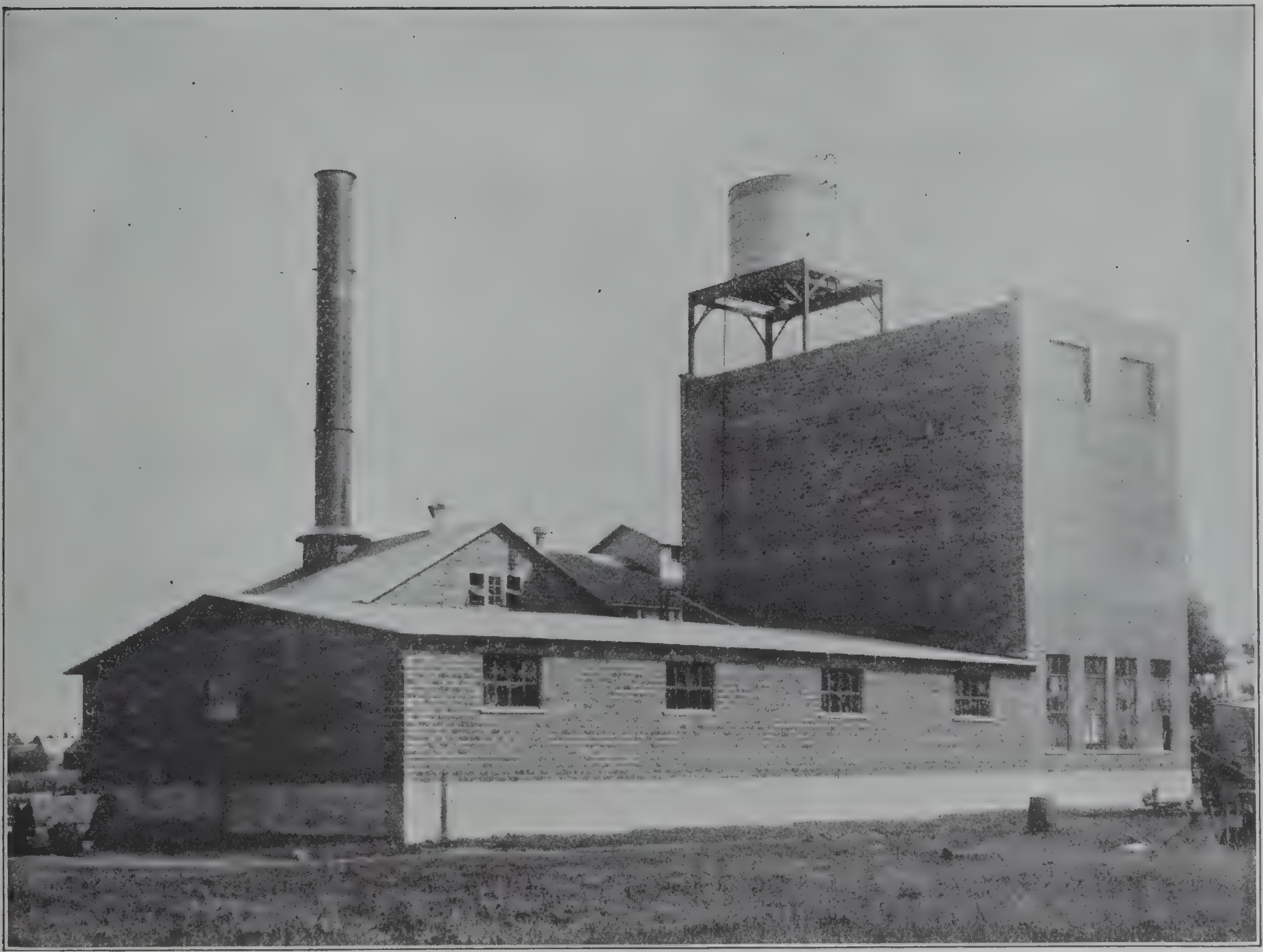
DOUTHITT MILK POWDER PLANT

GRAY-JENSEN SPRAY PROCESS

Designed and Built by

DOUTHITT ENGINEERING COMPANY

100 WEST MONROE STREET, CHICAGO



Sheffield Farms Company's plant at Lisbon, N. Y.

Add to your creamery profits by manufacturing your skim milk, buttermilk, or whey into powder on the Gray-Jensen Spray Process Milk Powder Plant.

The highly developed efficiency of the Gray-Jensen process results in recovery of milk powder actually equivalent to the solids in the milk, with lower labor, fuel and power costs than are possible with any other type of milk powder plant. These savings alone pay for one of our plants in from one to three years. Operating records prove this.

We can furnish an assured market for all skim milk and buttermilk powder made on our plants.

These plants are built in sizes to handle from 10,000 to 120,000 pounds of normal liquid milk or milk products daily.

Write today for booklet describing the Gray-Jensen Spray Process Milk Powder Plant

When writing to DOUTHITT ENGINEERING COMPANY *please mention The Milk Dealer.*

Every Schoolroom in Your City Should Have the Message Which the Children in this Picture are Receiving.

An Opportunity for Milk Dealers—

Your milk business can be substantially increased through cooperation with the National Dairy Council in its established program of health education.

Schools (both public and private), Women's Clubs, Welfare organizations, etc. are anxious to secure Council material showing the necessity of dairy products for proper growth, health and efficiency. In hundreds of other cities over the country, this practical program has been beneficial to the local dairy distributors.

If you do not have these valuable avenues contributing to increasing your sales, you are missing a real opportunity.

Write Today for Particulars.

NATIONAL DAIRY COUNCIL
Promoting Health and Child Welfare
910 South Michigan Avenue
Chicago, Illinois

THIS IS ANOTHER STRIKING SERVICE OF *YOUR* EDUCATIONAL ORGANIZATION

When writing to NATIONAL DAIRY COUNCIL *please mention The Milk Dealer.*

Acres of Profits

IF YOU PLOW DEEP ENOUGH

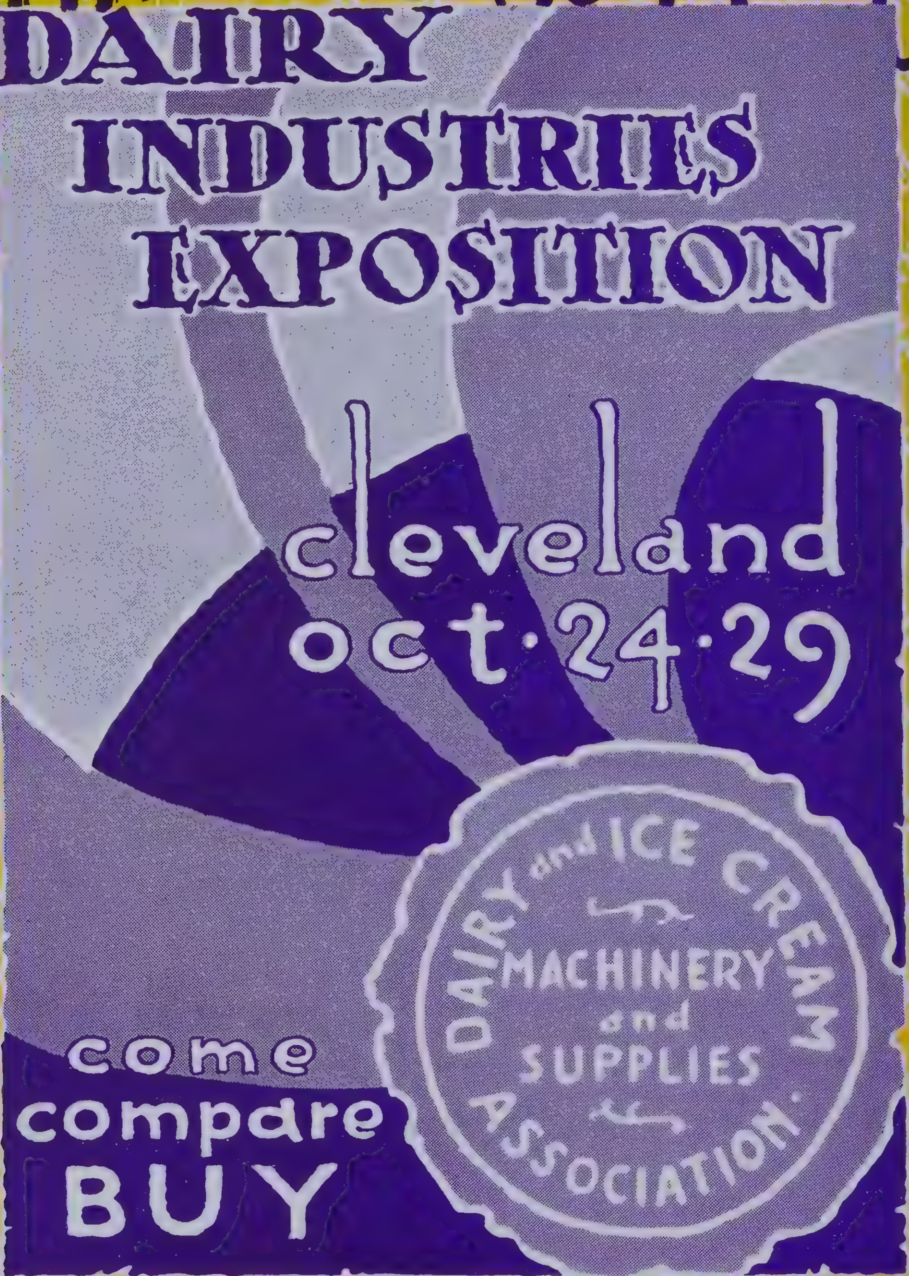
TALK with those men who top the dairy products industries today and you will find in each and every case that they have plowed deeply for their profits—have used the right kind of top dressing, and plenty of it! "Plowing deeply" is the constant digging after market facts: needs, trends, developments. "Right kind of top dressing" is the use of the most advanced equipment, the most efficient machinery, the best supplies in production. Market facts can be discussed, trends anticipated, the most improved equipment seen and compared—best and inclusively—at the great Dairy Industries Exposition. Those who *top* the dairy products industries will be there as a matter of fundamental policy. Thousands more—tomorrow's industrial leaders—will also come. They are going to plow deeper, use a more fertile top-soil of proven facts and figures, reap *their* share of greater profits during the year to come!

DAIRY AND ICE CREAM MACHINERY
AND SUPPLIES ASSOCIATION, INC.
Two Twenty-Five West Thirty-Fourth Street - - New York City

In Dairy Products

The Great Dairy Industries Exposition, Cleveland, October 24-29

Acres of
equipment mach-
nery supplies to
choose
from


DAIRY
INDUSTRIES
EXPOSITION
cleveland
oct·24·29
come
compare
BUY
DAIRY and ICE CREAM
MACHINERY
and
SUPPLIES
ASSOCIATION.

DAIRY INDUSTRIES EXPOSITION

World's Dairy Congress Official Liner—S. S. Leviathan, "The World's Largest Ship"

Are You Going?

A Survey is now being made to find out those who are planning to go to Europe in June, 1928

NOW is the time to start planning your trip to Europe to attend the World's Dairy Congress in London, June, 1928. It is not too early. Reservations must be made months in advance, for in the spring the tourist traffic to Europe is unusually heavy and last minute accommodations on this famous liner are practically out of the question.

A survey is now being made to find out how many people are planning on taking this trip so that adequate accommodations can be arranged for. If you are interested, please send in the coupon immediately. Complete information concerning rates, accommodations, sailing dates, tours, etc., will be mailed to you without obligation. Address all correspondence to

THE OLSEN PUBLISHING COMPANY
501 CHERRY STREET MILWAUKEE, WIS.

Send in this Coupon Now!

No Obligation Entailed

UNITED
STATES
LINES

OLSEN PUBLISHING COMPANY,
501 Cherry St., Milwaukee, Wis.

Please send me complete information on the World's Dairy Congress Tour to Europe in June, 1928, including rates, accommodations, return sailing dates, and continental tours.

Name ....

Address ....

There will be { ...... adults / ...... children } in our party.

(This statement is for survey purposes only and does not obligate me in any way.)

THE
MILK DEALER
PUBLISHED THE TWENTIETH OF EACH MONTH BY
THE OLSEN PUBLISHING COMPANY
H. P. OLSEN
President and Manager
LESTER S. OLSEN
Vice-President
E. K. SLATER, Secretary and Editor
Also Publishers of
"BUTTER, CHEESE & EGG JOURNAL" and "THE ICE CREAM REVIEW"

FIFTH AND CHERRY STS. MILWAUKEE, WISCONSIN

We will not accept responsibility for the views or opinions expressed by contributors nor for news sent us for publication, nor for statements made by advertisers in their advertisements.

Entered as second-class matter December 1st, 1911, at the Post Office at Milwaukee, Wis., under the act of March 3rd, 1879.

Requests for CHANGE OF ADDRESS must be received not later than the 10th of the month to insure delivery of that particular month's issue at New Address. **Old Address** as well as **New Address** must be given us as all records carried by us are "Geographically arranged" and not "Alphabetically arranged."

Subscription in United States..................$1.00 per annum
Foreign Subscriptions............................$3.50 per annum
Payable in Advance.

OFFICIAL ORGAN OF
The International Association of Milk Dealers
Dairy Products Association of Kentucky, Inc.

SEPTEMBER, 1927

BULLETIN OF EVENTS

National Dairy Exposition—The twenty-first annual National Dairy Exposition will be held at Memphis, Tenn., on October 15 to 22, 1927. It will be held in conjunction with the Tri-State Fair. General offices of the National Dairy Association are located at 910 S. Michigan Ave., Chicago, Ill.

Dairy Industries Exposition—The second annual exposition of the Dairy and Ice Cream Machinery and Supplies Association will be held at Cleveland, Ohio, on October 24-29, inclusive. Roberts Everett, 225 West 34th St., New York City, secretary and manager.

International Association of Milk Dealers—Twentieth annual convention to be held in Columbus, O., on October 19, 20, 21 and 22, 1927. The Neil House will be convention headquarters Secretary, R. E. Little, 228 No. La Salle St., Chicago.

Pacific Slope Dairy Show—Seventh annual exposition to be held from November 14 to 19, 1927, at Oakland, Calif. Secretary-manager, Robert E. Jones, 1404 Franklin St., Oakland, Calif.

Ohio Milk Distributors' Association—Annual convention to be held in connection with the convention of the Ohio Association of Ice Cream Manufacturers and the Ohio Association of Creamery Owners and Managers, at Toledo, on January 24 and 25, 1928. Commodore Perry Hotel will be convention headquarters. Secretary, W. A. Wentworth, 5 East Long St., Columbus.

Michigan Allied Dairy Association—Annual convention and exposition to be held at Grand Rapids the week of February 6, 1928. Hotel Pantlind will be convention headquarters. Exhibits and conventions in Armory. Secretary, D. W. Shiel, Hillsdale, Mich.

THE past few months have seen the passing of several men of great wealth and business power. They seemed to be indispensable in the general scheme of business until—

Yes, until they were gone. The gaps closed up and the great army of business moved on. They are all but forgotten.

Which all goes to prove that we are pretty "small pumpkins" after all. If you are ever tempted to swell up over some little success you have achieved it will do you good to keep this fact in mind. It will help you keep your feet on the ground, and that will be good for you and your business.

ONE of the big problems of the milk business is t
help problem. The element of human nature ente
into the business to a large degree. Human labor a
human initiative are the big driving forces in the bu
ness in spite of the wonderful development along m
chanical lines.

About the time an employee becomes fitted to a pa
ticular job he tires of it and starts out to find one mo
to his liking. There are many irksome jobs in the mi
business, and this may be one of the reasons for rap
changes by employees. This is not the big reason, ho
ever. The same foolish trait that prompts a cow
reach through a barbed wire fence to get grass that
not as good as that on her side of the fence also promp
folks to be dissatisfied with their conditions. The oth
fellow's job looks more attractive to a man thus afflict
than does his own. If he lives in Missouri he is su
he could be happy if he lived in Michigan, and if
lives in Michigan he is sure he could be happy in M
souri. Discontent which prompts a man to improve h
conditions of life is desirable, but discontent whi
merely makes a man miserable is quite another thin
Happiness is found in the state of mind, not in any pa
ticular state in the Union.

* * *

EACH year the progressive milk dealer spends a co
siderable sum of money for advertising. In additi
he contributes liberally to general movements whi
have for their purpose the spreading of knowledge co
cerning milk and milk products. All of this, in additi
to the sums of money he donates for purposes entire
divorced from his business. Taking everything into co
sideration he is a good spender.

He is always looking for new ideas. He is alwa
wondering whether he is getting his money's worth
his advertising efforts. He wants to sell more mil
and he is a firm believer in advertising, but he wonde
whether he is wasting some of his money.

He has good reason to suspect that perhaps he is n
getting "value received" for all the money he spen
for advertising. Business men seldom do. The value
certain advertising is not easily measured. There is
yardstick to lay up against it.

All men in business, however, appreciate the valu
of new ideas in advertising, providing they attract favo
able attention. The man or woman you want to rea
with your advertising is a busy man or woman. The
is much to command the prospect's attention in the
days of jazz, low-grade moonshine and high-priced co
metics. If your new idea gets favorable attention yo
may be assured it is a good one.

We consider this question of milk advertising o
of the most vital concerned with the milk bottling a
distributing business. It is linked so closely with sal
that we always have it in mind when talking of mil
selling campaigns. We invite your co-operation in di
cussing this subject.

The old theory of "each man for himself" is fa
disappearing from business. In its place is being plante

pirit of co-operation among men in the same line siness, and to their profit.

e invite our readers everywhere to tell us about rtising and selling ideas that have been successful. ember, we don't expect you to tell us about them in nce. It is only after you have tried them out that xpect you to divulge them. Then they are public erty, and surely you would enjoy passing them on ther men in the industry. Please let us hear from and we are sure you will be fully recompensed by knowledge that you have served your industry just much.

* * *

LADY friend of ours had occasion not long ago to spend a few days out in the country and she is all ited about the "pure fresh milk" she got to drink.

No, it wasn't certified milk, at least she didn't know t it was. No, she didn't know anything about the s, or the farmer who brought the milk. She just w that it was "pure and fresh" because the farmer ught it right to her cottage every morning in a tin ket. "Why," she said, "you could taste its fresh- s, it didn't taste like the stuff we get in bottles here the city."

We let it go at that. She is a perfect lady and we n't attempt to describe conditions as we have found m on some farms where "pure, fresh" milk is pro- ced to supply a temporary demand, and that the un- al taste of that milk might not have been due entire- to its freshness. She seemed happy, and we didn't ve the heart to disillusion her.

We would very much dislike to believe that this lady rly represents the average city milk customer, but re are too many like her. There are too many who lieve that the city milk dealer "does something to the lk" to make it less desirable as a food product. Yes, does something to it, but these good people don't give n credit for what he really does. They conclude that he is willing to spend money to "do something" to milk he must expect to profit at their expense.

You may not have many such among your customers. e hope you haven't, but if such is the case perhaps u have not spent enough money and effort to educate ur people. There are too many men in the milk busi- ss who are merely collecting and delivering milk. They llect it from the farmer, bottle it and deliver it to the stomer. Their buying problems and their delivery oblems take up all their time and effort. They don't ve time to "sell" milk.

Plant problems, under which may be included about of the thousand and one details that call for atten- n every 24 hours, must be attended to. Everything se can wait, and the problem of selling milk is one of ese. The customer gives his or her order for milk and e amount is set as low as actual need will allow. The dy of the house plans on how little milk she can get ong with instead of how much she can properly use. he result is just as low a gallonage for the dealer as s customers can possibly make it.

We have made the statement before in these columns that the selling problem is the biggest one confronting the milk dealer, and yet it is the one given least attention by many men in the business. Even when many of these men do give attention to sales they think only in terms of customers. Doing more business, with them, means taking on more customers. "Selling" their customers on using more milk is far from their thoughts.

Then, too, there are many men who think they are successful in their selling efforts when they increase the volume of milk sold this month over that sold last month. There is more to this business of selling milk than that. It is just as necessary to "sell" the customer as it is to sell the milk, and we don't count a customer "sold" when it is necessary for that customer to go out in the back woods to find what she believes is "pure, fresh" milk.

* * *

A GENIUS in Oklahoma has invented an oil spout which he advertises "for use on standard milk bottles or screw stop jars. A convenient and profitable line for jobbers, as it is not necessary to stock the bottles. Our inside fastening spout fits any size dairy bottle—U. S. or foreign."

Note that he particularly emphasizes the fact that "it is not necessary to stock the bottles." If this gentleman gets very far with his propaganda some of our friends in the milk distributing industry are going to stock up on bottles even faster than they have been doing. "Watch the oil filling station for bottles" may yet become a familiar warning.

* * *

READERS of The Milk Dealer who visited the Dairy Industries Exposition in Detroit last year need not be urged to visit the exposition in Cleveland next month. They know that the mammoth display of equipment and supplies that they will see there will constitute a course in dairy education all by itself. And officials of the Dairy and Ice Cream Machinery and Supplies Association tell us that the Cleveland exposition will far excel the one in Detroit in both size and beauty. Plan to be there.

* * *

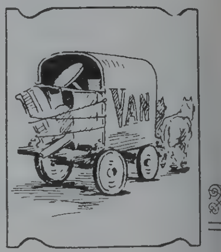
NEXT month's issue of The Milk Dealer will carry the completed program for the twentieth annual convention of the International Association of Milk Dealers, to be held in Columbus, Ohio, October 19, 20, 21 and 22. An unusually strong program has been prepared and all indications point to the best attendance in the organization's history. We strongly advise you to be there. You will be amply repaid.

* * *

IF YOU follow out the program that the majority will carry out you will attend the big convention in Columbus, Ohio, next month, and then go on to the exposition to be held in Cleveland the following week. Don't miss either. You can't afford it.

New Babies—Brides—New Resident

All Three Are "Good-as-Gold" Prospects for the Milk Dealer, Yet Few Dealers Plan Promotion Campaigns Especially for Each One.....



ONE exception is the Carver Ice Cream Company of Oshkosh, Wis., which, in addition to the product after which it is named, sells pasteurized milk, cream, cottage cheese, buttermilk and all the rest of the products handled by the average dairy. The plan which the Carver Company follows is simple, but effective. The dairy tells the story of its pasteurized milk to the mothers of new babies, to brides and to new residents with a slightly different slant for each prospect, so that the milk is shown to fit his particular need. The advertising medium is a personal letter, written in simple words, expressing a sincere desire to please and help.

The letters are multigraphed and filled in with the date and the name and address of the recipient.

As soon as the birth record is published in the Oshkosh daily newspaper, a letter like this is sent to the mother:

Dear Mrs. Adams:

Wouldn't you welcome a few words of important information that will help you protect baby's health during the first few months?

Baby's diet for some time is going to consist mostly of milk. And it is up to **you** to make sure the milk is absolutely wholesome and pure.

We realize our responsibility in helping protect the health of Oshkosh babies by keeping our milk clean. It is bought from selected farmers who produce milk under sanitary conditions. When it comes into our plant it is strained, and then scientifically heated **(pasteurized)** to destroy harmful bacteria. Then it is bottled and capped by immaculate machinery, in bottles that have been thoroughly washed and sterilized.

This process adds **safety** to the milk without removing any of its food value.

You owe it to baby to use only pasteurized milk. The records of the board of health and hundreds of Oshkosh people will tell you that **Carver's Properly Pasteurized Milk** maintains the highest standards of purity.

You can have any amount you wish delivered to your door, as often as you wish, by simply phoning 797 or 798.

May we help you protect baby's health?

Earnestly yours,
CARVER ICE CREAM COMPANY.
(Signed) By C. A. Carver.

After the list of marriage licenses has been published in the daily paper, the bride, who has just begun to think about the food she must prepare in her new kitchen, receives the following letter from Mr. Carver.

Dear Miss Prentice:

Congratulations on your wedding!

You're going to have a wonderful time making a home for your husband. And one of the most important considerations will be your milk supply. It's something that is a necessity every day. Your husband's health will depend upon the kind of milk you put on the table.

When you make the important decision on where to get the milk, you'll want to be sure it is pasteurized. In this process the milk is heated in such a was as to destroy all harmful bacteria.

In the Carver plant, all milk is properly pasteurized, a then bottled and capped by immaculate machinery in bott that have been thoroughly washed and sterilized.

This process adds **safety** to the milk without remov any of its food value.

If you want the best, order **Carver's Properly Pasteuri Milk.** You will find it rich and absolutely pure.

You can have any amount you wish delivered to y door by simply phoning 797 or 798.

Very truly yours,
CARVER ICE CREAM
(Signed) By C. A. Carver

The names of new residents are obtained from applications for meters. Soon after her arrival, the ne comer gets this friendly letter from the Carver Cream Company:

Dear Mrs. Marshall:

We have just heard of your arrival in town and we w to extend a sincere welcome to you.

Oshkosh is a city of fine homes and schools, and wh you become acquainted you will find that it is also a city friendly people.

But the everyday necessities of life cannot wait until y know your neighbors well enough to ask their advice ab where to buy things. So we want to add to your welcome the city some important information about your milk supp

We realize our responsibility in helping protect the hea of Oshkosh families by keeping our milk clean. The reco of the board of health and hundreds of satisfied Oshkosh p ple will tell you that Carver's Properly Pasteurized M maintains the highest standards of purity. Our process a **safety** to milk without removing any of its food value.

If you want the best, order **Carver's Properly Pasteuri Milk.** You will find it rich, absolutely pure and safe.

You can have any amount you wish delivered to y door by simply phoning 797 or 798.

Cordially yours,
CARVER ICE CREAM
(Signed) By C. A. Carver

P. S.—We'd like to have you look through our plant. is always open to the public.

"When we talk about proper pasteurization in co nection with Carver's milk, we mean it," says C. Carver, president of the Carver Ice Cream Compar "Our men don't merely go through the motions of pa teurization. No matter how busy we are, our milk heated to 145 degrees Fahrenheit and held there for minutes. We are ready at any time, to put our men the stand and they will be able to swear that we li up to the spirit and the letter of the pasteurizati regulations.

"We go out after new business, we get it and ho it on the same basis that we got and hold our prese customers. We keep them satisfied.

"In the dairy business, as in every other busines you will sometimes notice the work of a high powere promotion man, hired by the dairy, to pep up their bu ness. For a time the dairy will show tremendous i creases in business. But unless the dairy fulfills all promises in its advertising, both printed and by wo mouth, it will not—it cannot—hold its customers. ere will be a constant turnover. New customers will e the places of those who drop away, it is true. But dually those who drop away will outnumber the new tomers and the dairy, in the end, is where it was in beginning.

"There is only one way to hold business and that is live up absolutely to your promises about your prod-s and make your products so good that they deserve support of your customers. When a rival organiza-n solicits the business of one of your customers and says that she can see no reason for changing, then u have her completely sold on your products and your ganization.

"Our dairy, like every other, wants and solicits new siness. But we work just as hard at keeping our old ends satisfied and urging them to use more and more our products.

"Just recently we used a letter to tell them about e other products which we sell. From time to time had been getting requests for sour cream. Naturally do not have sour cream on hand in our dairy. But wished to accommodate our customers, so we con-lted our chemist and he said that he would be able to ake the cream sour artificially.

"We announced, in the letter, that we could supply ur cream now to any who wished it, and took advan-ge of the opportunity to tell them about our creamed ttage cheese, our buttermilk and our chocolate milk rink."

This is the letter which was sent to customers of the arver Ice Cream Company.

ear Madam:

In response to a demand from our customers for sour cream, we are pleased to advise that we are now in a posi-on to supply orders for sour cream on one day's notice, ither by telephone call at our office, or through orders placed ith our driver salesmen on our milk wagons.

We also desire to call to your attention the fact that our wagons carry the Frisco style **Creamed Cottage Cheese.** This tyle of **Cottage Cheese** is put up in 12-ounce packages (not 0-ounce packages) and retails for 15c. This is a very pal-table and delicious cheese. If you have not already tried his cheese you have surely missed a wonderful treat. We uggest that you put out a note for our driver to leave one of hese 12-ounce packages. This style of cheese is going over ig, judging from the repeat orders we are receiving.

Our wagons also carry what is termed as **Commercial Buttermilk.** The culture used in this **buttermilk** has been propagated continuously for about four and one-half years under ideal conditions, and, as a result, the **buttermilk** made rom this culture has a most agreeable flavor and wonderful keeping qualities. This **buttermilk,** being scientifically pro-duced, is absolutely pure, and we recommend it to our cus-omers as a healthful drink. The price is eight cents a quart. We feel satisfied that if you will place an order with our driver for a quart of this **buttermilk,** you will be a con-stant user and will derive a great deal of benefit from its use.

For the children, especially, and the grown-ups too, our delicious **Chocolate Milk Drink** is very refreshing. This drink s carried on our wagons in pints and quarts. The price is eight cents per pint and 15 cents per quart. Give this drink a trial and we know that you will be a steady customer.

In addition to **milk, coffee cream, whipping cream,** and the special items mentioned above, our wagons carry **Carver Pasteurized Sweet Cream Butter,** which we consider far superior to any other butter sold in Oshkosh.

"We have noticed the effect of this advertising to our customers in orders for butter, for cottage cheese, buttermilk and other products which many housewives had never before ordered from our drivers. Our letter corrected the impression of many that only milk and cream could be obtained by way of the back door.

"Our advertising is aimed at both the customer and the non-customer. The customer must be sold on the idea of using more Carver dairy products. She has proved that she likes at least one of them by continuing to use it.

"The non-customer must be sold on the idea that Carver products are the best for her needs," said Mr. Carver.

"From time to time we get out folders telling of the advantages of—pasteurized milk, for instance. We quote recognized authorities on the subject proving that pasteurized milk is free from harmful bacteria and perfectly safe for children, whereas ordinary raw milk is not.

"Folders of this kind are delivered with the milk to customers by the deliveryman, and through the mail to non-customers. The latter are especially important for they must be sold on pasteurized milk, whereas those already customers have proved that they want only properly pasteurized milk by buying from us. In advertising to the latter, we try to induce them to use more milk than they already do."

In the operation of their ice cream and dairy business, the executives of the Carver Company are not only watching the production department to see that high quality is maintained, and the sales department to see that the business increases satisfactorily, but they are also constantly on the look-out for "leaks." Mr. Carver believes that prosperity does not always mean large production and sales figures. Production may be above the average, yet the profits may be lower than normal.

To keep the profits intact, he has cut out donations. He politely but firmly refuses to supply milk, cream and butter for church suppers or lodge bazaars. He refuses to be convinced of the advertising and good-will value of such donations—features painted so brilliantly by donation committees.

"We have made it an absolute rule never to donate any of our products to organizations for re-sale at their social or business affairs," said Mr. Carver. "To give to one organization paves the way for requests from others. We play no favorites—we refuse all of them. Charity is a personal affair which should be taken care of by a personal fund. It is unfair that we milk dealers should be expected to give away the product from which we make our livings.

"Just the other day a friend of mine who happens to be a dentist, phoned me and said that his wife was on the supper committee for some lodge entertainment and he wanted to know if we wouldn't donate the cream.

"I happened to know him pretty well, so I asked him if he was fixing up the teeth of members of the organization without charge. He was rather surprised at my question. So I went on to explain our position—that we couldn't afford to give away milk and cream and butter any more than he could afford to give away gold inlays or bridge work. He saw my point immediately.

"I offered to quote him wholesale prices on milk and cream if his lodge would buy in wholesale quantities. I told him frankly that we would make the same proposition to him that we made to every other lodge and church organization—that we would charge him for the milk and for the bottles, and would deliver them to any place he wished at the hour they were needed. The morning following the affair we would call for the bottles and credit those returned against his account. We want the business of large gatherings like this—we depend on it. I told him so and he appreciated my position that it must be a cash proposition with us and not a charity one. We got the order then and there.

"The day after the lodge supper we called for the bottles. Our driver was there as early in the morning as he could conveniently get there.

(Continued on page 110)

The Romance of Milk Merchandising

Is This a Drab Business, Colorless, or are the Merchandising Possibilities as Bright as in Other Lines of Business?

By CRADDOCK GOINS

"TROUBLE with the milk business," said a friend the other day—and, by the way, it is funny how most of us in this business like to talk about trouble—"Trouble with the milk business," he repeated, "is, it is so blooming drab, dull, uninteresting—life's just a series of shifts of dirty bottles that must be cleaned, filled up and sent out again."

He sighed. So did we.

This man reminds us of the fellow who committed suicide and left a note behind saying he just got tired of pulling off his shoes at night and putting them back on again the next morning.

You will frankly admit that the milk dealer who looks at his business in the light of the man just quoted is just that—a milk dealer. He is not a dairy merchandiser. He is tied down to the mechanics of his industry. He cannot see the forest for the trees. He is so close to his business he doesn't see it—like a man who walks up to the side of a house and sticks his nose against the boards.

It is truly unfortunate—a condition of affairs that one must readily face—that so many of us in this industry are tied down to the narrow viewpoint of a "series of shifts of dirty milk bottles."

What an indictment!

Members of almost any other industry in the world have cause for viewing the matter in this way more than the milk dealer.

If ever there was a product that is part and parcel of the spirit of romance, that goes hand in hand with the adventures of fairies, that so appeals to the imagination as a magic beyond understanding—then that product is milk! Milk the builder of men! Milk the developer of little children! Milk the painter of rosy cheeks! Milk the spinner of fairy dreams! Milk the magic carpet of adventures!

When we consider possible merchandising angles for milk we come to one field that is fairly limitless, that is virtually unbounded. The man with an imagination can fairly turn himself loose—rampant when he engages upon the various avenues of romance in milk.

Of course, one does not have to start with the rich, green fields, where the manufacture of milk magic begins—where the properties of the sun and the soil and the air all go into a product that the cow receives and uses as her raw material in the manufacture of that wonderful fluid that saves babies, that makes little youngsters grow up and thrive and run about with color in their cheeks and laughter in their eyes and songs in their hearts and play in their very souls—a product that lends efficiency and skill to the artisan, to the brain worker, to the men who have to do with the world's works.

Yet, when we pass up, as readily understood, these wonder works of nature there are people who will argue for hours over the miraculous birth of Jesus of Nazareth!

This, we may say, is an everyday occurrence, and everyday occurrences are likely to become drab after time—just like the viewpoint regarding a "series shifts of dirty bottles."

All right, here are other everyday occurrences th we people in the milk industry will do well to envisi and capitalize upon. I close my eyes, tired and weari after a day's hard work, after a day's fretting a fuming with my grind of activities, a grind just as tr ing and vexing and palling to me, dear Mr. Milk Deal as your grind is to you.

Before my eyes, as a feeling of restfulness com over me, there drifts a picture of a dreamy white sn cloud, and on this dainty, dreamy cloud is a dain snowy, fluffy couch, and upon this couch is a dain fluffy, pink-and-white young princess.

Now, the picture is not necessarily literally true, b it is there. I swear it! I see it. I can't forget it!

It is there, of course, by suggestion. It is there the form of a healthy mind. Milk and soothing, co fortable restfulness! Milk the deliverer from the t tures of a nerve-wracked mind, the builder up of nerv of health, of vigor, of imagination!

That is the real picture.

Babies don't smile in their sleep, say doctors, whi only goes to show how silly very learned men can for babies do smile in their sleep, and this man, w lays no claim to knowledge of medicine, knows they and admits of no argument.

The healthy baby, that is, smiles, and milk plays part—plays a part just as it plays a part in health.

All right, here's another picture that comes to mind, though I am alone. My small son, age two, w means more to me than all the fine gold in the wor lies across the porch swinger, with the shadows cast a Southern sun falling across his rosy little cheeks, a his wavering little locks blowing hither and yon unde soothing breeze from the east coast, and his chubby lit legs stretch out across the end of the swinger; his face all aglow as the dream fairies unfold to him little pl events in his young life. Those fairies are there, a I know it and I can swear it—although the little b himself has been in the back bedroom asleep during these hours.

Now, that picture is as clear in mind as though saw it actually before me, and in the background, as thing proud and lofty and noble, is a great, gigan bottle of milk—symbolizing all that goes with the pea and health and contentment of our precious young.

Until the people of the milk industry can see pictur of this kind, instead of "a series of shifts of dirty mi bottles"—until then we shall be a long way from dai merchandisers.

Other people see these pictures. They should ha no more imagination than you. I can take the pictu of a box of prunes and wrap around it the drea romance of seven seas, or the fairy romance of all t fairies of childhood slumber, or the high adventure e cut-throats who sailed the Spanish main, or the lure d fascination of the far-away gold fields of the Yukon at called to men of courage, to men who would do and are.

Couldn't you do as much about milk—you who ould know a very great deal more about your business an I?

"I never shod a horse in my life," Elbert Hubbard nce said, "but I can write a better story about blackmithing than any blacksmith in Chicago."

Possibly it was because he knew the horeshoer sticks is nose so close to the hoofs of the animals that he ever has a chance to see the real picture of his work—f his service, for that is what the horseshoer sells.

"I never laid an egg in my life," facetiously remarked he famous Dr. Johnson once, "but I think I am a better udge of an omelette than any hen that ever lived."

This leads up to an inquiry that a correspondent has ddressed to me.

"All of your discussions of milk merchandising," tates this correspondent, "carry the subtle suggestion that the milk dealer should earnestly consult some outsider, some specialist in advertising, or merchandising propaganda, or such."

In answer to this query I can only say every article I have ever written on this subject has been a flat failure if it hasn't clearly shown that this writer believes every milk merchant should have a merchandising expert at his beck and call for counsel. He is just as necessary to milk merchandising as a family physician is to a family, as a good lawyer is to a firm, as a priest or preacher is to the Divine soul.

I was talking to an advertising man the other day who doesn't know beans about the milk industry. He saw me watching a dairy ad, and although I had not said a word, he looked up with a gasp and said, "Gad, how badly those people missed presenting that picture!"

The ad simply showed a row of filled milk bottles and said "Our milk is clean and pure. Sanitary Dairy Company."

Now, somebody had told that fellow that an ad should be brief and should contain the important facts about the product. How easy it is to go wrong when you think you are following instructions literally. Yet all he told was what the public naturally expects of all the milk it drinks, of all of anything it eats or drinks—cleanliness and purity!

This same milk dealer might as well have put on a frock coat and high hat and walked down the street shouting, "I am a clean, upright, honest citizen and I vote!" which is nothing more than the public expects of him as a citizen.

The work was skillfully executed, it is true. The bottles were lifelike.

If that same milk dealer had shown a picture of a pretty tennis court scene, with two pretty, spirited girls swinging racquets in a stirring set, their hair flowing, their cheeks glowing; their eyes sparkling, their healthy young limbs showing tense and eager, with the very spirit of health and vigor surrounding the scene, and with a huge bottle of milk holding up each end of the net—then that merchant's story would have been told more eloquently than anything he could have said—for the picture was there! We must have the picture!

What is the picture? Just health and all that goes with it,—fun, frolic, enthusiasm, exhilaration, intense happiness.

If the merchandiser were to want a catchy line for the scene he could write there:

"A Net Profit in Health."

Just five words. He could make it shorter—just the words "Milk for Victory!"

There are some several million people in this good old U. S. A. who spend some several million good old U. S. A. dollars every year for drugs. They are cheating themselves, of course. They imagine that medicine is going to cure something that is wrong with them. Nobody ever told them milk is medicine. The man who buys a headache tablet never was told milk could give him the right condition of health that would eliminate headaches. The man who spends millions on his stomach never was told that the milk habit, properly begun, would prevent his having that trouble. The girl who spends a good deal of her daddy's or hubby's hard-earned money on cosmetics never was told in youth that milk would keep the bloom in her cheeks.

We never saw our pictures! Life to us has been "a series of shifts of dirty milk bottles!"

People with money to spend—people who should be buying milk—people who should be buying more milk—all are waiting for the milk dealer to show them pictures. They don't know what they are waiting for, but they are, and until the milk dealers of the land arouse themselves and put before their people pictures of the floating clouds of milk and romance, we shall be far from the romance of milk merchandising.

So many of us still are selling "clean, sanitary milk." We need the merchandising milk counselor. He will tell you instantly people are not buying "clean, sanitary milk." They are buying health and happiness, sunshine and contentment, fun and frolic, diversion and amusement.

Study your sales problem now carefully. Think of the billions spent on the movies, on pleasure boats, on picnics, on books, prizefights, on golfing equipment, on tennis courts.

Is it not clear to your mind that this age in which we are living is an age of pleasure, an age of joy, an age of emancipated youth, an age for the preservation of youth and youthful fancies! If it hasn't, Mr. Rip Van Winkle, you better arouse yourself and study the editorial columns and the sport pages of your newspapers. Then you will discover that the people of this age want that which will give them more fun, more pleasure, more gratification—more happiness.

Then, get busy, draw your picture, put milk and pleasure on a silver platter—and present your product! You are dealing in new marts of trade. You are dealing with a people of romance and play. The age has gone when women wore underskirts, men wore high stiff collars and children played old one-eyed cat in the neighboring lot. The women don't wear much of any skirt today, and it isn't because they are any less modest, but because they are out for fun, and the short skirt enables them better to take part in play, in walking, in driving an automobile—even in sitting down! The men threw away the stiff collars the same time they threw away some of our old-fashioned, stiff-necked dignity, and now they are trying to be as youthful and frolicsome in their dress and their play as their boys. Men who used to be old at fifty, dried up and grouchy at sixty and dead at sixty-five now are playing golf at seventy-two and are laughing and kidding with their grandchildren.

This generation of ours is a most important study to the milk dealer. They are not interested in clean, sanitary milk in a day and time when they take those things for granted. The movies are supposed to be clean, for we have movie censors and a movie czar. Prizefighting must of necessity be clean and honest, because the day the women started going to fights was the day the promoters realized that the public no longer would stand for dirty, shady stuff, and it was the day the tobacco-

(Continued on page 101)

A Business Builders' Club

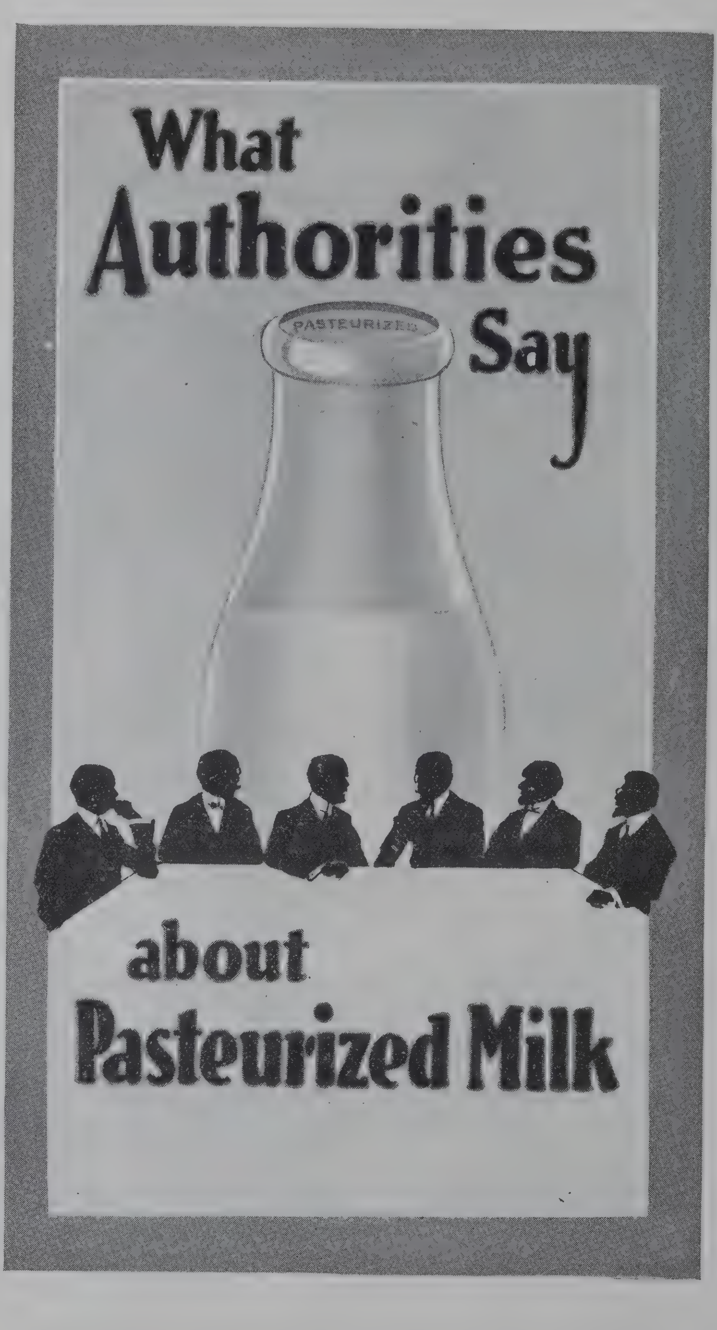
Employees of a Wisconsin Milk Plant Band Together to Promote the Interests of the Institution With Which They Are Connected

MANY dairy companies find it profitable to call their milk delivery salesmen together at intervals for talks by one of their officials or by someone outside the organization so as to make their men not only good deliverymen, but good salesmen as well. The plan has proved effective and profitable. One company is doing even better.

Up in Fond du Lac, Wis., the employees of the Fountain City Dairy Company have organized the Business Builders' Club — an organization conceived by the employees, developed by them and supported by them with the avowed purpose of stimulating the business of the Fountain City Dairy Company.

"We had wished for a long time that the employees would get together and form some sort of an organization in which they could thresh out their problems with each other," said E. F. Steffen, secretary of the Fountain City Dairy Co.. "We had had meetings of our milk salesmen from time to time. At these meetings we talked over the problems of our salesmen in selling our dairy products in Fond du Lac. Sometimes we had outside speakers. It was one of these, H. T. Gratz of Louisville, Ky., associated with the Sheldon Schools, who planted the germ of the idea of a club for employees.

"One day one of our delivery salesmen said to me, 'What do you think of the idea of everybody here getting together and forming a club?' I told him that I thought it would be a mighty fine thing and added that the firm would be more than glad to back a club of that kind.



"Other employees proved just as enthusiastic abou the idea as the executives of the firm were. In a shor time the organization was a going proposition with officers elected, committees appointed, a constitution an by-laws drawn up putting into words the purposes an aims of the club—and 36 members, a 100 per cent representation of employees of the Fountain City Dairy Co

"The members of the Business Builders' Club are no just our milk salesmen Every employee is an ardent member, from th stenographer in the offic to the bottling machin operator to the presiden of the Fountain Cit Dairy Co. The officers o the company vote just a the rest of the employee do. No job carries with i any special influence i the management of th club.

"Of course, there ar questions which come u from time to time, that ar of especial importanc and the executives an officials of the compan are consulted before th club proceeds along th particular line which it i considering, for after all the officials are the me who are responsible fo the spending of the company's money.

"But the Business Builders' Club is absolutely of the employees, b the employees and fo their mutual help in making the Fountain City Dairy Co. more prosperous.

"The man in the production end of our business now gets to see the production of dairy products from the angle of the milk salesman — a point of view which the average worker inside the plant would not get. He gets to seeing that his job is bigger than just operating te machine that caps the bottles, for instance—that the ttle capping operation is also a factor on which the ccess of the business depends, for it must be done ght to keep the customer satisfied and on the cusmer depends the success of our dairy.

"It is the milk salesman who comes in contact with ur customers — who gets their complaints and their raise. At the meetings of the Business Builders' Club gets an opportunity to pass along a possible comaint. Working together, the outside and the inside en will find a way to straighten it out.

"Often the delivery salesman will have a problem which he hasn't been able to find the solution. Somemes it will be another salesman who will tell him how e solved a similar problem, or it may be that one of e men in another department, with his fresh viewoint, who will find the key to the difficulty.

"The meetings of the club are monthly. They begin ith a dinner which is paid for by the Fountain City airy Co. and served by the employees. The food is urchased at different stores each month. The stores re assured in this way that we appreciate their patronge and are trying to reciprocate. We serve the diners at the plant, usually. They begin promptly at :30 and end at 9 for many of our deliverymen must go n the job early. In June we tried a new idea. One of he young ladies in the office, who has a country home, nvited the club to her home for the dinner and meetng. In August the meeting will be a picnic at a nearby ake to which the families and friends of the club memers have been invited.

"For the past six months T. J. Newbill of the Naional Dairy and Food Bureau has addressed the club bout once a month. His themes, naturally, were along he line of how to increase the consumption of dairy products in Fond du Lac, with practical suggestions to our employees on how to get the message across to the public.

"The officers of the Fountain City Dairy Company do not address the meetings except as do the other members of the club, when some question comes up on which they would like to express their opinions or when they have a suggestion to make on how to refute the argument of a prospect, or answer the complaint of a customer. The speakers are invariably men from outside the organization. Sometimes, when the talk comes from someone who 'has no ax to grind,' it has a slightly different ring than it does when it comes from one of the executives and the employees give the former sharper attention.

"The meetings are business meetings in the fullest sense of the word. The employees get together to accomplish something—to offer each other something which will help them in their daily work. Committees plan each meeting before it is held so that everything will run smoothly.

"The program and entertainment committee finds out about the speaker. If there is none, then they arrange for a little home talent entertainment—a sort of vaudeville act, maybe, or a simple game which can be played easily by a large crowd such as guessing the advertiser from just a part of an advertisement clipped from a magazine.

"At each meeting the various committees make their reports. The economy committee which looks for 'leaks' in the business brings up ways its members have discovered, in which the firm could save money. The new business committee reports on ways of finding and selling new customers. The service committee investigates ways of improving our service to our customers. The equipment committee—composed of men in the plant—looks into new dairy equipment which would either improve the quality of our products or cut down the labor necessary to produce them. The men on this committee, since they are in the dairy, are particularly interested in this phase of the club work. The clean plant committee is on the look-out for ways to improve our plant from the sanitation standpoint.

"The committee members have been chosen with an eye to their qualifications for the various jobs. For instance, the chairman of the economy committee is a conservative fellow, very careful about his own affairs. The same care is used in looking for extravagances in our plant.

"The enthusiasm of the members of the Business Builders' Club assures us that we have 36 people who are looking for ways to improve the service of the Fountain City Dairy Co., to build up its business and to cut down the overhead, instead of just the officials of the company. We feel the money we spend in encouraging the organization, in the monthly dinners, for instance, is money well invested.

Exterior View of One of Fond du Lac's Handsomest Dairy Plants.

"The problem of our buttermilk is typical of the type of discussion which comes up at the meetings of the Business Builders' Club. We ourselves were convinced that a cultured buttermilk was superior to the old-fashioned type. We began making the cultured buttermilk, and, of course, had a harvest of complaints from people who had grown used to the old-fashioned kind and who had decided they didn't like this change to a new variety. Some said they did not like the flavor—others said they could not cook with it.

"At a meeting of the Business Builders' Club we talked over the new buttermilk. The milk salesmen told about the objections they had run up against.

"We men who were responsible for the change told our employees just why we had done it—that we really believed that the new milk was superior to the old and that our patrons would prefer it after they had grown used to it.

"We told them that the buttermilk which was sold after butter had been made in it was part whey. They could prove this to their customers. They had seen the whey which settled to the bottom of such milk, leaving the milk on top.

"But the new cultured buttermilk was made from one per cent milk. The culture was added to this milk and allowed to grow. We convinced the men of the superior quality of the new product so that they could carry their enthusiasm to their customers.

"When it came to the cooking argument, we had several of the best known and most popular restaurants in town use the buttermilk in their cooking. They did so and it proved so satisfactory that our salesmen had a fine argument right there."

A similar example of co-operating to put over a Fountain City Dairy Co. product was in the round table discussion at a club meeting of its "Flake Cream Cottage Cheese." The dairy had been selling the old-fashioned cottage cheese, but changed to the cream cottage cheese which was prepared with sweet cream and ready to serve.

A proof of the success of the Business Builders' Club is the fact that its members have voted to assess themselves dues of 50 cents a month. This money is being saved against the day when the club members are going to gather at one of the big hotels with their wives and other guests to listen to a nationally known speaker on some phase of the dairy business.

Office of the Fountain City Dairy Co. E. F. Steffen, secretary, is seated in the foreground and Robert Beutler, general manager, in the rear of the room.

The constitution and by-laws of the Business Builders' Club follow. In a concise way they enunciate the aims of the organization and how the club operates.

CONSTITUTION OF THE BUSINESS BUILDERS' CLUB.

Organized, and Conducted by Employees of The Fountain City Dairy Company, Fond du Lac, Wis.

Preamble.

In order to form a permanent association for the promotion of man building, business building and salesmanship, by fostering the spirit of service in our lives and work, by recognizing and practicing ethical conduct in our business relations, and by establishing the conditions and environment conducive to the study of the principle of service and the laws related thereto which underlie and govern the art of profitable distribution, we do confirm and adopt this constitution.

Article 1.

This organization shall be known as THE BUILDERS CLUB of the Fountain City Dairy Company, Chapter of Fond du Lac, Wisconsin.

Article 2.

This Chapter is organized primarily for the study of "Salesmanship and Business Success," which is to be the official course of instruction used by all of the members.

It is intended that this Chapter, as organized, shall constitute a permanent educational department of the Fountain City Dairy Company.

Article 3.

Section 1. The officers of this Chapter shall be a director, an assistant director, and a secretary-treasurer.

Sec. 2. These three officers, in conjunction with the proprietor of the company, shall constitute an executive committee having general oversight of the affairs of the Chapter.

Sec. 3. The director, in conjunction with the members of the executive committee, shall appoint all standing committees and exercise general supervision over all of the activities of the Chapter.

The duties of the assistant director shall be to perfor all the duties of the director in the absence or inability of t director to act.

The duty of the secretary-treasurer shall be to keep t minutes of all meetings, the records and files of the Chapt and to conduct the necessary correspondence.

As treasurer, it shall be his duty to carefully preserve funds and disburse the same on the authority of the vote the majority of members at any regular meeting.

Sec. 4. All officers shall be elected by ballot at t organization meeting, and shall serve for one year, or un their successors are chosen and qualified.

Article 4—Committees.

Standing committees shall be appointed as follows (it b ing the policy that every member of the Chapter, as far possible, has some committee duties). They shall be follows:

1. Executive.
2. Program and Entertainment.
3. Economy
4. New Business.
5. Service.
6. Equipment.
7. Clean Plant.

Committee Duties Defined.

1. The executive committee's duties are outlined in Art cle 3, Sections 2 and 3, and they shall, in conjunction with th management, exercise general supervision over all the affai of the Chapter.

2. Program and Entertainment.—It shall be the duty the program committee to have full charge of the program each regular meeting of the Chapter. They shall also arrang and provide the lunch to be served before the meeting.

3. Economy Committee.—It shall be the duty of th members of the economy committee to make a study of was material, equipment, time, or energy, and report to the Cha ter well-thought-out ways and means of effecting savings.

4. New Business Committee.—It shall be the duty this committee to devise ways and means of increasing th volume of business, either through advertising or better sel ing methods. It is not expected that this committee sha direct the advertising and selling for the company; but the shall make a thorough investigation of what is being don and offer constructive suggestions as to how either may improved.

5. Service Committee.—It shall be the duty of this con mittee to make a study of any criticism of the service an make definite suggestions as to how similar criticisms may avoided in the future. They shall also make recommend tions to the Chapter as to the best policy to be pursued in th handling of complaints and satisfying of patrons.

6. Equipment Committee.—Equipment should be co strued as horses, harnesses, wagons, trucks, autos, plant m chinery, cabinets, etc. It shall be the duty of this committe to endeavor to suggest ways to improve on this equipmen also report all irregularities as to the use and cleanliness this equipment.

7. Clean Plant Committee.—It shall be the duty of th committee to endeavor to suggest ways to make the pla or the equipment more attractive, both to the workers an those who are served.

Report of Committees.

1. It is expected that each committee shall report, prefe ably in writing, through its chairman at the regular month business meeting of the Chapter.

2. Special committees may be appointed by the executi committee.

3. All committee work shall culminate in a report the Chapter at the business sessions. The Chapter will vo upon the suggestions made and the Chapter in turn will mak its recommendations to the management of the firm. Fin authority shall rest in the hands of the management at a times. Any employee or committee must sell its ideas to th club and the club in turn must sell its recommendations the firm.

Article 5.

Any employee, manager or executive of this compan may become a member of this Chapter by subscribing to th responsibilities for membership.

The pledge is, "I hereby promise to do all in my powe to help make a success of the Fountain City Dairy Compan Chapter."

Another noteworthy achievement of the Fountai City Dairy Company is its work among the school chi dren. Every Fond du Lac school child has visited th plant of the Fountain City Dairy Company. Far fro

(Continued on page 104)

"I Accuse the Milk Dealer"

Says our Mythical Member of Society who is Known Far and Wide as "John Jones"

MY NAME is John Jones. You don't know me very well. That's why I am jumping on you right now. I am one of your customers. You have right to know something about me, but you don't even ake the slightest interest.

When a fellow has money to spend he is sensitive bout this sort of thing. For instance, there is a cigar tore on a certain corner where I stop in frequently on ny way home from work. The clerk there not only nows me, but he also knows the kind of cigars I buy. He doesn't forget.

Of course, I can't expect the head of the milk company where I buy my milk to come out and single me out among all his customers and familiarize himself with me. He doesn't owe that to me any more than he does to anybody else. But he ought to know more about me, I feel, for I am a type. I am the American consumer of milk.

The other morning the driver who delivers the milk knocked over five or six bottles on the terrazo flooring of the hall of my apartment. I don't like to hear milk bottles break at that hour of the morning. Somebody down the hall yelled out something about "Stop that racket!" The driver snarled out something like "Go sit on a tack!" He was talking to me as well as to that man, though he didn't know it. In fact, he was insulting every buyer of milk—adding insult to injury as it were. I don't like that. For that man and I are one, so far as the milk salesman is concerned.

The other day we were shy a quart of milk. At supper I asked for another glass, and the madam said there was no more; that she had ordered an extra quart, for she was making some extra delicacies that day and needed more milk, but didn't get it. It's a small thing, but I don't like such indifference. Now just a few days ago this same guy was trying to palm off extra quarts of milk on us. I saw through it right away, and didn't get sore, because I knew he was just trying to increase his sales at that door, and I didn't bother about it after the madam told him we were taking enough for the present. Then it seemed he lost interest in us. I don't like for folks to lose interest in me, particularly the people with whom I am spending my money.

Now, here's another thing. I am not a finicky guy. I know my milk is clean. I know the laws of my state pretty well covering food products, and also the city milk ordinance. I am sure we are getting good, clean, wholesome milk. I wish my driver would follow out the part. Ever go into a soda fountain and order a drink from a soda clerk with a dirty, spotted, stained, soiled apron? That doesn't help your appetite much, does it?

Well, the other morning my milk driver stopped in late, on his way back, to leave a new card for the month. He came in while we were at breakfast. Somehow, as I watched him, noted his greasy shirt, damp, soggy overalls and unshaved face, I didn't take so much interest in my breakfast, and my little girl made a slight grimace as she picked up her glass of milk. My little girl and I are sensitive to appearances. So are many other people.

On my way across town the other day on business I passed the plant from where I buy milk. There was a dead dog in the street in front of the plant. Nobody inside had anything to do with it I suppose. Evidently not, for nobody inside seemed to care. Two fellows who work there came out, saw the dead animal, laughed and walked on.

If I ran that plant I wouldn't allow anything unclean in this world to lie about the front of my plant!

The public—and I am a component part of it, qualified to speak—doesn't like the sight of unclean things, and certainly doesn't like to associate this sight with dairy products.

At one side of the plant a man was coming out with two cans of very smelly milk. I haven't the slightest idea of what he was doing; possibly something pertaining to his regular duties. But if I ran a milk plant I wouldn't let anything of the unclean nature, no matter how necessary such things are, to come before the eye of the public.

I am broadminded. I can understand there is much waste in everything—much that is not nice. But I think it ought to be kept out of sight. We know there are sewerpipes under the sidewalks as we walk along, but we don't see the contents, and don't mind. We like to keep these things off our minds, like the smallpox, the note past due at the bank and the bill we owe the doctor.

Now, on the first of every month, or thereabout, I get a bill from my milk company. And they are awfully decent about it—too dern decent for their own good. I don't pay it right then. I forget about it—just like I forget about a lot of things I don't enjoy doing. In about two or three months when that bill gets so high I'm afraid somebody will raise Cain, I pay it. Of course I pay no interest. I have held back the milk dealer's money. He has had to pay his bills all along. All right, I think, if he is that sort of business man, I'll just get away with it. If he doesn't want to send me a polite reminder along about the tenth of the month, I'll just ride along. It's his little red wagon.

If that fellow knew me better, you see, it would be much to his interest. I'm not the best fellow in the world, for I'm just an average member of the public. We are a weak and a frail lot, we people of this human clay, and we are busy getting away with everything we can. Oh, of course, in the main we are honest. We don't steal anything red hot, nailed down or too heavy to carry, but we do dearly love to get away with things.

Now, just the other day a milk driver was telling me about this story. A fellow came to the plant, said he had a good scheme for selling milk. He got up a list of menus, for special milk dealers. He sold his idea to the proprietor. He would get up some local advertising to pay the cost of distributing these menus. Sounded good. The proprietor would pay very, very little. The fellow would get his pay out of commission for the ads. All right the list was printed—at a cut-price print shop. The menus were delivered. The fellow dropped in to say good by to the salesmanager. 'Oh, yes, he said, I just thought. A minute ago I collected for the last ad on this menu. Just five dollars. The baker down the street gave me a check for it. You can cash it, can't you? Sure.' "

(Continued on page 108)

Runaway Milk Bottles Mean Much Money

What a Modern Milk Bottle Exchange Can Accomplish for its Members. Chicago Exchange Handles 200,000 Bottles Daily

By H. H. SLAWSON

TO LOOK at an empty milk bottle it might be difficult for any one but a milk dealer to see in it one of the most habitual and most expensive runaways in the world.

Milk bottles, as every dairyman knows, never will stay at home. No matter how careful the milkman may be, some of his bottles are always turning up in somebody else's dairy, or more often remaining completely absent on roll call.

They wander from London to Hongkong, from Honolulu to New York, from Buenos Aires to Chicago, and from your town to the next place just down the railroad line.

To get some idea of what this singular wanderlust means the uninitiated would do well to drop around to a bottle exchange in any large city. Chicago claims to have the largest in the country and its operation is typical. In the Chicago exchange from 175,000 to 250,000 empty milk bottles are handled every day with an average of 200,000 bottles per day the year round. Put them into cases and stack them up in freight cars and you have the considerable quantity of ten carloads of bottles before you each evening. For a week's work at the exchange this would mean a train of 60 cars loaded with bottles.

Understand, too, that these are just the milk bottles which fail to return home properly after they have been left on somebody's doorstep. About 30 per cent, or 60,000 of the bottles received daily at the Chicago exchange, were rescued by junk men from the alleys and garbage dumps of the city. The other 140,000 of the day's "catch" have been brought in by the nearly 500 milk distributors who have found them in their plants at the end of the previous day. Under the association rules they are required to send them to the exchange for sorting out to the rightful owners.

How Dealer Brown's milk bottles worked their way into Dealer Smith's dairy is one of the perplexing problems which cause continual trouble and expense and perhaps bring old age early to the poor milkman.

Not a little of the responsibility is placed on the housewife who is indifferent to the property left in trust each morning on her doorstep. Some housewives have been known to sequester milk bottles especially during the pickling and preserving season. Maybe the old man of the house took a fancy to one or two which made him convenient holders for oil and other things down in the garage.

School children have been known to "swipe" the empties for the sake of pennies that come from the junk man. Sometimes janitors fancy them for like reasons. Once the Chicago exchange officials found a quantity being used by a concern dealing in strained honey. And in the East, it is said, mushroom growers use the empties for the propagation of the spores, then break the bottles to get their plants.

It costs the Chicago milk dealers $25,000 a month to maintain their bottle exchange as a co-operative service. If it did not exist, it is estimated that the loss to the industry in bottles that would never come home would be around $120,000 a month or close to $1,500,000 a year. Expenses are met by an assessment of 1.5 cents for each bottle returned to its owner.

Yet so completely do the milkmen feel that their exchange is worth while that after eight years in rented quarters, they planned for the expenditure of $500,000 to provide a modern plant for the task of sorting out each day's accumulation. A modern building was under construction during the summer. In it will be, among other things, a monster automatic bottle washing machine, costing between $80,000 and $100,000. This is claimed to be the largest in the world and it will wash sterilize and polish all the bottles that come its way to the king's own taste.

A labyrinth of conveyor machinery has been planned to aid in sorting the bottles. Belts will automatically carry Smith's or Brown's bottles across the room to the points where a load is being made up for Smith's or Brown's dairy.

About 100 persons are continuously employed in the sorting plant and 15 huge trucks are in constant use lugging the bottles back home where they belong. On the return trip another truck load of runaways is brought in to the sorting station to make a job for another day.

Every day in the assortment there are sure to turn up bottles owned by dealers in smaller towns surrounding Chicago. These they set aside until a load accumulates that would be profitable to send out to the exchanges operating in that particular area. Generally, too, the truck comes home with Chicago bottles that have gotten out of bounds.

Some interesting runaways drop in occasionally. In the cabinet of curios kept in the office one can, for instance, see a bottle bearing the name "S. A. Lavascongada, un litro, Buenos Aires." Still another is from "Rideau Heights Dairy, Moose Jaw, Sask.," while others hale from England, Canada, Cuba and the four corners of the globe.

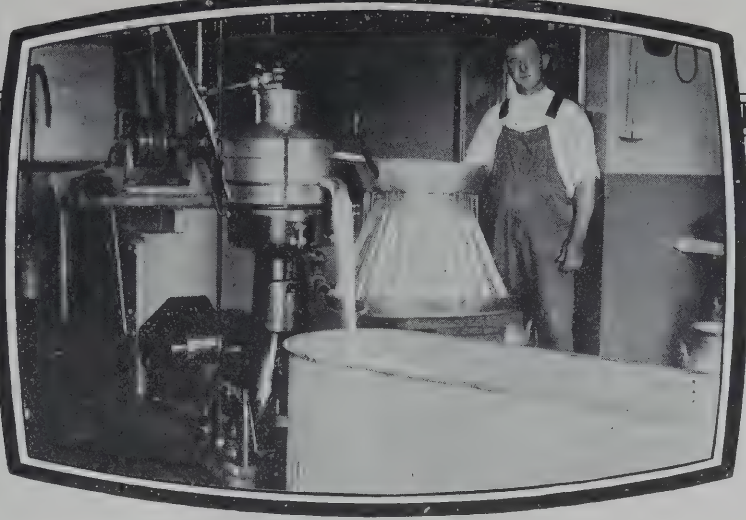
When the Milk Dealers' Bottle Exchange was organized in Chicago eight years ago for co-operative action to curb the tremendous losses in milk bottles, the principal object of attack was the "bottle bootlegger."

From many sources these business outlaws were collecting an average of three carloads of Chicago owned milk bottles every day and shipping them out of the city. Perhaps the car went to St. Paul, or Detroit, or Omaha, or wherever bottle dealers could be found willing to resell the property of the Chicago milkmen for the benefit of everybody but the rightful owner.

In the early days of the organization there was excitement aplenty. Officials of the exchange went out armed and accompanied by patrol wagons of policemen to recover the bottles from the unscrupulous dairies, or from freight sidings before the loads got under way. Statutes were put on the law books, and replevin orders and supreme court decisions obtained through the energetic action of the exchange leaders and now bottle bootleggers have been driven out of business in Chicago.

It has all combined to give the milk bottles a more steady stay-at-home character in striking contrast to their early manners. But think of the cost and the trouble that's caused next time when you toss an empty milk bottle out of your way!

The Best and Newest Equipment Is Advertised Consistently in The Milk Dealer.



No. 70 New Series De Laval Separator in plant of Emil H. Peters, Sugar Bush, Wis.

Better than the word "Sterling" on silver

THE name "De Laval" on a separator means more to you than the word "Sterling" on silver.

Ten or fifteen years ago 1000 silver dollars bought a good separator. Today, the same amount of silver buys a De Laval of larger capacity, much greater skimming efficiency and improved mechanical construction. In other words, the value of your silver has remained almost stationary while the value of the De Laval Separator has increased 50% or more.

Sterling silver, or commercially pure silver, remains a fixed standard of value because statesmen and financiers constantly strive to keep it so. Likewise, the De Laval has for half a century remained the world's standard of separator value because the world's most capable centrifugal engineers have worked unceasingly to improve and perfect its every detail.

You have probably never heard another separator compared with anything but a De Laval!

The New Series De Laval has made such comparisons more futile than ever. According to users these machines skim to 1/100 of 1% or less (Standard Babcock Test) with milk at normal temperature, and are in every other way the most wonderful separators ever built. That is the real test—what users say—not what we or any other separator manufacturer may tell you.

We have prepared a folder containing interesting letters from 12 users of New Series machines. Write for a copy.

THE DE LAVAL SEPARATOR COMPANY
165 Broadway, New York 600 Jackson Blvd., Chicago
DE LAVAL PACIFIC COMPANY, 61 Beale Street, San Francisco
THE DE LAVAL COMPANY, LIMITED
Montreal Peterborough Winnipeg Vancouver

New Series De Laval Separators

See also pages 82-83 in Olsen's Dairy Industries (Condensed) Catalogs.

When writing to THE DE LAVAL SEPARATOR COMPANY *please mention The Milk Dealer.*

Year 'Round Economies Tell the Tale of Successful Delivery

Keep Each Truck in Service Busy and Release as Many as Possible

By PHILIP L. SNIFFIN

DO YOU think, because you have a fleet of delivery cars which you can keep moving without waste during busy seasons, that you are doing all that can be expected to keep delivery costs down? How about those weeks and months when you have idle equipment on your hands, costing you money, if only for interest and depreciation, and producing not a thing to justify their keep?

And when a slow period comes around, do you keep the same number of delivery cars on the go, using them wastefully as so many concerns do, or do you try to apply a little science to the thing and cut down the number of delivery cars in service in proportion to the amount of work there is to be done?

That is one of the big leaks in delivery car operation today—a mighty scramble to keep up with schedules at any cost during busy seasons and a surplus of useless equipment with extreme waste during slack seasons.

I wonder with how many readers of The Milk Dealer that statement will "hit home."

True economy must be year 'round economy. The use of the delivery cars must be governed by the amount of work there is for the cars to do. Keep every delivery car busy at its maximum capacity while it is in operation. Cut down on schedules in slack seasons. Combine the schedules of two delivery cars when there is only enough work to keep a delivery car half busy during a day.

One of the biggest opportunities for greater profit in delivery equipment lies in equalizing the use of the equipment over a full year's time.

Let us point out a few examples of how this may be done. The users of small delivery car fleets can get good ideas from the big concerns who have solved the problem.

Here, for instance, is a concern that uses 88 delivery cars. A system of maintenance has been established which is really a model for year 'round efficiency.

A "Full Year" System.

Five delivery cars in the fleet are maintained as reserve delivery cars. All others are given specific routes and their work is planned always ahead of daily requirements. Of these five reserve delivery cars, two are held to replace cars assigned to the repair shop; two to replace cars in the paint shop, and one in reserve for accidents or bad break-downs.

During holiday and heavy delivery seasons this garage reserve is withheld from the shop and used to re-inforce the delivery fleet.

In any lull in deliveries an extra delivery car is withdrawn from delivery service and put through the paint shop, so that each car goes through the paint shop once a year.

Three spare bodies are in service to allow this number of regular bodies going through the paint shop continually. By this method three weeks can be allowed to repair and paint a body and the chassis is held in the paint shop only one week.

Territories are classified as Beach, Suburban and City. The first two years of its service, a truck is assigned to beach work, covering from 60 to 100 miles a day, and making 80 to 120 deliveries.

The next two years this delivery car is on suburban work, covering from 30 to 50 miles a day. From the end of that period for the balance of its service it is on city work, and covers about 20 miles a day.

Maintaining a fleet covering this range of territory, and furnishing reliable, consistent service with a small reserve, requires close supervision and attention to mechanical condition. This is obtained through a system of regular inspection and spare replacement units.

The oldest delivery car in service is maintained in sufficiently good condition so that in case of need it can be put out on a beach trip.

During the first two years a delivery car is operated it covers from 20,000 to 25,000 miles, and except in case of accident is maintained entirely on inspection service. At the end of that time it usually requires regrinding and some overhauling of transmission, differential, etc.

The delivery car then goes into suburban work, and for the next two-year period it is again maintained by inspection. At about the end of the fourth year the delivery car goes through what is known as a detailed overhaul. The amount of work being done at that time depends upon the length of time it is planned to keep it in service. The economical life of the delivery car in this service is from five to seven years, depending upon the total mileage, the type of work, the number of stops and starts, and the drivers it has had.

The night inspector spends one or two nights on a car, replaces miscellaneous small bushings, spring bolts, brake assemblies, clutch plates, steering gears, or any units that can be completed in one night. As a rule, on the exchange of any of the larger units, this work can be planned ahead and done by the day crew on the next regular inspection period, or on a day when deliveries are light.

This system is a complete and practical method of providing a balanced delivery car upkeep system. Its economy lies in the fact that work is scheduled scientifically to be evenly distributed over a full year's time. Thus a repair force can be maintained as a steady unit, its cost standardized and an adequate number of delivery cars to meet daily requirements is assured.

Judging Year's Requirements.

A concern has one vital condition to consider before deciding when to buy and when to rent a delivery car. That condition is whether purchasing a delivery car will involve enough idle time in the course of a full year to make up for the difference in cost between an owned delivery car and one that is rented when extra equipment is needed.

Perhaps the problem can be best expressed by "How can we handle our hauling during the busy season and at the same time have a minimum of empty delivery cars on hand during the dull season?" Roughly speaking, there are three ways in which this may be done.

1. If we figure the rush season hauling requirements

100 per cent, it is not difficult to estimate a percentage it will represent the dull season. For instance, an ner might find that his average low hauling requirents are 50 per cent, or half of his highest average. such a case, he might install a 75 per cent equipment nsisting not necessarily of all delivery cars, but as ny cars as he can profitably handle in his business, pplemented by teams. During the rush season, he y put on an extra shift of drivers, working his deery cars more hours per day and overload very occanally if necessary. There are serious disadvantages this plan, however, unless measures are adopted to feguard against them. Overloading and subjecting e delivery car to severe grinds are not ordinarily to recommended as a general policy since higher reir costs and depreciation more than make up for the ving effected. But as a temporary measure during sh seasons only—provided the season is not too long if the owner has purchased high grade equipment and lubrication, inspection and other items of maintenance re are considered accordingly, experience has shown at this plan can be used satisfactorily.

2. Perhaps the most completely adopted method ed is that of purchasing sufficient equipment to handle e normal business and then renting additional delivery rs or teams as needed. For the most part this is a asonably efficient plan and where it is possible to rent uipment on short notice at a reasonable cost, it may generally recommended. Very roughly, it may be timated that the cost per day of a rented delivery car slighly more than double that of one owned by the mpany, assuming, of course, that the latter is kept sy for a full working year. On this basis—and the dividual owner may readily determine the comparave costs in his own case—it may be seen that when he s enough work to keep a delivery car busy for half of e year, it is more profitable to own a delivery car than rent one. However, this plan reduces idle time to absolute minimum and the company whose business subject to gross uncertainties or intermittent expanon, will do well to adopt it.

3. The third method of equalizing these conditions quires, in a sense, that the owner enter the general livery business as a sideline. Although this plan may em undesirable at first consideration, the writer's atntion has been directed to innumerable instances here it has been exceedingly profitable. Under this an a member of the firm devotes his entire time in ll periods to obtaining contracts in commercial deering at the regular delivery car rates. Through this an he receives the maximum service and economy om his equipment. He has sufficient equipment availle at the lowest cost when needed and at the same ne his vehicles earn a substantial profit when he has work for them to do. The plan has been found in any cases to have the desirable effect of equalizing e business and income—in other words, when condions are generally slow, the members of the firm—or the case of the smaller concern, the proprietor—may vert their attention for the time being to the delivery siness which requires no special knowledge other than gressiveness in obtaining contracts.

Base Delivery Cars on Yearly Needs.

Hundreds of concerns have lost heavily and have verely jeopardized their businesses by blindly going to the delivery car market, installing a fleet of delivery rs, and then expecting them to accomplish wonders no atter what task they were put to. They were told and own that it is cheaper to own a delivery car than to nt one, so they bought enough cars of sufficient capacity so that they would not be forced to rent at any time.

That, briefly, is the most expensive mistake a business man can make. He can "kill the goose that lays the golden egg," so to speak. There is, unquestionably, a place for the horse in many businesses, principally because a horse-team represents a much lower investment than a delivery car and consequently its fixed carrying charges are considerably less. In many cases, especially where hauls are very short and where traffic is just as economically. But there is, too, a definite and very important place for the delivery car. In general, however, it may be said that for most hauling requirements, the horse-drawn operator will do well to make a careful investigation of his individual hauling conditions before deciding to discontinue their use entirely.

Selecting the right delivery car involves first, a complete dependence upon the reputation and reliability of the manufacturer rather than upon the physical appearance of the truck. If familiar with engineering details, the owner should make a careful study of comparative specifications, otherwise, he should look to performance records of longevity, dependability and economy. First cost is far from being the most important cost in the end, since the successful delivery car purchase is one that renders efficient service at the lowest cost per ton mile **over a period of years.**

Regarding the most economical size of delivery car to install, it may be well to point out that per unit of capacity hauled, the first cost, maintenance costs, operating costs—in fact, every item of expense—decreases as the size of the delivery car increases. A prominent delivery car authority places the average relative cost per ton mile as follows: One and one-half ton delivery car, 16 cents; two-ton delivery car, 13 cents; six-ton delivery car, 7.5 cents. It can be seen, therefore, that when unit hauling costs are considered, it is more economical to haul in large delivery cars than in small ones. However, it is possible to waste more than enough carrying capacity to make up for this saving by installing a larger truck than the average daily loads require. The matter is one requiring individual thought, inasmuch as it is affected by the nature of the business. It should be remembered, however, that where loads are uniformly large and where routes traveled will warrant it, a few large delivery cars are more economical to operate than a greater number of small delivery cars. There are instances, to be sure, where small delivery cars have greater advantages.

Change Routes to Meet Needs.

As mentioned at the beginning of this article, the owner can, in slack seasons, by careful routing, reduce the number of equipment units required, thus cutting down on drivers' wages and all other expenses connected with operating such unnecessary equipment.

The first thought in routing is the elimination of duplicated service. Zone delivery — calling for division of the hauling area into zones, with regular schedules for each delivery car, allowing, of course, for rush requirements when necessary, has been found to be a very practical basis. With the larger businesses and where the trade area is regularly concentrated, this feature of delivery car operation has the greater economy advantages. But regardless of what the conditions are, it is true that the milk dealer who goes over his territory carefully, and studies the best ways of handling his delivery cars on definite routes, will find a substantial saving between this and a method of handling the work in an irregular way, making shipments individually as required.

(Continued on page 102)

Teaching the Consumer to Appreciate Mil

Housewives Learn Something to Their Advantage. The Modern Dairy Believes in Propaganda

By One Who Was There

"LOOK! That cow is getting a permanent wave." The exclamation from the audience of housewives stopped the lecturer and he signalled a pause to the operator of the motion picture machine.

The familiar looking apparatus in the picture was, of course, only the automatic milking device used on plenty of up-to-date dairy farms, but it was one of many surprises to the hundred women who were being tactfully educated to a confidence in and an appreciation of bottled milk. A friend had telephoned me:

St. LAWRENCE MILK

Kiddies Take Trip Through St. Laurence Milk Plant.

"Will you join the ladies of our church on an inspection trip through the dairy? The St. Lawrence has promised us help on our organ fund if we can get 200 persons to visit the dairy."

I wasn't going to miss anything, so I was one of the crowd assembled at nine o'clock on the designated morning. The next two hours were crammed full, too. First, in convenient groups, we were conducted through the dairy and saw the handling of the milk from the taking of samples for the laboratory as soon as the milk trucks were unloaded, through storing in cold brine-jacketed tanks, separation, filtration, pasteurization and cooling to bottling and refrigeration.

"I never knew before why we have to pay 13 cents for the milk the farmer gets only eight or nine cents for," exclaimed one visitor to another. "See what it must cost to deliver it to us! That huge bottle washing machine there must have cost hundreds."

"Thousands," corrected the dairyman who was explaining the various steps in the care of the milk.

Seated in the little assembly room, we listened to talks by the dairy chemist, the manager and the young woman on the staff who—but her part comes later.

We viewed motion pictures showing the care of equipment, cows, utensils and milk on a certified farm; learned something of the rigid requirements as to location and construction of stables, cleanliness and periodical testing of the health of the cows. We saw t cotton filter discs, the covered type milk pail a watched several of the laboratory tests that safeguar the purity of the milk and determine the farmer's ratin on his milk's quality. We understood then that th bottled milk the dairy sold was safe and were ready t believe it the best and most economical food.

In the next talk the most knowing of the housewiv learned something new, and most of us a great dea The lecturer explained in detail just why plenty of mil should be included in the diet of everyone, but especiall in that of growing children. We were taught its bod and brain building and nerve benefiting value. (Aft the talk several ladies, trying to be causal about it, aske if "drinking milk wouldn't make them fat?" The were gravely assured it would tend to restore to norm condition, making the underweight person heavie helping the—er—over-plump ones to maintain heal and vigor while cutting out fat-producing foods.)

Most helpful to us mothers were the charts and fi ures showing how experiments on dozens of boys ha proved how valuable are butter and milk as body buil ers and how much better children who were given mi and butter withstood the usual diseases than did t children without this addition.

Plentiful were the comments and animated the d cussion in the next quarter hour while a dainty lun —cottage cheese salad, buttered crackers and bottl milk—was served. Miss Immer, the young woman charge of this part of the program, was kept bu answering questions and taking addresses so she cou mail us recipes for milk desserts, cheese salads and so

Mothers talked over their problems with one anoth

"I just can't get Arthur to drink milk."

"The way I trained Grace was——"

Or, "I never had any trouble with my three; only never before realized how much they need. I'm goi to order more this very day."

"I wish my Mary would...."

Next year I'll wager the plaint will be, "How wil ever get milk enough to satisfy these children?"

For:

Miss Immer gave every child in the city a chance find out, Where does it come from? and What good d it do me? They have all had their "Whys?" answer During the summer Miss Immer visited the 18 pla grounds of the city with two milk trucks, collecting youngsters who wished to visit the dairy—find a who didn't!—and taking them through the "works They went even to the roof where, in the sunny labo tory the chemist makes his mysterious tests for "bugs and the huge milk bottle towers.

Then she led them to the lecture room for the mov and a talk in words they could understand, with a lit treat of milk they drank from a bottle through stra And a chance to crowd around the cages of white r used for experimenting with various diets. The childr could see plainly enough the milk-fed rats were plum est and sleekest. So these thousands of youngsters wo again need to be "sold" on the milk idea.

(Continued on page 101)

To the Dairymen of America

Sealright Announces SEALON

The most practical Hood Cap ever made

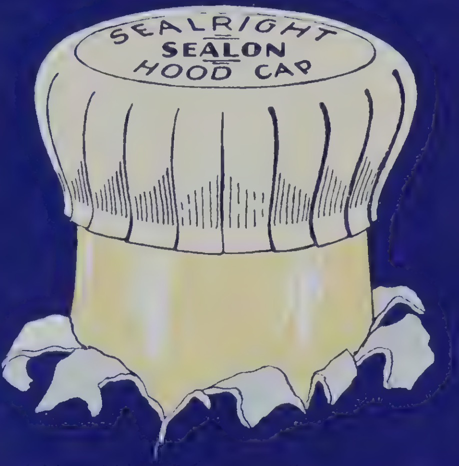
REALIZING the growing demand for better protection for all bottled milk, Sealright set out to produce a hood cap possessing none of the disadvantages of hood caps now on the market, yet offering all of their advantages *plus*. Today, after four years' research, study and experimentation under all conditions, Sealright offers the dairy trade the most practical hood cap and hood capping machine ever made.

Sterilized at 280°F

The Sealright "Sealon" Hood Cap is super-sanitary, being electrically sterilized at 280°F. at the moment of application to the bottle. It absolutely seals in the purity of your bottled milk, safeguards it from contamination as well as from all possible attempts to dilute it outside of your plant. This new hood cap completely covers the upper portion or "roll" of the milk bottle, giving it positive protection from dust, dirt, germs or any foreign matter.

Self-Sealing and Tamper-Proof

The "Sealon" Hood Cap is self-sealing. It is held in place on the bottle by an invisible seal and is absolutely tamper-proof. It cannot be removed without breaking the seal. It can be taken off with perfect ease by the consumer and replaced as a dust-proof cover. But it cannot be removed and replaced without detection.



SUPER-SANITARY. "Sealon" protects entire top of bottle.

SELF-SEALING. The invisible seal does it!

TAMPER-PROOF. Cannot be removed and replaced without detection.

AUTOMATICALLY applied by "Sealon" Machine.

STERILIZED at moment of application.

SAVES LABOR.

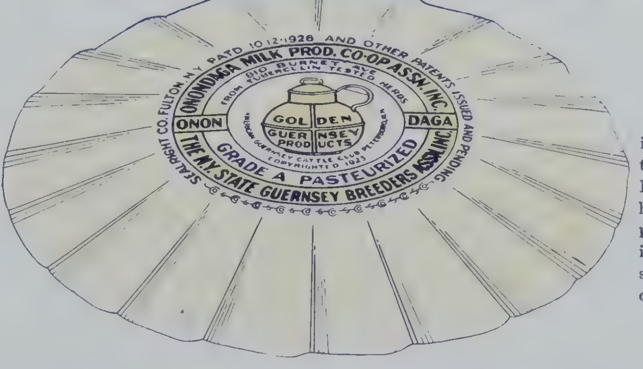
Automatically Applied

The "Sealon" Hood Cap is made in one piece, of pure spruce cap board, water-proofed by a new, exclusive process without the use of wax, resin or other flaky substances. It is automatically sterilized and applied by the Sealright "Sealon" Capping Machine—a marvel of simplicity, efficiency and economy (described on back of this page).

Meets Public Demand

Pure, protected bottled milk is what every housewife is looking for today. The new Sealright "Sealon" Hood Cap will enable you to meet this demand because it is the last word in bottled milk protection. Read about the Sealright "Sealon" Capping Machine on back of this page and do not fail to see it in operation at the Dairy Exposition, October 24-29, inclusive (Booth 144).

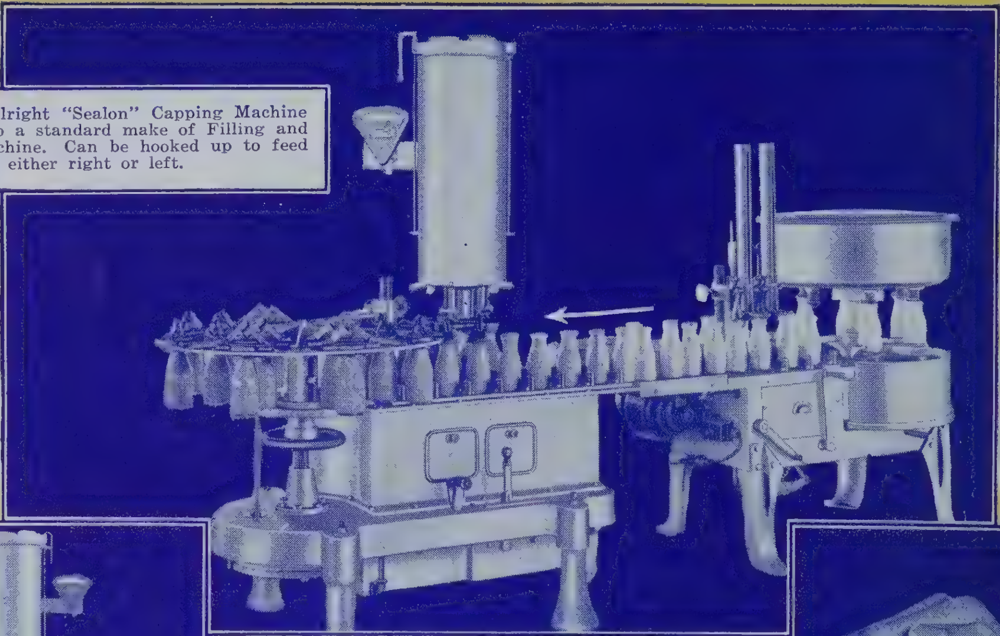
SEALRIGHT CO., INC.
FULTON, N. Y.


SEALRIGHT CO. FULTON N.Y. PAT'D 10-12-1926 AND OTHER PATENTS ISSUED AND PENDING
ONONDAGA MILK PROD. CO-OP ASS'N INC.
ONON
DAGA
GOLDEN GUERNSEY PRODUCTS
GRADE A PASTEURIZED
THE N.Y. STATE GUERNSEY BREEDERS ASS'N INC.

HERE you see the "Sealon" Hood Cap as it appears before application to the milk bottle by the "Sealon" Capping Machine. Its clear, cream-like color readily permits the finest type of cap printing. While the cap has a skirt long enough to cover and protect the entire top of the bottle, it is not so long as to detract from the view of the cream line. "Sealon" Hood Caps are delivered in easily-handled units of about 200 caps each, packed in dust-proof cases, ready for instant use. They are electrically sterilized at 280°F. at the moment of application to the bottle.

See the Sealright "Sealon" Capping Machine on back of this page

Showing Sealright "Sealon" Capping Machine hooked up to a standard make of Filling and Capping Machine. Can be hooked up to feed either right or left.



Efficient, Economical Simple

THE Sealright "Sealon" Capping Machine assures efficient, economical and constant operation because of its sturdy, simple construction and few moving parts. The "Sealon" capping process is as follows:

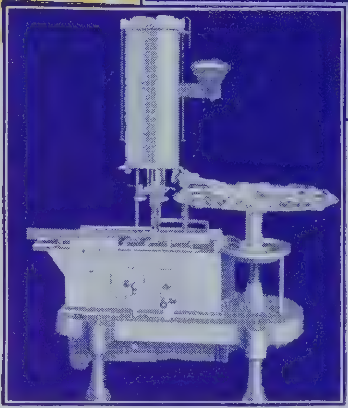
After the milk bottles are filled and capped with your usual Sealright disc caps on any one of the standard filling and capping machines, the bottles are automatically delivered to the Sealright "Sealon" Capping Machine.

This machine has two electrically heated chambers in which the "Sealon" Hood Caps are placed in preparation for applying to the bottles. Here they are heated to a temperature averaging 275° to 300° Fahrenheit.

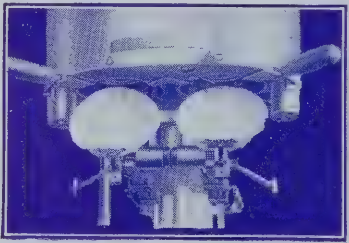
Then, without being touched by human hands, the "Sealon" Hood Caps are automatically delivered from the heated chambers perfectly sterilized, to the tops of the milk bottles, mechanically crimped, sealed and the finished bottles delivered to operator or taken up by packing room conveyor.

See our exhibit at the Dairy Exposition, October 24-29, inclusive (Booth 144), and you will appreciate why the "Sealon" is the most practical Hood Cap ever made.

SEALRIGHT CO., Inc.
FULTON, N. Y.

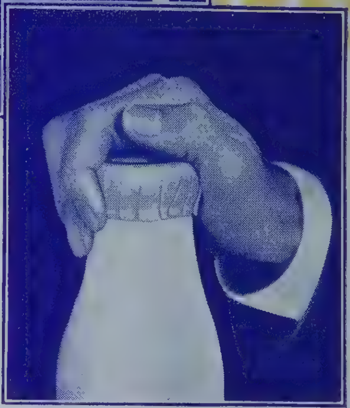


The Sealright "Sealon" Capping Machine is of simple construction, having few moving parts. Authorized "Sealon" jobbers render complete service and carry replacement parts in stock.



Here you see mechanical fingers automatically taking "Sealon" Hood Caps from the heated chambers in which they are prepared and sterilized before application to the bottles.

Above—shows "Sealon" Capping machine automatically placing "Sealon" Hood Caps on bottles, crimping, sealing and delivering to carrier system or operator.



The "Sealon" Hood Cap when crimped and sealed on is a permanent seal. Cannot be knocked off during delivery or removed without detection. Yet the consumer can easily remove it instantly.

Here the seal has been broken and the cap is being removed. The "Sealon" Hood Cap comes off clean, leaves no mark on the bottle.

The Sealright "Sealon" Capping Machine can be quickly and easily adjusted for capping quart, pint or half-pint bottles and for different speeds of operation.

SEALRIGHT SEALON CAPPING MACHINE

Sealright "Sealon" Hood Caps and Capping Machine fully protected by patents

How to Drive Away Milk Customers

Cutting Down Expenses in Delivery May Show Up in Losses That Will Astonish the Milk Plant Manager. Keep the Old Route Man on the Job

(By a Staff Correspondent.)

DOES it ever occur to milk plant managers that their customers are quite often more considerate and loyal to them than they are to their customers? This question is asked more from the standint of the customer on the outside looking in, rather an as a milkman on the inside looking out.

I refer particularly to the frequent and very often necessary changing of routemen and what it means the housewife as well as to the plant. And does it er occur to managers that their customers very often y their milk products from the routemen rather than om the firm they represent?

You are interested in holding all your customers on l your routes, primarily because each customer has definite dollars-and-cents value, but invariably a large mber of customers are lost because milkmen fail to ok at matters from the consumer's standpoint, and ry often plants curtail operating expenses to the point inefficiency in the wrong place, and that is in their elivery department. Why make routemen stand the lunt of salary cuts which result in frequent changes the detriment of your sales and profits, when the cut ight be made to better advantage and without injury mewhere else?

For instance, you think you have a good delivery ystem, particularly when it comes to employing and anaging your deliverymen. Invariably when you employ them you require a bond and agreement which tipulates that when the man decides to quit for any eason he shall "break in" the new man on his route efore he leaves the job, and if he is promoted or changed o another route you see to it that this is done, thus our customers on that route have a new milkman to leal with and to "educate" as to their individual ways f handling milk and other dairy products in their omes.

The old routeman, who has been very friendly and satisfactory to the customer who has taken considerable ains to break him in as to her deliveries and the way he wants them, makes a trip or two with the new man n the route and tries to show him the intimate details f taking his place, what each customer habitually takes very morning, whether a pint or quart of milk, a pint r half-pint of cream, a pound of butter extra on Thurslays, where the money or milk checks are to be left, whether the deliveries are to be placed on the front walk r put in the ice box on the back porch, and so forth.

Well, the probabilities are that the new routeman s not a mental giant and even with penciled memorandum he can't remember all these intimate details as to handling his route and he makes a lot of mistakes and provokes your customers all down the line for many trips or until he is thoroughly broken in by your suffering customers. Then you and your customers no more than get this new man familiar with his work until you make another change and the same agony has to be gone through again—he quits or is fired for some reason or another, and it quite often is a resignation as a result of insufficient remuneration to retain or sustain him. This frequently results in the loss of steady customers without gaining any new ones, for there is a limit to a customer's patience even though she likes your products and quite often she is more considerate and loyal to you than your consideration of her deserves, and what you intend for a curtailment of operating expense and increasing of profits, ends up in actual loss when she becomes disgusted and calls in a routeman of some competing company to serve her requirements.

The contented, well-paid routeman builds up acquaintance and trade on his route and your firm suffers a direct loss every time you change men on delivery routes.

I live in one of the suburban cities adjacent to Los Angeles. My wife patronized one of the big local milk plants steadily for six years and during the past year her endurance and patience has been something remarkable, not to mention my own, for this company changed our routeman on an average of once a month —not to mention the times they missed us—and we finally just had to quit the concern and give our business to another, for it was too big a task and too annoying to have to be dealing with and instructing new routemen all the time.

One routeman, a steady, reliable, middle-aged Swede, whom we liked very much, stayed on the job something like three months, but finally he was compelled to quit. On his last trip, when he was telling me about handing in his resignation, I asked him what seemed to be the matter that his folks were everlastingly changing their routemen, and, quick as a flash, he replied:

"They don't pay us anything, and their check-in and check-out rules are so unfair and unreasonable that we can't stay with the job only long enough to find out all this."

Of course, that is the summing up of his side of the story, but certainly there is something wrong, seriously wrong, with the milk company which changes its routemen every "turn around." It is so natural to become too engrossed in figuring down the overhead and centering all attention upon plant operation and things immediately surrounding us, without giving proper thought and first-person investigation by coming into direct contact with customers out on the different routes and getting first-hand information concerning the customer's viewpoint, because, after all, the customer's viewpoint is the vital part of your business.

* * *

U. OF W. DAIRY GRAD QUITS INSPECTION TO ESTABLISH HIS OWN DAIRY.

A. W. Schmidt, a graduate of the University of Wisconsin in the department of dairy husbandry, formerly engaged in inspection and promotion work for the state department of agriculture among dairymen in and around Americus, Ga., has decided to establish a dairy business of his own. He has purchased the Holly Springs Dairy, formerly operated there by W. R. Hansford.

Mr. Schmidt claims that Sumter county possesses unequalled advantages for the pursuit of dairying.

* * *

Send your news and personal notices to "The Milk Dealer" and see how well they look in print.

The Marvel of Milk

Its Munificence Has No Equal

[Reprinted from The Dairy Farmer by Special Permission]

The emotional re-action to the mid-morning lunch of milk!

OUT on the back porch at home, there is a four-by-four post on which you will find some peculiar marks, made by pencil or a ten-penny nail, with figures which you might recognize as abbreviated dates. Another set of these hieroglyphics may be found on the other side of the same post. It is the homely method that has been used for ages in many families for recording the gain in height of their boys and girls, from year to year.

When this frequent event of "measurin' up to see how much you've growed" had been tallied, there was always a direct increase in the family milk consumption. "If you want to be big and strong, drink your milk," we were urged. And the contest of that old four-by-four's records has spurred many a youngster to forego dessert until the large glass of milk had been drained to the last drop. The best part of it was that the milk was always at hand.

Today there are millions of just as worthy children, living in congested cities, who may yearn to "make their mark," just as we did, but who must face the increasing problem of living miles from a cow, or the restraining influence of a limited family food budget. Thousands of these children have never so much as seen a cow—and to them milk is just like the family dog—found each morning on their doorstep waiting to be taken in. Cities show frequently that from 20 to 40 per cent of their children fail to weigh what they should. However, this condition is not confined alone to cities. Surveys have been made in country areas which show that similar conditions prevail. Lack of proper foods, correct exercise, and other health requirements have stolen the normal start in life that should be theirs. And this is not confined to poor families, either. Many of the well-to-do parents are surprised to find that by allowing their boys and girls spending money, comfort, and a free reign over their personal habits, they have permitted sweets to replace solid-body-building foods, and luxury to rob them of exercise, sleep and other health-building needs for normally developing children.

The Bedtime Drink.

Science is constantly developing surprises and keeps reminding us of new and more marvelous qualities of milk.

Logically enough, milk should b Nature's most perfect food, since was created to entirely sustai young life and to furnish the bod nearly every requirement for growt and health.

Nutrition specialists tell us tha there are three considerations in th selection of food for our bodies. Th first is to secure an adequate amoun of the right kind of proteins. Ther seem to be complete and inadequat proteins, but to milk and eggs Na ture has bequeathed an endowmen of the nearest to complete protei values.

The second consideration is tha our food must contain the newly di covered substances which have fo many years been responsible for ou growth, development of our nervou systems, the creating of energy an resistance to disease, these su stances being known as vit mines. There are five vitamine now recognized by science being contained in foods, eac one of which seems to have ce tain mystifying characteristic which help to maintain th body functions and goo health. Whole milk contains a five of these vitamines, wit varying quantities of vitamin C.

Lickin' Good.

These vitamines are characterized name. The first to be discovered as vitamine B, the absence of which the cause of certain diseases. Vari- ıs investigators in studying the ıbits of many people came upon the ırprising fact that among rice ıters of the world—in Japan, China ıd other western countries—there ɩisted a disease known as beri-beri. ı studying the diet and the proper- es of foods of these nations, scien- sts found that certain foods had roperties which other foods did not nd thus established the new vita- ine B.

Further studies have found that ıck of vitamine A, or the fat-soluble itamine, caused people to become ıore susceptible to certain infec- ious diseases; and that this vitamine vas necessary not only for growth ut it is this vitamine which builds p resistance to diseases such as olds and other ailments of the hroat and lungs, not only for chil- ren, but adults as well. Then fol- owed the discovery of the existence f vitamine C, which must e present in our food to rotect us against the lisease known as scurvy. This vitamine is also lefinitely concerned in he proper growth of ones and teeth. Absence f the fourth vitamine,), causes rickets and ence the need for chil- lren especially to have n abundance of dairy products, since butterfat is one of the important food sources of this growth-promoting substance. Recent studies have developed that the fifth vitamine, E, is necessary for reproduction.

The third requirement, according to nutritionists, for proper food selection, is that our foods contain a certain amount of minerals, such as calcium, which is the most needed of minerals for the human diet. It is also important that the body secure some phosphorus and some iron to maintain the body structure. It should not surprise us, then, that nature has provided in milk the proper amounts of these minerals, in proper balance for body building; even the iron, while small in amount is of superior quality. For instance, we little realize in drinking a quart of milk that it contains as much calcium, or as we commonly call it, lime, as a tumbler filled with saturated lime water. With this knowledge we can understand why our teeth and bones become strong and hard and why lack of this element in the body causes rapid deterioration, even when we little realize it.

"The best study in our school is the milk lunch," says this happy lass at the mid-morning lunch period at Manchester school, Pittsburgh. The National Dairy Council is sponsoring milk lunches in every school in Pittsburgh, because it is bone and muscle building, and refreshening to the empty little tummies that make studying so tiresome Teachers encourage these lunches because it makes their pupils stronger and more alert students.

Milk is the Drink of Friendship.

These girls are twins. They were the same weight at birth, and have been raised alike except that the larger girl uses milk and now weighs 68 pounds, while the smaller one does not use milk and weighs but 58 pounds.

To emphasize this point, we turn to an interesting experiment described by Dr. H. C. Sherman of Columbia University, a world authority on nutrition. Dr. Sherman tells the very interesting story of a pigeon fed for a year on other foods than milk to such an extent that it was denied the proper amount of lime content. After a year of such careful feeding the pigeon was hopping about just as lively as ever, but can you imagine the surprise of the investigators in dissecting to find the stationary bones in the pigeon's body were perforated, where calcium for maintaining the body functions had been drawn from them.

For many years the scientists have been studying the effect of dairy products upon the habits of animals. Chiefly among these have been studied the diets of experimental rats, chickens, pigs and dogs. In every instance, lack of dairy products in some form in the diet of these animals has resulted in stilted growth and a gradual lowering of resistance to diseases to such an extent that if the elements in dairy products has not been supplied to these animals, they would have perished.

Having found the fundamental need of milk in the diet of animals, scientists were able to recognize and to better assist thousands of undernourished boys and girls in our cities to become strong and healthy once more.

What a general health program for city children can mean is emphasized in a study made among undernourished children throughout the country by the Elizabeth McCormick Memorial Fund of Chicago. A program of the "Children's Year" was instigated and carried through to completion. Six million children were weighed and measured, proving to the whole country that there are standards of growth and development to which a child should measure up and that underweight, malnutrition and physical handicaps were to be found among the children of the rich and well-to-do as well as among the poor.

Extensive experiments were conducted, taking undernourished children from Chicago homes, with the co-operation and consent of their parents. The results of these experiments have awakened health and welfare leaders to the big task before them. Thousands of children that were as much as thirty to forty per cent of the average weight for their height were brought up to normal health and vigor in a surprisingly short time. Where physical handicaps, especially adenoids and bad tonsils were retarding the children, medical service was provided to remove these defects and the children made quick response in health progress as a result.

Summer camps are maintained for undernourished children in most large cities nowadays. For instance, at Camp Happy, near Philadelphia, Pa., hundreds of children line up each day for milk lunch, as a part of the health program to build them back to strength and happiness.

America is not the only country awakened to the marvel of milk and the problem of seeing that future generations are given a strong heritage of good health in childhood. For some time in the industrial sections of Great Britain observations have noted that children were being underfed or improperly fed, resulting in a decreased efficiency, not only of factory workers, but of resistance to disease which became prevalent in the thickly populated factory areas.

To remedy this situation the Medical Research Council of England conducted an extensive experiment covering a period of four years, in which they selected 220 boys, typical of the industrial section, and housed them under average conditions, after having given them thorough medical examinations. Throughout the period of four years these boys were carefully observed under medical supervision. All secured a basic diet, some of the groups being given milk, some butter and some vegetable margarine in addition to their basic diets, while another group was maintained on the basic diet only, to secure a fair comparison.

Sixty-one boys were given a basic diet. This basic diet satisfied the appetite of these growing boys and apparently was all that was needed. During the first year these boys increased in height 1.84 inches and gained an average of 3.85 pounds.

Another group of boys, forty-one in number, and as nearly like the group of boys in the first group as possible, were fed a pint of milk a day in addition to the basic diet. As a result, their gain in height was 2.63 inches and their gain in weight 6.98 pounds. In other words, their increased gain in weight, because of milk, was 81 per cent over the basic gain.

The basic diet varied from day to day and consisted of selections from the following: potatoes, bread, bee pork, herring, kipper, sausage, dumplings, cabbag beets, beans, peas, porridge, "Hoosh" lettuce, molasse sugar, cheese, cocoa (containing a total of two to fou ounces of milk daily), margarine, jam, raisin suet pu ding, rice pudding and cake.

It is to be noted that no preference was shown i selecting the group of boys. They were as evenly ba anced as was possible to make them. The entire exper ment was planned and conducted under the supervisio of the Medical Research Council under the Privy Cour cil of England.

The differences in gains were the result of the foo and nothing else, inasmuch as the housing condition were the same for all the children, their activities wer the same, and the same factors prevailed in all cases, ex cept with respect to food.

Apart from the marked gain in weight and heigh which is shown by the boys who received the extra mil ration, there was also a general improvement in thei physical condition.

There was absence of illness during the winter o 1923, and 1924, among the boys with the milk ratio although in other houses in the village the sickness rat was somewhat higher than usual.

After eighteen months observation a casual visito entering the dining halls where the boys sat at tabl would never fail to recognize the table of that hous which was alone receiving the extra milk ration, th boys of that house being obviously more fit than thos of the other houses.

In another house where a group of boys had been re ceiving the basic diet with butter the gains were almos as noticeable as with milk. With our knowledge of th marvelous food values with which nature has endowe the butterfat in milk, we are not surprised when th English council reports that still another group fed th basic diet with an added amount of vegetable oi margarine gained no more in height than the boys re ceiving only a basic diet and but little more in weigh The butter fed group gained 20.9 per cent more i weight and 20.6 per cent more in height than the marga rine fed group.

Knowing that doctors and scientists have learne that margarine is inadequate in growth and health pro moting qualities, it seems quite unreasonable that w as parents should want our children to grow up withou the essential qualities of butterfat. As a matter of fact doctors everywhere find that while children may see to be growing while being fed margarine they are i fact growing much less than they would if allowed normal amount of milk and butter. In addition studie of resistance to disease have shown that the childre being fed on adequate amounts of the elements in but terfat are more resistant to disease and necessarily be come stronger women and men.

As we find it necessary to work from early mornin until late at night attending a herd of cows and milk ing, it seems, incessantly day after day with the objec tive of a monthly check, there is a satisfying feeling fo the dairyman to know that with each pail of milk he i sending to market there are a half dozen city youngster denied the pleasures of open country, who will be kep strong and healthy with his product. That is why peopl are willing to pay better prices for clean, safe milk an should account for the exceeding pains we go to now adays to make sure that thousands of city children shal find milk just as convenient and wholesome for the in a tenement as it would be were they on the farm.

Send for your
FREE COPY*!*

This little Booklet

has saved thousands of dollars in interior painting

MANY plant managers are cynical about the claims made for interior paints. No wonder—in view of their costly experiences with paints that yellow—paints that flake—paints that get dirty and can't be washed!

It is difficult to prove in a short advertisement that any paint overcomes all these objections and yet actually *costs less* when applied.

But we believe that our booklet, shown above, contains facts and honest testimony of actual users, which do prove that Barreled Sunlight resists yellowing, will not flake, washes like tile, and can be applied at the lowest cost per square foot covered.

The manufacturers of Barreled Sunlight have been specialists in the industrial white paint business for over 20 years—long enough to know most of the problems and also long enough, if thousands of satisfied customers mean anything, to solve those problems pretty completely.

The coupon will bring you a copy of the booklet and a sample panel painted with Barreled Sunlight.

U. S. Gutta Percha Paint Co., 9 Dudley Street, Providence, R. I. Branches: New York—Chicago—San Francisco. Distributors in all principal cities.

Now we offer Outside Barreled Sunlight, and recommend it with the same assurance as we recommend Interior Barreled Sunlight. Write for information as applied to your own outside painting.

Barreled Sunlight
Reg. U. S. Pat. Off.
THE RICE PROCESS WHITE

U. S. GUTTA PERCHA PAINT CO.
9 Dudley Street, Providence, R. I.

Please send us your booklet "More Light," and a sample panel painted with Barreled Sunlight.

Name..............................
Street..............................
City..................State..........

When writing to U. S. GUTTA PERCHA PAINT CO. *please mention The Milk Dealer.*

When to Fire a Milk Salesman

And When to Keep Him on the Job. A Lady Sales Manager Gives an Exclusive Interview to a Representative of The Milk Dealer

TO FIRE or not to fire! That is a question that confronts sales managers, not only of dairies, but of all industries. A sales manager of a dairy, however, has special problems of his own, such as getting men out at two or three in the morning, keeping down the turn-over, building up loyalty. All of these are difficult of solution in any dairy business. Grace Irene Roberts, sales manager of the Roberts Sanitary Dairy in Omaha, has taken time to tell The Milk Dealer how she handles these problems whenever they arise.

GRACE IRENE ROBERTS,
Sales Manager, Roberts Dairy,
Omaha, Nebr.

Miss Roberts — let it be explained in the beginning—has grown up with her job. She started out with the company when it was in its infancy, 18 years ago. She has full charge of the Omaha plant which now numbers over a hundred men.

One of the things which experience has taught her, she said, is not to fire a man always, even though circumstantial evidence may not be in his favor.

She told the story of a route foreman who came in to complain about one of his men. Although this driver had been with the company long enough to know better, he had given away six dollars worth of milk tickets without receiving either cash or credit slips for them. He had made a muddle of other tickets and his record was not clear. The foreman thought he ought to be fired.

Such behavior is serious; but Miss Roberts listened to the end of the complaint without committing herself. Then she called in the driver.

At first he was defiant. But he softened up when she told him that his past record was too good for her to believe that this past mix-up was typical of his way of handling his affairs. He explained some of the mistakes, how he had given away the six dollars worth of tickets to a woman who was having a party and was too busy to pay for them but who was good for the money. Still Miss Roberts was not satisfied; she knew something else was wrong.

Finally she told the driver that she had no intention of firing him because she believed that he was worth too much to the company. In return for such an unexpected tribute of confidence on her part he blurted out the whole story, the old, old one of losing milk tickets and being afraid to confess the loss, and trying to cover it up by devious little misrepresentations.

Then Miss Roberts had something to scold him fo Why hadn't he come in at once and told her about th loss of the tickets? She made him see that his attitud toward the company in hiding his loss was worse eve than the loss itself. She did not fire him; she taugh him a lesson in loyalty. After that he never repeate the mistake and his understanding of the spirit of th company made him a better worker than he had bee in the past.

It took patience and experience, she said, to lear how to get at the heart of the trouble when a man suddenly went wrong. It was harder than firing them But she had learned to balance a driver's record in th past with his present misbehavior and to decide th question on that basis. She believes strongly in th fundamental goodness of people.

"Firing men," said Miss Roberts, "is expensive. I costs us, we figure, about $100 in training, inconvenienc and delay to our customers to lose a man. We don' want to do it unless it is necessary. When we hire man, we begin at the very beginning to make him th best salesman possible. We have already analyzed ou situation and we know that our salesmen must be special type of men. We have put ourselves in the customer's place, asking what is demanded of a milk salesman and so we think we know just what we want.

"Our salesmen must be clean, must be good mixers and must have agreeable dispositions. They go out an meet all kinds of women, some of whom will be bad tempered. Throughout any interview the salesman mus remain cheerful. We keep that in mind when we selec them.

Dealing with housekeepers is harder than dealin with business men. Men are accustomed to meetin strangers and a courteous manner is often part of thei business. But the housewife doesn't care. Then, to women use their hearts more than their heads. The often purchase milk from a nice young man just because he is agreeable and has nice manners, withou regard to the kind of milk he sells. We furnish goo milk and good manners together."

Miss Roberts has hit upon a happy solution of making the men report on time. If they are late more tha one day a month they are docked a day from their vacation. It is seldom, she said, that the men are late. Several of them have worked for years without losing single day from vacations.

The turnover of the dairy for the year 1926 wa exceptionally small, considering the business. It wa only 67 per cent, including promotion of drivers to rout foremen and all changes made in the personnel.

One of the secrets of the small turnover is partl the loyalty that Roberts men feel for their company and the secret of the loyalty is due partly to the training the men receive in marketing their goods.

This salesmanship school is managed by Miss Roberts assisted by J. R. Roberts and other officials of the company. The men are called together for one hour a week meeting in the afternoon. The meetings are so interest ig that no special effort is needed to get the men to end. Milk products are also studied and analyzed; instance, the men are told how cottage cheese is de and some of its uses. Special demonstrations are t on to illustrate house to house selling. The em-asis is always laid on the fact that this type of selling not high pressure selling and that ability to hold cus-ners is just as important as the ability to make them.

The advantages of teaching men in this school how handle and display their products is illustrated by e following incident: One of the Roberts men was lling tickets on a Sunday morning when he was hailed an angry customer. She had bought a bottle of XX hipping cream which had turned to butter when she hipped it. A neighbor had been present at the butter-aking process and had told her that Roberts' cream ways behaved that way and that she should buy her eam from another dairy.

The driver followed the customer into her kitchen. here he found the Sunday dinner on the stove which as going full blast. The cream was standing on the ack of the stove. He at first said nothing but tried to elephone the dairy to have some more sent out; no one as in on Sunday morning so he had to bring in a bottle f cream from his own wagon. He told the customer at he would whip it for her and show her how well it hipped under the proper conditions.

It so happened that this man never had in his life hipped cream. All he knew about it was what he had earned at the salesmanship school; but there he had een told that it must be properly chilled. So he fol-owed directions as he remembered them. While the ream was in the refrigerator he explained to the two omen the necessity of a thorough chilling. Then he ook out the cream and whipped it in a few minutes.

By that very simple act he not only kept his cus-omer but made a new one of the neighbor. His ad-antage lay in knowing just what to do, and the train-ng in the school was responsible.

Each driver in the Roberts Dairy is under a route oreman who supervises a group of seven men each. hese foremen take great interest in the sales meetings nd encourage their men to attend.

One of the inflexible rules of the dairy is to always select men for the higher-up positions from those lower down. The driver who makes good, therefore, knows that he has a chance to become route formeman some day.

Miss Roberts makes a point of complimenting the foremen on any good work she hears of their drivers doing. The men, she has learned, would rather have the foremen hear their praises sung than listen to such sweet music themselves.

She enjoys having a chance, however, to tell the men how good they are. In fact she wishes, she said, that she had more time to tell them everything nice she hears. All sorts of letters and phone calls come to her from grateful customers who appreciate the service some driver has rendered. She also receives letters from people passing through Omaha who thank her for such courtesies as rushing a bottle of certified milk to the railway station so a hungry baby could have a meal between trains. These letters she keeps to show the special delivery men who deliver the milk.

When Miss Roberts first stated to work for the Roberts Sanitary Dairy Co. (by the way, even though the names are the same there is no relationship between her and J. R. Roberts) she had only a few months' training in a business school. The dairy was then so small that she kept books, wrote the letters, waited on most of the customers, and answered the telephone when J. R. Roberts was out. Today the Roberts Dairy is not only the largest in the state but in the Middle West and has plants at Lincoln, Sioux City, Ia., and Omaha. The Omaha plant is the largest of the three.

To Miss Roberts, along with two or three other employees who started out early in the game with him, Mr. Roberts gives much of the credit for the successful growth of the business. People often embarrass Miss Roberts by complimenting her on holding so successfully a job that no other woman in a large dairy has ever held; but her embarrassment soon disappears in her enthusiasm for her work.

Her only source of regret about her position, she said, is that the days are not longer. There is not time for her to do all she wants to for "her boys."

JAPAN'S MILK PRODUCTION INCREASES.

Milk is being used more and more in Japan, accord-ng to Assistant Trade Commissioner DeForest A. Spen-er in a report to the department of commerce, Washing-on, D. C. To the foreigner it appears remarkable that nation with such a high birth rate as Japan would con-ume so little milk. In fact, until about 30 years ago nilk was used by infants only as a last resort. Adults ever touched milk in any form.

Since the invasion of foreigners into the country, owever, milk made its appearance in the form of con-lensed and powdered milk and other forms of milk fats. The following table shows the increase in milk produc-ion in Japan in the last five years:

1922	25,734,072 gallons	
1923	28,790,256 gallons	
1924	30,626,920 gallons	
1925	33,250,815 gallons	
1926	35,778,536 gallons	(Estimated)

WILLOW STREET DAIRY FURNISHES PUREST OF PRODUCTS TO CUSTOMERS.

The Willow Street Dairy, located at Willow and Alameda Sts., San Dimas, Cal., is one of the most prominent in that part of the state. Its place is modern and up-to-date in every particular, clean and sanitary throughout.

At this dairy every precaution is taken to produce the most pure and wholesome dairy products under the most sanitary conditions made possible through the use of machinery and up-to-date methods. All refrigerating devices are here installed for keeping the products in the best condition.

Mrs. Meyers has been actively interested in the Willow Street Dairy for 38 years and Miss Kirsch, who has been well schooled in all phases of refrigeration and sanitation, has for three years supervised the entire dairy. A great deal of the success of the dairy is due to the untiring efforts of both these women.

How Some Milk Dealers Get Business

How They Cash in on Their Present Customers Through Testimonials, Getting the Names and Addresses of Friends, Etc. A Dollar for Each New Customer

By FRANK H. WILLIAMS

SOME milk dealers are very particularly successful in cashing in on their present customers in the very important matter of securing more customers and it will, no doubt, be interesting and worth while to various other dealers to consider some of the methods employed in doing this.

Inspection of the methods used in this matter by various enterprising dealers reveals the fact that these methods may, for the most part, be divided into the following plans:

First—Securing testimonials from present customers and using these testimonials in the customers' neigborhoods for the purpose of inducing other people to patronize the concern.

Second—Securing from the customers the names and addresses of their friends and relatives and then soliciting these friends and relatives for their milk business.

Some concerns find that the first plan yields the best results while others find that the second plan is best for their purposes and a third group of milk dealers find that a combination of the two plans brings in the most business.

Let us look at some of the things said by enterprising milk dealers regarding their own particular methods of cashing in on present customers to the fullest possible extent.

"We try to make it a point," said the head of a successful Western milk concern, "to try and make each one of our customers help us in getting more customers at least once during the course of a year.

"At least once each year we will ask each of our customers for the names of friends and relatives who might be interested in securing milk from us. Then, of course, we solicit the people whose names are secured in this way and try to get business from them.

"Of course, it is quite likely that the customers who give us the names of prospects will give us names of people who are already our customers. So we always check up such lists of prospects before giving them to a salesman to use in solicitation. This saves the salesman a lot of lost effort.

"This method of cashing in on our customers in an effort to get more business has proved very helpful indeed to us and I expect that many other milk companies might use the same sort of a plan with equally good results."

The proposition of using an introduction card in soliciting business was emphasized by another dealer in these words:

"You know there is a big hosiery manufacturing concern which sells direct to the consumer which uses an introduction card with great success. Every time a salesman for this concern makes a sale he asks his customer for the names anl addresses of friends or relatives who might also be interested in buying hosiery from the concern. Then when the customer gives the salesman such names the salesman gets the customer to fill out what are called introduction cards. On each of these cards there is a space at the top of the card for the name of the prospect suggested by the customer. The customer writes in the name of the prospect in this space and signs his own name in the space provided for the purpose at the bottom of the card. The card then reads something like this:

" 'Dear Mrs. Jones:

" 'I am sure you will be interested in learning about the Whozis hosiery which I wear and whose merits wil be presented to you by a salesman for the concern.

" 'Yours truly,
" 'MARY BROWN.'

"The salesman then takes these cards with him when calling on the prospect and presents the right card to each prospect. This gives him a splendid introduction to the prospects and makes it just that much easier for him to put sales across.

"Here in this company we have adopted the same plan in cashing in on our present customers. We get our customers to fill in and sign introduction cards of this sort to their friends and relatives and the salesmen then use these cards in calling on the prospects and in this way get splendid introductions and secure a lot of business that they would probably never secure otherwise."

And there's no doubt but what there are numerous other milk concerns which could use this same idea with equally good results.

An interesting method of cashing in on customers testimonials was told about by another enterprising milkman in these words:

"We are strong believers in the efficacy of testimonials in building more business. But we also strongly believe that all testimonials should be just as fresh as possible and should be dated so that the folks to whom they are presented can see that they are new and apply to our company as it is constituted at the present time.

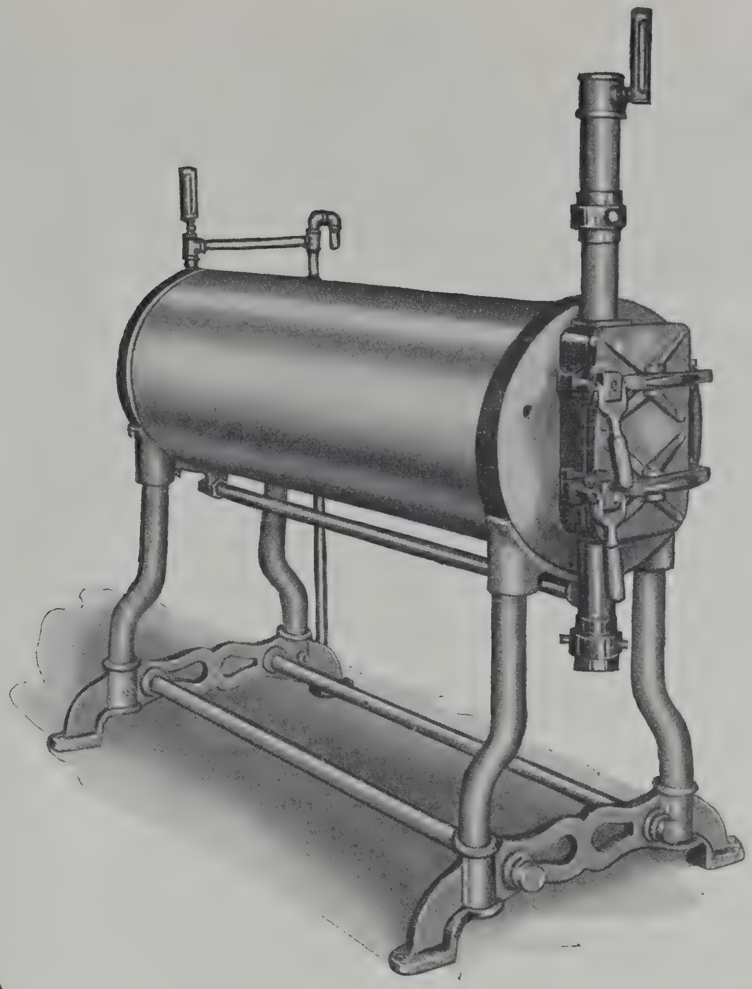
"We ask our drivers to always ask customers, when selling tickets or any other opportunity presents itself how they like our milk and our service. Then the driver makes notes of particularly complimentary things said by the customers and tell them that the things they've said about us are going to be used by us as testimonials We feel that it is good business for us to take the customers into our confidence in this way as this safeguard us against making any customers sore through quoting them without asking their permission.

"If the customers are particularly enthusiastic about our products, service, etc., the drivers ask the customers to write out a little testimonial for us in their own handwriting on their own stationery. We find this sort of a request makes quite a hit with some of the customers as it flatters them to think that we consider them so important. So they generally do as requested without any demurring.

"Then we paste such testimonials on sheets of paper in a loose leaf book which is used by our salesmen in going around and soliciting business.

"With the notes made by our drivers about the flattering things said by the customers we typewrite several of these testimonials on a single sheet and incorporate this sheet, too, in the testimonial book.

"We keep eliminating old testimonials and substituting new ones for the old ones in this book all the time And I am confident that our use of customers' testi



The CHESTER BARRELETTE

A modified Chester Barrel Heater used principally for low duty preheating before separators, clarifiers and filters.

The same principles embodied in the manufacture of the Chester Barrel Heater are incorporated in the Chester Barrelette, but with certain modifications which greatly increase its operating capactity without increasing back pressure.

Two Sizes: Respectively 6,500 and 10,000 pounds per hour.

Complete Literature Will Be Sent Upon Request.

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION, INC.
ASSOCIATE MEMBER NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS

CHESTER DAIRY SUPPLY CO.
Ninth and Hyatt Streets
CHESTER PA. U. S. A.

The Sign of Service

When writing to CHESTER DAIRY SUPPLY CO. *please mention The Milk Dealer.*

monials in this way is one of our best helps in securing new business."

An interesting and rather unusual method of cashing in on customers is used by another milk concern, whose manager told about the method in this way:

"We will give a dollar for any customer who secures another customer for us. If, for instance, we have a customer who has good neighbors on either side that aren't taking milk from us, we'll go to the customer and tell her we'll give her a couple of dollars if she'll talk up our milk to her two neighbors and get their business for us, or we'll give her a dollar if she induces only one of the neighbors to take milk from us.

"This method has been splendidly successful with us in getting a lot of new business for us and, of course, a dollar isn't too much for us to pay for a new customer."

All of which is presented in the hope that it will offer worth while ideas and suggestions to other milk dealers which they can use to good advantage in their own businesses.

Advertising That Tells People of Milk

The Windsor Farm Dairy of Denver, Colo., during the past several weeks, has been running some very good advertisements in its local newspapers telling people of Denver about milk. These ads are three columns wide and about ten inches deep. They are illustrated with line drawings and the reading matter is in large type with plenty of white space to cause the ads to stand out prominently on the page. Each ad in the series is different and consists of a very interesting as well as instructive message.

A recent ad in the series was entitled, "Milk is a Man's Drink." The ad further stated: "Workers in the shipyards during the war proved that real, hard-hitting, two-fisted he-men can do better work if they drink lots of milk. And the personal experience of thousands of other men has emphasized that fact.

"Try it. Top off a very light lunch with a glass of Windsor milk. Chase that mid-afternoon drowsiness with a glass of Windsor milk. And drink a glass of hot milk at bed time. You'll sleep better—feel better—be better.

"Don't let the kids and invalids monopolize this wonder food that Nature made for everyone—pure, clean, wholesome."

Another ad read:

"Windsor Milk—Measured by Quality, Instead of by Quarts.

"The Windsor label stands for a unit of measure—measure of quality as well as of quantity!

"A quart is a measure of quantity only—so, in order to provide the dairy farmer an incentive to produce milk of higher and higher quality, the Windsor Farm Dairy pays the producing dairies on the basis of tested richness and food value of the milk. A premium is placed on richer milk—milk of greater food value.

"Thus it pays the Windsor dairyman to constantly improve his herds—to keep only the finest milk cows—to insure cleanliness with the most modern equipment and methods of sanitation—to protect his investment by constantly improving the quality of his milk."

It will be noted that the advertisements of the Windsor Farm Dairy are all broken up into short paragraphs. This makes the ads more easy to read.

Another ad told of the value of milk for growing children. It said:

"Milk, the Children's Staff of Life!

"The springtime of youth demands food of the highest quality—a food that builds muscle and stimulates youngsters to their natural activity.

"In Windsor Milk you will find all the necessary proteins and butterfats that children need. The richness never varies.

"A trial of a single week will prove most convincing. Let our driver include your home in his regular call."

All the time the Windsor Farm Dairy is calling the attention to the value of milk as a food it is also stressing the fact that quality milk should be used. It is pointed out that, as in everything else, it pays to buy the best. An ad speaking of purity read as follows:

"Direct to Your Table Windsor Milk. Containing all the healthful properties of the fresh, full milk, as Nature intended.

"Pasteurized to insure its purity.

"Delivered in the early morning by healthy men who know their business. On your doorstep in sanitary containers.

"Uniform High Quality!

"A trial will convince you of the truth of these facts, for it has won much favor through its flavor!"

Some of the Windsor advertisements are made up of very little reading matter with the drawing used putting over the message in a telling manner. Not long ago the major portion of an ad of the firm consisted of a line drawing showing a family enjoying a meal with milk playing the leading role. "There's Health in Every Drop," appeared across the top of the drawing in large letters. The remainder of the reading matter said:

"The 'Regular' at Every Meal. Windsor Milk. Baby's Health Demands Pure Milk. You, Too, Need This, the Best of Nature's Foods. Drink a Pint Each Day—See Your Worries Melt Away. Be Sure It's Windsor."

The Windsor Farm Dairy ads are appearing regularly in the Denver newspapers and are a very good example of what may be done, not only in telling people of the value of milk as a food, but also in spreading the message of pure quality milk.

⁂

NEW DAIRY HOME AT ST. LOUIS WILL BE A HOME FOR EXHIBITIONS.

St. Louis, Mo., will soon have a permanent dairy home which will be located in the south central portion of Forest Park. Representatives of the city, chamber of commerce and the National Dairy Show Association are now considering the dairymen's proposal to build a $500,000 structure in the park.

The show, which is held each fall, would require use of the building for less than one-half of the year, and it is promised that for at least 30 weeks of every year the building, with 400,000 square feet of floor space, would be turned over to the city for use as an indoor civic center and for exhibitions and celebrations. Authorization for use of the park space must be given by an ordinance, to be passed by the board of aldermen and approved by the mayor.

Libby's
Libby, McNeill & Libby

This 800 gallon Milk Tank, mounted on a Fruehauf Trailer, is operated by Libby, McNeil & Libby of Chicago. Eight 10-gallon cans can be carried in the rack at each side of Tank

HAULING MORE MILK FOR LESS MONEY

Actual performance—seven days each week—this is the solid foundation of Fruehauf Trailer leadership in the low-cost haulage of Milk!

DO YOU want to settle this question of Milk haulage costs? Do you want to get your costs down to a figure that will exert a *tremendous upward pressure on your net profits?* Actual performance records of Fruehauf Trailers are available to you — the result of careful surveys made by a neutral Engineering firm. Send for them, without obligation.

When you invest in Fruehauf Trailers, you are assured of the satisfaction that is always enjoyed by those who purchase the best product in any line of merchandise!

FRUEHAUF TRAILERS

Oldest and Largest Manufacturers of Semi-Trailers, Four-Wheel Trailers and Adjustable Pole Trailers.

FRUEHAUF TRAILER COMPANY

BRANCHES AND DISTRIBUTORS IN ALL PRINCIPAL CITIES

10942 Harper Avenue Detroit, Michigan

When writing to FRUEHAUF TRAILER COMPANY *please mention The Milk Dealer.*

What the Courts Say:

By LEO T. PARKER. *Attorney at Law, Cincinnati, Ohio*

Facts That the Milk Dealer Should Know

Parker's Important Higher Court Decisions Report

IT IS true, indeed, that each month sees the settlement of new points of the law, as well as important variations of the established phases of the law.

Dairy Company Held to Be Common Carrier.

The recent decision of the Court of Appeals of Maryland in the case of West vs. Western Maryland Dairy, 135 Atl. 136, contains important information for various firms, particularly dairy companies which operate motor trucks.

The facts of the case are that the Western Maryland Dairy, Incorporated, was incorporated on the 31st day of March, 1914, under the laws of the state of Maryland, with its principal office located in the city of Baltimore. The company, pursuant to the authority conferred upon it by its charter, entered actively in the business of buying, pasteurizing, bottling, distributing, and dealing in milk and its products. In the conduct of its business it purchased its milk supply in Maryland and nearby states. Some of it was transported by rail and delivered to the company at the railway terminals in the city of Baltimore. Some was transported by motor vehicles, operated by individuals and companies on regular scheduled routes and delivered to the company at its plant in that city, while some was carried in the vehicles of the producers and delivered to the company at its plant.

These methods or means of transportation and delivery of the milk continued until the early part of the year 1925, when the Western Maryland Dairy determined to transport the milk by means of its own motor trucks. It bought out a number of individuals and companies, who were, at the time, transporting milk upon regular scheduled routes, and thereafter it carried the milk on those routes to its plant in its own trucks.

The record discloses that the milk consumed by the Western Maryland Dairy amounts to about 10,000,000 gallons per annum, and is one-half of all the milk used in the city of Baltimore. The farmers who produced the milk are members of an association known as the Maryland State Dairymen Association, and, with the exception of the milk consumed at their homes, the whole of their production is consigned to the association for sale, and is sold by it to dealers in milk, including the Western Maryland Dairy. In the sale of the milk, the association makes the arrangements and sells it to the dealers including the Western Maryland Dairy. In the sale of the milk, the association determines the price, as well as the terms upon which it is sold. The cost of transportation is borne by the shippers or producers of the milk, which ranges from 1½ to 4 cents per gallon, depending upon the length of the haul and the available transportation facilities from the point of shipment.

At least 76 per cent of the milk received by the Western Maryland Dairy is now carried to its factory in its own trucks operated on regular routes where the trucks call and get the milk of the producer from the same place at the same hour upon each of the scheduled days, but some of the milk consumed is still transported by railroads and by individuals and companies operating their trucks over regular scheduled routes. The amount bought is not ascertained and determined until it reaches the dairy plant, when it is inspected and weighed. If upon inspection it is found that the milk does not conform to the regulation of the Baltimore City Health Department, or if it is not acceptable to the dairy company, it is rejected and returned to the producer When the milk is carried by the dairy company in its own trucks to its plant, the quantity of milk is there ascertained. In its settlement with the producer for the milk bought of him the cost for transportation is deducted from the price of the milk at the plant.

The charge for transportation or "differential" as termed by the company, is fixed and established by dividing the route into zones and increasing the charge with the increased distance of the zone from the company's plant. When any part of the milk carried by the dairy company is known to have been lost or spilt in transportation, such part is accounted for to the producer.

In view of these facts the Public Service Commission sought to compel the Western Maryland Dairy to obtain a permit and license to operate its motor trucks **as a common carrier.**

As is well known the liability and financial risks of a common carrier are considerably greater than that of a private carrier. In other words, when operating its motor trucks as a common carrier the dairy company is liable **as an insurer** against all loss or damage of the product being hauled. Whereas a private carrier is liable for loss or damage to merchandise where the injury results through its failure to exercise ordinary care. Moreover, there are many other important reasons why it is more desirable and profitable for a dairy company to operate its trucks as a private carrier.

Therefore, the Western Maryland Dairy refused to obtain a common carrier license and permit from the Public Service Commission to operate its trucks, and filed suit asking the court to restrain the commission from causing the arrest of its truck chauffeurs, or otherwise interfering with the conduction of its business as a private carrier.

The lower court held the dairy company to be a private carrier, but the higher court reversed this decision and held the company legally a common carrier subject to the liabilities, rules and regulations governing all other common carriers.

This court rendered a lengthy opinion which, in part is as follows:

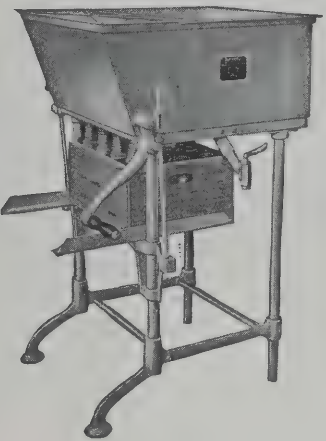
"It is difficult to determine with exactness just when the owner of a motor vehicle is operating as a common carrier, as that term is ordinarily understood in the law, but the courts have not been inclined to excuse the increasing numbers of those who earn their livelihood by transporting persons or goods for hire in motor vehicles from the responsibilities of common carriers simply on technical grounds, and they have been particularly slow to excuse them when their plan of operation bore evidence of being a studied attempt to reap the rewards of common carriers without incurring the corresponding liabilities.....It is, in fact, conceded by the appellee (Western Maryland Dairy) that with the

Are Your Bottle Fillers Always Ready and Efficient?

Single valve hand filler

DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION, INC.
ASSOCIATE MEMBER NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS

BESTOV BOTTLE FILLERS



4 valve filler, single end

n a range of sizes that will completely take care of the needs of he average milk dealer.

Bestov crate fillers are regularly made in 4, 9, and 17 valve izes. Then there is the single valve hand filler which is a great convenience for bottling cream, nursery milk, butter-milk, and for emergencies.

Only the best materials are used to build Bestov Bottle Fillers. Tanks are made of heavy copper, thickly tinned. Frames are substantially constructed of galvanized castings, enameled on all surfaces. Bestov Filler Valves never leak. Each valve is factory tested with fifty pounds pressure. The valves and valve seats are ground in. They fill the bottles perfectly, with no drip.

9 valve filler, double end

Such features make Bestov Bottle Fillers a source of great satisfaction to owners everywhere. They are an ideal investment for the milk dealer who does not want to go to the expense of power fillers.

Why not let us send you a complete bulletin describing thoroughly the many advantages of Bestov Bottle Fillers.

CHERRY-BASSETT COMPANY TRADE MARK BESTOV MILK PRODUCTS EQUIPMENT

PITTSBURGH
BALTIMORE

Cherry-Bassett Company

NEW YORK CITY
SYRACUSE

2324 Market Street, PHILADELPHIA, PENNA.

exception of the milk transported in its own trucks, the place of delivery was in Baltimore city and not elsewhere, and it is only as to the milk it carries in its own trucks that the claim is made that the milk is delivered 'f. o. b. place of origin',.....Under these and other facts mentioned, the conclusion cannot be properly reached that the milk when carried by the appellee (Western Maryland Dairy) was by the agreement of sale delivered to it 'f. o. b. place of origin'.....If the ownership of the milk was in the producer while in transportation, which we think it was, we cannot conceive upon what principle it could be held that the appellee in the operation of its trucks, in the manner stated, is not subject to the supervision of the Public Service Commission of Maryland.''

Therefore, the important point of the law involved in this case is that the Western Maryland Dairy purchased the milk f. o. b. the producers' farms, and in so doing it actually was hauling the milk, not for itself, but for the producers.

However, it is very doubtful that by changing the arrangements and purchasing the milk f. o. b. the dairy, it can avoid obtaining a license to operate as a common carrier, because the court anticipated this revision of their policy and said:

''In holding that the ownership in milk was in the producer we are not to be understood as holding that upon all the facts of this case the company would be exempt from the provision of said act if it was found that the title to the milk was at that time in the company.''

In the case of De Charette's Guardian vs. Bank of Shelbyville, 291 S. W. 1054, it was held that a cream separator is personal property to the extent that it does not legally become permanently attached to the rea property in which it is installed.

The facts of the case are that a cream separator manufacturer sold a separator to the owner of real property The separator was bolted to the floor. Later the purchaser became involved in legal difficulties and the manufacturer, not having received payment for the separator, desired to remove it from the building.

The owner of the building contended that the separator had been affixed to the real property and, therefore, was a part of it, for which reason the manufacture was not legally entitled to remove it.

However, the court in holding a cream separato personal property and removable from the building b its unpaid owner, explained the law on the subject a follows:

''The cream separator was bolted down with three eighths inch bolts, and, too, was easily removable without damage to the premises. In determining whethe fixtures are in law immovable or not, there are, as th parties to this appeal agree, three general tests; first annexation to the realty, either actual or constructive Secondly, adaptation or application to the use or purpose to which that part of the realty to which it is connected is appropriated. Thirdly, intention to make th article a permanent accession to the freehold.....It i public policy to permit the tenant for years or for lif to make the most profitable and comfortable use of th premises demised than can be obtained consistently wit the rights of the owner of the freehold....The millin plant and the cream separator were brought onto th place in connection with the dairy business which Mrs Henning was operating.''

Westerners Planning for Biggest Show Ever Staged

The staff which will handle the seventh annual Pacific Slope Dairy Show is rapidly being organized to stage the great dairy exposition in the Municipal Auditorium in Oakland, Calif., November 14 to 19 inclusive. Plans for the show were formulated at a meeting of the executive committee recently. Those in attendance were Sam H. Greene, Oakland; C. O. Hagen, Los Angeles; C. E. Gray, Berkeley; J. J. O'Neil, Oakland; Geo. W. Prising, Oakland; E. A. Greene, San Francisco, and Robert E. Jones, Oakland.

Superintendent of Dairy Products G. D. Turnbow announced the judges for the dairy products division as follows:

Milk—S. J. Pearce, Salt Lake City, Utah; H. E. Ball, Berkeley, Calif.; C. E. Tegner, Santa Monica, Calif.

Butter—G. H. Benkendorf, Modesto, Calif.; F. H. McCampbell, Sacramento, Calif.

Cheese—H. R. Lochry, Salt Lake City, Utah; O. A. Ghiggoile, Los Angeles, Calif.; C. A. Phillips, Davis, Calif.

Ice Cream—C. A. Phillips, Davis, Calif.; S. J. Pearce, Salt Lake City, Utah.

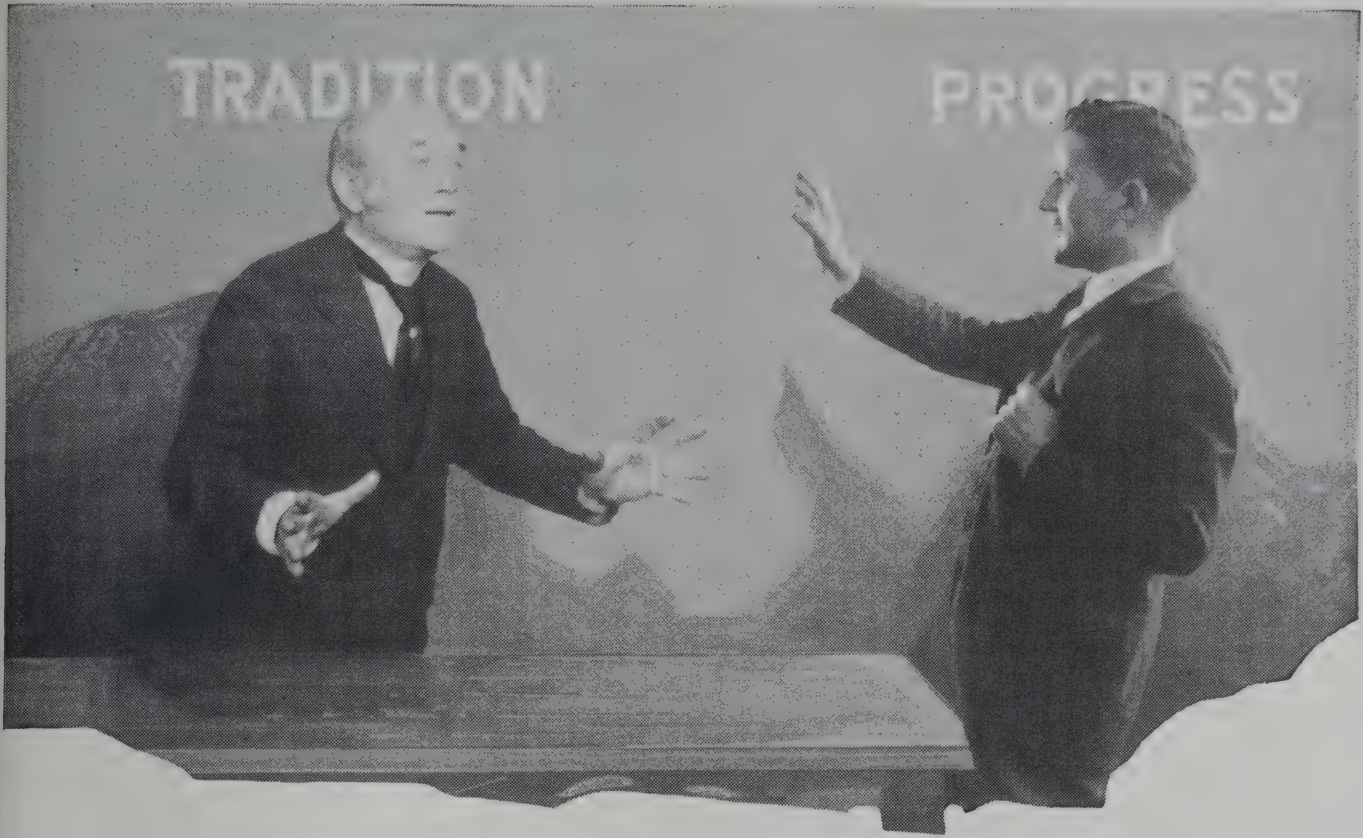
The live stock show will be under the general supervision of a special committee composed of R. A. Condee, Sam H. Greene, G. E. Gordon, W. M. Regan, with Superintendent Arthur Folger of Davis in active charge.

The premium offerings for dairy cattle total approximately $7,000. It is expected that the livestock committee will shortly announce the appointment of judges for dairy cattle.

More interest than ever before has been evidenced i the machinery exhibit due to the fact that the Pacifi dairy show's machinery exhibits in the past have bee second only to those of the National Dairy Expositio The following named organizations have already contracted for space this year:

Pfaudler Sales Co., San Francisco; Kemper-Thoma Co., Cincinnati, O.; Individual Drinking Cup Co., Easto Pa.; Dominion Chemical Co., Chicago, Ill.; Chr. Hansen Laboratory, Inc., Little Falls, N. Y.; Menasha Printin & Carton Co., Menasha, Wis.; J. B. Ford Co., San Francisco, Calif.; Pacific Coast Glass Co., San Francisc Calif.; Frigidaire Corporation, San Francisco, Calif York Products Corporation, Los Angeles, Calif.; Golde State Milk Products Co., San Francisco, Calif.; Co Products Refining Co., New York City; Jensen Creamer Machinery Co., Oakland, Calif.; Corbett & Langenhei San Francisco, Calif.; E. M. O'Donnell Copper Work San Francisco, Calif.; Nizer Corporation, San Francisc Calif.; Geo. W. Prising Co., San Francisco, Calif.; O. Weber Co., Los Angeles, Calif.; Creamery Package Manufacturing Co., San Francisco, Calif.; Toledo Scale C Oakland, Calif.; Douthitt Engineering Co., Chicago, Ill Joe Lowe Co., Los Angeles, Calif.; Crown Fruit & E tract Co., Watsonville, Calif.; De Laval Pacific Co., Sa Francisco, Calif.; Edward Ice Machine Co., Oaklan Calif.; Victor Cooler Door Co., Chicago, Ill.; Wells Richardson, San Francisco, Calif.; Mojonnier Bros., Ch cago, Ill., and Taylor Instrument Co., San Francisc Calif.

Lad Contrasts Size with Service.



"Here, Lad—

Your welded steel motor may be all right but I prefer to deal with heavily-manned organizations.

A big organization always does things in a big way."

"Yes, Pop—

but how big is big? When departments of a business get to be numbers on a sales chart — when the buildings of a business get to be like divisions on a real estate map — that's big all right — but it's far from personal — far from intimate with your little problems.

Now, while the "Linc-Weld" people are far from big compared with makers of EVERYTHING electrical — yet they ARE bigger than the biggest fellow when you take them on as motor specialists.

The bigness of any service consists in the amount YOU get out of it.

The "Linc-Weld" people make a motor in which you specify the results you want — rather than just another motor off the shelf.

And remember, Pop, that it isn't the size of a dog in a fight—but the size of the fight in the dog that counts."

The Lincoln Electric Co., Dept. No.25-9, Cleveland, Ohio

MA-22

"Linc-Weld"

LINCOLN MOTOR

When writing to THE LINCOLN ELECTRIC COMPANY *please mention The Milk Dealer.*

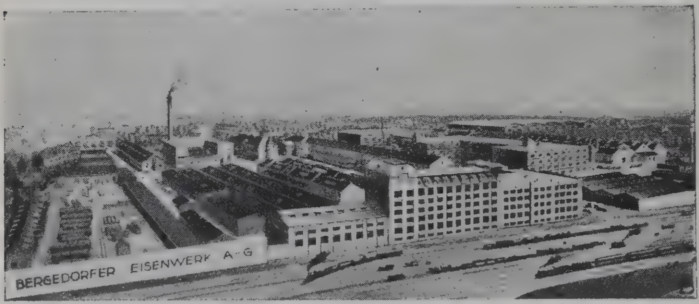
WAITING TO SHOW DELEGATES A GOOD TIME.

Hamburg, Germany, July 26, 1927.

Editor, Butter, Cheese & Egg Journal:

As I have had the pleasure to read the Butter, Cheese & Egg Journal for several years, it was not only by a mere chance that my eyes fell on your lines in the June issue regarding the World's Dairy Congress Tour.

You may take my assurance that it will be a sincere pleasure to us here in Europe interested in the dairy industry to be honored with the visit of our American colleagues. It is perhaps at the same time that human feeling of satisfaction when one thinks to have something worth showing and we hope you will have no reason to repent the time you sacrificed in crossing the sea.



Europe's Largest Dairy Machinery Plant.

The other day I encountered the manager of the biggest dairy machine factory on the continent, Mr. Prollius of the Bergedorfer Eisenwerk, the Astraworks, who received his engineering training in the States some thirty years ago after his university time in Europe. He told me that two years ago he had left for America for a business trip all around the States and his stay over there had really been a very happy time from all points of view. He only hoped that there would come a time when he might get the chance of returning all friendly kindness shown to him over in your country. As I am sure, there are several of his friends among your readers, they certainly will take the opportunity to call on him at Bergedorf, when they are passing Germany. It is a small picturesque town just a quarter of an hour from Hamburg.

The works are supposed to be the model of a modern European factory and, seen from the point that no other machines than those belonging to the dairy line are manufactured, the factory may be looked at as rather important even measured by American standards.

The work-shop floor space is about 80,000 sq. ft. and more than 2,000 employees are busy all the day turning out about 15 to 20 tons of first-class Astra machines each day. It is no wonder that nearly all dairies of any importance, be it butter and cheese factories or city milk plants, are installed by the Astra people. They will take pleasure in taking you to see the biggest combined churn and butter worker in the world, which has a total content of 2,800 gallons and turns out more than two tons of butter in one operation. Moreover, the biggest town dairies in Europe will be open for you and I am sure everybody will be proud to show you his own working field.

Yours very truly,
HANS E. MOTT,
Civil Engineer.

⁂

Success lies in doing little things well. "Milk Dealer" Want Ads are little things, but they carry big messages. Read them regularly.

MILK VERSUS CARBONATED BEVERAGES.

We are told that there is no danger from competition within our industry, but there is danger from competitive industries from without. The milk industry is going to feel forcibly the impetus of business that the carbonated beverage people are going to do. Health authorities are doing a wonderful work in promoting the use of milk as a food, but they cannot do it all alone and it sometimes looks like they have been deserted in the effort by the very people who should give them the most loyal support.

Carbonated beverages should never take the place of milk, yet each year we find the sale of these going over with a greater volume. Just take a casual glance at some of the advertising that is now being blazed before the public. It evidently pays to use publicity. If it were just the adult population that would indulge, it would not be such a serious matter, but every child in the country is drinking more of these beverages each year. No matter how small the town, you will find the little fellow on the corner with his so-called "pop stand." A child has a "saturation" point and when he is filled with carbonated beverage he is not going t drink his required amout of milk with any relish.

What would it mean to the dairy industries if al bottled beverages were a form of milk and why not Cannot someone in the industry make a wholesome healthful drink that will have a "competitive kick" and still be a milk product? If milk is really made t come first, it may require some touching up, to put i over with competitive products.

The dairy industry should not sit idly by and watc the American farmer feed his milk products to growing stock, while the children of our country are tryin to grow up on carbonated drinks.

You can't "tell" a child that milk is good for hi to drink. You must "make" it good for him. No chil eats ice cream because it is healthful, but because it i appetizing. Milk can be made just as attractive, with out affecting the ice cream business, but seriously affecting carbonated beverage business.

Chase Away Those Butter Substitutes.

The butter industry too must awaken to the fact tha substitutes are readily taking their place on the Amer can table. This condition should not exist—for th foundation of the nation's health is built on dair products.

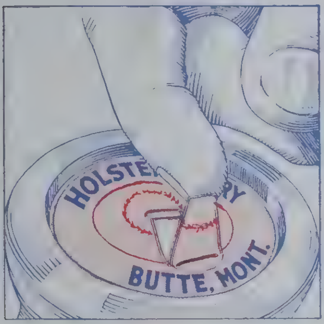
Many housewives are mixing one pound of butte and two pounds of substitute and are elated over th fact that the family cannot detect the deed. The dair industry cannot afford to let conditions of this kind co tinue. Butter contains certain vitamines that are esse tial to good health. Especially is this true of children- the butter gives them a better resistance to disease. Th wise mother does not become impatient when her chil insists on a liberal amount on his bread. She gladl spreads it on, content in the knowledge that the groce will get the money instead of the doctor.

In the long run, who will profit by false economy food products? The medical profession to be sure. is a much better practice to pay for wholesome butte and let the family use it extensively, happy in th knowledge that they are getting the necessary vitamine

Butter men must get people to thinking about th value of butter or these substitutes will affect the i dustry.

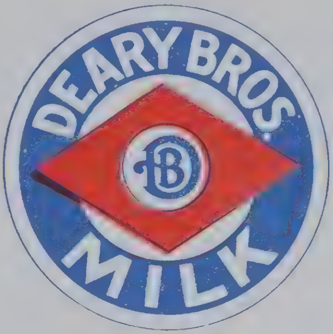
Ignorance of food values has brought about th condition and it will require educating the consumer to its value. as the only method of correcting condition

SEALRIGHT Meets Your Every Bottle Cap Need



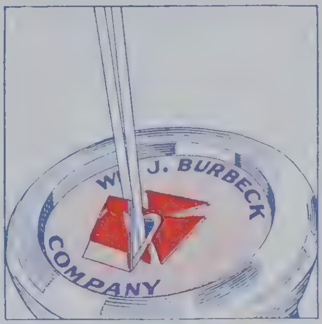
The Sealright Liftright Cap

THE NEW, exclusive patented groove makes it easy as ABC to lift tab and remove cap in a jiffy. No spilling—no mess—no opener to misplace. Has same clean-cut edges as all Sealright Caps.



The Sealright Regular Standard Cap

THE BEST and biggest selling "regular standard" cap in the world. Like all Sealright Caps, made from celebrated Fulton Board. Never gets "soggy" or "leathery" and always looks neat and attractive.



The Sealright Pouring - Pull Cap

HAS THE same patented groove as the new Liftright Cap. There is an opening in the Cap for inserting straw or pouring without removing cap from the bottle. Ideal for use in home, school and restaurant.

Now Three Famous Caps under One Famous Name

WITH the new, patented Liftright Cap added to the Sealright Family, there is now a Sealright Cap for every bottle cap need. Whatever type of cap you prefer, you can now use a Sealright and secure the full benefits of the big national advertising campaign behind Sealright Caps. Remember that Sealright advertising, year-in year-out, urges the use of more milk as well as the popular advantages of Sealright Caps. That's why it pays to use Sealrights. Write today for Free Samples of the three greatest caps in the dairy industry.

SEALRIGHT COMPANY, INC., *Dept. MD-9*, FULTON, N. Y.

Write today for Free Samples

"KEEPS THE GOODNESS IN AND THE FINGERS OUT"

SEALRIGHT
MILK BOTTLE CAPS

See also pages 164-165 in Olsen's Dairy Industries (Condensed) Catalogs.

When writing to SEALRIGHT COMPANY, INC., *please mention The Milk Dealer.*

Howell Red Band motors cost no more than ordinary motors. For complete information get in touch with the Howell representative in any of the principal cities

WATER *and* MOISTURE *Proof!*

The water-proof test! Will your motor pass it? If you are using Howell Red Band motors you need have no fears.

Under tests like the one shown here, Howell Red Band motors came through 100%—for Howell motors will run for days completely submerged in water.

Double cotton covered enameled insulation—one of many exclusive Howell features—takes care of that.

Won't you let us demonstrate to your satisfaction why we say "give Howell Red Band motors your hard jobs"?

Howell Red Band motors are sold, serviced and carried in stock within easy delivery distance everywhere.

(101)

HOWELL ELECTRIC MOTORS COMPANY
Howell, Michigan

Howell RED BAND ELECTRIC Motors

When writing to HOWELL ELECTRIC MOTORS COMPANY *please mention The Milk Dealer.*

Ultimate Perfection in Bottle Making

BB
48

5
W

FROM top to bottom every Berney-Bond-Winslow milk bottle displays care and skill in manufacture—represents the final achievement in bottle making.

These crystal clear bottles display milk as it should be—appetizing, rich and creamy—not weak, watery blue. The attractive, graceful designs make a pleasing package—tireless salesmen working for your interests.

We go beyond ordinary care and test our bottle moulds at least four times daily to assure that every bottle is up to Berney-Bond-Winslow specifications. You and your customers are protected against long or short measure when your bottles bear the Berney-Bond-Winslow mark.

Built to Stand Knocks and Reduce Replacement Costs

Reduce replacement costs with Berney-Bond-Winslow bottles. They are built to stand even more than the ordinary knocks that every milk bottle gets. Heavy, well formed heads obviate chipping—evenly formed glass at shoulder protects against impact—arch-like thickening at base absorbs heavy blows without damage. Every bottle is scientifically annealed and continuous testing makes the bottle bearing this famous brand the ultimate perfection in bottle making.

Ask for a stock bottle for your inspection. Note its perfect finish, snug cap fit, sturdy appearance. Test it in every way you desire then write us for quotations on your requirements.

Wide variety of styles and shapes offered for your selection — all of them with the Berney-Bond-Winslow features of superiority.

ONE PINT
LIQUID
BB 48 - W

Meet us in Booth 404 at the Dairy Industries Exposition, Cleveland, Ohio. October 24-29, 1927.

Milk for Health—in a Bottle for Safety

BERNEY-BOND GLASS COMPANY

Offices: Columbus, O., Clarion, Penna. *Factories:* Clarion, Penna., Columbus, O., Hazelhurst, Penna.

B R A N C H E S

NEW YORK CITY
Hudson Terminal Bldg.
50 Church St.

PHILADELPHIA
Abbott Bldg.
Broad & Race Sts.

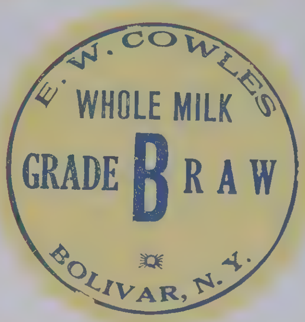
DETROIT, MICH.
16206 Warwick Road

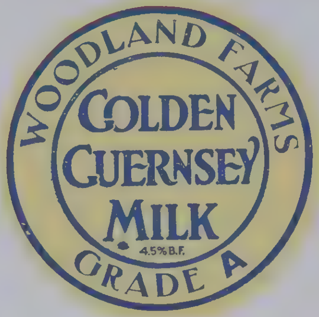
CHICAGO, ILL.
1030 N. LaSalle St.

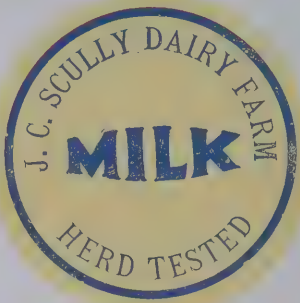
BOSTON, MASS.
170 Summer St.

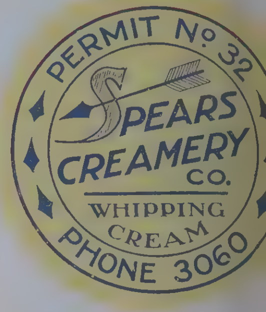
WASHINGTON, D. C.
700 Fourth St., N. E.

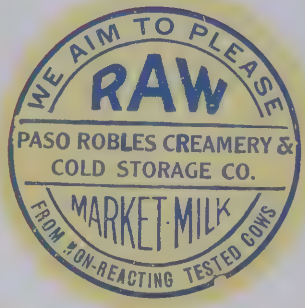
When writing to BERNEY-BOND GLASS COMPANY *please mention The Milk Dealer.*

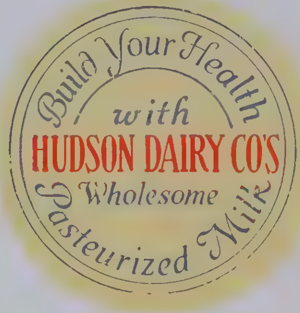

E. W. COWLES
WHOLE MILK
GRADE B RAW
BOLIVAR, N. Y.

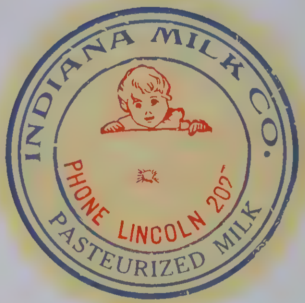

WOODLAND FARMS
GOLDEN GUERNSEY MILK
4.5% B.F.
GRADE A

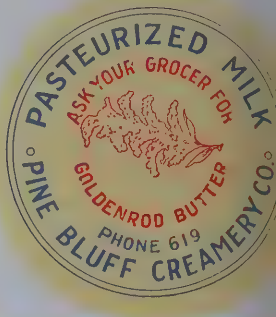

J. C. SCULLY DAIRY FARM
MILK
HERD TESTED

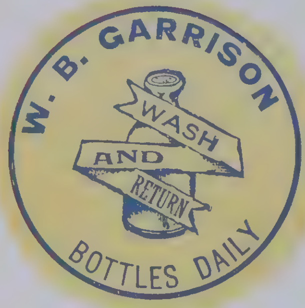

PERMIT No 32
SPEARS CREAMERY CO.
WHIPPING CREAM
PHONE 3060

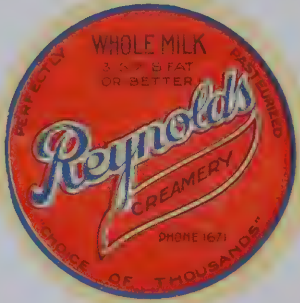

WE AIM TO PLEASE
RAW
PASO ROBLES CREAMERY & COLD STORAGE CO.
MARKET MILK
FROM NON-REACTING TESTED COWS


Build Your Health
with
HUDSON DAIRY CO'S
Wholesome
Pasteurized Milk


INDIANA MILK CO.
PHONE LINCOLN 202
PASTEURIZED MILK


PASTEURIZED MILK
ASK YOUR GROCER FOR
GOLDENROD BUTTER
PHONE 619
PINE BLUFF CREAMERY CO.


W. B. GARRISON
WASH AND RETURN
BOTTLES DAILY

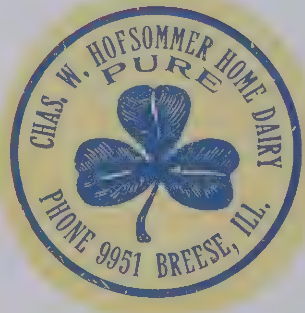

WHOLE MILK
3.5% B FAT OR BETTER
PERFECTLY PASTEURIZED
Reynolds
CREAMERY
PHONE 1671
CHOICE OF THOUSANDS

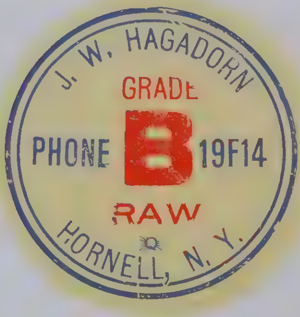
The Toledo-Baltimor

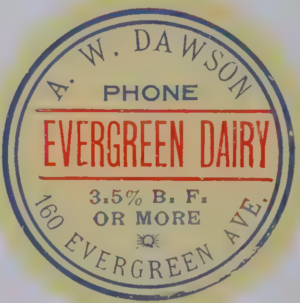
TOLEDO, OHIO

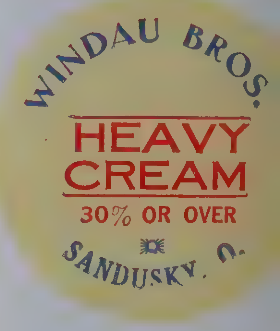
"Quali

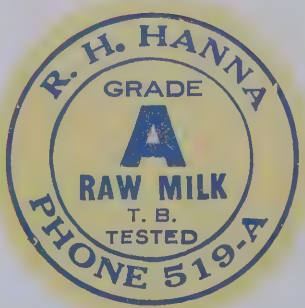
We advertise your business for you

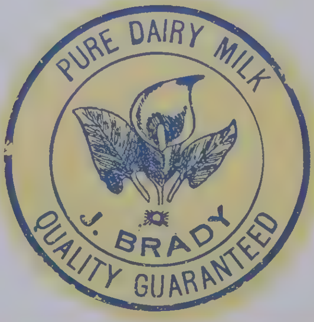

CHAS. W. HOFSOMMER HOME DAIRY
PURE
PHONE 9951 BREESE, ILL.

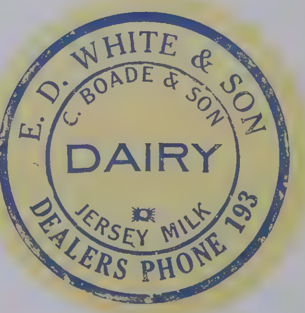

J. W. HAGADORN
GRADE
PHONE B 19F14
RAW
HORNELL, N. Y.

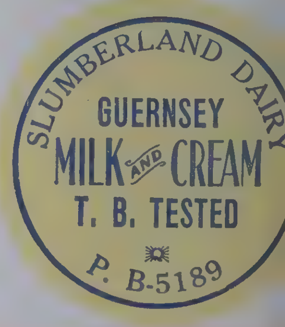

A. W. DAWSON
PHONE
EVERGREEN DAIRY
3.5% B. F. OR MORE
160 EVERGREEN AVE.


WINDAU BROS.
HEAVY CREAM
30% OR OVER
SANDUSKY, O.

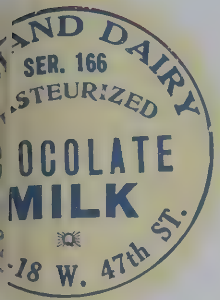

R. H. HANNA
GRADE
A
RAW MILK
T. B. TESTED
PHONE 519-A

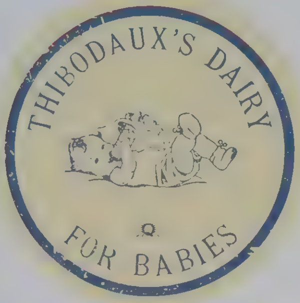

PURE DAIRY MILK
J. BRADY
QUALITY GUARANTEED

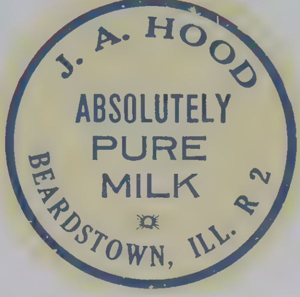

E. D. WHITE & SON
C. BOADE & SON
DAIRY
JERSEY MILK
DEALERS PHONE 193

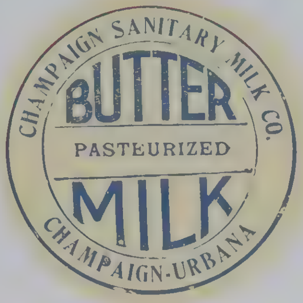

SLUMBERLAND DAIRY
GUERNSEY
MILK AND CREAM
T. B. TESTED
P. B-5189

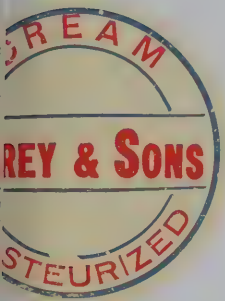
When writing to THE TOLEDO-BALTIMORE BOTTLE CAP COMPANY *please mention The Milk Dealer.*

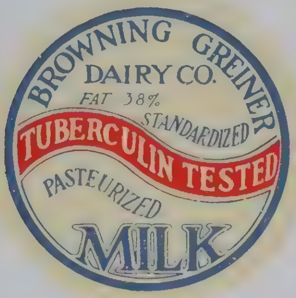

AND DAIRY
SER. 166
STEURIZED
OCOLATE
MILK
-18 W. 47th ST.

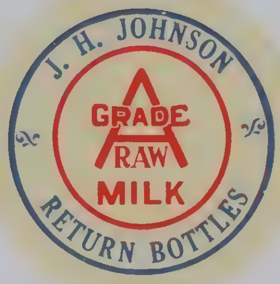

THIBODAUX'S DAIRY
FOR BABIES

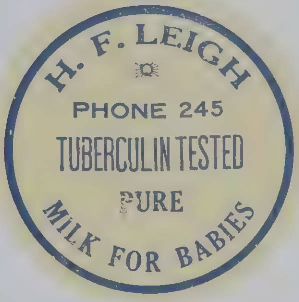

J. A. HOOD
ABSOLUTELY
PURE
MILK
BEARDSTOWN, ILL. R 2


CHAMPAIGN SANITARY MILK CO.
BUTTER
PASTEURIZED
MILK
CHAMPAIGN-URBANA


CREAM
REY & SONS
STEURIZED


BROWNING GREINER
DAIRY CO.
FAT 38%
STANDARDIZED
TUBERCULIN TESTED
PASTEURIZED
MILK


J. H. JOHNSON
GRADE
A
RAW
MILK
RETURN BOTTLES


H. F. LEIGH
PHONE 245
TUBERCULIN TESTED
PURE
MILK FOR BABIES

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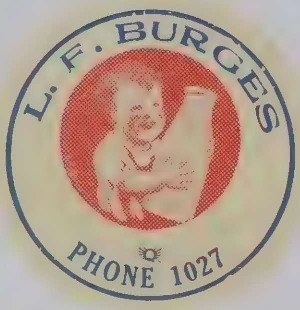
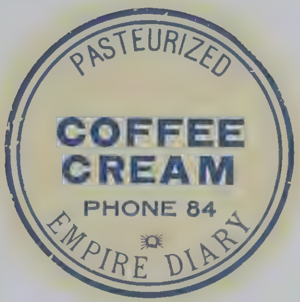
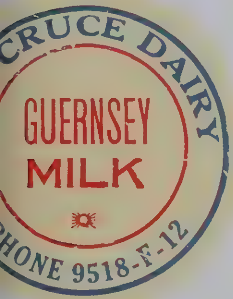
1345 Miami Street

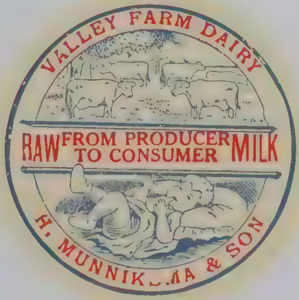
ttle Caps”

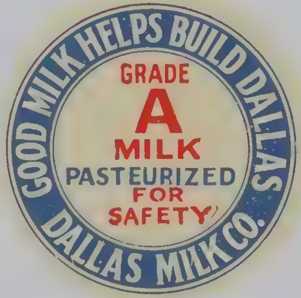
Makers of Bottle Caps
for Progressive Dealers

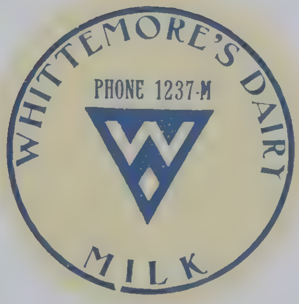

L. F. BURGES
PHONE 1027

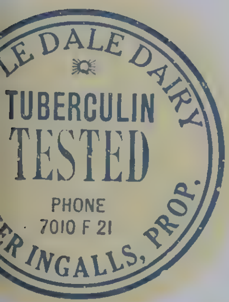

PASTEURIZED
COFFEE
CREAM
PHONE 84
EMPIRE DIARY

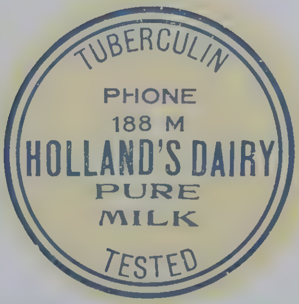

CRUCE DAIRY
GUERNSEY
MILK
HONE 9518-F-12

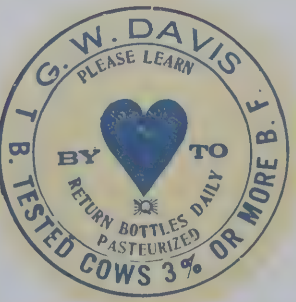

VALLEY FARM DAIRY
RAW FROM PRODUCER TO CONSUMER MILK
H. MUNNIK[illegible]MA & SON

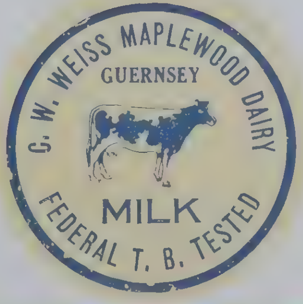

GOOD MILK HELPS BUILD DALLAS
GRADE
A
MILK
PASTEURIZED
FOR
SAFETY
DALLAS MILK CO.


WHITTEMORE'S DAIRY
PHONE 1237-M
W
MILK


LE DALE DAIRY
TUBERCULIN
TESTED
PHONE
7010 F 21
ER INGALLS, PROP.


TUBERCULIN
PHONE
188 M
HOLLAND'S DAIRY
PURE
MILK
TESTED


G. W. DAVIS
PLEASE LEARN
BY
TO
RETURN BOTTLES DAILY
PASTEURIZED
T. B. TESTED COWS 3% OR MORE B. F.


G. W. WEISS MAPLEWOOD DAIRY
GUERNSEY
MILK
FEDERAL T. B. TESTED

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The BEST BULWARK
CLEARNESS
ACCURACY
STRENGTH

CLEARNESS

—that the customer may see the quality of milk you are distributing.

ACCURACY

—that the customer may get the amount that he or she buys.

STRENGTH

—that the bottle may last the dealer as long as possible. Bottle loss is one of the milk distributor's problems. Less breakage, less cost.

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Milk
Bottles

ATLANTIC BOTTLE CO.

FACTORY: BRACKENRIDGE, PA.

90 W. Broadway, New York **327 S. La Salle St., Chicago**

See also page 193 in Olsen's Dairy Industries (Condensed) Catalogs.

When writing to ATLANTIC BOTTLE CO. *please mention The Milk Dealer.*

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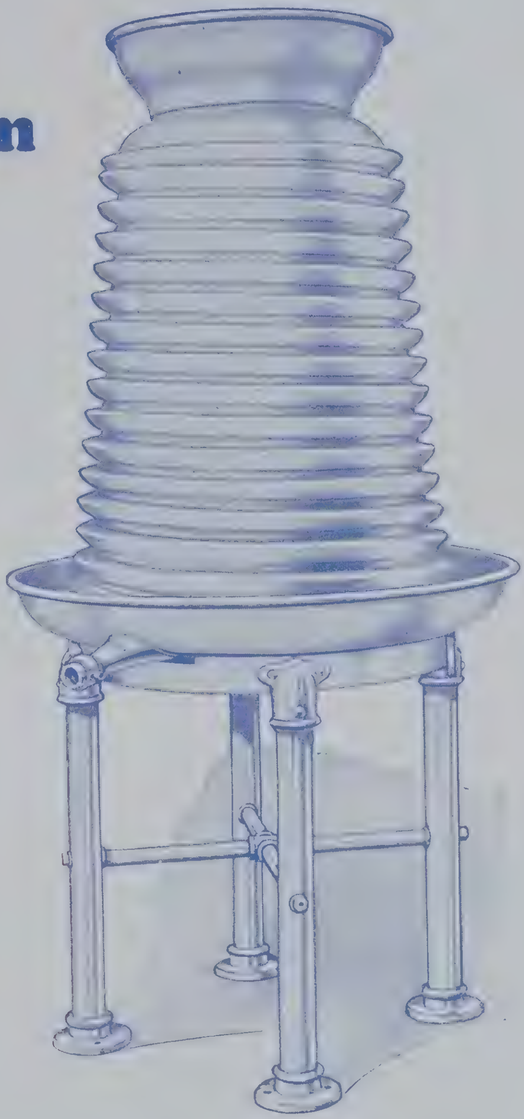
Chilly King Milk and Cream Coolers

Unexcelled for the cooling of Fluid Milk, Heavy Cream and Pasteurized or Homogenized Ice Cream Mix.



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1,000 to 10,000
lbs. per hour.

Also manufacturers of MILLER BRINE ICE CREAM FREEZERS, MILLER PASTEURIZERS, AUTOMATIC MILK HOLDING MACHINES, VATS, TANKS, M&M BOTTLE WASHERS, ETC.

Please Ask for Bulletin and Prices

See also pages 138-139 in Olsen's Dairy Industries (Condensed) Catalogs.

U. K. Milk Coolers

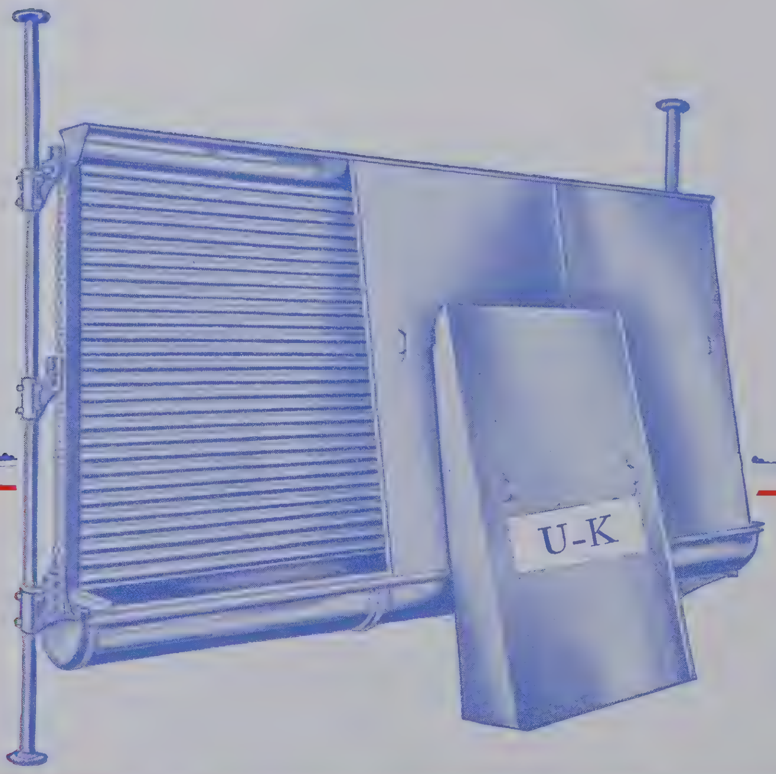
CHECK BACTERIAG ROWTH

Uhlmann-Kinsey Co.
Incorporated
PHILADELPHIA, PENNA.

THE U. K. system of cooling makes the milk take an immediate drop in temperature after pasteurizing, and puts a positive check to renewed growth of bacteria. The bottom tube, immersed in milk ready to leave the cooler, is the first to receive the cooling medium and gives the milk an extra drop in temperature to hold over until it reaches the storage tanks or filling machines.

All tubes in U. K. Coolers are seamless and made of 18 gauge copper heavily tinned inside and outside. They are sweated into position on the manifolds to make them leakproof and add strength. ∴ ∴ ∴ ∴

Extra large manifolds or end pieces insures a steady flow of the cooling liquid to give you full benefit of the brine or spring water used. U. K. Coolers are guaranteed to withstand a pressure of 150 pounds. Write for booklet giving complete details. ∴ ∴



U. K. Coolers are made in a small size for farms, standard size for milk or ice cream plants, and a giant size for large dairies. Any size, any capacity, or any combination of sections can be built for your needs.

UHLMAN-KINSEY CO.
INCORPORATED
25-27-29 South 20th Street
PHILADELPHIA, PENNSYLVANIA

When writing to UHLMANN-KINSEY CO., INC., *please mention The Milk Dealer.*

ORE PROTECTION FOR THE MILK CONSUMER.

Until recently, in New Haven and in many other aces in the state of Connecticut, restaurants, lunch- oms and drug stores have been buying milk in 10 40-qt. cans to be handed out to the customer by glass pitcher. It has frequently been the practice to fill e glass or pitcher by dipping the milk with a ladle or her utensil directly from the can to the glass. In her instances the milk has been poured from the can to a milk pump and from there to the glass.

This practice has two glaring faults. First, there is nsiderable exposure of the milk between the can and e glass. Milk can be easily contaminated by the per- on working with it. There is also a good opportunity r dust, dirt and flies to infect the product. Secondly, ilk dispensed in this fashion cannot be kept well mixed. hose served from the top of the can will get rich ilk and those who happen to order milk when the can ets low are likely to get nothing but skim milk.

For these reasons, the state dairy and food commis- ion presented to the last legislature a bill making it llegal to serve milk from restaurants and other places f public entertainment, except in the original package eceived from the dairyman or milk dealer. The chief riticism to this bill before its passage was that it would ncrease the cost to the consumer from five to ten cents glass. As a matter of fact the price at most places s ten cents and if it should cost a little more the added leanliness and assurance of a satisfactory cream con- ent would be well worth it.

The bill passed and became effective July 1. The ection under discussion reads as follows:

> "Milk, when served by any hotel, restaurant, lunchroom, ountain or other place of public entertainment, shall be erved in the original bottle, the cap of which shall not be emoved except in the presence of the consumer or patron, ut this provision shall not apply to cream so served." Sec- ion 2, Chapter 232, Public Acts of 1927.

There has apparently been considerable question among restaurants and lunchrooms as to just what this law covers. The interpretation of the commissioner of dairy and food clears up a number of points. This law does not include the serving of cream or buttermilk. It does not include the small amount of milk that may be served with coffee and tea. It does not include soda fountain milk drinks so long as these beverages have something in them besides milk.

On the other hand, milk is not to be served with cereals, crackers, etc., unless the milk is served in the original container. It is perfectly proper in hotels, for example, for the waiter to bring in the milk in the original container to the customer and then pour it into a glass or pitcher.

Dealers in New Haven are prepared to sell milk in pint and half-pint bottles to the restaurants and lunchrooms for this purpose.

While there has been some confusion and misunderstanding both on the part of the general public and the managers of food and drink selling places relative to this law, it is expected that within a very short time this new regulation will be in satisfactory operation in New Haven.—New Haven, Conn., Department of Health Bulletin.

⁂

According to a statement issued recently by the National Automobile Chamber of Commerce 82 per cent of all the trucks used in business in the United States are owned by the shippers who use them.

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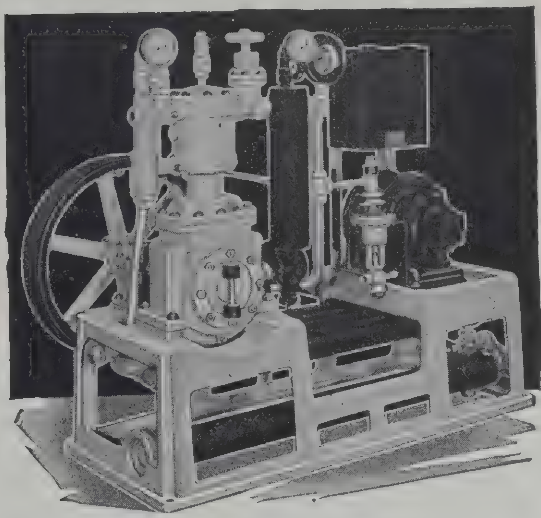

No More Hot Weather Worries!

Hot weather, worries not, the Milk Dealer who has installed Rome Refrigeration. For the Rome requires no more of his time with the thermometer at 100 than it does during the winter. And its Automatic operation means the very minimum of time spent at any period of the year.

All of the best principles evolved in 50 years of mechanical Refrigeration are incorporated in the Rome, there are none better or more modern. The details, including an outline of our liberal payment plan, will be sent you on request. Mail the coupon now, don't delay a day!

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Refrigeration Dept. • Rome N. Y., U. S. A.

ROME MANUFACTURING CO.,
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MD

FLAVORS in MILK

Their Causes, Reactions, Preventions and Effect Upon the Trade and Consumption of Milk

Information Distributors Should Impart to Producers

By WM. H. E. REID, *Associate Professor Dairy Manufactures, University of Missouri, Columbia, Mo.*

(Continued from the August Issue)

IN a great many cases milk becomes flavored from sources other than bacterial infection. It is well known that milk readily absorbs any volatile substance with which it comes in contact. It is sometimes thought that flavors occurring in milk are due to this absorptive capacity rather than the growth and development of the various fermentative organisms. While the facts may seem absurd, still it must be understood that the principle does operate to a considerable extent and off flavors are often produced through these physical processes. Milk possesses the absorptive property to a marked degree, for not only does the fluid serum absorb volatile flavors, but the fat also has a great attraction for these substances. Besides the flavors absorbed subsequent to milking, milk invariably has a more or less pronounced flavor that is derived directly from the cow. While not too much is known concerning the nature of these peculiar flavors, it is obvious that they exist and are imparted to the milk. When animals consume feeds that are rich in any particular flavor, it is imparted to the milk. The flavor of onions and many of the other highly flavored feeds can be recognized on the breath and in the milk within a very short time.

This diffusion through the system of the cow by means of circulation and subsequent absorption by the milk makes it necessary to use considerable care in feeding certain feeds that contain these flavors to cows whose milk is to be used for direct consumption.

It has been observed that regardless of the feeds used and the care taken each cow imparts to her milk a more or less individual taste. Cows receiving the same kind of feed and flavor develop bitter, salty, strong, or flat flavored milk as well as milk having a very pleasant flavor. The absorption of pre-existing flavors may be attributed to one of three causes, namely, the internal or physical condition of the cow, those absorbed within the body of the cow from highly flavored feeds, and those absorbed into the milk after production.

The occurrence of bitter milk is often associated with the feeding of certain substances, notably mouldy or decomposed fodder, beets and turnip leaves, raw potatoes, etc. The use of mouldy or decomposed straw for bedding gives the same results, which is believed to be due to an organism present on these materials which get into the milk.

If milk is stored in rusty cans until a certain degree of acidity develops, it acquires a bitter taste, due to the formation of iron acetate.

Fishy flavored milk comes from cows near the end of lactation. This off-flavor is believed to result from feeding fish meal or grazing cows on marshes subject to overflow with salt water. The milk may also acquire a fishy flavor from milk utensils which have not been cleaned or rinsed of soap, or it may result from rusty cans.

Undesirable feed flavors are caused from a number of different feeds. Some of the most common ones are silage, turnips, green alfalfa, beets, ragweed, early pasture and garlic. An interesting fact in connection with garlic is that it does not need to be injested by the animal to secure the flavor. Experiments show that the flavor of garlic is found in the blood of the animal as the result of inhalation in from ten to thirty minutes after inhalation. Garlic flavor occurs quite often in the spring of the year. This is because the cows feed on the onions, which are one of the first plants to start in the pasture in the spring. The trouble with garlic is not likely to last very long, as it is cropped off early and is replaced with grass which is eaten by the cows in preference to the onions.

As milk is exposed during the milking process and often after it has been drawn into an atmosphere that contains odors of an undesirable character, it may contract flavors by direct absorption. The peculiar stable odor is due to the volatile products that are escaping from decomposed or decomposing manure, or fermenting foods and exhalations from the animals in the barn. Under ordinary conditions the barn air is saturated with these products, and even in a well ventilated barn where considerable care is taken to purify the air they persist to a greater or less degree in spite of all efforts. There are many feeds that impart the characteristic flavors to milk, among which are silage, beets, turnips, cabbage, carrots and others. This is not ordinarily due to the ingestion with the substances of the feeds that are responsible for the flavors and their elimination with the milk through the udder, but to the absorption by the milk of the flavors of the feeds from the air in the stables.

Milk sometimes acquires flavors through the process of removal of other flavors. During the process of pasteurization, under the supervision of some inexperienced person, the milk may be heated too much, thus imparting to it a cooked or scorched flavor. This is not a serious flavor, but like all other flavors have its influence upon the consuming public. Pasteurization may disguise faulty milk, but will not improve it. In the end the pasteurized flavor will be worse. Heating too long causes the cooked flavor, while heating too rapidly gives the scorched flavor.

Milk may apparently have a good flavor when bottled for delivery, but after a while there may develop a musty flavor. This is caused by improperly paraffined caps, the flavor resulting from the contact of the milk with the caps. It is also associated with milk that has been held in damp, unventilated places at a low temperature for a period of time.

Pasteboard flavors may be noticed in milk which has been heated or allowed to stand in bottles without removing the cap. Where the cap is not sufficiently paraffined this flavor is imparted, but it is very volatile and is not considered a serious fault.

Tallowy or candle-like flavored milk is sometimes observed and is caused by exposure of the milk to sunlight. Milk exposed to sunlight in dark bottles will not show it. Oftentimes the housewife leaves the milk setting on

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EUROPE

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FREEDOM from humdrum routine; social prestige; educational benefits; and the sheer thrill of adventures in strange lands, await the members of the World's Dairy Congress in Europe. This glorious vacation begins at New York, on June 9, 1928, the day on which American dairymen, their families and friends, will board the magnificent, luxurious S. S. Leviathan for Cherbourg.

Our main mission in Europe is, of course, to attend the World's Dairy Congress, the greatest international convention in the history of dairying, to be held in London, June 26 until July 4.

The Congress has been arranged to allow time for a ten day tour before it opens. An interesting itinerary has been prepared by the American Express Company, which begins immediately upon our arrival at Cherbourg, on June 15.

Paris? Paris—of course! That is our first stop. Then through the smiling land of France. We visit historical Brussels. A trip of exceptional interest to us dairy men will be taken by steamer from Amsterdam, to the quaint Isle of Marken, and through Volendam, Edam and Monnikendam, the dairy and cheese-making country. This pre-convention tour terminates upon arrival in London, just in time for the first meeting of the Congress.

Fascinating post-convention tours have been arranged, all moderately priced, with an eye to giving us the best in travel, in comfort, in enjoyment, and the most for our money.

There is one post-convention tour to Germany and the Scandinavian countries.

Another tour takes in Switzerland, the Alps, Italy, Venice, Florence, Rome, Nice and Lake Geneva.

It is not too early to make arrangements for your trip NOW. Remember, "THE EARLY BIRD GETS THE BEST RESERVATIONS!"

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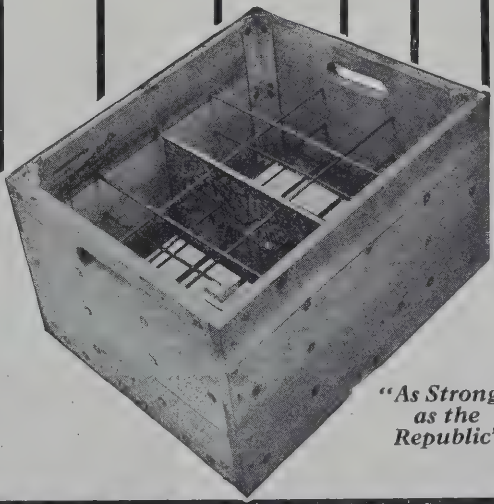
Bang—
Bump—

REPUBLIC
BOTTLE CRATES
WILL STAND IT!

THROUGH the washer, jarred along on conveyors, bottles dropped and bumped into place, jammed into a wagon or truck, pushed from place to place—that's all in a day's work of hard knocks for Republic Bottle Crates. The sturdy, rugged construction of these crates reinforced with the extra-service metal, "Toncan," will withstand these jars and shocks, and come out on top for another day's work long after others must give up.

A high grade crate at a price you can afford. Write for our prices and quantity discounts.



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CLEVELAND - - OHIO

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are the best evidence of a good product

New York Pattern

Some of the firms to whom we supplied cans this year have continuously used K-W products ever since the Keiner Williams Stamping Company was first established.

Today such a record means something. Folks don't go on year after year buying the same brand of can unless they are convinced that it's the best they can get.

K-W Milk Cans

We are going to make sure that K-W cans always are the best articles of their kind that you can get. Whenever we can find a way to improve K-W cans—to give them greater durability and longer life—that improvement will be made.

K-W cans are quality cans produced at low price through quantity production methods, under rigid supervision.

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Jersey Pattern

the porch for a while after it is delivered, but ordinarily the producer will receive the blame for the thing h could not prevent, and which was not his fault.

Gasoline and kerosene flavors are very objectionable They are usually attributed to having gasoline and kerosene in the milk utensils, which have not been thoroughly cleaned. The flavors may also be absorbed from the air that is saturated.

Metallic flavors are usually due to a chemical reaction, which is influenced by light, air or heat. It may be an oxidation process facilitated by copper, iron metallic alloys, or their salts acting as catalyser. Acid assists in the reaction, but is not necessary. It is also caused by the use of rusty or poorly tinned utensils, and by the action of bacteria as was already mentioned.

Oily flavors are either due to some fault of the fat of the milk, or are absorbed. The more solids there are in proportion to the fat, the less likely the oily flavor is to appear, especially in pasteurized milk, since the casein protects the fat globules during heating. Other sources of oily flavors are those that result from the use of too much oil on the separator or other equipment and it gets into the milk.

Having briefly described in a general way the origin of the various flavors that are to be found in milk from time to time, the practical question arises as to how these difficulties can be overcome, if they are present. Often little or no attention is given to the conditions that may result in off-flavors so long as the milk supply is normal It seems that only when the trouble arises that steps are taken to abolish the cause. If the milk dealers could realize that prevention is worth more than cure, he could see the necessity of understanding the conditions that surround the defect. The first step is to accurately determine the cause of the difficulty, because successful measures cannot be conducted against the cause unless it is known.

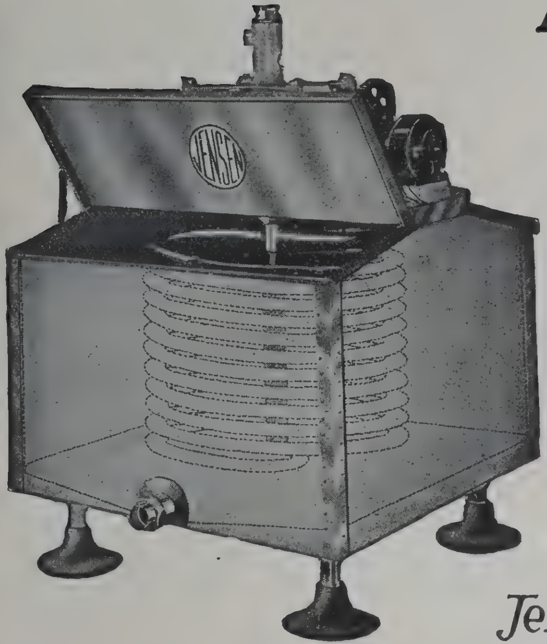
From the foregoing material the milk producer can easily determine whether the defect is a living organism or whether it is the result of some physiological disturbance of the animal or whether it is due to direct absorption. If the flavor is due to some abnormal fermentation, it may be treated by two general methods Eradication, by eliminating the inciting cause, and by chemical disinfection. Many of the bacteria producing a flavor in milk have several sources. The most likely sources of infection of this character are those that are due to contamination from water supply, hands of the milker, cans, pails, coolers, and other utensils, transportation, air and dust from the stables, bottles, and from the cows. Cleanliness is a vital matter to consider in the production of wholesale milk. When dirt gains entrance to the milk, it may impart an undesirable flavor. It further contaminates the milk with many species of bacteria which ferment the milk constituents decomposing one or more of the constituents, producing off-flavors.

In order to avoid unnecessary contamination of milk it should be produced and handled under strictly sanitary conditions. The barn yard should be kept dry and free from manure so that the cows are not compelled to wade in mud before they enter the stables. The stables must be kept free from accumulation of dirt and the manure should be removed daily. The bedding must be clean and the stable sufficiently ventilated to eliminate all odors. Sprinkling the floors just previous to milking prevents excess dust in the air. Brushing and grooming the animals to remove all loose hair and moisten the parts to prevent the dust particles from falling, will materially diminish the danger of contamination, and

Overcome Your Sweet Cream Troubles

By Preventing

Air Incorporation



and you not only eliminate bacteria, mold, and yeast, but also those undesirable CHEMICAL changes created by the GASES and AIR.

The REVOLVING VERTICAL COIL, rotating from the bottom upwards, cannot produce FOAM, but on the contrary, works the AIR and GASES out, breaking up and destroying all FOAM FORMATION.

COIL is suspended within a pure nickel, glass or tinned copper lined vat from which objectionable stuffing boxes have been eliminated, removing the principal source of BACTERIAL CONTAMINATION.

SUSPENDED TWIN COIL POSITIVELY INSURES UNIFORM TEMPERATURE whether vat is full or contains only a small quantity of product.

Can be supplied in Pure Nickel, Glass-lined or Tinned Copper construction.

Write for Bulletin No. 29-B

Jensen Creamery Machinery Company

Bloomfield, N. J. **Oakland, Calif.**

Reduce Bacteria Count

by Sterilizing with

M-C

All spoilage and off-odors in milk and milk products are traceable to bacteria, yeasts and molds.

This illustrated booklet tells how leading Dairies, Milk Plants, Creameries, Cheese Factories, Condensaries and Ice Cream Manufacturers use *M-C* to combat these invisible enemies.

The booklet is FREE.

Your Copy is Ready

SCIENTIFIC CLEANING AND STERILIZING
IN
DAIRIES, CREAMERIES, CONDENSARIES, ICE CREAM PLANTS, CHEESE FACTORIES AND FOOD PRODUCT PLANTS

MOLD-CIDE is a Sodium-hypochlorite solution that may be used during your daily clean-up. Simply put a diluted solution in your rinse water or apply it with a spray—no extra work—inexpensive—harmless to either Product or User.

The Valhalla Company

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THE VALHALLA COMPANY,
231 So. La Salle Street,
Chicago, Illinois.

Please send FREE copy of your 36 page booklet telling me now to reduce Bacteria Count and prevent Molds by Scientific Cleaning and Sterilizing.

Name ....

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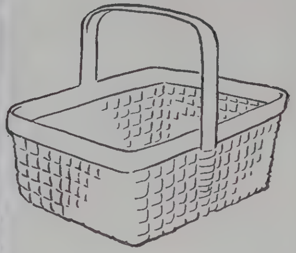
Tough Flaps
Win
Tough Customers



Baskets have
HANDLES

—so have CERTIFED
CAPS for Milk Bottles

You can't please your customers with flimsy caps. They tear. Furnish your bottles with Certified Caps—the Caps with the tough red fiber flaps. They are easy to see, easy to grasp. They lift the bottle cap easily every time. That's why they pay big profits. They win customers and keep them.

Certified Caps with Red Flaps are perfect for capping machines or for hand capping. And the cost is small. They will save you money and we can prove it.

Write us, or ask your jobber for free samples.

Certified
Caps
FOR MILK BOTTLES
THE CAP WITH THE RED FLAP

American Dairy Supply Co.
Dept. B-34 WASHINGTON, D. C.

London Factory, Waxed Papers, Ltd., Nunhead Lane, S. E. 15.
Canadian Factory, Purity Milk Cap Co., Ltd.,
76 Stafford Street, Toronto.

wiping the udders off with a damp cloth is a practica practice.

Cleanliness of all milk utensils is another essentia factor in the production of good flavored milk. This includes pails, cans, strainers, separators, and any other utensil used in handling milk. A milk pail which seems clean to the naked eye may still contain an invisible army of bacteria waiting only for warm milk in which to multiply. Sterilization is the solution, and this is accomplished only through steam, boiling water, or commercial hypochlorite disinfectants. Milk utensils should be thoroughly washed with a washing powder and a brush after each using, then steamed, scalded or rinsed with a good disinfecting solution and allowed to dry in the sunlight. By eliminating one source after another the milk producer can usually find the direct cause, and then by instituting more rigorous measures in regard to this, he can in the future avoid a repetition of the difficulty.

When the flavored milk is a result of direct absorption of pre-existing flavors, the treatment is wholly different from that employed where bacteria are the cause. If the difficulty is due to absorption after milking, it can easily be prevented by removing the milk from the odoriferous source. The milk house should be well ventilated and free from all objectionable odors.

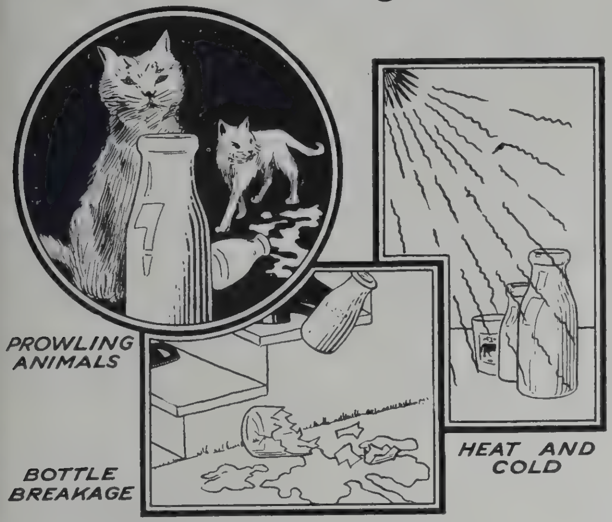
Should the flavor be present at the time of milking, undoubtedly it can be traced directly to the animal. It may be due to the normal cowy odor or to the cows eating certain flavor-producing feeds and weeds. In case the trouble is due to the feeds, the intensity of the flavor in the milk can be diminished by regulating the time of feeding and the amount of feed given. The surest way to reduce the flavors is by feeding four to six hours before milking or wait and feed the cows after milking.

Since certain weeds, especially wild onions, garlic, ragweeds, etc., impart to the milk their characteristic flavors, and the cows gain access to them in infested pastures, their prevention are more complicated. The surest way to prevent their flavor in milk is to completely eradicate them from the pasture by burning, plowing up, and rotation of crops. If this is not possible, the cows removed from the infested pasture four to six hours previous to milking will tend to reduce to a great extent the characteristic flavor imparted to the milk.

Various methods have been devised to aid in the elimination of undesirable flavors in the milk after they have been absorbed. Aeration brings the milk more or less completely in contact with the air, allowing an opportunity for the escape of those volatile substances. Aeration performs a double effect. Besides airing the milk, the temperature is lowered so that the effect of cooling is accomplished to a certain degree. To secure the greatest possible results, aeration of milk should take place at body temperature, and the milk carried out over the greatest surface possible as slowly as possible in the presence of a pure atmosphere. It is best accomplished just after milking and before cooling, as airing and cooling simultaneously conducted cannot yield the most satisfactory results.

Pasteurization is commonly practiced to eliminate undesirable flavors from milk. The chief purpose of pasteurization of milk is to improve the flavor, prolong the keeping qualities, and destroy all disease bacteria. Primarily pasteurization improves the flavor, because it kills most of the bacteria that break down the milk constituents and form decomposition products, and destroys a great majority of the ferments present that are responsible for producing objectionable flavors. Pasteurization expels from the milk along with the steam vapors

Protection Against—



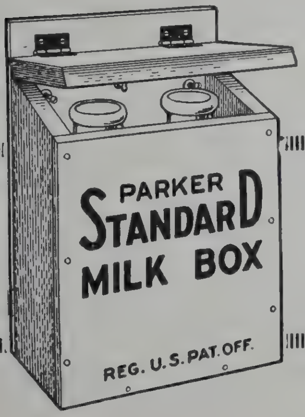
with the....

PARKER STANDARD MILK BOX

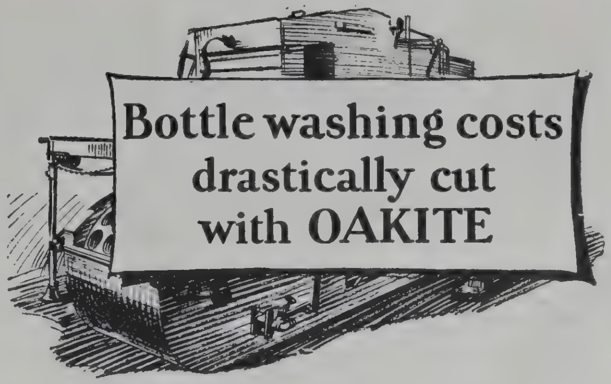
NO more will you hear the old complaints of the housewife that her milk was frozen, sour, tampered with, spilled or gone entirely. The Parker Standard Milk Box will do away with troubles like these. This milk box will please all of your old customers, help your drivers to fill out and increase their routes, and decrease the direct loss of broken bottles.

The Parker Standard is a strong, well constructed milk box and will work a lifetime for you as a good-will business builder.

WRITE FOR PRICES AND QUANTITY DISCOUNTS!



PARKER STANDARD MILK BOX COMPANY
228 WARREN AVENUE
SAGINAW, MICHIGAN



Bottle washing costs drastically cut with OAKITE

BOTTLE washing costs were too high to suit a certain southern dairyman. His expenditure for cleaning material alone averaged $1.87 per day—nearly fifty dollars a month.

Using Oakite, however, immediately reduced this amount to less than one-third of that figure! And the bottles are ***clean***. They have a bright, attractive lustre, and are entirely free from surface film.

Other dairymen have had similar experiences. They find Oakite most economical and effective.

You, too, will find it so. Write ***now*** for complete information.

Oakite is manufactured only by
OAKITE PRODUCTS, INC., 30B Thames St., NEW YORK, N. Y.
(Formerly OAKLEY CHEMICAL CO.)

Oakite Service Men, cleaning specialists, are located at

Albany, N. Y., Allentown, Pa., Altoona, Pa., *Atlanta, Baltimore, *Birmingham, Ala., *Boston, Bridgeport, *Brooklyn, Buffalo, *Camden, N. J., Charlotte, N. C., Chattanooga, Tenn., *Chicago, *Cincinnati, *Cleveland, *Columbus, O., *Dallas, *Davenport, *Dayton, O., Decatur, Ill., *Denver, *Des Moines, *Detroit, Erie, Pa., Flint, Mich., Fresno, Cal., *Grand Rapids, Mich., Harrisburg, Pa., Hartford, Houston, Tex., Indianapolis, *Jacksonville, Fla., *Kansas City, *Los Angeles, Louisville, Ky., *Memphis, Tenn., *Milwaukee, *Minneapolis, *Moline, Ill., *Montreal, Newark, N. J., Newburgh, N. Y., New Haven, *New York, *Oakland, Cal., *Omaha, Neb., *Philadelphia, *Pittsburgh, Portland, Me., *Portland, Ore., Providence, Reading, Pa., *Rochester, Rockford, Ill., *Rock Island, *San Francisco, *Seattle, *St. Louis, South Bend, Ind., Syracuse, N. Y., *Toledo, *Toronto, Trenton, N. J., *Tulsa, Okla., Utica, N. Y., *Vancouver, B. C., Williamsport, Pa., Worcester, Mass.

*Stocks of Oakite materials are carried in these cities.

OAKITE

TRADE MARK REG. U.S. PAT. OFF.

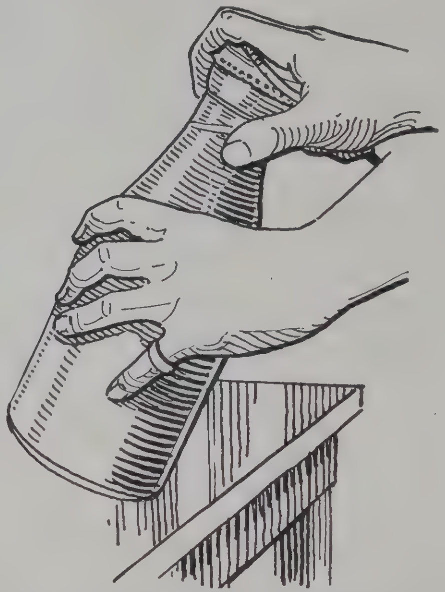
Industrial Cleaning Materials and Methods

THE

DACRO

METAL CAP

Here at last is the perfect package of Milk or Cream, pure and sweet pasteurized IN the bottle! Made possible by a mechanically perfect closure.



Pure, sweet MILK—delivered under hermetic seal to the home. Handy openers supplied at small cost.

The Dacro Metal Crown—This remarkable cap is made on exactly the same principle as the famous Crown Cork which revolutionized the bottled beverage industry. The Dacro Crown is a hermetic seal. It automatically locks under the glass rim of the bottle. It is scientifically a perfect closure. Sealed with the Dacro Crown, Milk or Cream can be pasteurized in the bottle, an exclusive advantage of this seal. The Dacro Crown covers and protects the pouring lip. It KEEPS clean milk clean! No danger of contamination or tampering with pure contents. And the Dacro Crown can be replaced for temporary covering and seal after opening bottle.

PASTEURIZE YOUR MILK
IN-THE-BOTTLE

THE
Crown Cork & Seal Co.
BALTIMORE, U. S. A.

See us in Cleveland at the Dairy Industries Exposition. Booth No. 410

and gases, the objectionable volatile substances that are in the milk. The best results from pasteurizing milk is to be secured when it is heated for thirty minutes at 45 degrees F.

After milk has been pasteurized, it should be cooled as quickly as possible to 50 degrees F. or lower. In the pasteurization process a large majority of the bacteria were killed, but since a few survived the heat, the milk must be cooled immediately to check the bacterial growth. Oftentimes morning's milk will sour before the night's milk, because the night's milk was cooled at once, and remains that way during the night, while the morning's milk was not cooled, but put into the cans for prompt delivery. There are various ways of cooling milk, but the only practical way on the farm is by the use of a properly insulated tank filled with cold water. Frequent stirring of the milk will allow it to cool faster and more uniformly. The bacteria are not killed by cooling, but they cannot thrive very well at a temperature around 50 to 55 degrees F.

In considering the flavors in milk we will find that they are the index to wholesomeness. The problem that confronts the dairy industry today is that of causing the public to consume more milk, and this problem is affected more by the flavor than any other item. Ample evidence is at hand to show that whenever the quality of dairy products improve, the consumption also improves. When more milk is used it is because the consumer recognizes the quality as evidenced in the flavor more than any other thing. The public may be told of the healthful properties of milk, but unless the flavor appeals to their taste, they will ignore the fact. Children are especially quick to distinguish betwen good and bad flavored milk. One dissatisfaction of undesirable flavored milk is the consideration of the unpleasant effect upon the consumer. Delivering such milk usually results in losing the confidence of the dealer, or if the milk is delivered direct to the consumer, it means the loss of a good customer. A reputation for clean milk means fewer complaints, a better class of customers, and a steady market for the dairyman's products. Safeguarding the purity of the milk is a protection to the health of the public in general.

⁂

CALIFORNIA DAIRY COUNCIL ADOPTS CODE OF ETHICS.

The California Dairy Council, with headquarters at Los Angeles, Calif., has adopted a code of ethics, the most important points of which follow:

To take pride in our business.

To produce and handle dairy products of highest quality.

To place California Dairy Council foremost among our business activities.

To believe in California Dairy Council as the heart of the industry.

To strive to correct abuses and unethical practices in our business.

To treat alike both old and new customers.

To guarantee the same price, quality and service to all.

To strive to retain the good will of our own and our competitors' customers, for the benefit of the industry.

To recognize the right of the producer to a fair price for his product.

To apply the Golden Rule to every transaction.

UP GOES THE TEMPERATURE

As the days grow hotter and hotter, the thousands of Dairy products manufacturers who standardize

Wyandotte
Dairyman's
Cleaner and Cleanser

for all their plant and equipment cleaning are more definitely convinced of their sound judgment.

This cleaner is so pure and purifying; is so easy to use and handle; is so uniform and dependable in its action; is such a thorough rinser and deodorizer that their cleaning operations are established on a basis of reliability and economy.

Ask your supply man for "WYANDOTTE."

**Are you using Wyandotte C. A. S.
[cream acidity standardizer]
for standardizing the acidity of
your cream?**

The J. B. Ford Company *Sole Manufacturers* Wyandotte, Mich.

BORDEN'S
QUALITY
SERVICE
MILK

SILENCE

You can assure your trade of noiseless delivery

WITH THIS

Guedelhoefer Wagon

47 years of experience in making strong, dependable milk wagons that travel noiselessly along their routes is available to you in producing suitable equipment.

SEND FOR LIST OF STYLES AND PRICES

John Guedelhoefer Wagon Co., Inc.

202-220 KENTUCKY AVE.
INDIANAPOLIS, INDIANA

Fluid Milk Market Report for United States for Aug., 1927

By Bureau of Agricultural Economics, Market News Service, United States Department of Agriculture.

Table I—Producers' Prices for Standard Grade Milk Testing 3.5% Butterfat, Delivered F. O. B. Local Shipping Point or Country Plant.

Prices which appear in this report are secured through the co-operation of milk distributors, producers' association and municipal officers. Dealers' buying prices unless otherwise indicated, represent prices applying to all milk delivere by producers. For cities where a "surplus plan" is in effect, the prices reported in table III are for "basic" quantities. All per cwt. buying prices have been converted to a 3.5% butterfat basis for comparative purposes.

Sections	Range of August Prices		Prices Compared for Same Markets			
	Number Local Markets	Prices per Hundredweight	Number Local Markets	1927 Average for August	1927 Average for July	1926 Average for August
New England	7	$3.25–$4.19	7	$3.73	$3.50	$3.40
Middle Atlantic	15	2.20– 3.00	15	2.78	2.76	2.64
E. North Central	17	1.75– 3.13	15	2.49	2.43	2.43
W. North Central	17	1.58– 3.10	14	2.11	2.04	2.21
South Atlantic	14	2.44– 4.77	13	3.35	3.40	3.65
E. South Central	5	1.83– 3.39	5	2.31	2.30	2.26
W. South Central	5	1.70– 2.70	5	2.28	2.32	2.62
Mountain	7	1.65– 3.20	3	2.39	2.39	2.23
Pacific	9	2.28– 3.16	8	2.63	2.60	2.69
United States	96	1.58– 4.77	85	2.70	2.64	2.71

Above prices include "basic" prices where a surplus plan or cooling plan is in effect. Cities where prices are based upon current butter quotations not included.

Table II—Prices for Special Grades of Milk and Certain Milk Products.

The following table shows the wholesale and retail prices reported for "special" and "certified" milk and certain other products delivered at wholesale buyers' places of business and at the home of retail customers.

Cities	Special Milk	Certified Milk	Cultured Buttermilk		Cottage Cheese		Light Cream 18-25% B. F.	
	Retail Price per Quart	Retail Price per Quart	Wholesale Price per Gal.	Retail Price per Quart	Wholesale Price per Lb.	Retail Price per Lb.	Wholesale Price per Gal.	Retail Price per ½ Pt.
	Cts	Cts	Cts	Cts	Cts	Cts.	$	Cts.
Akron	16–18	20	20	8	6–8	10	1.30–1.70	16
Albany	18	..	..	10	..	..	1.60	17–20
Albuquerque	..	..	..	..	20	25*	1.75	15
Allentown	18	..	..	13	9–11	..	2.00	17
Altoona	15	22	25	8–10	12	15	1.36–1.45	13–15
Asheville	19	25	..	..	15	..	2.00	20
Baltimore	..	30	44	14	10	15*	1.70	16
Birmingham	..	25	20	6	18	20	1.50	15
Boston	18½	26	..	10	..	..	1.17–1.79	..
Buffalo	14	..	..	10	10*	12*	1.26–1.75	..
Chicago	17	25	..	10	..	15*	1.30–1.80	16
Cleveland	19–20	25	..	12–13	11–15	15–20	1.26–1.88	17–22
Colorado Springs	17	..	18	6	..	..	1.25	10–12
Columbus	17	..	..	7	14	20*	1.45	14
Dallas	24	..	20–25	8	15	..	1.50	11–14
Denver	14	..	15–20	8	14	..	1.30	14
Des Moines	14–20	..	20	9	10	14	1.40–1.55	11–14
Detroit	..	25	..	..	..	..	..	..
Duluth	14	25	13	8	..	..	1.45	17
El Paso	17	25	20–25	10	15	20*	1.35	15–17
Evansville	15	..	25	9½	15	..	1.60	14
Harrisburg	..	..	36	12	..	..	1.50	14
Hartford	20–25	25–35	..	..	..	..	1.40	18
Indianapolis	16	..	25–30	10–12	12–15	20	1.10–1.20	11–13
Jacksonville	25	..	30–35	10–12	20	30	1.65–2.25	20–30
Kansas City	15–25	25	25	10	14	20*	1.80	10–15
Lincoln	14	15	20	10	12	15	1.20	10
Long Beach	..	28	25	10	..	..	1.60	17
Los Angeles	20	28–30	25	10	..	..	1.60	17
Louisville	16	24	..	13	..	..	1.08–1.63	15
Memphis	..	30	15–20	6–7	15	20	1.10–1.40	15
Miami	28	32	40–45	15	15	20	1.60–2.00	22–25
Milwaukee	14–18	25	16–18	6	7	9–10	1.30–1.65	12–14
Minneapolis	..	22	..	13	..	..	1.32	15
Nashville	18	..	20	10	17	20	1.40	16
New Orleans	18	31	..	14	..	..	1.20	17
New York	30	28	..	..	..	..	1.60	..
Omaha	15	15	15–20	10	10	15*	1.20–1.30	8–10
Philadelphia	15–16	30	..	9–13	..	..	1.56	17
Pittsburgh	..	25	25	10	10	..	1.20–1.60	17
Richmond	16–18	..	25	8	..	..	1.20–1.30	14
Rockford	..	21	..	6	..	18	1.40	15
Salt Lake City	15	..	15	..	12½	15	1.35	15
San Diego	20	30	20	9	12	15	1.80	15
San Francisco	..	25	..	14	..	20	2.50	20
Scranton	18	25	20–24	8–10	..	..	1.40	20
Seattle	25	18	..	..	14	20	1.30	15
Sioux City	..	25	15	6	10	10*	1.20	10
Spokane	..	..	..	..	..	..	1.40	14
St. Louis	18	25	25	10	13	15	1.26–1.75	17
Trenton	17	30	36	13	..	..	1.76	15–16
Trinidad	15	25	25	10	20	25	..	10–12
Washington	17–23	30	60	15	15–20	15–20	1.75–1.80	16–20
Wheeling	18	..	30	10	..	..	1.40	15
Wilmington	20	..	..	10	..	13*	..	17

* 12 oz. package

Here's Convincing Proof

As one Creameryman said recently—

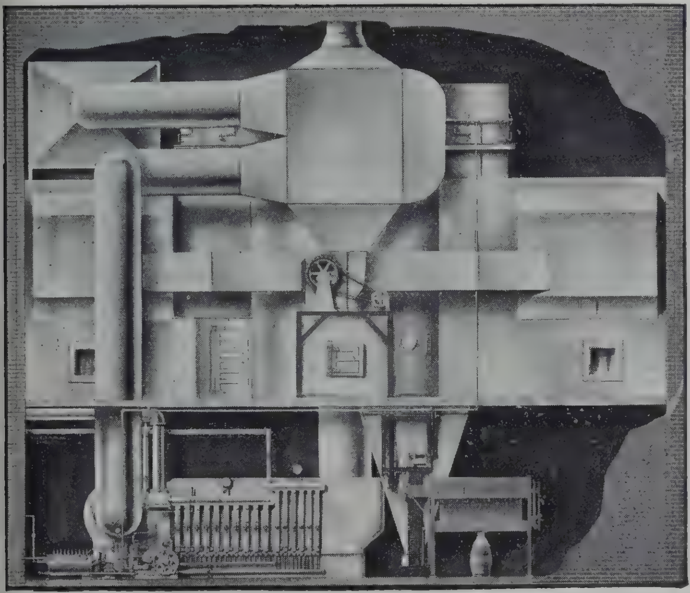
"I purchased a Rogers Spray Process Milk Powder Plant because—

Rogers gave me two distinct plants—a complete CONDENSING UNIT and a complete MILK POWDER PLANT; thus enabling me to take advantage of the condensed milk market when prices are high, as well as the milk powder market—and *the cost of these TWO COMPLETE UNITS was no more than others ask for a milk powder plant alone.*

"And then the saving on royalties alone meant at least $100,000.00 to me. (Rogers is the only Spray Process Milk Powder Plant that does not require you to pay royalties.)

"Another thing—Rogers Spray Process Milk Powder Plant costs no more than other Spray Process milk powder plants—yet I found it produces nearly three times the quantity of milk powder—of uniformly higher quality—more readily and completely soluble—gives complete recovery of solids—eliminates second grade powder, and gives you any texture desired.

"I also found that the Steam, Power and Labor costs per pound of powder produced on a Rogers Spray Process Milk Powder Plant were considerably lower than other spray process milk powder plants."

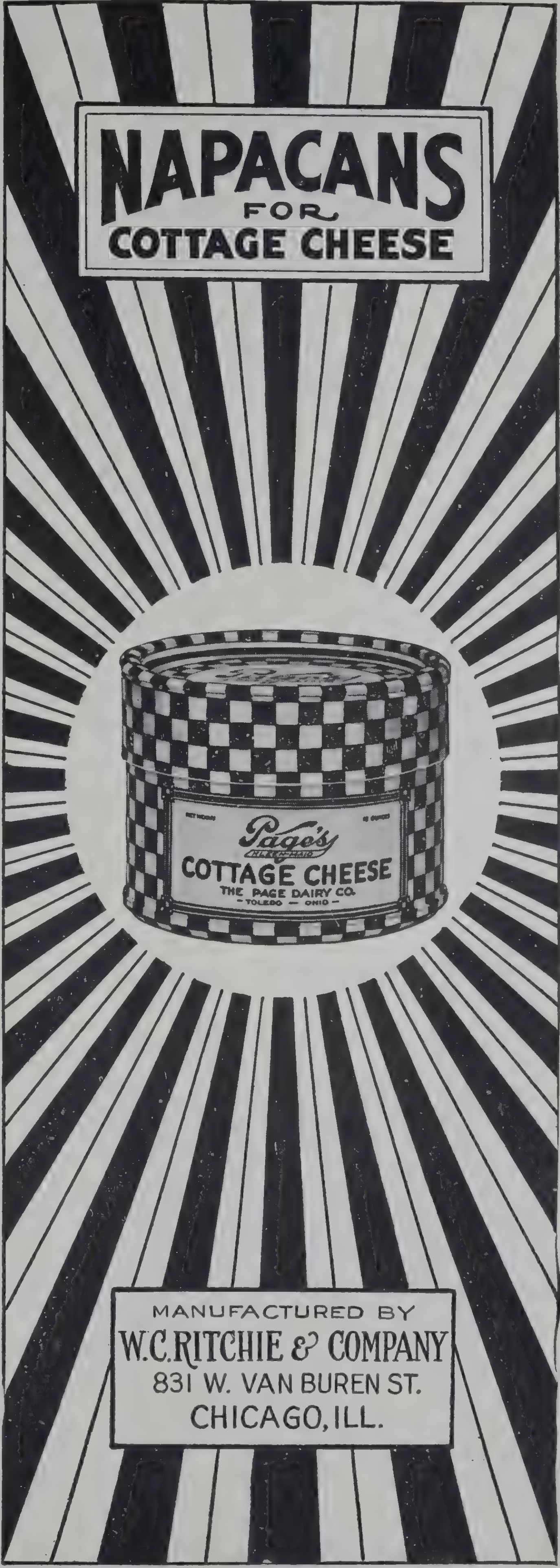


If you want more convincing proof of the superiority of Rogers Spray Process Milk Powder Plants let us turn you loose in one of the 20 Rogers Spray Process Milk Powder Plants now in operation in this country—you'll soon be convinced.

Send for complete information on MILK POWDER—its Manufacture, Uses and Money Making Possibilities.

C. E. ROGERS COMPANY
8731 WITT STREET
DETROIT - - - MICHIGAN

See also pages 146-147 in Olsen's Dairy Industries (Condensed) Catalogs.



NAPACANS
FOR
COTTAGE CHEESE

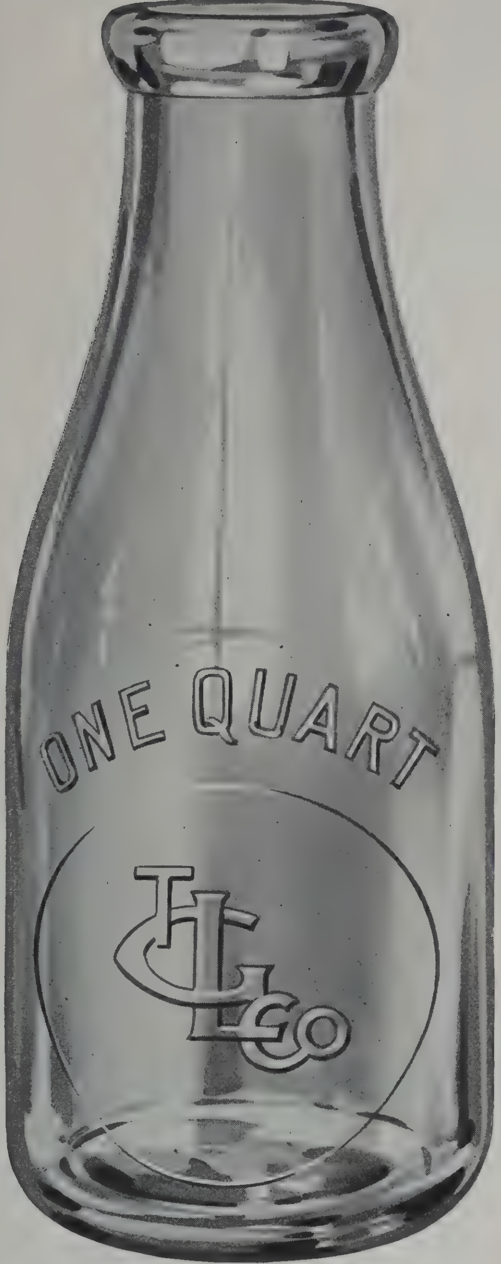
MANUFACTURED BY
W. C. RITCHIE & COMPANY
831 W. VAN BUREN ST.
CHICAGO, ILL.

Table III—August Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat Test of Milk Sold
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5–20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
ALABAMA—							
Birmingham	3.49–3.91	Varies	45	12	17	12	3.6–4.0
Mobile	..	..	40–50	11¼–15	16–18	18–20	3.25+
CALIFORNIA—							
Fresno	Butter Market Basis		35	11	13	12–13	3.8
Long Beach	3.15*	9	43.33	13	15	..	3.6–4.0
Los Angeles	3.15*–3.33*	9–9.5	43.33	13	15	..	3.6–4.0
Oakland	2.87	2.9+	35	9	13	11	3.5–4.0
San Diego	..	..	41.66	13	15	15	3.6–3.9
San Francisco	3.11–3.21	2.9+	41.3–41.6	11.2–12	14	13–14	3.75–4.0
Santa Barbara	3.15	9	..	..	15	15	..
COLORADO—							
Colorado Springs	2.45*	6	30	9	11	10–12	3.4–3.8
Denver	1.92	5.5	35	10	12	12	3.5–3.8
Pueblo	2.38	6.8	30–32	9	12	8–9	3.8
Trinidad	1.92	5.5	25–40	8–10	10–13	10–12	3.0–3.4
CONNECTICUT—							
Bridgeport	4.22*	4	48	14	16	..	3.6
Hartford	4.22*	4	46	12–14	16	14–16	3.8–4.0
New Haven	4.22*	4	50	14	16	16	3.7
DELAWARE—							
Wilmington	..	..	44	13	13	14–15	3.7–3.8
DIST. OF COLUMBIA—							
Washington	3.49*–3.72*	6–7	44–46	12–13	15	13–15	..
FLORIDA—							
Jacksonville	3.08–3.37*	10 to 3%	50–55	15–16	17–20	17–18	4.0–4.5
Miami	3.80*–4.93*	Varies	50–60	15–16	20	18	3.5
Tampa	4.67*–4.77*	Varies	60	18	18–23	21–23	3.5–4.5
IDAHO—							
Wallace	..	..	50	12½	15	12½–15	4.0
ILLINOIS—							
Chicago	See Table II		32–38	13	14	14	3.5
Quincy	..	..	30	8	10	10	3.5
Rockford	2.55	6	28	9	11	11	3.6
Springfield	2.50	4	36	13	14 2/7	15	3.8–4.0
INDIANA—							
Elkhart	..	..	30	7½	10–12	10–12	3.8
Evansville	2.17	6.2	34	11	12½	12½	3.7
Fort Wayne	2.05	5	36	11	13	12–13	3.8
Indianapolis	2.10	6	28–30	9–10	12	10–12	3.8–4.0
South Bend	2.43	4	32	10	12	12	3.8
IOWA—							
Cedar Rapids	Butter Market Basis		40	10	12	12	3.6–4.0
Davenport	2.35*	5	28	8–10	9–13	9–13	3.0–4.4
Des Moines	2.55*	5	32	9	12	9–12	3.5–3.7
Fort Dodge	2.70*	5	38	10½	12	12	4.0
Iowa City	2.45*	7	30	9	12	10–12	3.5–3.8
Ottumwa	2.25	5	35	10	12	12	3.5+
Sioux City	2.10	5	30	8	10	10	3.6
KANSAS—							
Kansas City	..	..	35	9	11	11	3.6
Topeka	1.80–2.25	4	30–35	8–9	10–11	10–11	4.0
Wichita	2.00*–2.25*	3	35	10	12	12	3.5
KENTUCKY—							
Lexington	2.00	5	35	12	14	10–15	4.3
Louisville	2.01–2.12	4	28	10	12	12	3.8–4.0
LOUISIANA—							
New Orleans	2.81*	4	40	12	14	14	..
MARYLAND—							
Baltimore	3.55*	5.8	44	14	14	16	3.9
Cumberland	3.40*	7 to 4%	35	11	13	13	4.0–4.2
MASSACHUSETTS—							
Boston	4.10* (A)	B. M. Basis	43	12½	15	13	3.7
Easthampton	..	..	46	12	14	14	3.7
Fall River	..	..	44	12–13	14–15	14	3.5
Lawrence	4.42	Flat	48	12½	15	14–15	..
Lynn	4.19	Flat	..	12½	15	..	..
MICHIGAN—							
Battle Creek	..	..	40	10	12	12	4.0
Detroit	..	..	..	..	13–14	..	..
Kalamazoo	3.00*–3.20*	4 to 4%	38	11	13	13	4.0

* Basic prices for fluid milk. (A) July price increased 1c per quart on the 16th.

For Buying Information Read the Advertisements.



SUPER MILK BOTTLE

Speaks for itself, and is recognized by all as the achievement of **The Lamb Glass Co.,** who specializes in its manufacture—**independently.**

The Lamb Glass Co.

Factories and General Offices:

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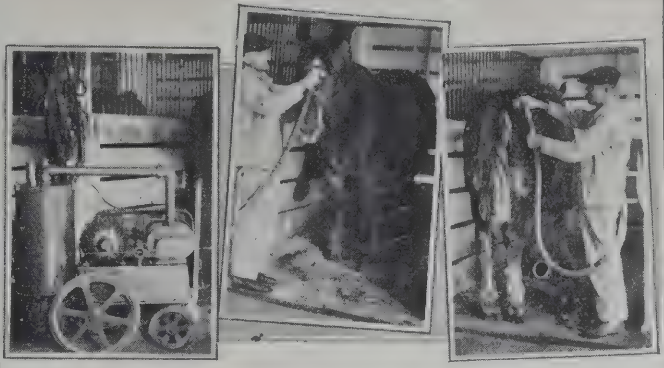


PERFECT!

The ATWOOD

— FOR —

HORSE GROOMING

FIRST IN THE FIELD—and many years of experience since, has made the Atwood vacuum machine for horse grooming perfect in every detail. Substantial, strong, and rugged, it will last a lifetime. The tool will get down to the skin and loosen every particle of dandruff, dirt and dust. This dirt is not only dislodged, but completely removed, and with it go all vermin, to a sealed container where they die. It eliminates skin diseases and other horse ailments, and requires less than one-fourth the time to do a more perfect job of grooming. Let us show you how other dairies have found the Atwood a profitable investment.

Atwood-Stewart Vacuum Machine Co.

Horse Grooming Equipment

6467 Ravenswood Ave. Chicago, Illinois

Atwood-Stewart Vacuum Machine Co.,
Horse Grooming Equipment,
6467 Ravenswood Ave., Chicago, Ill.

Please send us bulletin regarding the proper cleaning of horses and cattle. We have .... horses and .... cows.

Firm ....

Street ....

City .... State............

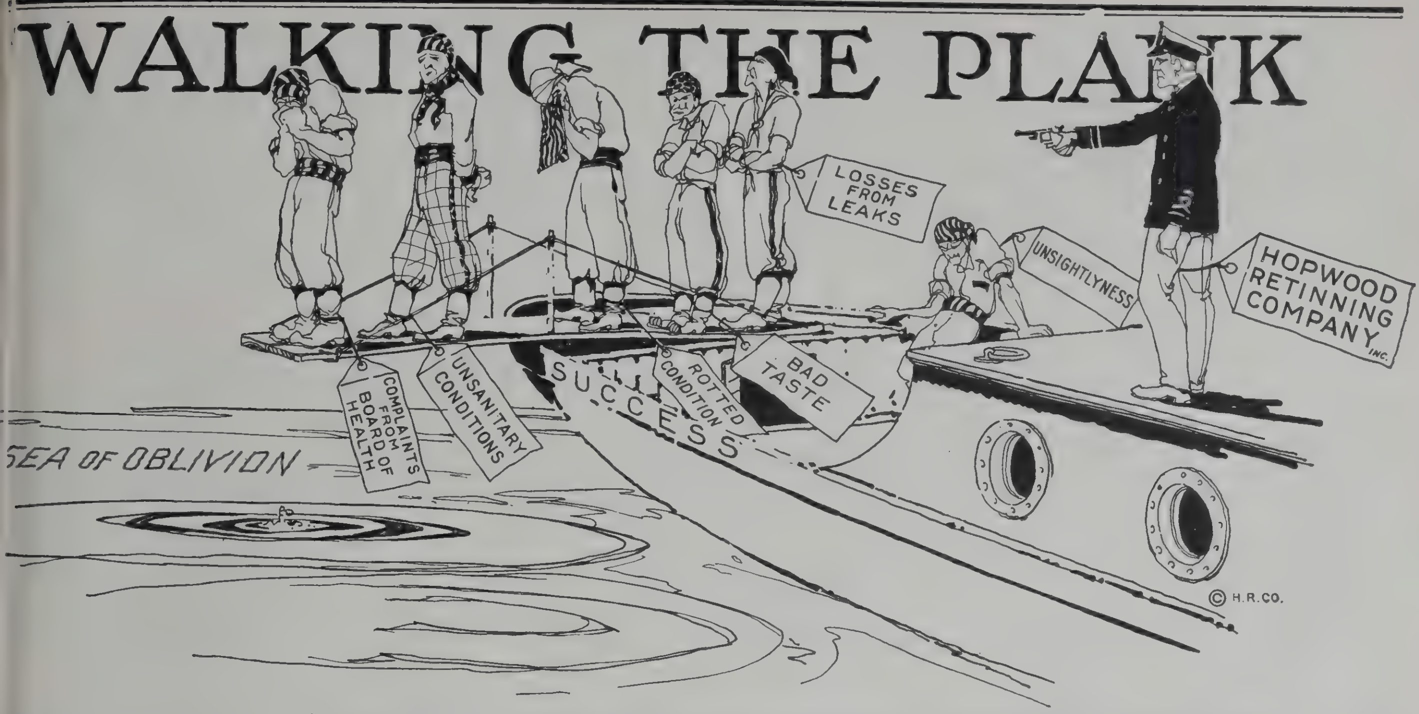
Table III—August Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices				Prevailing Butterfat Test of Milk Sold
			Wholesale Trade		Retail Trade		
			Per Gal. in Lots of 5–20 Gal. in Bulk	Per Qt. Bottled (Cases of 12)	Per Qt. Bottled to Family Trade	Store Prices per Qt. Bottled	
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
MINNESOTA—							
Duluth	..	..	30	10	12	11–12	3.7
Minneapolis	2.60*	5	32	8–9½	11	10–11	3.5
Northfield	2.27	5	32	8½–9	10	10	3.7
St. Paul	2.60*	5	34	9½	11	..	3.5
Winona	3.10	Flat	35	9.58	11	11	3.6
MISSISSIPPI—							
Meridian	..	..	40	12½	15	15	4.4
MISSOURI—							
Kansas City	2.27–2.33	3.5	40	11–11¼	13	10–13	3.6–3.8
St. Louis	2.40	4	35	11	13	13	3.8
MONTANA—							
Butte	2.60*	10	30	11	13	13	3.4–3.8
NEBRASKA—							
Lincoln	1.93	5.5	28	8½	10	10	3.6
Omaha	2.15–2.25	5	25–28	8	10	8–10	3.4–3.6
NEW JERSEY—							
Hoboken	..	..	34	10	15	15	3.6
Trenton	3.41*	4	36	10	13	14	3.6–3.8
NEW MEXICO—							
Albuquerque	3.20	5.8	40	12–12½	15	15	4.0
NEW YORK—							
Albany	3.02*	4	38	15	15–17	16–19	3.7
Buffalo	2.90*	4	35	10	13	13	3.6
New York	See Table II		36	14	15	15	..
Rochester	2.85	4	40	11	12½	..	3.7
Syracuse	..	..	32	11	13	13	3.6
Troy	..	..	..	..	13	12–13	..
Utica	2.97*	4	34	10	12	12	3.4
NO. CAROLINA—							
Asheville	3.80*	4	48	14	17	17	4.2
Biltmore	3.80*	4	48	14	17	..	4.5
Greensboro	3.70*	6	50	14	17	20	4.0
Winston-Salem	3.30	4	50	12½	16.15–17	17–18	4.3–4.5
OHIO—							
Akron	3.40*	5	40	11	13	13	3.5
Cincinnati	Not Determined		38	12½	14	12	3.9
Cleveland	3.30*–3.40*	5	40–44	11	14	12	3.5
Columbus	..	..	35–40	11	12	11–12	3.8–4.0
Toledo	2.50	5	36	10½	12	12	3.5
OKLAHOMA—							
Tulsa	2.10–2.45	6–7	30–40	8–11	10–20	10–20	4.0
OREGON—							
Eugene	2.40–2.49	4	30–33	8–9	12	10–12	4.0–4.2
PENNSYLVANIA—							
Allentown	3.16*	4	36	11	13	13	3.5
Altoona	3.16*	4	36–42	11	13	13	3.8–4.0
Harrisburg	2.45	4	34	11	12	12	3.6
Philadelphia	3.49*–3.52*	4	38–40	12	13	..	..
Pittsburgh	3.45*–3.60*	5	34–40	13½	14	15	3.5–3.8
Scranton	3.10	4	36–45	12	12	12	3.5–3.7
RHODE ISLAND—							
Newport	..	..	..	13	15	15	3.94
Providence	4.10*	B. M. Basis	..	..	15½	..	..
TENNESSEE—							
Chattanooga	2.27	6.5	40	12	20	18	4.0
Memphis	2.58*–2.73*	4.5	32–40	10–11	15	12–13	4.2–4.5
TEXAS—							
Dallas	2.60*	4	30	9–11	13	10–13	4.0–4.6
El Paso	2.85–3.00	5	35	11–12	14	13–14	3.5–3.8
Houston	2.80	8	..	..	15	..	4.4
UTAH—							
Salt Lake City	2.35	6.7	30	9½	11	11–12	3.7
VIRGINIA—							
Richmond	3.93*–4.05*	5	44	13	14	..	3.8–4.0
WASHINGTON—							
Everett	..	..	30	8	10	10	3.8
Seattle	2.49–2.56*	6.45–7.1	32	9–9½	12	11–12	3.6–4.0
Spokane	2.35*	5	30	8	10	10	4.0
Tacoma	2.35	5	32	8	10	9–10	3.6

* Basic prices for fluid milk.

Looking for New Equipment? Read the Advertisements.

WALKING THE PLANK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UNSIGHTLYNESS
HOPWOOD RETINNING COMPANY INC.
COMPLAINTS FROM BOARD OF HEALTH
UNSANITARY CONDITIONS
ROTTED CONDITION
BAD TASTE
SUCCESS
SEA OF OBLIVION
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'e have been connected with
ıe manufacture and re-manu-
ıcture of Milk Cans and
:e Cream Cans since - - 1898

These Can-Troubles are pirates in your business and cause loss of trade.

Our Re-tinning Process will put your cans in good condition and save money for you.

"GOOD LOOKING CANS ARE A BIG ASSET TO YOU"

Ship Your Rusty or Leaky Cans to Us for Re-tinning

HOPWOOD RETINNING COMPANY, Inc.

Iain Office 56 Commercial Street **BROOKLYN, N. Y.**

Better Horses at Lower Feeding Costs

BOWMAN DAIRY COMPANY
BOWMAN

Bowman Dairy Co. of Chicago have proved it. They are feeding to more than 1200 horses crushed oats made with

GIBSON OAT CRUSHERS

There is a minimum guaranteed saving of 15% in crushed oats over whole oats or mixed feeds. A 30 day free trial of a complete machine will prove it. There are 7 different sizes of Gibson Oat Crushers with direct connected electric motors or with pulley for belt drive.

Write today for further information. Tell us how many horses you are feeding and we'll tell you how to buy a Gibson out of your present wasted oats.

Ask any of these about us:—

Sheffield Farms Dairy, New York General Baking Co., NewYork
Supplee-Wills-Jones, Philadelphia Rieck-McJunkin, Pittsburgh
Western Maryland Dairy, Baltimore Ira J. Mix, Chicago
United Dairy Co., Chicago Moores Ross Milk Co.,Columbus

GIBSON OAT CRUSHER CO. Patentees and Sole Manufacturers **332 S. Michigan Ave., CHICAGO**

Table III—August Cost and Selling Prices.

Markets for Which Prices Are Given	Dealers' Cost Prices per Cwt. Raw Milk Delivered F. O. B. City (Flat Prices or 3.5% F. Basis)	Allowance per 1-10% Butterfat per Cwt.	Dealers' Selling Prices: Wholesale Trade: Per Gal. in Lots of 5–20 Gal. in Bulk	Dealers' Selling Prices: Wholesale Trade: Per Qt. Bottled (Cases of 12)	Dealers' Selling Prices: Retail Trade: Per Qt. Bottled to Family Trade	Dealers' Selling Prices: Retail Trade: Store Prices per Qt. Bottled	Prevailing Butterfat Test of Milk Sold
	$	Cts.	Cts.	Cts.	Cts.	Cts.	%
WEST VIRGINIA—							
Clarksburg	2.55*	5	32	12½	14	15	3.8–4.0
Wheeling	2.79*–3.26*	5	40	12	14	14	3.7
WISCONSIN—							
Beloit	2.50*	5	30	8	10	10	..
Kenosha	3.00	4	40	11	12	12–13	3.6
Madison	Butter Market Basis		32	8	9	9	3.5
Milwaukee	2.90*	4	30	9½–10	11	10–11	3.5–3.6
Oshkosh	Butter and Cheese M'kt Basis		..	9	10	10	3.8
Superior	..	..	32	10	12	12	..
Wausau	2.10	3	..	8½	10	10	3.7

* Basic prices for fluid milk.

Table IV—August Cost Prices of "Standard Grade Milk" 3.5% B. F. for Cities Where Part of the Supply is Purchased Through Country Stations.

Cities	Prices Paid Producers per cwt. raw Milk (Flat prices of 3.5% B.F. basis)		Freight Zones to Which Country Station Prices Apply
	F. O. B. City	At Country Stations	
New Haven, Conn	$4.22*	$3.70*	28c rate.
Washington, D. C.	3.49*–3.72*	2.91*	35c 10-gal. can.
Chicago, Ill.	Unavailable	2.50	All.
Baltimore, Md.	3.55*	2.97*	35c rate.
Boston, Mass.	4.10*	3.34*	181-200 mile zone.
St. Louis, Mo.	2.40	1.90	34c rate.
Trenton, N. J.	3.41*	2.85*	41-50 mile zone.
Buffalo, N. Y.	2.90	2.62	28c rate.
New York, N. Y.	Unavailable	2.95*–3.00*	201-210 mile zone (53c rate).
Cleveland, O.	3.30*–3.40*	2.92*–2.99*	All.
Philadelphia, Pa.	3.49*–3.52*	2.91*–2.95*	51-60 mile zone.
Pittsburgh, Pa.	3.45*–3.60*	2.70*	All.
Scranton, Pa.	3.10	2.80	30c rate.
Dallas, Tex.	2.60*	1.90*	All.

* Basic prices for fluid milk.

NOTE: At all places in the above tables where prices are not shown, the information was either not reported or is n available.

CANADA TO U. S. MILK SHIPMENTS MADE UNDER TEMPORARY PERMITS.

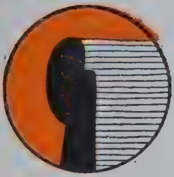
A report from the department of agriculture at Washington regarding importations of Canadian milk reads in part as follows:

"Shipments of milk and cream from Canada to the United States are proceeding regularly under temporary permits in compliance with the federal import milk act passed at the last session of Congress, to promote the dairy industry of the United States and protect public health in this country. While funds are not yet available for the enforcement of the act, an understanding has been arrived at between the Canadian and United States authorities for the continued shipment of Canadian milk and cream with the Canadian government assuming full responsibility for compliance with the provisions of the act. The only period during which there was a complete embargo was from March 27 to May 6, 1927, a period during which, however, the Canadian output was seasonally heavy. Notwithstanding this interruption of the trade, the total imports from January to July were probably slightly heavier than in the seve months of last year, and would otherwise have conside ably exceeded those of recent years, according to a r port of August 9 from American Vice-Consul Ernest Monroe, Sherbrooke, Quebec.

"Exports of Canadian cream to the United Stat have been increasingly heavy in recent years, amountin in the year ending March 31, 1925, to 3,384,186 gallon in 1925-26 to 4,120,181 gallons, and in 1926-27 to 4,49 528 gallons. The export value of the 1926-27 shipmen was $7,750,233.

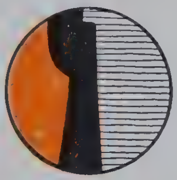
'The temporary permits for shipments are to be val only until such time as funds are available to the Unit States government for ascertaining that the provisio of the act have been complied with, whereupon noti will be given to holders of temporary permits of t necessity for submitting proof precedent to the issuan of permanent permits. Meanwhile, the Canadian go ernment has agreed to assume full responsibility for t condition of Canadian dairies and the cleanliness of t Canadian product."

XTRA REINFORCED



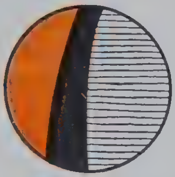
UPPER EDGE

A PERFECT



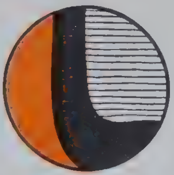
CAP SEAT

STRONG



SHOULDERS

BASE EDGE



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More Trips Per Bottle mean More Profit to You!

THE most important item in buying milk bottles is the FINAL cost per bottle to you. The first cost or purchase price means little or nothing to you. From the actual experience of dairymen and from exhaustive laboratory tests, it has been definitely proved that Thatcher Superior Quality Milk Bottles will give at least five more trips per bottle. Thatcher bottles are tougher, more uniform in quality, have a better distribution of glass, and consistently perform better in actual service than any other bottle made. They are extra-reinforced at upper edge, shoulder and base edge.

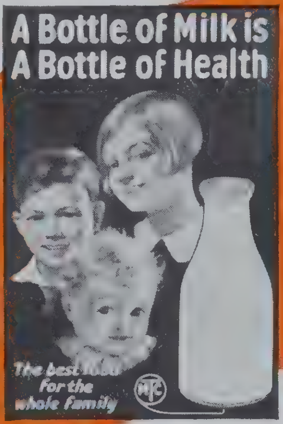
Specially designed lehrs help to give Thatcher Bottles that Superior Quality and wear-resisting toughness not found in ordinary bottles. The Thatcher Trade Mark is blown on every Thatcher Bottle for your protection and guarantee.

Then, too, millions of milk users see and read the celebrated "A Bottle of Milk Is A Bottle of Health" advertisements of Thatcher Bottles in National Consumer and other magazines. If you want to save money on your bottles and increase your milk sales, fill in and mail the attached coupon. It will pay you to act at once.

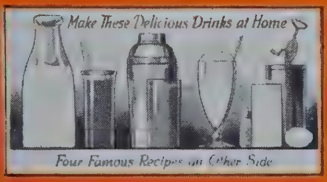
A Bottle of Milk is
a Bottle of Health

THATCHER MFG. CO.
Elmira, N. Y.

Operating several plants throughout the country, each strategically located and devoted to making Superior Quality Milk Bottles Prompt, efficient service — always.



The New Thatcher Poster for use on wagons, trucks and in stores and restaurants. Get your supply now. Actual size 16"x 24" in color.


Make These Delicious Drinks at Home
Four Famous Recipes on Other Side

The latest recipe circular, just off the press. Mail to your customers with your monthly statements or deliver with the morning's milk. Actual size 3½"x6¼" in color. Send today for a FREE supply. Use coupon.

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1. *Send me prices and full information regarding Thatcher Superior Milk Bottles.*
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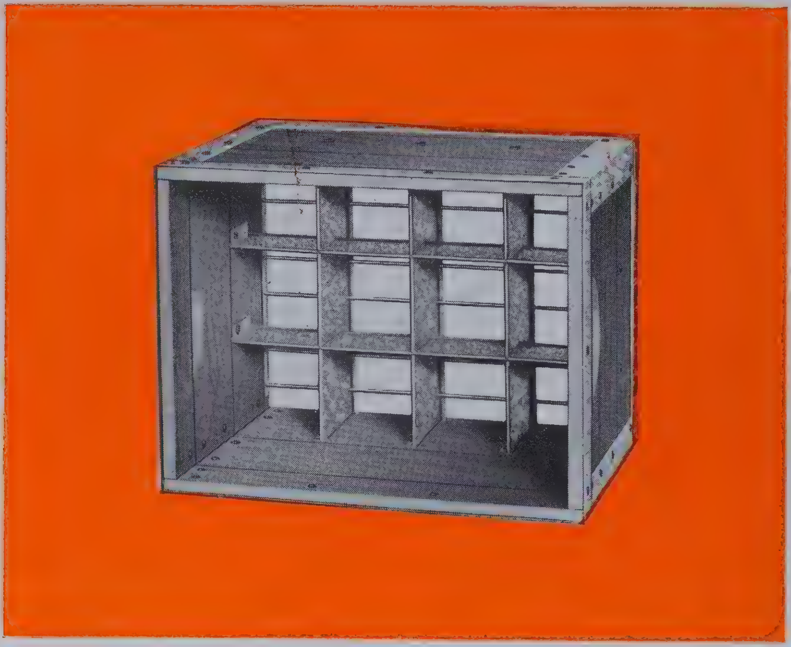
Name ....

Address ....

City .... *State* ....

See also page 180 in Olsen's Dairy Industries (Condensed) Catalogs.

When writing to THATCHER MANUFACTURING COMPANY *please mention The Milk Dealer.*



DEFIANCE
Semi-Steel
MILK BOTTLE CASES

"The Strongest Case Made"

YEARS of use—that's what you can expect from Defiance Semi-Steel Milk Bottle Cases. No need ever to send these steel-bound cases to the repair shop. Your roughest driver can't smash or injure them. Every joint and corner is strongly re-inforced; and a 200 pound man can jump on either side of the partitions without bending any part of the metal.

¶ Defiance Semi-Steel Cases are practically indestructible. The corners, tops and bottoms are reinforced with strong, galvanized steel bands, and partitions and wires are made into one secure unit, heavily galvanized after assembly.

¶ A Defiance Case will outlast two ordinary cases, yet it costs no more. Write for quantity prices and specifications.

THOMPSON-BREMER & COMPANY
1750 CARROLL AVENUE
CHICAGO :: :: ILLINOIS

See also page 132 in Olsen's Dairy Industries (Condensed) Catalogs.

Who knows BEST how to build them?

YOU are an experienced buyer of dairy equipment; no manufacturer of can washers and bottle washers need tell you the machines he offers you are as good as he knows how to make them. You know that.

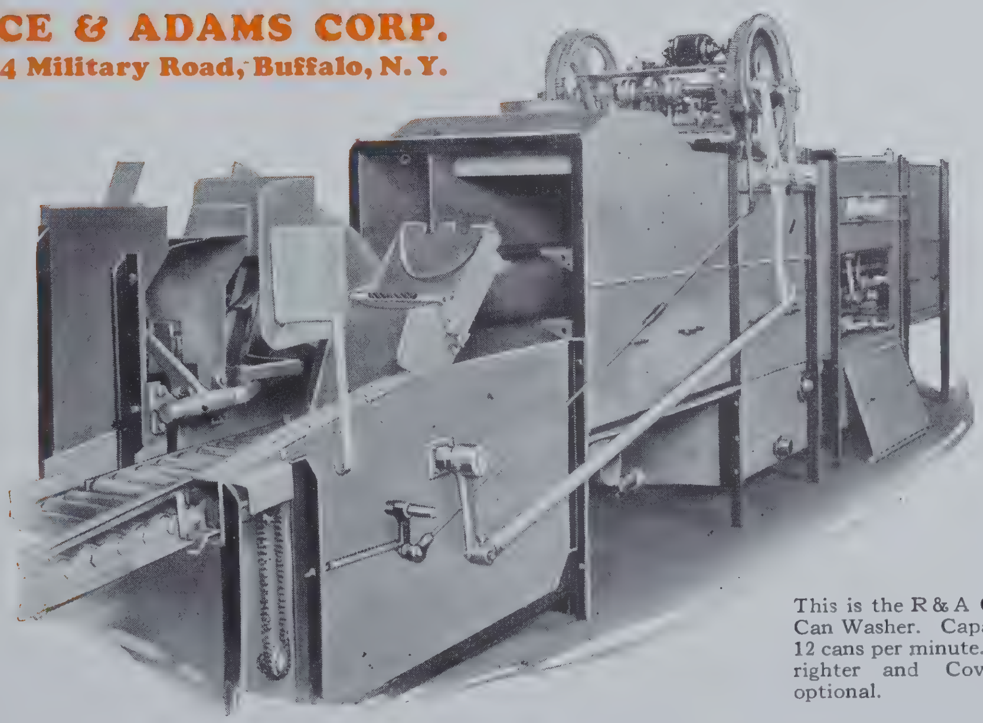
The question is "Who knows *best* how to build them? *And who does it?*" The answer to that is important to you because it can mean everything from complete satisfaction to complete dissatisfaction in the equipment you buy.

How clean does that can washer get the cans? How dry? Is it built to last? Does it operate smoothly and easily, or does it rattle and shake thru the job like a dilapidated flivver? How much does it cost to run? How easy to maintain? How equipped? What capacity? How much does it cost to buy?

The answer to these and many other equally vital questions supply the gauge by which you can determine what machine deserves a place in your plant.

Rice & Adams says—"R & A Washers—each in its class—are the finest you can buy." No apology need be made for the word "finest." You can prove that by simple comparisons. We will give you the facts on *our* machines at any time you desire!

RICE & ADAMS CORP.
1144 Military Road, Buffalo, N. Y.



This is the R & A Champion Can Washer. Capacity 3 to 12 cans per minute. Can-uprighter and Cover-placer optional.

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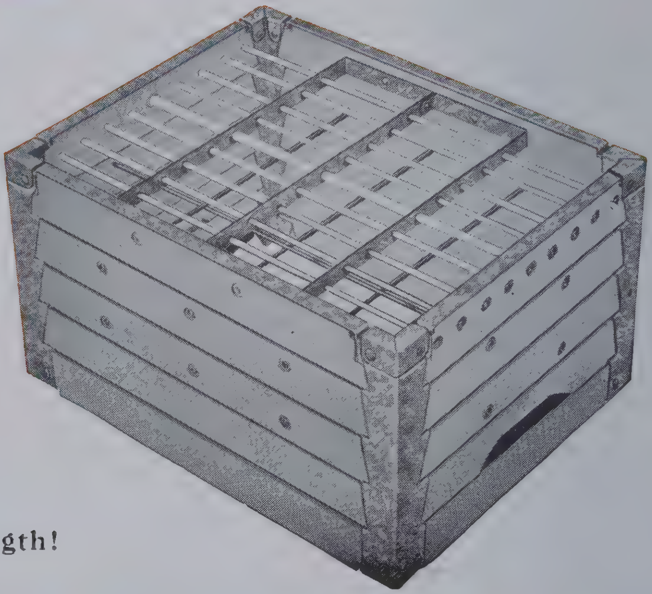
Where Costs are Watched

"Woolsey" Crates Prevail



Super-Grid
Super-Strength!

The Northwestern Collapsible Carrier C

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Oklahoma City, Okla

Oliver M. Dean & Sons,
Worcester,

Beatrice Supply Co.,
Denver,

Ohio Creamery Supply C
Cleveland,

When writing to THE NORTHWESTERN COLLAPSIBLE CARRIER CO. *please mention The Milk Dealer.*

THE WOOLSEY BOTTLE CRATE has attained a standard of perfection in quality, service and practicability that has made it the accepted basis for comparing bottle crate values.

Buyers have come to learn that the—

WOOLSEY
Wire Laced Corner

is not merely a "talking point" but an exclusive patented device of real merit that is the means of conserving the life of Woolsey Bottle Crates.

℄ It is the great point of superiority that others strive for but dare not imitate.

℄ It is the one feature that spreads the buyer's bottle crate dollar out over a longer period of service.

If you are interested in getting value for your dollars you will find it in Woolsey Bottle Crates by a single trial.

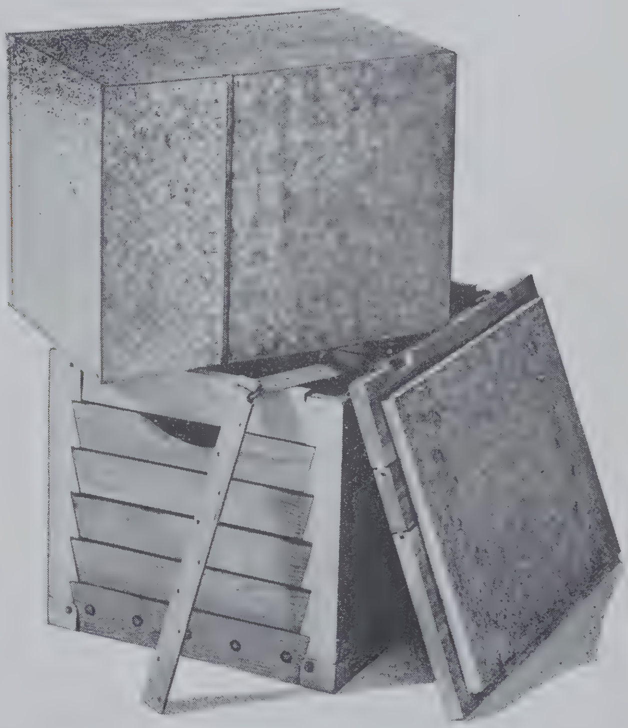
The Woolsey Butter Box

A Protection for Your Specialties
A Convenience for Every Wagon

℄ A separate container for ice that cannot leak into the carton chamber. An insulated cover with a hinge that will not break off nor break the box.

℄ The Woolsey Butter Box is a decided advantage in handling dairy specialties. Have you one on every wagon?

Send for Complete List of Styles and Prices. --- Then Try Them!



0-2930 Talmadge Ave., S. E.,
MINNEAPOLIS, MINN.

1821 Callowhill Street,
PHILADELPHIA, PA.

ry Supply & Equipment Co., Pittsburgh, Pa.

gerford Bros., New Haven, Conn.

A. Drummond, Ltd., Toronto, Canada

Kennedy & Parsons Co., Sioux City, Ia.—Omaha, Neb.

Geo. G. Mill Co., Great Falls, Mont.

N. W. Creamery & Dairy Supply Co., Seattle, Wash.

T. C. Power Co., Helena, Mont.

Oakes & Burger Co., Cattaraugus, N. Y.—Erie, Pa.

Phoenix Seed & Feed Co., Phoenix, Ariz.

C. Peterson, Hartford, Conn.

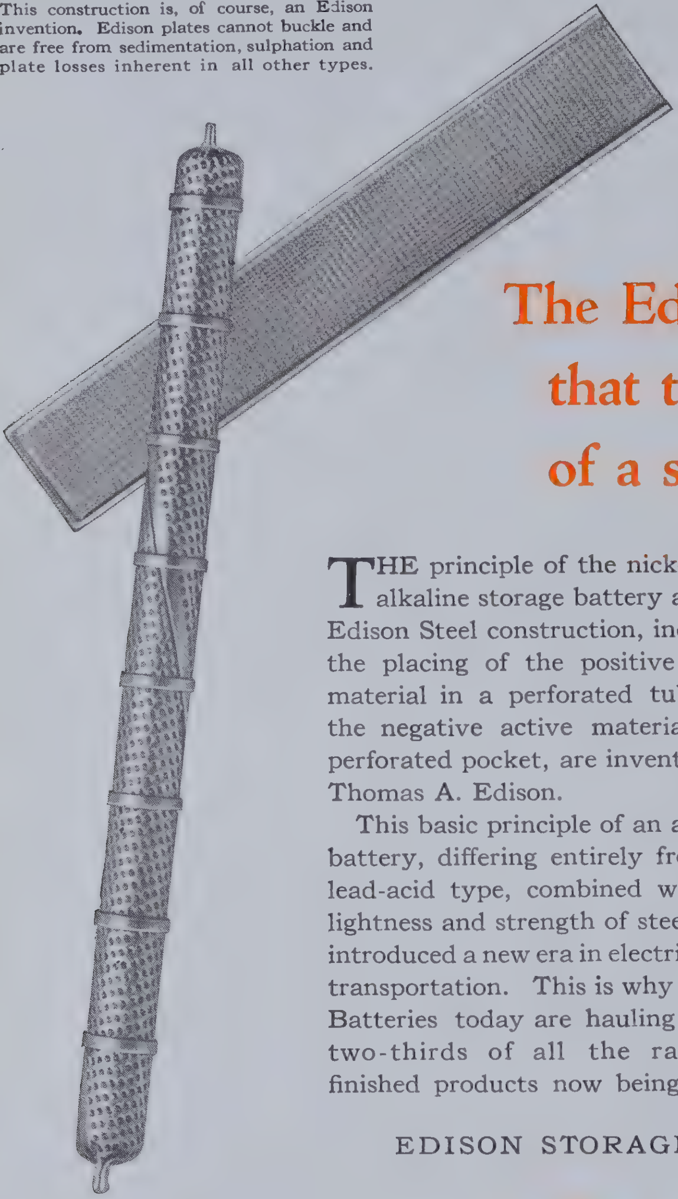
Geo. W. Prising Co., Inc., San Francisco, Calif.

United Dairy Machinery Corp., Buffalo, N. Y.

Warr Supply Co., Los Angeles, Calif.

When writing to THE NORTHWESTERN COLLAPSIBLE CARRIER CO. *please mention The Milk Dealer.*

Edison Battery plates are made up of finely perforated *steel* tubes and pockets containing the active material, which are forced into *steel* supporting grids under great pressure. This construction is, of course, an Edison invention. Edison plates cannot buckle and are free from sedimentation, sulphation and plate losses inherent in all other types.



The Edison Inventions that trebled the life of a storage battery

THE principle of the nickel-iron-alkaline storage battery and the Edison Steel construction, including the placing of the positive active material in a perforated tube and the negative active material in a perforated pocket, are inventions of Thomas A. Edison.

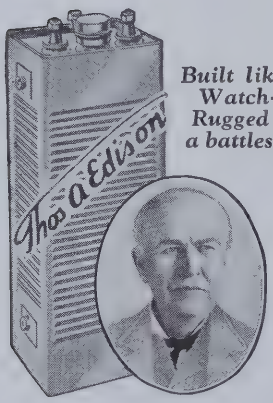
This basic principle of an alkaline battery, differing entirely from the lead-acid type, combined with the lightness and strength of steel, have introduced a new era in electric truck transportation. This is why Edison Batteries today are hauling nearly two-thirds of all the raw and finished products now being transported by battery-powered vehicles.

The Edison Storage Battery, because of its distinctive features, lasts approximately three times as long in active service as any other battery of commercial importance on the market.

It is, of course, thoroughly dependable, requires little attention, and its lightness in weight adds from 500 to 1,250 lbs. to the payload capacity of the truck.

These advantages are responsible for substantial savings in the cost of electric delivery. Write for certified evidence of Edison performance in service similar to yours.

EDISON STORAGE BATTERY CO., ORANGE, N. J.



Built like a Watch—Rugged as a battleship

Edison

STEEL-ALKALINE

TRUCK BATTERIES

Thomas A. Edison is the World's largest manufacturer of storage batteries for motive power purposes (industrial trucks and tractors, street trucks and mine locomotives) although the Edison Storage Battery Company has been in this business less than nineteen years.

ATLANTA BOSTON BUFFALO CHICAGO CLEVELAND DETROIT HUNTINGTON LOS ANGELES
NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH SAN FRANCISCO SEATTLE ST. LOUIS WASHINGTON

Export: 26 West Broadway, New York *Canadian Distributors: International Equipment Co., Montreal, Quebec*

HAUL MORE FOR LESS MONEY

Two Sure Ways

of increasing your milk business

The sale of Chocolate Milk in various forms has reached such a state that no wide-awake dairyman can afford to ignore or overlook this avenue of increasing his milk sales.

But to get his share of this business he must put out a product of such fine quality that it will successfully compete with similar beverages now on the market.

Being pioneers in developing Chocolate Milk products and processes, we are in an enviable position to assist you in building up a successful and profitable Chocolate Milk business.

MOREHEALTH PREPARED CHOCOLATE

NET WEIGHT 1 LB.
MOREHEALTH
PREPARED
CHOCOLATE
FOR DELICIOUS BEVERAGES, FOODS CAKES, FROSTING, PIES, ETC.
Chocolated Milk
Chocolate Sundaes
CONTAINS NO PRESERVATIVES
MANUFACTURED BY
CHOCOLATE PRODUCTS CO.
CHICAGO. U S A

A Specially Prepared Chocolate for making Chocolate Milk, for ice cream, frostings, puddings, cakes, etc. Packed in 1-pound glass jars, double sealed. Will not mold or ferment but keeps sweet and fresh. Stimulates consumption of milk and makes dairyman a splendid profit.

See also page 140 in Olsen's Dairy Industries (Condensed) Catalogs.

No. 1 Hundreds of dairymen have been and are now using Morehealth Chocolate Syrup. Without question it makes one of the most delicious, appetizing Chocolate Milk drinks ever produced. This is due to the exceptional quality of the syrup, produced by the Special Process of Dr. Pashkow.

Morehealth Chocolate Syrup is made of pure cane sugar and the finest grade chocolate ingredients. It is rich, mellow, contains no coloring or preservatives and comes in plain and malted form.

Our "Silent Salesman"—a unique plan of effectively advertising Morehealth Chocolate Milk to the housewife is furnished free with each order of syrup.

No. 2 Realizing the opportunities open to them many dairymen are going into the Chocolate Milk business on a larger scale by installing sterilizing equipment.

For several years we have made a careful study of this subject and as a result have worked out a *Special Process* that produces a Chocolate Milk of unequalled quality. In fact, we are now in position to give the dairyman a *Contract* that positively *Guarantees* that his product will keep indefinitely.

Send today for free samples of Morehealth Chocolate Syrup and our Special Proposition for bottling Sterilized Chocolate Milk.

MAIL COUPON TODAY

CHOCOLATE PRODUCTS CO.,
415 Beethoven Place, Chicago.

Gentlemen:—Please send us:

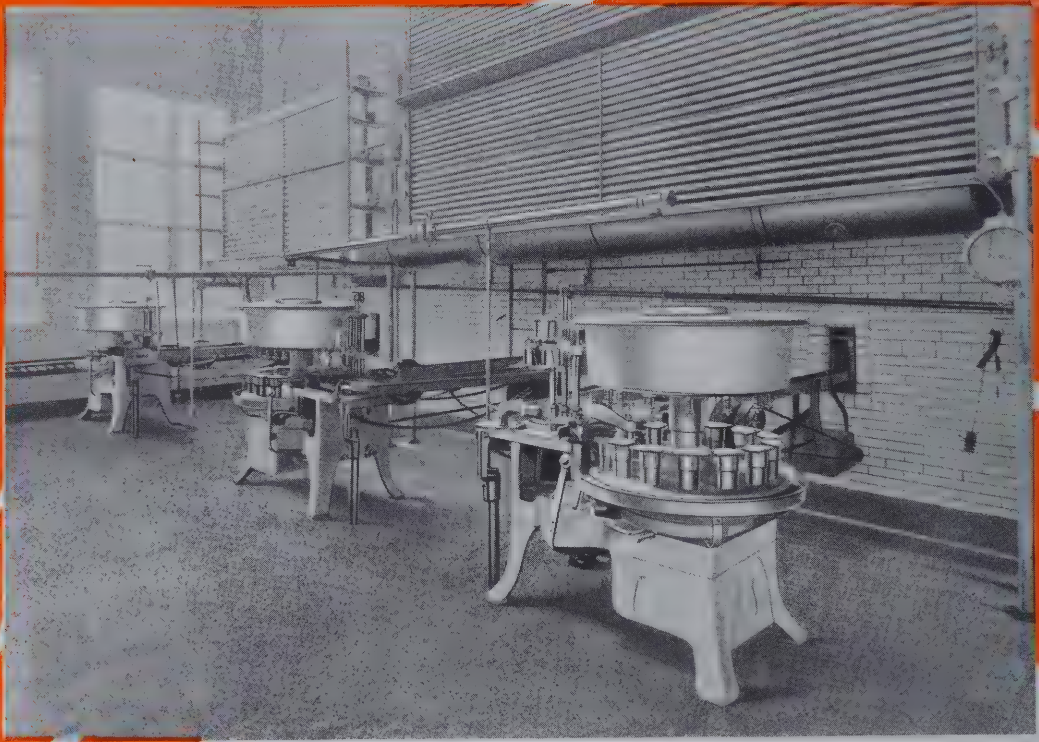
☐ 1-pound sample jar Morehealth Prepared Chocolate.
☐ Sample Morehealth Straight Chocolate Syrup.
☐ Sample Morehealth Malted Chocolate Syrup.
☐ Your proposition on bottling Sterilized Chocolate Milk.

Name . . . .

Street and No. . . . .

City . . . . State . . . .

MILWAUKEE FILLERS and CAPPERS



Highland Dairy Farms, Highland, Ill.

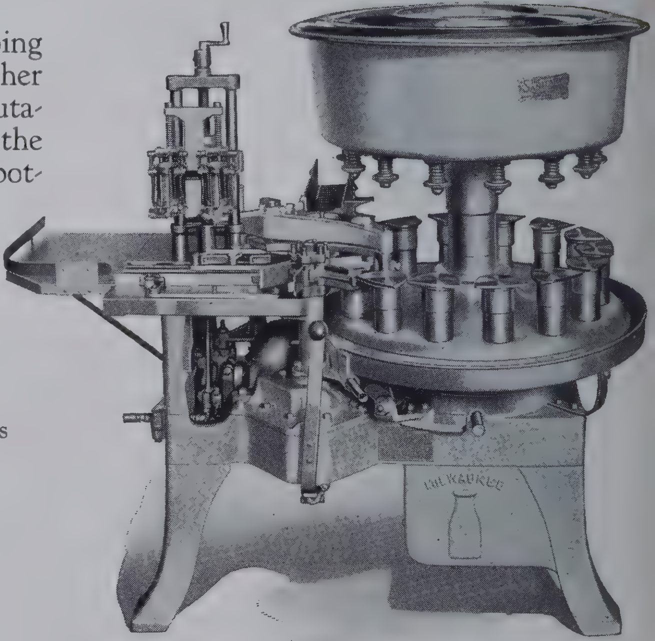
3 Type "L" Fillers

150 TO 180 PER MINUTE

WE are proud of our part in equipping this splendid new plant—another testimonial to Milwaukees, to their reputation for being the perfect expression of the highest ideals of sanitary and efficient bottling practice.

Strong
Compact
Simple
Precise
Sanitary

The Type "L"
14 Valves
2 Cappers
Capacity 50 Qts. to 60 Pts
per minute.
Tank Capacity 26 Gallons.



Sold by Best Dairy Supply Houses
Everywhere—Ask Them.

Milwaukee Dairy Supply Mfg. Co., Milwaukee, Wis.

See also pages 66-67 in Olsen's Dairy Industries (Condensed) Catalogs.

When writing to MILWAUKEE DAIRY SUPPLY MFG. CO. *please mention The Milk Dealer.*

HE ROMANCE OF MILK MERCHANDISING.

(Continued from page 41)

ewing, foul-languaged boys put up their gloves for t last time.

Don't boast of something that is supposed to have been settled long, long ago—even before women started wearing knickers.

Just remember that you are dealing with a class and a race that must have their fun, their pleasure, and if u haven't anything interesting to offer in this line, ey don't want any of "them onions." That's all there to it. It is not a hard-boiled race; it is simply a free, fnk and easy race that speaks straight from the oulder.

Put fun in a bottle of milk. Pack a ton of exhilaration, excitement in a bottle of milk. Stuff a handful of olic in a bottle of milk. Then you are going to sell mething.

Now, we'll go back to the beginning, to the point here we sketched that filmy, flimsy dreamy cloud of umber. You didn't get that point well. Here's the int:

I am finishing this article. I am tired. It is 10 clock. I have written this article at the close of a rd day, for we are an intense people in this country of urs, and we pack everything we can in a day's work or day's pleasure, and my day has been just as full as urs.

I am fixing to go to bed. I know, however, that unss I take a tonic I shall not rest well. You see, my art is beating fast. My pulse is quick. This all came out because I was, unconsciously, speeding up my iner mechanism to drive home the points of this article.

There is a medicine cabinet in the bathroom, on the ay to the back bedroom. It contains about the avere run of household remedies—and all of about the erage usefulness. I shan't touch a one of them. Not e. Not a single aspirin tablet. Not a bromide.

I am going out on the back porch. I am going to our out a vessel of milk. I am going to warm it till it a little more than tepid. Then I shall slowly drink , just sip it.

In 20 minutes I shall be in bed, and I shall be sleepg on those dreamy, silken clouds that I just pictured, eeping not the sleep of a man after a hard, troubled ay, but the sleep of a man who is restful and soothed, ho is contented and satisfied, who is looking forward the breaking of a new day and a new sun and new pportunities for work and play.

Now, milk will do this. And how can anyone fail appreciate the marvelous magic of the greatest medine, the greatest soother of strained nerves, the greatest nic, the greatest creator of romance the world ever new!

If you can, then—
Good night!

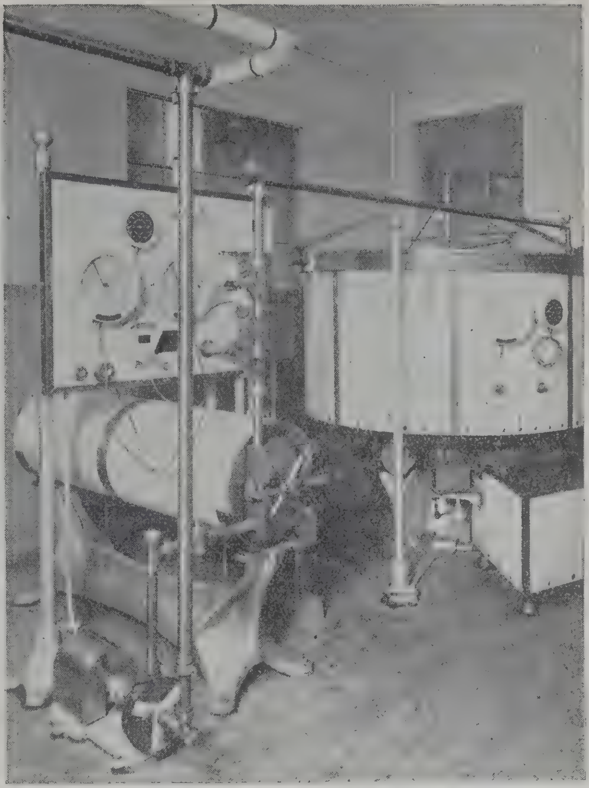
⁂

A VISITOR FROM ARGENTINE.

Mr. Ramiro Jouan, manager of the "La Vasconada," 974 Tacuari Buenos Aires, Argentine, South merica, was a caller recently while on a hurried trip to ur city.

Mr. Jouan is manager of the largest milk distributing mpany in his city, also making considerable butter. e plans to engage in the wholesale ice cream manufacuring business as well.

Mr. Jouan has spent several months in Europe and ill sail from New York for home soon.



Showing cream pasteurizing equipment. Instruments on panel board at left automatically control and keep account of temperature and flow of cream at all times.

Something About The Sunlight Milk Plant

For many years The Bristol Company has provided instrument equipment which has helped to make the Wanzer Dairy one of the outstanding plants of its kind in the Chicago district.

Now, this new unit, The Sunlight Milk Plant, conceived and built according to ideals fostered through seventy years of dairying experience, has STANDARDIZED ON BRISTOL EQUIPMENT.

Recording Thermometers stand sentry duty at many strategic points, providing the accurate guidance which makes for a quality product; while temperature control equipment and flow valves automatically control the temperature and rate of flow of milk and cream at vital stages.

The simplicity, freedom from trouble, and ruggedness which characterize Bristol's equipment, makes them ideal for dairy use; in fact there is a complete line, designed especially for this work.

In planning new economies for YOUR plant write for literature which describes "Bristol's" equipment.

The Bristol Company Waterbury, Connecticut
FOR 38 YEARS · Ask Any Technical Engineer · MAKERS OF
BRISTOL'S RECORDING INSTRUMENTS

TEACHING THE CONSUMER TO APPRECIATE MILK.

(Continued from page 50)

To return to the just-as-eager grown-up groups. Invitation was extended to all of us who could, to visit a certified farm when the dairy's organization went on a certain day. Some of us with cars at our disposal joined the procession and were amply repaid by the interesting inspection of an up-to-the-minute certified dairy farm.

Through schools, playgrounds, church groups, clubs, the work of educating the people of the city to an appreciation of the value of milk and a feeling of confidence in its purity is being carried on. It is a work which results in benefits as great for the consumer as they are important to the producer.

Tampa Dairymen Welcome Strict Code

CONSCIENTIOUS effort to establish and abide by a strict code for producing clean, healthful milk has swept Tampa, Fla.

It is manifest in a close co-operation between the Milk Producers' Association, Dr. E. C. Levy, city health officer, and Dr. C. L. Woolard, chief dairy inspector. This code has dictated most miraculous changes in local dairies, and has made most of the producers eager to supply Tampa's consumers with good milk that will be appreciated by them. Some few dairies, as is usually the case, have been done away with because they failed to heed the stringent requirements.

Milk Producers Mean Business.

"With the slogan, 'local production for local consumption,' these milk producers are sincere in their efforts to compete with shipped milk and are giving their customers an excellent product," says Charles A. Higgins, executive secretary of the Milk Producers' Association.

They are working under the handicap that they have to buy all of the feed for their herds, because the acreage of the farms in that vicinity is so small. It is said that if the entire farm were planted to corn there would scarcely be enough to fill a good sized silo. Yet these dairymen are starting out to resist the invasion of northern milk. Their association maintains an office and a full-time secretary, and seems to have for its motto, "100 per cent co-operation," judging from the way their plans have worked out thus far.

There are seven distributors and about forty individual dairies making deliveries in the city. The herds average from 200 to 50 cows, with the majority nearing 75 to 100. On these farms sanitary precautions are demanded and every animal and helper is subject to health examination at regular intervals.

Of course a campaign would not be entirely successful without instilling into the minds of the consumers that it is absolutely essential to take care of the milk after they get it. Also that milkmen are necessarily solicitous to the welfare of their milk bottles and do not like to have them used as decorations or receptacles for canned goods. Higgins reports that in one flower bed he saw a border made of 280 milk bottles. Most persons familiar with the distributing of bottled milk can recall similar sights they have witnessed.

Milk marketed in Tampa has been standardized into grades. "Grade A Raw" milk receives the most careful attention and is a remarkably healthful and delicious product indeed. Its companion grade is "Grade A Pasteurized" and likewise enjoys extreme care. "Grade B Pasteurized" is a good milk, but is not quite as carefully handled as the other grade. It is intended for average use and not for invalids or babies. "Grade C Pasteurized" is the lesser child and is either older or re-pasteurized. It is used only for cooking purposes and cannot be sold for other use.

Grade A raw and pasteurized, according to the code, "must be produced within such distance as to arrive regularly in Tampa within three hours from the time of leaving the dairy farm."

Raw milk of this grade does not have to be dated, but all pasteurized milk must be stamped and sold not later than the day following the day of pasteurization. This date must be stamped on the bottle cap. The order further states regarding the sale of milk for beverages or at soda fountains:

"Only Grade A and Grade B milk is sold for soda fountain or beverage use; and it shall be dispensed to the customer in the original container."

Mr. Higgins tells us that "it is unlawful for any hotel or eating house to bottle milk or have unused milk bottle caps in its possession. Buttermilk must be labeled to show whether it is cultured or a by-product from buttermaking and the rules which apply to sweet milk apply also to buttermilk."

Thus every precaution is taken to care for the milk after it is produced to the time it reaches the customer. And back of that, there are rules governing the care of farm animals and attendants which makes for clean milk.

Run Many Display Ads.

Dairymen in the vicinity of Tampa seem to have caught the spirit and have done everything they can to make the plan a success. They also have been quick to make use of the change by liberal advertising. The local paper carries several advertisements, large and informative, which boost milk and milk products. These dairymen are business men for sure.

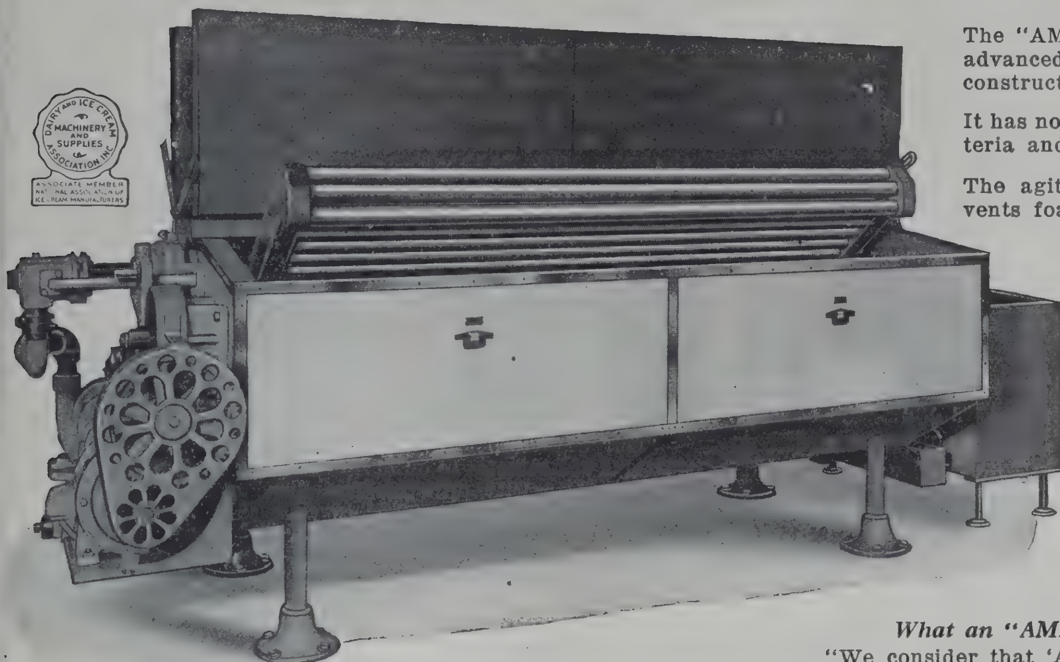
After all these precautions have been taken, the safety of the milk lies in the consumer's hands. He must do his share, say authorities, to keep the milk supply faultless.

YEAR 'ROUND ECONOMIES TELL THE TALE OF SUCCESSFUL DELIVERY.

(Continued from page 48)

In aiming, therefore, to establish a delivery car system that will operate economically throughout the full year, we must first see that our maintenance plan adequately keeps the delivery cars in condition with a steady flow of work for the repair force. We must have the right number of delivery cars, not too many, not too few, and aim to utilize them in other ways where they are not needed in the business. We must select equipment of the kind suited to handle the yearly business with the least possible waste. And, finally, we must watch our routing to continually devise ways to keep each truck assigned to a day's work really busy throughout that day, so that other delivery cars may be released from service with corresponding economy.

"AMERICO" THE PASTEURIZER WITH A PURPOSE


DAIRY AND ICE CREAM MACHINERY AND SUPPLIES ASSOCIATION INC.
ASSOCIATE MEMBER NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS

The new "AMERICO" with improved coil control

The "AMERICO" embodies the most advanced principles in design and construction.

It has no stuffing boxes to gather bacteria and contaminate the batch.

The agitation is gentle. This prevents foaming, churning and breaking of fat globules.

Heating is done with water below 160° F. There is no burning on the coils nor scorching of the product.

The flush type outlet valve is standard on all vats.

Thorough cleaning of all parts is accomplished with ease as the coils can be raised out of the vat.

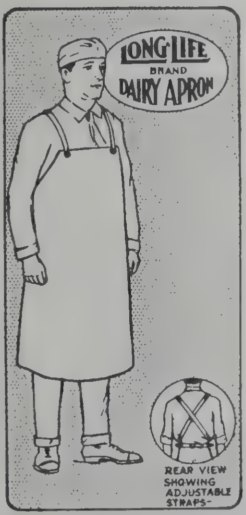
What an "AMERICO" User Says:
"We consider that 'AMERICO' is nearer perfection than any pasteurizer we have ever used."

AMERICAN COPPER & BRASS WORKS
Manufacturers of Dairy Equipment
See also pages 178-179 in Olsen's Dairy Industries (Condensed) Catalogs.

610-616 E. FRONT STREET
CINCINNATI, OHIO

ACTUAL USAGE

Proves this IS A *Long-Life* Dairy Apron


LONG-LIFE
BRAND
DAIRY APRON
REAR VIEW SHOWING ADJUSTABLE STRAPS

Special fabric, scientifically treated to resist the disintegrating effects of fats and acids about dairy plants, gives the Long-Life dairy apron an ability to render continued useful service long after other aprons have been discarded

A TRIAL ORDER WILL PROVE IT!

You Will Learn a New Item on Which to Save Money.

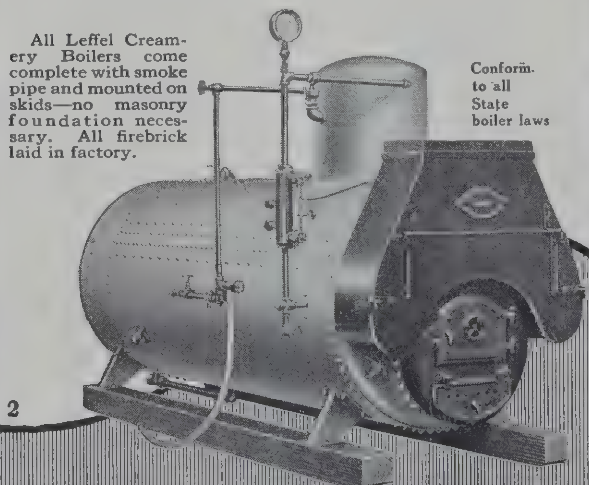
The M. F. Murdock Company
... ... RUBBERIZED FABRICS ... ...
266 So. Main Street AKRON, OHIO

Leffel CREAMERY BOILERS

Hundreds of creameries, cheese factories, and ice cream manufacturers are saving time, labor, and fuel by using Leffel Creamery Boilers. All the hot gases of combustion must pass twice the entire length of the boiler through water-surrounded passageways—every possible heat unit is utilized. Write us for detailed descriptions and prices, stating amount of horsepower required.

All Leffel Creamery Boilers come complete with smoke pipe and mounted on skids—no masonry foundation necessary. All firebrick laid in factory.

Conform to all State boiler laws



The James Leffel & Co. BOX 330 SPRINGFIELD OHIO, U. S. A.

A BUSINESS BUILDERS' CLUB.

(Continued from page 44)

looking on tours of school children as a favor done the schools, the Fountain City Dairy Company welcomes them, shows them its plant, explains the various operations through which milk goes before it is finally delivered on the back doorstep in the morning, and treats them to a half pint of milk and, perhaps, an Eskimo pie, too.

"Several years ago," said Mr. Steffen, "we suggested to the teachers that they bring the children to the plant—that the children would be interested in seeing how milk is handled in a modern dairy. We added that such a tour would be instructive too, and would give the children a new interest in their best food.

"Only a few such invitations were necessary. Now we get requests from the schools. They ask us to show the pupils our plant and to explain its operation to them.

"These tours of the children give us a splendid opportunity to talk about milk and its food value. Because we show the children 'action' as we talk, they are especialy interested—more than they would be in a plain lecture on milk. They see the men at the machines and watch the milk from the time it enters the plant to the time it is packed in cases ready for delivery.

"The talks we give are not really sales talks for the Fountain City Dairy Company's milk. We talk about milk in general, rather than about our dairy's milk, but the very fact that the children are seeing the processes and precautions of the Fountain City Dairy Company associates good milk with our name in their minds.

"Our dairy is the only one in Fond du Lac which pasteurizes its milk. The women's clubs and local physicians, as well as the newspaper in its editorial columns have been advocating pasteurized milk, yet, because it sells for a cent or two more than the raw milk, some people refuse to buy it. In our talks to the school children, we can show them how our milk is pasteurized and tell them how pasteurization kills harmful bacteria,—associatiing milk purity with the Fountain City Dairy Company."

In spite of the fact that the Fountain City Dairy Company has thirty competitors selling raw milk, this company leads in milk sales. The Fountain City Dairy Company for a long time has been pushing a compulsory pasteurization ordinance. The idea is quite popular, and it is only a matter of time when such an ordinance will be passed. The city council is waiting the action of the legislature, which is framing a model law relating to pasteurization.

In the meantime, the Fountain City Dairy Company is turning what is used by some prospects as an objection, into a sales argument. Twice a week the daily paper carries an advertisement which tells the public that the milk of the Fountain City Dairy Company is a perfectly pasteurized milk. The spirit of the Fountain City Dairy Company's advertising is reflected in a typical advertisement, as follows:

> **ATTENTION, PARENTS!**
>
> "In recent tests made by the state, it was found that about 10 per cent of the cattle are afflicted with tuberculosis.
>
> "Pasteurization kills all tuberculin, typhoid or other germs. Pasteurization is a safety measure for the public health.
>
> "Do not feed your children any kind of milk at school, but ask that it be pasteurized.
>
> "Our milk is perfectly pasteurized and has the right proportions of butterfat to build up the body of your boy and girl.
>
> "Fountain City milk is 'The Best' milk.
>
> "Be sure that it is served to your children at school.
>
> FOUNTAIN CITY DAIRY CO.
> Phone 3589."

Another means of advertising which the Fountain City Dairy Company is using to combat the price argument, answering it with one of "Better milk — better health" in the advertising folder. Once a month an educational folder is left by the deliveryman with the milk. These folders talk about milk and are written with an eye to educating the housewife and mother to use more of it, and to watch the kind of milk she buys. The folder illustrated herewith, "What Authorities Say About Pasteurized Milk," is typical of them. Medical men, recognized nationally as authorities, give their opinions on pasteurized milk, compared with raw milk.

"We have found that this direct advertising is especially effective. We business men, who get a lot of mail, often overlook the folder and the circular — we may throw them in the waste basket and forget them. But the average home woman gets less mail, and has more time to read what she does get. The amount of literature which she gets by way of the back door is small. She pays more attention to it, especially if it is an attractive folder telling her something about a subject in which she is interested—and what woman isn't interested in her children?

"These folders, coming once a month,—just often enough to continue to be a novelty and not just an ordinary happening—have done much to show our Fond du Lac mothers how to keep their families healthy with the right kind of milk, and are responsible for increasing milk sales by our company.

"We advertise in other mediums besides the newspapers. Twelve months of the year we are on the billboards. This billboard advertising and the newspaper advertising is directed at the mothers, but our moving picture theater advertising is intended for both the mothers and the children. This movie advertising is especially effective for the 'kids,' we find."

These are ideas which the Fountain City Dairy Company is using for the promotion of its business, both within and without the organization.

⁂

Success lies in doing little things well. "Milk Dealer" Want Ads are little things, but they carry big messages. Read them regularly.

The Neil House
in Columbus
OHIO
Opposite the Capitol
650 ROOMS
Each With Private Bath
$2.50
AND UP PER DAY
Unexcelled Cuisine
DINING ROOM FEATURES
Neil House Dinner (Main Dining Room) ... $1.50
Capitol Luncheon (Main Dining Room) ... .75
Club Breakfast (Grill Room) ... .50
Blue Plate Luncheon (Grill Room) ... .50
Dinner (Except Sunday) (Grill Room) ... 1.00
For reservations address
F. W. BERGMAN, Managing Director

FLAV-O-LAC CULTURES

FLAV-O-LAC

FOR BUTTERMILK
Producing a uniform unexcelled product in aroma, body and keeping properties.
$2.00 per Qt.

BULGARIAN MILK
For making pure Bulgarian Milk or for use with Buttermilk Culture for **Double Cultured Buttermilk.**
$2.00 per Qt.

SOUR CREAM
A special culture designed to produce a distinctive flavor and a very **viscous product.**
$2.00 per Qt.

BUTTER and CHEESE
Special cultures designed for aroma and those characteristics most desirable in these products.
$2.00 per Qt.

Our New Package

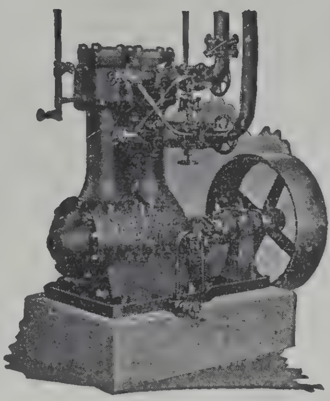
Our Famous Liquid Cultures in a New Package for distant shipment by first-class mail.

One Syringe of Any Variety of Culture $1.00

The DAIRY LABORATORIES
Chemists "The Home of Liquid Culture" **Bacteriologists**
2300 LOCUST STREET PHILADELPHIA, PA.
Branches: New York Baltimore Washington

See also page 152 in Olsen's Dairy Industries (Condensed) Catalogs.

Vilter Enclosed Type Ammonia Compressor



An ideal ice machine for the moderate size plant. Modern in design, made of high grade materials and thoroughly inspected and tested. Let us send a copy of our Bulletin No. 29R to you. It tells of the force feed lubrication to the piston pins, the easily operated Vilter plate valves, the oil sealed stuffing box and gives other information of value.

Let us Submit quotations on your requirements —no obligations to you.

The
Vilter Manufacturing Company
ESTABLISHED 1867
875 Clinton Street Milwaukee, Wis.

See also pages 120-121 in Olsen's Dairy Industries (Condensed) Catalogs.

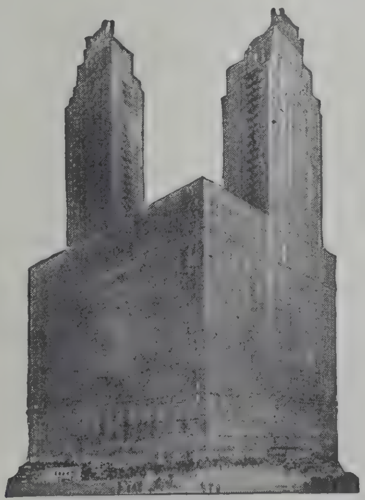
When in CHICAGO

Enjoy your stay — at the superb new

MORRISON HOTEL

Cor. Madison and Clark Streets

The Tallest Hotel in the World
Forty-six Stories High



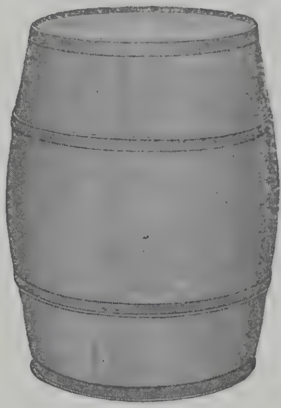
The New Morrison, when completed, will be the largest and tallest hotel in the world, containing 3,400 rooms

Closest in the city to offices, theatres, stores and railroad stations

1,944 Rooms $2.50 Up

—all outside, each with bath, running ice water, bed-head reading lamp and Servidor.

Home of the TERRACE GARDEN



Particularly Made for

Powdered MILK

Jacobs Barrels

Made for the purpose they are to serve. They are tight and stay tight. Strong — to withstand shipping. Clean and attractive as a sales package.

OUR PRICES ARE RIGHT
SEND FOR THEM

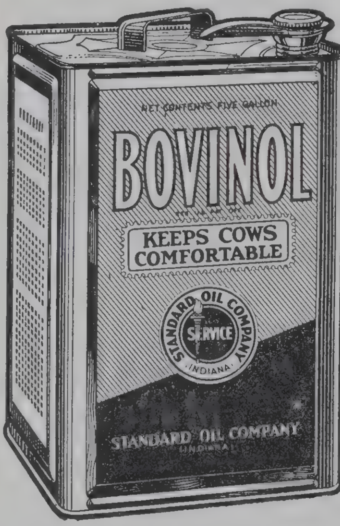
K. W. Jacobs Cooperage Co.
19th and St. Paul Ave. - Milwaukee, Wis.

More Milk by Using

BOVINOL
REG U S PAT OFF

Agricultural experiments and practical dairy tests have proved that the consistent use of Bovinol will cause a 10% increase in milk production. More milk means more profit.

Bovinol protects cows from flies. Cows waste energy fighting flies. Scientists estimate that the energy used by an animal in fighting flies is equal to the food value of a pound of oats per head per day. Bovinol prevents this waste of energy.



It's easy to apply Bovinol—takes less than a minute to spray one cow. Use the compressed air type of sprayer in which the oil is forced out by air pressure and is further atomized by an air blast. Spray the cow night and morning, taking care to cover every square inch of the hide. Bovinol will thoroughly penetrate if you spray against the direction of the hair.

Bovinol is a pure and highly refined oil, stainless, odorless, and tasteless. It contains nothing that will irritate or injure the hide of the animal—in fact many dairymen use it as a dressing for cuts and scratches.

Cows will graze in comfort after being sprayed with Bovinol and your kindness will be repaid by larger milk yield. Every morning and every evening spray your cows with Bovinol.

BOVINOL
REG. U.S. PAT. OFF.

Sold in Cans and Barrels

Tasteless • Odorless • Colorless

A Scientific Product Characterized By All the Efficiency Customary in Products of the
STANDARD OIL COMPANY
(Indiana)
910 So. Michigan Avenue, Chicago

Ask the Nearest Standard Oil Agent
4704B

PROGRAM OF AMERICAN DAIRY SCIENCE ASSOCIATION.

Special Meeting of Southern Division at Memphis, Tenn., Gayoso Hotel, Tuesday, October 18, 1927.

"The Work of the Bureau of Dairy Industry, U. S. Department of Agriculture."

Dr. C. W. Larson, chief, Bureau of Dairy Industry:
"Organization and Facilities of the Bureau of Dairy Industry."

Dr. L. A. Rogers, in charge of Dairy Research Laboratories:
"The Work of the Dairy Laboratories."

J. H. McClain, in charge of Dairy Introduction:
"Study of Bulls Heading Dairy-Herd Improvement Association Herds."

Dr. J. C. McDowell, Dairy Husbandman:
"Investigations of Dairy Herd Records."

J. B. Parker, Associate Dairy Husbandman:
"Development and Growth of Dairy-Herd Improvement Associations."

T. E. Woodward, in charge of Beltsville Dairy Farm:
"The Work of the Beltsville Farm."

Dr. Bradford Knapp, President Oklahoma A. and M. College, formerly with U. S. Dept. of Agriculture:
"Dairying in the South."

Ernest Kelly, in charge of Market Milk Investigations:
"Market Milk Investigations."
"Bacteriological Studies in Milk Plants."

R. R. Graves, in charge of Dairy Cattle Breeding Investigations:
"Dairy Cattle Breeding Investigations."

M. H. Fohrman, Dairy Husbandman:
"Systems of Mating."

W. W. Swett, Dairy Husbandman:
"Relation of Conformation and Anatomy to Producing Ability."

American Dairy Science Association sectional meetings for election of officers.

* * *

COMMISSIONER OF AGRICULTURE WRITES DRASTIC ORDERS FOR COLUMBUS, GA.

Eugene Talmadge, commissioner of agriculture, Columbus, Ga., has just issued two drastic orders, one in reference to the manufacture of milk from "milk powders" and the other prohibiting the use of butter in the manufacture of ice cream. The orders follow:

"All hotels and restaurants, soda founts, and any place serving the public with such manufactured milk, emulsified or homogenized cream, shall post in a conspicuous place in their establishment a placard, heavy faced type, not less than one inch high, reading: 'We serve manufactured milk, homogenized or emulsified cream.'

"All places where ice cream is served made from manufactured milk and emulsified or homogenized cream will post in front of the soda fount, or in a conspicuous place in their establishment, a placard, in heavy faced type, not less than one inch high, reading: 'We serve cream made out of manufactured milk and emulsified or homogenized cream.'

"Anyone found violating the above ruling will be promptly dealt with."

EUGENE TALMADGE,
Commissioner.

* * *

Need a good man for that new department of yours? You can get in touch with a lot of them through "The Milk Dealer" Want Ad Department.

To Preserve

Chocolate Milk

Or Similar Products Packed
— IN —
Glass Bottles or Tins

USE THE

FORT WAYNE AGITATING TYPE STERILIZER

Backed by
TWENTY YEARS OF EXPERIENCE

Built to Meet Any Requirements as to Capacity or Type of Container

Fort Wayne Dairy Equipment Co.
1600 WINTER ST. FORT WAYNE, IND.

Our Whole Effort

— so far as the Dairy Industry is concerned, is directed toward one purpose—the production of high grade

Powdered Milk Barrels

— and our relations with the trade attests the fact that we are producing barrels which fully meet the exacting requirements of this industry.

ALL STANDARD SIZES

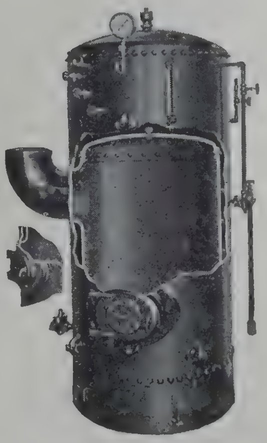
Illinois Cooperage Mfg. Co.
General Office: 220 S. State St.
CHICAGO

FACTORIES IN SEVEN STATES

The Famous Flueless — Boiler —

Famous as a Quick Steam Producer.
Famous as a Fuel and Repair Economizer.

BOILER is regularly constructed with extension to form ash pit, but can be furnished with cast iron base, in all sizes up to and including 48 in. diameter, without extra charge. Boiler comes complete with fire door and frame, ash door, grates, elbow and damper, hand hole plates complete. Steam trimmings include safety valve, steam gauge and syphon, water gauge, gauge cocks, blow-off valve, injector complete with check and feed valve. All constructed to comply with the A. S. M. E. code for 100 lbs. working pressure and tested to 150 lbs. hydrostatic pressure.

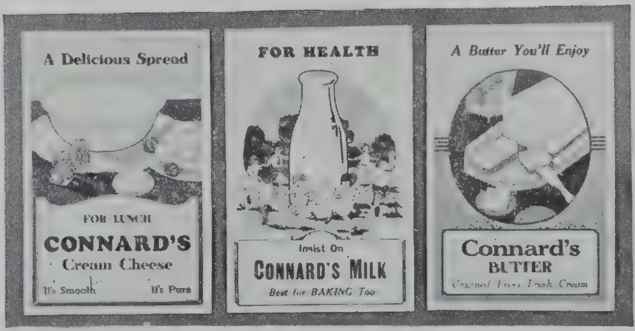


Boilers carried in stock at all times.

See your nearest jobber for further particulars.

Schwab Boiler & Machine Company
16th & Canal Streets
MILWAUKEE, WIS.

See also page 171 in Olsen's Dairy Industries (Condensed) Catalogs.



Increase Your Sales

Supply your dealers with these attractive sales producing display cards. Size 9 x 14 inches, printed in four colors with easels attached.

Also attractive LETTER HEADS for creamery and dairymen.

Send for samples now as each particular number is sold to but one firm in a city. Use Coupon below.

SAN-DEL PRTG. CO. 604 Gratiot St. ST. LOUIS, MO.
"Creators of Snappy Advertising"

CLIP HERE AND PIN ON YOUR LETTER HEAD

San-Del Prtg. Co.
604 Gratiot St., St. Louis

We wish to secure the sole rights in our city of your advertising material, which we may select from the free samples you may send to us.

Sending for the samples and prices obligates us in no way.

Name ....
Address ....
City .... *State* ....
Approximate number of dealers ....

"I ACCUSE THE MILK DEALER."

(Continued from page 45)

Certainly he cashed it. Did the check come back? It did. It was pure forgery. Nobody is going to jail about it, either.

Now, you may think that's funny. It isn't. That fellow is a member of the public. His freaky little mind is a little different from the main of us because he was out and out dishonest. It wasn't the five dollars. Nobody is going to risk a stretch in jail for five dollars. He just wanted to get away with something!

He got more kick out of putting over that little cheating game on that salesmanager than you or I would get out of landing a ten thousand dollar order.

I tell you we members of the public, who deal with milk dealers, are a funny sort of people. You ought to know more about us. You ought to have some contact people. You and I are strangers, Mr. Milk Dealer. If you just make up your mind to pay more attention to us both are going to profit, but you most of all, for then we won't be able to put anything over on you—and you won't let anybody put anything over on us. Because we won't stand for it. We spend our money with you. It's all right for us to put something over, but we howl like bloody murder when somebody tries it on us.

Now, there was a system of thievery going on in an apartment once. Milk and butter were mysteriously disappearing from in front of people's doors. We all raised the dickens with the company, thinking the driver was at fault. Some of us almost had fist fights with him, and if you have ever gotten into an argument with anybody at five o'clock in the morning, you can easily understand how it is not difficult to get in a fist fight at that time of the night.

But in the end we were convinced the driver was doing his duty. We almost cost him his job. We did make the company make good on all the milk and butter we lost. But after awhile it was discovered that the janitor's wife was getting away with these dairy products. What did she do with all of that stuff? Heaven only knows! She and her whole family couldn't dispose of it all the regular way if they ate seven times a day.

She was just born that way. Wanted to put something over on somebody, not in the innocent way, but in the out and out dishonest way.

Oh, of course, you are familiar with the various little tricks of putting over things followed by the boys and girls who crack the neck off a milk bottle, spit out a mouthful of glass, scream and swear they have been ruined by milk from a broken bottle. That's the softest graft known, one of my lawyer friends told me, for he said all milk dealers are suckers.

Just like that he said it, sort of contemptuously—"All of 'em—just suckers!"

If I were a milk dealer, just on general principles I wouldn't long stand for any such condition as that I don't advise everybody to go to court, and I know the milk dealer, as a business man, hates to go to court but I would fight that thing out with these hoodlums to a fare-ye-well.

Somebody with a flare for statistics might put out some figures showing how much it costs the milk industry not to know more about me—John Jones—and my kind. He ought to add to this total figure the amount of money the industry might make, which it isn't, by knowing more about us. It would, no doubt come to a staggering grand total.

There's a certain sort of satisfaction in doing business with a fellow you know. That's the reason I mentioned this little cigar store man in the beginning. He hasn't anything to do with selling milk except this: he shows how important it is to know a fellow, to make a man feel that he understands him, so that fellow will always come back to him when he wants to trade. I'll walk five blocks without a cigar just for the privilege of buying it from this boy.

And the funny thing about it is, I don't know his name!

But as I said before we people who spend money are particular. We want you to know us, to show an interest in us, to cater to us. You don't like that, do you? I don't like to have to do that either with the people I sell, but I do—because it's good business.

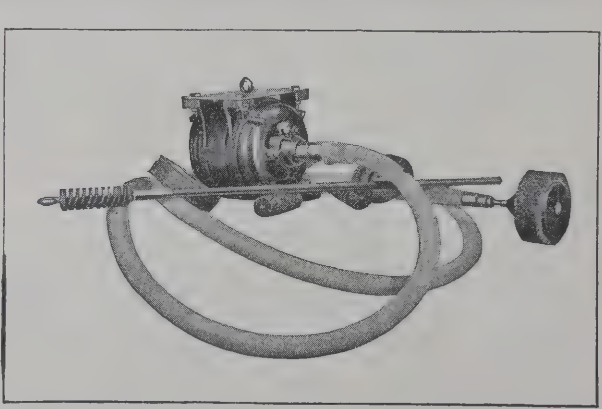
⁂

GOLDEN STATE MILK PRODUCTS COMPANY BUYS NATIONAL DAIRY STOCK.

The entire capital stock of the National Dairy Company of San Francisco, Calif., has been purchased by the Golden State Milk Products Company. As a result of the recent acquisition the Golden State becomes a complete unit in the creamery business, having production, manufacturing and distributing departments. It is said to be one of the largest organizations of its kind west of the Rocky Mountains.

In 1912 the National Dairy Company acquired several small companies and gradually built up a large business, and particularly since its $1,500,000 capitalization the Golden State Milk Products Company has expanded considerably.

It has dealt in the wholesaling of milk products in northern California for many years, having plants located at Oakland, Merced, Los Banos and Newman, the best dairy sections in the state.



The King Cleaner *vs.* Steel Wool and Harsh Brushes

RESULTS—Both will keep Sanitary Piping and tubular pasteurizing equipment perfectly clean,—but—the King Cleaner will not ruin the tubing, and requires far less time and effort for the work.

Send us diameters and lengths of tubing in your equipment and we will advise you size and price of Cleaner needed.

King Sanitary Pipe Cleaner Co., Inc.
SANDY HOOK, CONN.

SAVE

25% Fire and Tornado INSURANCE

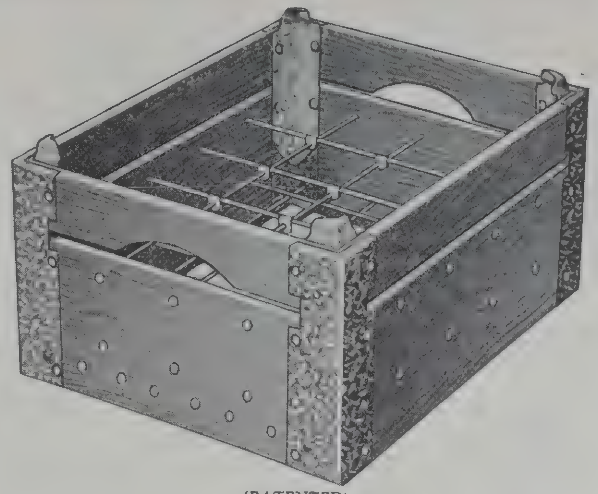
20% Workmen's Compensation Automobile, Teams and Other Liability Insurance

$5,036,000.00
Savings Returned to Policyholders

$4,311,000.00
Surplus and Reserve

Loss Adjustment Service Everywhere

Bruce Dodson and Company
Established 1900
28 & Wyandotte Kansas City, Mo.



(PATENTED)

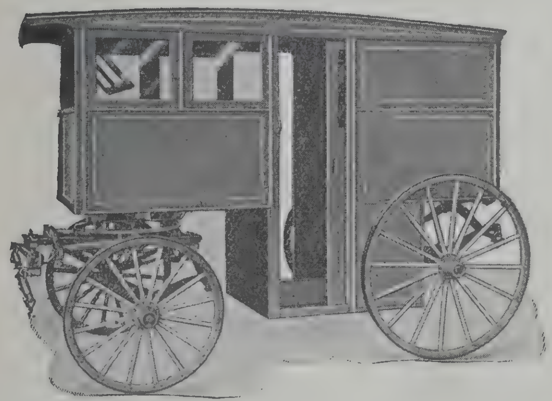
"The STANLEY"
SATISFIES!

Heavy galv. corner irons overlapped at top and bottom.
Long galv. stacking irons riveted through corner irons.
Strong — Durable — Yet light in weight.
Bottom runners if desired.
Will stack on any standard size cases.
Simplest and strongest construction — lowest in price.

WRITE FOR PRICES BEFORE YOU BUY AND REMEMBER *STANLEY'S* SATISFY.

THE STANLEY MILK CASE CO.
Front, Second and Lawrence Sts. CINCINNATI, OHIO

Sturdy Construction MEANS ECONOMY



We have built milk wagons for over 25 years and fully understand the needs of the dairyman in this line. We make a specialty of installing equipment for carrying cases in any of our wagons.

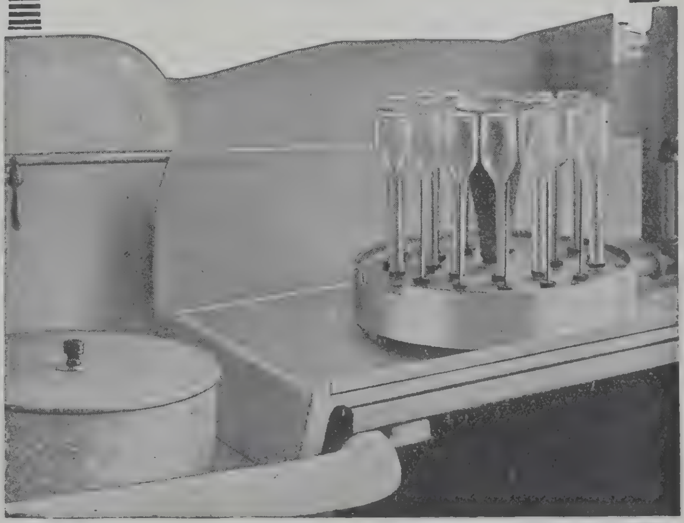
Send for our No. 48 free catalog showing eight styles and many sizes of gear from which to make selections

Special Wagons Built to Order.

DeKalb Wagon Company
300 Garden Street DE KALB, ILL.

See also page 81 in Olsen's Dairy Industries (Condensed) Catalogs.

Wilson
Test Bottle Washer
A Steam and Hot Water Pressure Washer



Simple to Install—Washes Quick and Clean.
Made in 2 sizes to wash 24 or 36 Milk or Cream Bottles—*and it does it in 2 to 3 minutes.*
No Brushing — Stops Breaking of Bottles.
Send for Leaflet explaining operation.

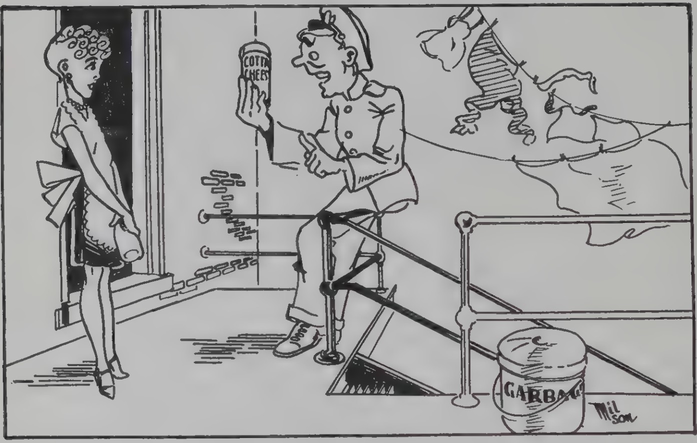
Stout Mfg. Co., 610 Sycamore
Milwaukee, Wis.

See also page 94 in Olsen's Dairy Industries (Condensed) Catalogs.

MIKE THE MILKMAN

BOOSTING SIDE LINES

I'm boosting side-lines every day and building extra trade that way! I'm boosting daily, if you please, our special brand of cottage cheese, put up in packages so neat they're mighty, mighty hard to beat! My boss was just a trifle slow on pushing cheese, I'd have you know; he figured there was small demand—just why I couldn't understand—and figured I would waste my words and waste my time in selling curds! But, I persisted, begged a chance, and gave the boss a song and dance: "I may not sell it, boss," said I, "but it can do no harm to try. Put it in packages like THESE, the proper size for cottage cheese, and I can almost guarantee you'll get good news tonight from me!" He yielded me my chance, and say, I did my level best that day! My Land of Living, how it went! I sold that cheese election bent! It went like lollypops and sweets, like patty-cakes and other eats, it went like cakes and butterscotch! I raised my chest another notch, I reared my chin an inch or so; it did me good to see it go! The boss was more than overjoyed. Now every driver that's employed is selling curds to beat the band—there surely is a fine demand! Since that worked out as fine as silk I tried our chocolated milk, and coffee syrup, don't you see, and say the boss has faith in me! He treated me supremely fine, equipped me with the proper line, and as I knew I surely could I more than made my promise good! It's working dandy every day, I'm stowing added sales away, I'M making money for the boss where formerly he suffered loss! I'm selling side-lines, as I said, and killing off the overhead!—J. Edw. Tufft, Grand Forks, N. Dak.



* * *

ALL MISSISSIPPI DAIRY CATTLE TO BE EXEMPT FROM TAXATION FOR FIVE YEARS.

Widespread interest has been awakened all over Mississippi in Gov. Murphree's announcement that he favors the exemption from taxation of all dairy cattle for a period of five years. The people of the state are very interested in the proposed plan to aid dairy farmers to secure a start in the dairy industry by holding their taxes down for a number of years.

Mississippi is naturally a dairying state, being blessed with climate conditions suitable to this undertaking, with eight months growing season, mild winters, which do not require stone housing for cattle, fine transportation systems, and many other advantages.

EDDIE PEABODY, BANJO KING, DRINKS EIGHT QUARTS OF MILK DAILY.

"In the business of leading an orchestra in these modern times when an orchestra leader must be everything from a tight-rope walker to an opera singer, health and vivacity are mighty important factors," says Eddie Peabody, king of the banjo and impresario-at-large, now appearing at the Fifth Avenue Theatre, New York City.

"And how do I retain my good health and ability to cavort across the boards daily and nightly as I have been doing since I have been leading an orchestra and between times making Victor records?

"It's a cinch! The big secret is simply this—drink milk and lots of it.

"Yes, sir! There's the secret of the whole thing. Why if more people knew what just plain, ordinary, pure milk could do for them and would follow the hunch, sickness would soon be an unheard of thing and even the 'tried business man' could sit through an afterdinner speech without going to sleep on the third word.

"It might sound offcolor to persons who are not accustomed to drinking milk, but I drink eight quarts of milk every day.

"Of course, I don't drink much of anything else—there isn't any room for it, but for me my health must be at top-notch every minute or I can't give the public the kind of performance they have learned to expect and appreciate.

"I have tried to be different from the other orchestra leaders and in doing so I have chosen a style that demands the most exacting care of my health. You can imagine what kind of a half-hearted flop I'd be if I wasn't full of the well-known 'wim, wigor and witality' every minute of the day and night.

"But in chosing a brand of milk, like chosing anything else of importance, one must be very careful. Milk from tuberculin tested cows is the only safe bet."

* * *

NEW BABIES—BRIDES—NEW RESIDENTS.

(Continued from page 39)

"Forgetting to call for bottles is one of the most common, and most costly oversights made by milk dealers. Each bottle represents an investment greater than the profit on the bottle of milk. To lose the bottle means a loss of more than the profit. For that reason we watch the bottles sent out to dealers and to organizations purchasing their dairy supplies from us.

"Just as we did in the case of the lodge, we charge each dealer for the bottles we deliver to him and credit his account with the bottles returned. For instance, if our deliveryman leaves two dozen quarts of milk, the dealer must give him two dozen empty bottles, or he is charged for the difference.

"After our milk or cream has been delivered to a dealer, we accept no returns. This is also true in our sales to organizations. Every sale is final. Sour milk is absolutely worthless to us. So we have advised dealers to buy only as much milk and cream as they can sell. After they have ordered the milk and it has been delivered to them, it is theirs. They have bought it and are expected to pay for it.

"We make our deliverymen personally responsible for the credit of our customers. This has cut down the losses from bad accounts. Before a deliveryman fills the order of a new customer, he personally investigates his credit. The local association of commerce has a bureau devoted to getting and supplying this information. We do not solicit or want the business of persons of doubtful credit."

The Milk Dealer Advertisers Keep You Informed of What Is New.

COWLES CLEANER for

thorough cleaning of bottles and all dairy equipment.

THE COWLES DETERGENT CO.

565 Commonwealth Building
Euclid Avenue at East 102nd Street
Cleveland, Ohio.

ARCUS COUPON BOOKS

Hold the Trade of Customers who move

When a family moves to another address in town you are likely to lose their trade, *unless* they have a paid-for coupon book.

Coupon books also encourage more liberal ordering. Statistics prove this.

If not now a coupon-book user, write us for samples and prices. If you now use books of another make, send us a sample and let us quote you on a stated quantity.

The Arcus Ticket Company
350 N. Ashland Avenue **CHICAGO, ILL.**

See also page 72 in Olsen's Dairy Industries (Condensed) Catalogs.

The
Care and Handling
of MILK

By HAROLD E. ROSS

¶ The newest book on the subject. Over 400 pages. Many illustrations.

¶ A guide for all interested in the care and handling of milk and its use as a food.

SENT ANYWHERE POST-PAID ON RECEIPT OF

$3.00

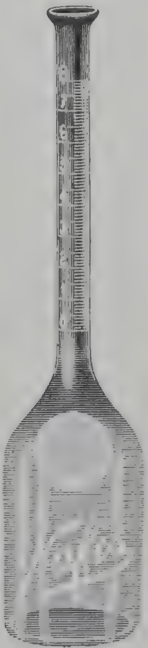
The Olsen Publishing Co.
501-515 Cherry St. Milwaukee, Wisconsin

ACCURACY

Is the Prime Requisite for Test Bottles
Every

Nafis Test Bottle

IS RETESTED AND GUARANTEED ACCURATE



Increase Your Profits by Regular Use of Them.

They are also strong and convenient to use.

Specify NAFIS GLASSWARE to your jobbers

Do not accept substitutes.

Write for our helpful catalog.

LOUIS F. NAFIS, Inc.
Manufacturers of Testing Glassware for the Dairy Industries

17-23 N. Desplaines Street
Chicago

ASK THE MEN WHO USE IT

See also page 33 in Olsen's Dairy Industries (Condensed) Catalogs.

WASHINGTON — MAINE

Notes From Far and Near

CALIFORNIA — FLORIDA

Owensboro, Ky.—A recent survey showed that 600 Carlisle county farmers are selling milk or cream. This is an increase of 1,000 per cent in four years, according to County Agent L. C. Pace.

Long Branch, N. J.—M. McCue Dairy has installed a can washer and drier. Thomas McCue is the manager of the plant, succeeding his brother Martin, Jr.

Cortland, Ill.—Brown & Frey, Inc., a newly organized concern, manufacture and deal in dairy products, food products, poultry, produce, etc. The incorporators are Roy E. Brown, Reuben Frey, Martha Brown and Grace M. Frey. The correspondent is Smith & Brewer, First National Bank Bldg., Sycamore.

Douglas, Wyo.—Converse county ranks second in the state in dairying, being excelled by Laramie county.

South River, N. J.—The Allgair Milk and Cream Co. have installed a large glass-lined storage tank for milk.

Lansing, Mich.—Plans for construction of new units to the Lansing Dairy Company's plant, at 518 N. Cedar St., were announced by H. C. Hansen, general manager of the company. The new unit will be built on property adjoining the northern line of the present dairy. The plans call for a one-story brick building 56 feet wide, by 62 feet long.

Helena, Mont.—James McHugh, well known dairyman in Helena and vicinity, passed away at a local hospital on Aug. 25th, at the age of 72.

Ames, Ia.—Contracts for the erection and equipping of the new dairy building at Iowa State College, at an estimated cost of $100,000, have been let and construction will be begun within a few days.

Columbia, Miss.—The Oaklawn Dairy, of which Allen Simmons is the proprietor, it is reported, will erect a dairy barn, sanitary milk house and install equipment to sterilize bottles, utensils, etc.

El Dorado, Ark.—The John Dairy Company, Inc., has a capital of $30,000. The incorporators are W. B. Johnson, P. Weber and L. B. Smead.

Malone, N. Y.—New speed records in the building and equipment of milk plants are now being made in Clinton and Essex counties, where plants of the Dairymen's League Co-operative Association are being constructed. A. J. Vroman is chief of the League's engineering department.

Longview, Tex.—According to J. E. Stanford, agricultural director of the East Texas chamber of commerce, plans have been perfected for the Texas exhibit at the National Dairy Show, which will be held in Memphis, Tenn., in connection with the Tri-State Fair to be held there in October.

Burlington, N. J.—J. M. Allen is remodeling his plant on Juniper Street preparatory to the installation of a pasteurizing plant.

Fremont, O.—C. E. Blackman, for the past two years manager and owner of the City Dairy, announced that the big plant on North Clover Street is closed. Mr. Blackman will continue to operate a milk route, however.

Mackay, Idaho.—Four years ago Andrew Hintze, and his brother Melvin, started in the dairy business near Mackay, on a very small scale. Today their gross income in $650 per month, of which they get $450 from their own cows. The Lost River Valley, in which they are located, presents many good opportunities for successful dairying.

Squankum, N. J.—W. VanSchoick has just completed a new pasteurizing plant with all new equipment.

Middlesex Borough, N. J.—Maple Lawn Dairy have just placed a new filler and capper in their plant, and have also installed a large glass-lined storage tank for milk.

Norwalk, O.—By November 1st of this year the Wisconsin Food Products Ohio Company will be using more than 25,000 pounds of milk per day, for which they will pay the farmers of this community more than $600 a day. The Kiwanis Club of this city is responsible for the locating of this plant in this city.

Bradenton, Fla.—S. V. Harris has been elected president of the Manatee County Dairymen's Association, with H. C. Slaughter as vice-president; L. P. Wilson, secretary-treasurer, and E. L. Ayers as representatives on the board of directors of the state association.

Port Huron, Mich.—Sanitation is one of the most vital points being stressed at the North Side Dairy, 2329 Tenth Ave., of which W. Grierson is the proprietor. The dairy is equipped with the latest sanitary devices and with the latest production machinery.

Macon, Ga.—Organization of the Dairy Products Manufacturers of the state of Georgia to bring skilled leadership and co-ordination into the infant dairy products industry of the state was perfected at a meeting of manufacturers from all parts of the state. The new association, for which petition for charter was filed in Fulton County after a preliminary meeting in Atlanta two weeks ago, comprises the principal consumers of milk and cream in Georgia organized into three autonomous divisions, ice cream, bottled milk distributors, and butter and cheese manufacturers. H. C. Antrim and J. D. Kinnett are the president and treasurer of the organization.

Hialeah, Fla.—This town is to have a new dairy, work already having been started on it. It is located at Thirty-third Street and the Seaboard tracks. It is expected to be in operation about the middle of September. Rudolph Anderson is the owner.

Phoenix, Ariz.—The plant of the Mesa Dairy & Ice Co will be rebuilt this fall, at a cost of $100,000.

Davenport, Ia.—It has been announced that Walter and Lawrence Strayer of Rock Island have taken over the management of the Co-operative Dairy Co. and have agreed to put it on a paying basis.

Granite City, Ill.—Fire of undetermined origin destroyed several of the George Marko dairy buildings at an early hour causing damage totaling about $7,000. The loss is partially covered by insurance.

Asbury, Park, N. J.—W. R. Sickles of 1100 Sunset Avenue has now arranged to buy his milk on a butterfat basis.

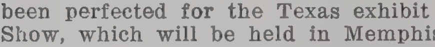
Newark, N. J.—The L. W. Robbins Co. has made an announcement to the effect that it has affiliated with the Philadelphia Dairy Products Corp., a subsidiary of the United States Dairy Products Corp.

Youngstown, O.—The $50,000 plant of the Warren Sanitary Milk Co. is completed. The company is headed by B. A Millik of Youngstown, S. L. Stauffer, H. W. Tisher and E W. Patton.

Lafayette, Ind.—Elmer Mennen, Inc., has a capital stock of $25,000. It is the object of this concern to deal in milk

COUNT 'EM ACCURATELY—BOTTLE or CASE

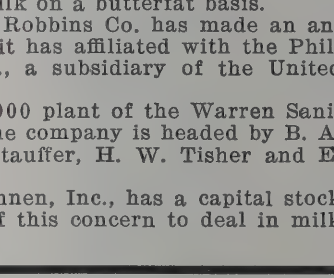
PRODUCTIMETER
Conveyor Counter



Productimeters recording daily volume on important machines or operations give you an accurate count, in plain figures, quickly and dependably. They tell you at a glance just what has been done in a given period of time; make it easy to figure costs, bottle and case requirements, etc.

Built in various models—to fit washing, filling, sealing machines, conveyors, and to tally bottles, cases, packages, boxes. Our Service Department advises you which model is best for particular applications. Write for the Productimeter Catalog, telling us what you wish to count.

Durant Mfg. Co., 663 Buffum St., Milwaukee, Wis.



Productimeter Bottle Counter

BEST

FOR REFRIGERATION AND COLD STORAGE

FOR greatest efficiency, economy and dependability in your refrigerating and cold storage requirements, it will pay you to investigate the "Sterling" line.

SPECIALISTS FOR OVER 30 YEARS

"Sterling" has been manufactured for over thirty years and many installations today are satisfying their owners. Catalogs will be sent or a representative will call, upon request. No obligation.

UNITED IRON WORKS, Inc.
[General Office, Kansas City, Mo.]
SPRINGFIELD, MO.

Erecting Engineers Co.
4725 W. Lake St.
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O. G. Eubanks
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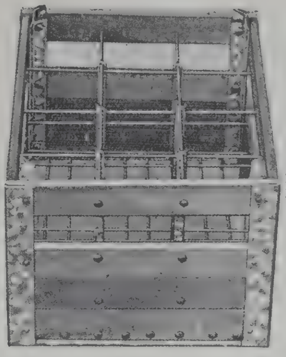
"STERLING"
MECHANICAL REFRIGERATION

"UNITED" IRON WORKS INC. REG. U.S. PAT. OFF. FOR SERVICE



Armor Klad Bottle Cases protect the contents—just as the Armor did for the knights of old. Built for a battle of bumps and to make friends.

Let us demonstrate that Armor Klad Cases eliminate bottle breakage.

At Cleveland, Booth 423-A, West Annex

G. H. Tennant Company
1819 Marshall Street, N. E.
MINNEAPOLIS, MINNESOTA

If You Want Retail Increase—

Get in touch with the firm—

Which has specialized for six years in just this work, and has become well and favorably known in the trade;

Which has served nearly 250 separate city milk companies, and can refer you with pride to the owners of these concerns;

Which has produced, exclusively through the efforts of driver-salesmen, over 30,000 new retail customers in the last few months.

Just drop a post card to

FINK & PAINE, Inc.
299 Madison Avenue
NEW YORK CITY

We are in touch with more dealers than any other agency in the country. If you want to buy a milk business or sell one, write to us.

You are judged by your drivers

$3.25 each

15% off in dozen lots. Special prices in larger quantities.

Your dairy may be immaculate, your equipment modern, your system the last word in sanitation, but your customers can't see these things. *They see your men* and judge you accordingly.

Dress your men in neat Standard Work Uniforms with your Company name clearly embroidered on back. Heavy materials, triple stitched and reinforced. Will look well after months of hard service. The finest made.

Standard WORK UNIFORMS

Choice of blue denim, white, hickory stripe, express stripe, fancy blue and gold stripe. All Union Made. Name or trade-mark embroidered in fast colors for 25c per garment.

THE STANDARD GARMENT CO.
TOLEDO, OHIO

and cream and other dairy products. The incorporators are Elmer Mennen, Charles W. Brand and Lula G. Mennen.

Grand Rapids, Mich.—The Furniture City has been selected for the 1928 convention of the Michigan Allied Dairy Association, according to D. W. Shiel of Hillsdale, secretary of the association. It is expected about 300 dairymen will attend the convention which will be held here the week of February 6th.

Montague, Mich.—Ernest Meyers has filed papers to do business in Muskegon County as the White Lake Dairy.

Pontiac, Mich.—The new Saginaw Street building, constructed by the Home Dairy Company of Flint and Saginaw, will be ready for opening early in November.

Covington, Ky.—The need for greater space to carry on its increased business was answered by the John W. Ladd Company, dealers in dairy machinery, when it took a ten-year lease on the five-story structure at 128 West Third Street.

Croswell, Mich.—The Jersey Farm Dairy Co. of Detroit is planning to erect a building here which will be 30 x 160 feet in size. Machinery will be installed for cooling milk to be taken to Detroit and a plant for pasteurizing the milk will also be added. The plant will also contain the necessary machinery for making cottage cheese.

Paris, Ky.—Mr. and Mrs. W. Willians, of Paris, have sold their dairy business to James Clough, who will continue the business.

Brooklyn, Wis.—The first of a number of local chapters of the Pure Milk Association, dairy producers' organization of the Chicago, Ill., district, was formed here recently, with Park Ames as president. The new association has for its object the organization of farmers producing milk for the Chicago market, and is similar to organizations already existing near the larger market centers. Verne Ellis was chosen treasurer of the Brooklyn chapter, and Harry Hook, secretary.

Aberdeen, Wash.—Work on the new $50,000 Sanitary Dairy at 414 West Wishkah is nearing completion with the date for its opening set for about September 1, according to John Novaselich, general manager of the establishment. The most modern equipment available will be used in the plant and no expense will be spared to make the conditions absolutely sanitary, Mr. Novaselich said. The company is incorporated for $77,000.

Los Angeles, Cal.—According to a survey and milk scoring contest just completed by representatives of the Bureau of Dairy Control, Los Angeles is blessed with a milk supply of high quality. A rating of 95.5 per cent, given the supply as a result of the tests, was 2 per cent higher than that awarded after the last contest.

Sacramento, Cal.—The reorganization of the Sacramento Grade A Milk Producers was recently completed, with A. Marty elected president. The association includes producers in Sacramento, Yuba, Sutter and Yolo Counties, the region from which Sacramento draws most of its milk. The other officers chosen are George Bryte, secretary, and F. L. Giffen, manager.

Beaumont, Cal.—Beaumont is the home of the Armstrong Dairy, a well-known institution in Riverside County. J. C. Armstrong, the owner, is accomplishing much in building up his Guernsey herd along certain blood lines.

Bartow, Fla.—The dairy men of Polk County, including distributors of dairy products, recently met for the purpose of perfecting the organization of the Polk County Dairymen's Association.

Blytheville, Ark.—Citizens of Ekron, Lone Oak and Half Moon, held a meeting in the interest of dairying. The committee from the chamber of commerce here explained plans of the live stock finance corporation to have more cows brought and placed in this section.

Hamilton, O.—According to Dr. Fleming, of the health department, "The people of Hamilton need not fear the milk here, because the local plants are co-operating with the health department in safeguarding the public."

Madison, Wis.—A crowd estimated at nearly 500 attended the annual picnic of the Madison Milk Producers' Association at Olin Park on September 2. Races, games and dancing were features of the program.

Cleveland, O.—The Horten Dairy Co. has been incorporated with a capital stock of $25,000 to manufacture dairy products. Hubert Horten, John Horten and C. W. Horten are the incorporators.

Bridgeport, Conn.—The Mitchell Dairy Co. has purchased the dairy of Mr. Shay here. Mr. Shay will be in the employ of the company for the coming year.

St. Louis, Mo.—The National Dairy Show Association, of which V. A. Vesper is the chairman, is contemplating the erection of a civic center building at an approximate cost of $500,000.

Chicago, Ill.—The Morrisania Dairy Co. has advised that an architect is drawing plans for the erection of a pasteurizing and bottling plant to be erected at Yonkers Avenue and Prescott Street, this city. It will be a two story brick building and will cost approximately $45,000.

Danville, Ill.—The controlling interest of the Blue Banner Dairy, at Fairchild and Robinson Streets, has been sold to three Chicago men. Mr. Lumbrick, formerly owner of the dairy, will remain with the company temporarily.

Madera, Calif.—Marshall Holland, former Fresno milk distributor, has purchased the retail routes and milk distributing business known as the Quality Dairy and owned by W. R. Ennis.

Whittier, Cal.—The Whittier Sanitary Dairy recently sent a caravan consisting of fourteen delivery trucks with the drivers to the Downey Fair, where they took part in the parade which is held each year by exhibitors at the fair. The trucks were appropriately decorated.

Williamson, W. Va.—A large warehouse and a distributing plant is to be erected in the immediate future by the Dairy Products Co. who are also operators of the LeRoy Dairy in that city. The building will provide modern facilities for the business for which it is intended, and will have an exterior of white glazed brick. The new plant when completed will be one of the best of its kind in the state. Charles LeRoy of Williamson is the owner and J. C. Bolden is the Logan manager.

Red Bluff, Calif.—C. L. Eustis, Guernsey breeder, of Los Molinos, and Peter Vonah, of the Western Dairy, are eligible for the award offered by the National Dairy Association. This award is in the form of a certificate with the seal of the association on it, stating that each of the herds has an average of more than three hundred pounds and is given in commendation for achievement in this line.

Chillicothe, O.—Secretary W. A. Wentworth of the Ohio Dairy Products Association, gave an address before the Rotary Club in which he told how the milk industry has developed during the last few years. Mr. Wentworth said that the value of the dairy industry to the farmers during the last year was $2,900,000,000. This, he said, is more than the value of hogs and cattle combined, and is also more than that of corn and wheat combined.

Seattle, Wash.—A 50 x 100 addition to the Royal Dairy will be started immediately next to the present plant on Leary Avenue, it was announced by C. R. Schain, president and general manager of the company. "We figure that it

CREAMERY BOILERS
OF RIVETED STEEL CONSTRUCTION

Brownells comply with ASME and all state codes.

Available in many sizes and models.

A particular model for your particular requirements.

With 72 years experience behind them—definite assurance that YOU will find in the Brownell YOU install both latest design and most experienced workmanship; also those features inherent in boilers of high heating efficiency, long life, and low fuel consumption.

The Brownell Company, Dayton, Ohio
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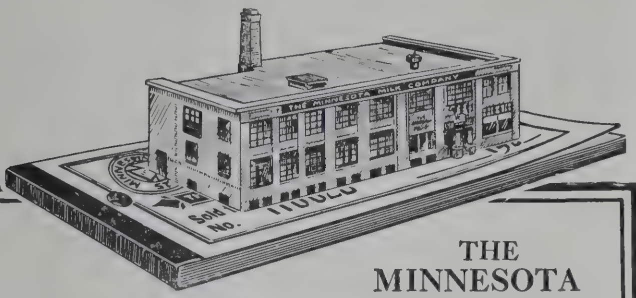
Brownell Representatives in all principal cities ready to serve you.

Illustrated bulletin B-3 ready to mail to you.

Have us figure with you.

National Dairy Coupons



THE
MINNESOTA
MILK CO.

One of the most successful concerns in the U. S. is a steady user of National Coupon books. National Coupons eliminate errors, make records absolutely accurate, stop losses and increase your cash balance. Surely, any system that will do all that is worth investigating. Let us tell you just how YOU can use National Coupons to advantage.

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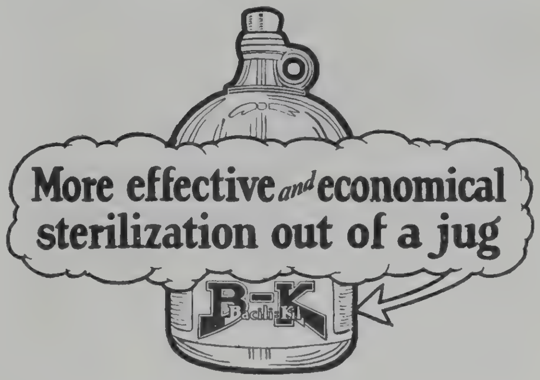
See also page 127 in Olsen's Dairy Industries (Condensed) Catalogs.


More effective and economical sterilization out of a jug
B-K
Bacili-Kil

There's a big swing to B-K. New ideas that are sound, take hold fast now-a-days. For example: radio, bobbed hair, short skirts, Duco finish, balloon tires.

LET US TELL YOU

A lot of big plants have been testing chemical sterilization and the results show amazing efficiency and economy. Write for full information.

GENERAL LABORATORIES
Dept. 13J MADISON, WIS.

"Many Advantages No Other Filter Possesses"

That is a frequent comment on

THE
CHICAGO
FILTER

by users in all branches of the dairy industry.

It fits right into the milk line, saving extra floor space.

The larger filtering area offers little resistance to the flow of milk.

Thorough cleaning is simple and quick, and the investment is very reasonable.

There is a size for your plant.
Send for prices and details.

ARTHUR T. BARLASS CO.

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CHICAGO,
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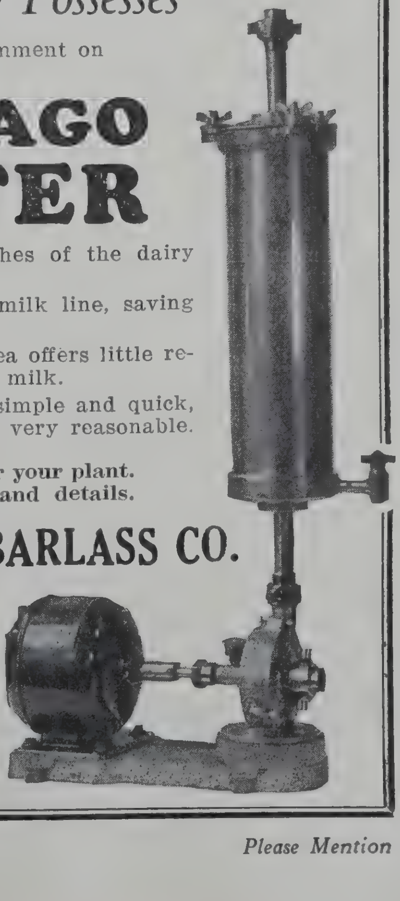
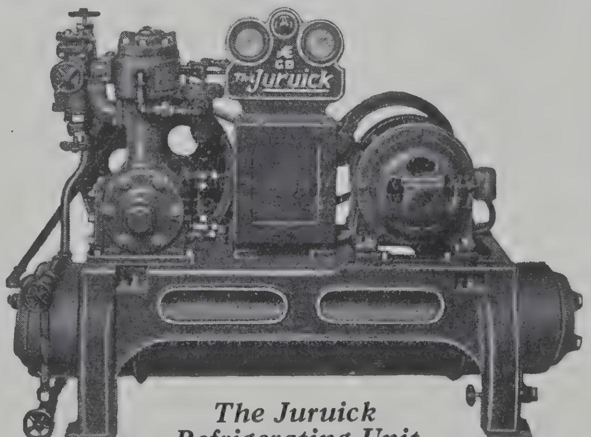


Juruick
REFRIGERATION



The Juruick Refrigerating Unit

Consider the qualities that count in electrical refrigeration...reliability...economy ...ease of operation...low maintenance costs. In all these respects JURUICK REFRIGERATION leads...It is electric refrigeration at its best. Automatic units of every commercial size.

Send for folder, "Turn this Switch."

American Engineering Company
2417 Aramingo Ave., Philadelphia, Pa.

will take about six weeks to complete this work," said Mr. Schain yesterday. "It will be of concrete and has been made necessary by the constant growth of our milk business."

Wilmington, Del.—The American Dairies, Inc., will conduct a general dairy business here. The concern is incorporated with 5,000 shares of no par value stock.

Streator, Ill.—The Streator Milk Co., Inc., is located at 126 S. Park Street. This concern will deal in dairy products of all kinds, and is capitalized at $15,000. The incorporators are Jett Mason, A. J. Burt, George J. Wallis. Correspondent: Jones, Essington & Heflin, 222 Murray Bldg., Streator.

Tuscumbia, Ala.—The Colbert County Milk Men's Association, a co-operative organization of dairymen of Colbert County, has been organized here following a membership meeting at the Courthouse in this city. Organization of the association was for the purpose of enabling the dairymen to join in the purchase of feed and for the general betterment of dairying conditions in this county.

Lexington, Miss.—Business men of this city have employed C. J. Goodell, graduate of Purdue University and an instructor at the Mississippi A. & M. College, for the promotion of the dairy industry in this section. At the present time his efforts will have to be directed toward the elimination of the cattle tick.

Tampa, Fla.—The new city dairy code which has been in effect just a few days more than a month has already proved a success, according to E. C. Levy, chief health officer. The supply of milk has not only improved but the people are gradually giving dairymen and distributors great patronage because of the heightened faith in the quality of the product demanded by provisions of the municipal law.

Huntington, Ore.—Contractors and carpenters are now at work on the erection of what is believed will be the most modern and up-to-date dairy barn in eastern Oregon. The plans call for a concrete structure 40 by 120 feet in dimensions, eight and one-half feet high, with concrete floors, mangers and sewer system. The second story will be of lumber and will hold 125 tons of hay. The roof is to be fashioned after plans known as "hip roof" and the entire height of the building will be 31 feet.

Kenosha, Wis.—The Guernsey Co-operative Milk Co. is one of the best known dairy organizations in the city. It was established a few years ago and has grown rapidly and now has a modern plant in which sanitation is carefully watched. The company is officered as follows: Walter S. Dexter, president; Charles H. Curtiss, vice-president; John Halloway, secretary and treasurer; Carl M. Reed, general manager.

New York, N. Y.—Dr. Louis I. Harris, commissioner of health of New York City, has the interests of the public at heart. He said: "I have no intention of getting milk from impossible distances. Any milk that comes into New York without being properly inspected and passed upon by our own inspectors is out of the question," he continued. "Any one that knows the situation at all knows that a perishable article cannot be brought safely from considerable distances."

Ocala, Fla.—The South Marion and North Marion Dairy Associations met at Lowell the latter part of August for an all-day picnic. County Agent C. R. Hiatt was chairman of all arrangements.

Norwalk, Calif.—Just west of this city is situated the home of the El Colmo Rancho, one of the most up-to-date dairy ranches in southern California, with its famous prize-winning breeds of cattle. The milk produced and bottled there is distributed by the Whittier Sanitary Dairy Co. of 130 S. Comstock Ave., Whittier, which company owns and operates a very modern creamery.

Owatonna, Minn.—Owatonna today has as splendid a pasteurization plant for its size as can be found in Minnesota, with the completion of the modern and ultra-sanitary Owatonna Dairy Co. plant at Winona and North Cedar Sts., under the managmeent of H. R. Bierman.

Albany, N. Y.—A milk producers' advisory board has been formed here, according to P. G. Ten Eyck. "The orderly marketing of the milk supply of the greater New York City milkshed," said Mr. Ten Eyck, "requires that the advisory board be established to eliminate economic waste, establish uniform sales practices and to guarantee an adequate supply of pure milk to consumers."

Bartow, Fla.—The State Council of Home Demonstration Clubs at its annual meeting adopted its program of work for the coming year. One of the main objectives for the coming year of the clubs is to obtain a better milk supply and assist in the efforts to increase the use of milk.

Kendallville, Ind.—Kendallville's new industry, the whole milk plant being constructed off South Main St., will be ready for operation the last Friday of September or the first Friday in October, which announcement was made at a stockholders' meeting. Don Hudson of Ligonier will be manager of the local plant. Directors elected were E. M. Sherman, George Harvey, B. F. Haines, J. W. Harvey, H. G. Eshelman, Morton Wible, John Schermerhorn, John Mertz and I. O. Reinoehl. The directors elected the following officers: John Schermerhorn, president; George Harvey, vice-president; J. W. Mertz, secretary; Glen Thrapp, treasurer and counselor. The executive board will be appointed later.

Chula Vista, Calif.—Fred Walton is the owner and operator of the newly organized Orange Blossom Dairy which recently received a permit to operate as a dairy.

Mt. Sterling, Ky.—James Scott, one of the owners of the Jersey Milk Co., has sold his interest to Miss Nannie Owings and Richmond D. Turley. It is proposed to greatly enlarge the plant enabling it to handle nearly all of the milk and cream produced in the county at a price in excess to that paid by outside concerns. The company will continue to deal in pasteurized milk, creamery butter, ice cream, ices, fresh cream and other dairy products.

Portland, Mich.—Chester Devine is making improvements on his dairy farm north of town. A large garage and milk room is being built, 24 by 50 feet, and the buildings are all being repainted.

Decatur, Ill.—Formal opening of the Union Dairy Products Co. new building was held on Labor Day. The new building is located at 304 South Main St.

Chicago, Ill.—The Douglas Dairy Co., 2254 S. Troy St., has purchased the dairy formerly belonging to John Kilmek at 5324 S. Lockwood Ave.

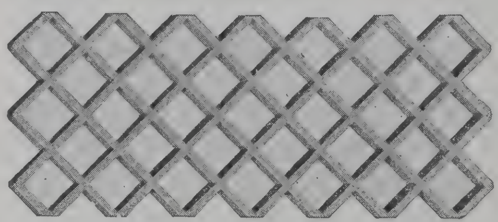
Hollywood, Fla.—Florida Dairy Products, Inc., has changed its name to Dolly Dimple Dairies, Inc.

Jefferson, Ga.—The large dairy barn of T. W. Murphy & Sons at Talmo was burned to the ground. Some insurance was carried on the barn, but none on the contents. Twelve cows perished in the flames.

Jacksonville, Fla.—Opening of a large new dairy plant at West Palm Beach, known as the Dixie Dairies, Inc., and owned and operated exclusively by local men, has been announced. The company has opened offices in the Lakeview Arcade, West Palm Beach. Dr. E. D. Clawson, former health officer of that city, is president and general manager.

South Bend, Ind.—R. S. Stutzman was chairman of the program committee at the annual banquet held on September 8 at the College Inn by the South Bend-Mishawaka Milk Dealers' Bottle Exchange.

EVER-WEAR CEMENT FLOOR PLATES



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Wear Like Iron

Made in two sizes.

11⅞ in. x 11½ in.

11⅞ in. x 5⅛ in.

R. G. WRIGHT & COMPANY

Buffalo, N. Y.

The Truth about Chocolated Milk

WE started it in the South at the Army Camps during the World War and it has now spread over the entire country and is a growing success where the Milk Dealers are using

CHOC-O-LISHUS

[TRADE MARK REG. U. S. PATENT OFFICE]

There is no reason for using imitations.
The original Choc-O-Lishus is just as cheap and it goes further.

It has the true Chocolate Flavor.
It is the best by test.
It deserves your support.

The manufacturers of Choc-O-Lishus are the oldest and largest manufacturers of Chocolate Syrup in the world.

THE CHOC-O-LISHUS CO.
NORFOLK, VIRGINIA

Subsidiary of H. B. HUNTER CO., INC.

When writing to THE CHOC-O-LISHUS CO. *please mention The Milk Dealer.*

When writing to THE J. B. FORD CO. *please mention The Milk Dealer.*

you're going to attend~

NATIONAL DAIRY EXPOSITION

MEMPHIS, TENN. OCT. 15 TO 22, 1927

AND

DAIRY INDUSTRIES EXPOSITION

CLEVELAND, OHIO, OCT. 24 TO 29, 1927

THE J.B. FORD CO. WYANDOTTE MICH.

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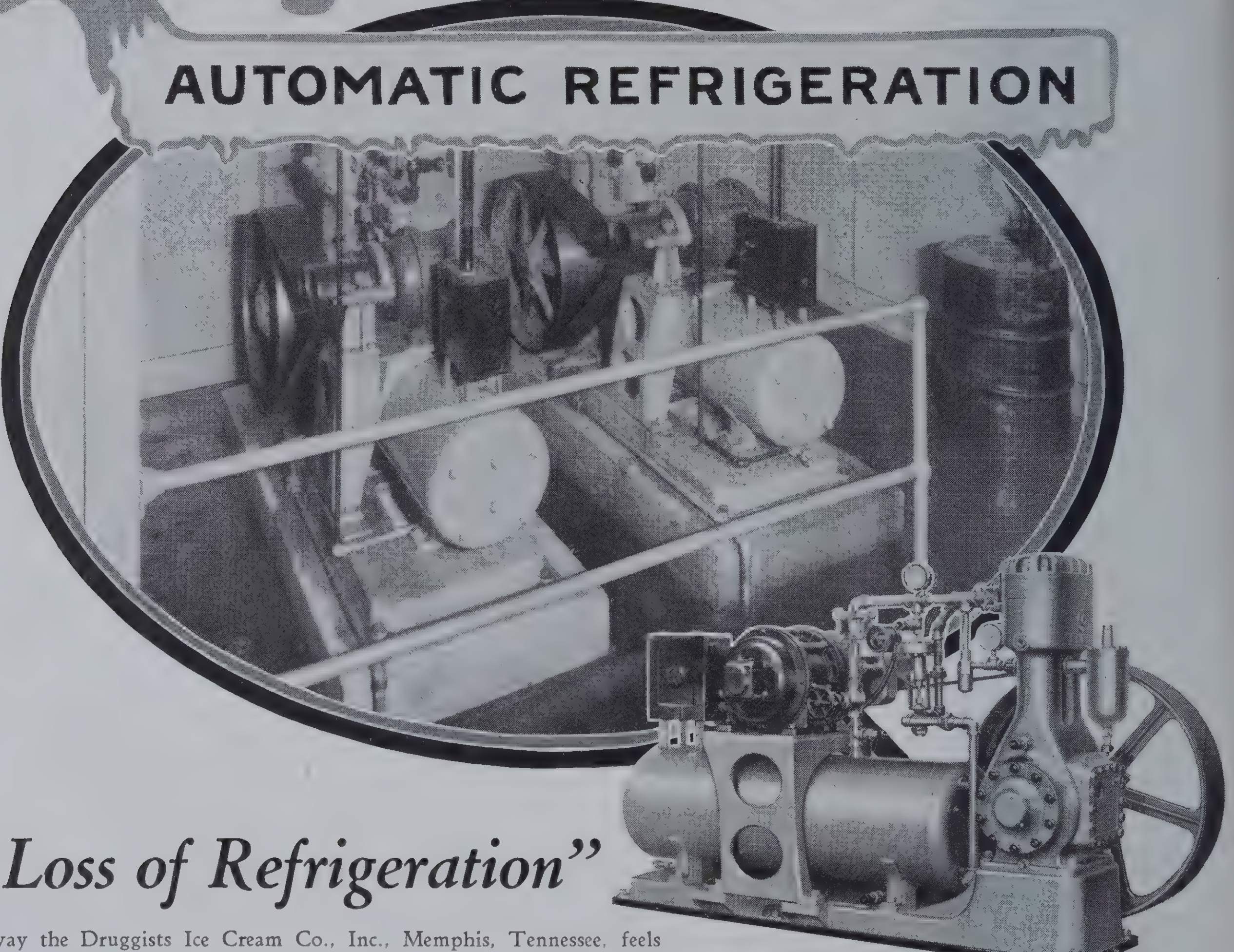
PRODUCTS

When writing to THE J. B. FORD CO. *please mention The Milk Dealer.*

Lipman

AUTOMATIC REFRIGERATION



"No Loss of Refrigeration"

That's the way the Druggists Ice Cream Co., Inc., Memphis, Tennessee, feels about the two Lipman Model 1010s that give it—

Electric Refrigeration

". . . .we are delighted with the operation of the Lipman Ice Cream Plant you designed and installed for us.

"We are certainly pleased with the way the plant is working, especially the twin Model Lipman 1010s, one of which handles the hardening rooms, with a capacity of 2000 gallons daily, automatically, and the other for ice cream making.

"The refrigerating machines require little or no attention, and are ever ready to serve us on any special orders that may come into our plant.

"Due to the design of these machines, there is practically no loss of refrigeration, hence the cost of operation is cut to a minimum.

"We cheerfully recommend the Lipman Full-Automatic for silent operation, economy, and durability."

Note the compactness of the Twin Lipman installation shown above. Ruggedness and unfailing performance make Lipman machines a profitable investment for dairies, ice cream plants, bottling works, and all places where steady, economical service is an essential. Write us for details—or inquire of your local Lipman Distributor.

GENERAL REFRIGERATION COMPANY

116-194 Shirland Ave. Beloit, Wis., U. S. A.

Please send me full particulars including Free Descriptive literature on Lipman Refrigerating Machines.

Name.. St.......................

City.. State..........

THE DRY, CONSTANT COLD OF THE MOUNTAIN TOP.

GR CO

When writing to GENERAL REFRIGERATION COMPANY *please mention The Milk Dealer.*

COWS TO BLAME FOR "PULPY" OR "PASTEBOARDY" FLAVORS.

Storrs, Conn.

Editor The Milk Dealer:

I have read with a great deal of interest the article on "pulpy" milk by Sobey Okuyama in the August number of "The Milk Dealer."

At the Storrs Experiment Station we have been watching for a solution of this problem for some time. Several years ago there was an outbreak of so-called "pasteboardy" milk in the college herd. After samples had been taken from individual cows, the cause of the flavor was attributed to a cow in the herd.

Each year thereafter, particularly in the fall, we have had outbreaks of "pulpy" or as we call it "pasteboardy" milk. In following up the cause of the flavor we checked up every point in the progress of the milk from the cow to bottle. We eliminated all sources such as feed, utensils, pouring tank, pipe lines, cooler, bottling machine and bottles. We find that our sources of "pasteboardy" milk is from the cows.

At the present time we are taking samples weekly from the herd to ascertain which cows are giving the off-flavored milk. Samples are taken into sterile 50-c.c. wide mouth glass bottles. Sometimes the flavor is present in the fresh milk and its intensity increases with age. With other samples of milk from individual cows, the "pasteboardy" flavor develops on standing for 24 hours at 35 degrees F.

We are still working on the cause of "pasteboardy" flavor.

Very truly yours,
E. O. ANDERSON,
Ass't Prof. Dairy Husbandry,
Conn. Agricultural College.

* * *

CHICAGO HEALTH DEPARTMENT WILL HAVE CLEAN MILK AND CREAM.

Hereafter, farmers in and around De Pere, Wis., who ship cream and milk to Chicago, and other Illinois markets, must adhere to more stringent rules governing the handling of milk and cream, which rules were laid down by the Chicago Health Department.

In general the rules require the building of sanitary milk houses on dairy farms, and the establishment of sanitary conditions in cattle barns. Cream and milk is accepted only when coming from tuberculin tested herds. This latter requirement is not a new one, however.

A representative of the Chicago Health Department is making a survey of the farmers and dairymen, acquainting them with the requirements necessary under which they will be acceptable in the Chicago market.

Barns should have cement floors, stanchions and litter-carriers, and the interior whitewashed and kept in a clean condition. Relative to milk houses, they must be sheeted on the outside and finished with wood or plaster in the inside, and must contain concrete tanks. Windows must be screened. Milk should be cooled to 55 degrees before delivered to the creameries. Metal coolers are barred for cooling milk.

Many of the dairymen have the necessary equipment and are producing milk under the sanitary conditions required, but some will have to make necessary improvements.

* * *

You cannot afford to miss a single copy of The Milk Dealer. Have you sent in your renewal?

The Old Way—*Dragging*

The *Nutting* Way—*Rolling*

Grab and Go!
A Stack at a Time!

Delays, "traffic jams," wear on case bottoms—all are ended by this speedy, sturdy truck for handling cases of bottles—the

***Nutting* Milk Case Truck**

Rack holds cases at easiest angle
Steam bent handles
Heavy hardwood frame
Rack Adjustment Teeth to instantly set rack at proper angle
Adjustment Bar with teeth to set Hook at proper heighth for any milk case made
Adjustable Hook fits hand-hole of any milk case made
Large heavy flat-face wheels set for proper balance of truck

Saves time and work in both large and small plants. Order from your jobber. Write us for catalog on floor trucks for the dairy industry.

NUTTING TRUCK CO.
1293 DIVISION STREET FARIBAULT, MINN.

Nutting Floor Truck Specialists Since 1891

William Puts It Over

One of Our Readers Solves the Problem of What to Do With the Kids While He and Friend Wife Go to the World's Dairy Congress Next Spring

"NOW, William," says the wife sharply as I swung into the driveway of my sister's farm, "don't drive so fast or you'll run over Amelia's chickens. There's no use in getting her mad before we start talking to her."

"Alright, my dear," I comes back politely. "But remember what I told you about not sayin' much while I'm doin' the talkin'. I know how to handle Amelia so's she will be glad to keep little Oscar and Gordon while we're gone to Europe. And remember also that if one of your children starts a rumpus so that Amelia gets the idea that they are kinda tough kids, there's two whalings in sight." I slows down and turns my head backwards. "Do you hear that?"

"Yes, papa," chimes the kids sweetly. "We love our Aunt Amelia, don't we, mamma?"

"Some coach you are," I says to the wife. "But don't let 'em put it on too thick. And for goodness sake, keep them out of trouble."

The wife gives out a caustic "huh." "You talk like they wasn't your children at all. Who's to blame if they go about making all the pigs squeal, and chasing the ducks around till they think they're wild geese?"

I had a real snappy answer framed, but just then I pulls up in front of the house and unloads the family to pay our respects to Sister Amelia.

Amelia was washing the supper dishes as we comes in real cordial, and after passin' a couple of "how-do's" back and forth, and doin' a little regulation handshakin', I sees my wife put on an apron and dig in helpin' with the dishes. Women are that way, you know.

"Well!" says Amelia in that screechy voice of hers which got that way callin' my younger brother Henry to get up in the morning. "You ain't been out for a long time."

I glances at the wife meaning for her to keep still and says real nice back to her: "No, Amelia, we ain't. But the children have been asking about you so much, and how was the farm and the chickens, and everything, that we figured it would be a good thing to bring 'em out to see their Aunt Amelia." I smiles kinda brotherly at that one, waiting to see how she'd fall for it.

"Well!" Amelia says non-commital like; and then turning to Elsie, who was helping her dry the dishes, she says: "Maybe you could tell me what you come out for. He," she continues, pointing at me, "has got a slick tongue. Is that children stuff all right for me to fall for? I never know just what to believe when—"

"Now Amelia, that ain't no way for a sister to speak," I says, makin' out like my feelin's were hurt.

"Well, anyway," she says, puttin' away the last of the dishes which were almost all done anyway when we came, "I don't often believe what a man says—not even Sim sometimes." Then she looks at me with a fishy eye. "Where's the children? Didn't you bring 'em along?"

The children! I looked around, not knowin' what to say, hopin' at the same time they weren't in any mischief. "Oh," I says finally, "I guess they're outside playing."

"Playing?" she laughs kinda funny. "You mean wrecking things!"

"Now Amelia, you know the kids is nice. In fact you ought to have a little boy of your own like Gordon or Oscar."

My wife throws a funny look at me, but I pays no attention because I could see that Amelia was sorta took by what I said.

"Well, maybe," she admits, "but kids is a lot of trouble." Then addressing Elsie, she says: "Anyway you could tell me why you come out, and what is the news."

I winks at the wife to keep quiet, but she beams a broad smile and busts out: "William and me is going to Europe next spring!"

"So!" replies Amelia. "I thought it must be something important."

"And we was just wondering Amelia," she keeps on, "if you would take care of Gordon and Oscar while we were gone."

"So!" Amelia announces crisp-like. "You could maybe have said that in the first place."

"Now, listen, Sis," I says, callin' her that to make it sound more brotherly, "the kids ain't had any real fresh air and sunshine for a long time. It would do them a lot of good to be out here for a while with you—"

"Hey!" Sim's voice came bawling out to us through the open door. Hey, William! Come out and git your danged kids outa the water trough!"

Amelia smiles like to say, "I told you so," but I jumps up quick, runs outside and pulls the youngsters out of the water. And after having done my duty as a father should do, with Sim lookin' on and laughin', I comes back to the house, slappin' my wet knees.

"As I was sayin', Amelia," I starts right in as if nothin' had happened, "kids really ought to learn something about—"

"They ought to learn something," Amelia puts in. "They sure ought. But no kids for me, William. I ran my legs off last year trying to keep track of them."

"Of course," I admits, "kids has got to have some fun out of life—"

"Yeh—but they don't have to tear up the place when my back's turned."

"Tush," I says, disbelievin', "Oscar and Gordon is well trained. Ain't they ma?" Elsie just nods and keeps quiet like I told her to. So I says: "But I ain't explained what all the grand racket is about."

"You can explain if you want to," Amelia says, as though she's not interested at all. "But it won't do any good."

"Now Sis," I replies, "you ain't so hard hearted as all that. Well, anyway, next spring there's goin' to be a World's Dairy Congress in London, England. And after the congress there's going to be a tour of Europe. Elsie and me is goin', but we can't take the kids."

"They'd probably sink the ship if you did take them," observes Amelia.

"So Elsie and me wants to know can we park 'em with you for about six weeks?"

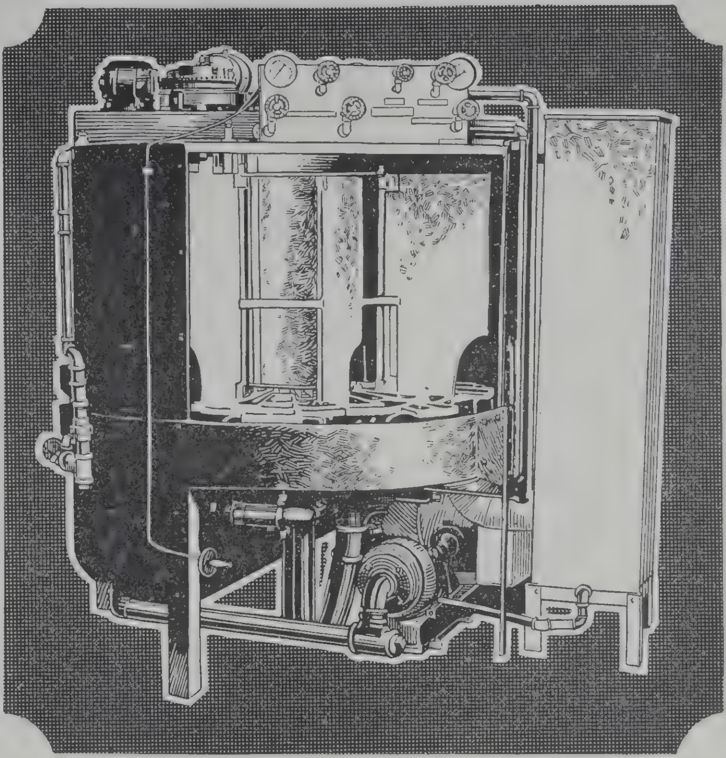
"No. I ain't no garage."

"But listen Sis," I begins all over again, dropping my voice a bit. "Elsie was just saying how she was thinking of bringing you a nice dress from Paris, and maybe one of those spiffy French hats. Of course you know that we wouldn't want you to do us any big favor without payin'—"

"It ain't the money, William. It's the bother. Your

Barber Goodhue
Everything for the Dairy Industry

The R & A Intermittent Rotary Can Washer



MANY voluntary expressions of satisfaction with the R & A Rotary Can Washer come to us regularly from creameries, milk plants and ice cream factories. Wonderfully efficient, durable, economical in upkeep. Delivers a steady stream of absolutely clean, sterilized, dry cans and covers, day after day for years.

Intermittent operation — entirely automatic. Operator simply loads cans and covers. They are carried through machine automatically, stopping for just the right period over each jet. The process is so positive, it can't help producing perfectly uniform cleanliness in every can and cover.

If you want utmost efficiency, durability, speedy performance and satisfaction you can't select a better, more dependable machine than the R & A Rotary—*regardless of how much you pay for it.* Capacities from 120 to 600 cans per hour.

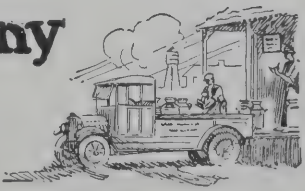
Write us now for detailed specifications and prices.

A.H.Barber-Goodhue Company

TWIN CITY OFFICE
2490 University Ave.
ST. PAUL

Home Office
300 W. Austin Ave.
CHICAGO

216 South
Pennsylvania St.
INDIANAPOLIS



When writing to A. H. BARBER-GOODHUE COMPANY *please mention The Milk Dealer.*

kids is always getting into mischief. But maybe I could think it over."

"I got to know right away," I insists, "because reservations must be in the quicker the better or Elsie and me got to sleep in the boiler room where it's hot if you know anything about boilers. Mr. Olsen just wrote me a letter the other day and says: 'Hurry up, William, if you are coming. Reservations is goin' fast, and we'll have to put you in a hammock unless you git a movin'.' And I, for one, don't want to sleep in no hammock. Do you, ma?"

Just then the kids comes in all wet and dirty from head to foot. They stop on the edge of the doorway, and then both of them chirp out at once: "We love our Aunt Amelia," and each goes over to her and kisses her.

"Such dirty little boys you are," says Sis. "Elsie, why don't you train 'em better so's they keep clean at least?"

"We love our Aunt Amelia," says the kids again like they was recitin' poetry.

"You little dears," Amelia says to them with a motherly smile, puttin' her arms around each one after the other. "So you want to come and visit your Aunt Amelia next summer."

They nods their heads up and down.

"Sure you can come." Then turning to Elsie she says: "What was you sayin' about a Paris dress?"

That fixed it. Later, as I was packing the kids in the car and we were driving away, I says to the wife: "See how easy I worked it?"

"You worked it?" she asks, madder than a wet hen. "Who was it that coached the kids what to say? All you did was to make Amelia sore. Do you think she'd fall for your line of chatter? I fixed it for you, and don't forget it. And then you had the nerve all along to ask me to keep quiet. Huh!"

That ended the conversation, and I just kept on driving and sayin' nothin'. And soon as we got home, I wrote out a wire pronto and sent it to Mr. Olsen tellin' him that everything was K. O. and that we'd be on deck with him when the old boat got ready to toot-toot. So far as I know there is nothin' else to interfere with our trip. But you can never tell about women.

EDITOR'S NOTE—The Mr. Olsen referred to by William is Mr. H. P. Olsen, president of The Olsen Publishing Company, Milwaukee. This company is sponsoring the only official tour to the World's Dairy Congress next year and reservations for passage and trips, etc., are being booked. Join the leaders and send in your reservation now. Full information will be gladly sent to you by The Olsen Publishing Company, 501-515 Cherry St., Milwaukee, Wis.

MILK IN THE FACTORY.

At the Wisconsin State Fair the Gisholt Machine Co., Madison, Wisconsin, featured a pyramid of milk bottles in their booth in Machinery Hall. They have no direct interest in promoting the dairy business, except as an increased use of milk by their employees increases plant efficiency. At least they believe such is the case, and who is in a better position to judge?

"Milk in the Factory" is the slogan of a campaign sponsored by the Wisconsin Manufacturers' Association.

MILK IN THE FACTORY

In the Gisholt exhibit we found several attractive placards, one of which read as follows:

GISHOLT MACHINE CO. USES
600 PINTS DAILY.

Gisholt is one of 22 Wisconsin companies whose employees, while at work, consume a total of 2,900,000 pints of milk each year. Value, $150,000.

This in addition to home consumption.

There is an interesting story in connection with Gisholt's use of milk which comes to us from an authoritative source. When the officials were first approached by the milk interests they laughed at the idea of serving milk to their employees. Finally, they were prevailed upon to give it a trial and this exhibit, in which they spent a lot of money to show their loyalty to milk, is the result.

SENTIMENT IN FAVOR OF PASTEURIZATION OF ALL MILK, INCLUDING CERTIFIED.

Although no official effort has been made to compel, by city ordinance, the pasteurization of all milk sold in Dayton, Ohio, yet there is developing strong sentiment in favor of pasteurization of all milk, including certified milk, according to expressions of opinions made at a meeting of milk distributors of southwestern Ohio recently.

Health Commissioner Peters said that frequent inquiries are made of the division of health as to means of preventing a dishonest distributor from adding raw milk to the pasteurized.

"There is a personal element in all business depending entirely on the honestly of the firm or individual," said Dr. Peters, in answer to the inquiries. "To check every drop of milk sent into Dayton," he continued, "would entail prohibitive cost of inspection. A general check is kept by inspectors here who make frequent examinations of plants, equipment and methods. All pasteurizing equipment must be modern in every respect and must be equipped with time and temperature recording apparatus. It is unwise to buy milk or any other commodity from a dealer whose honesty you may question."

⁂

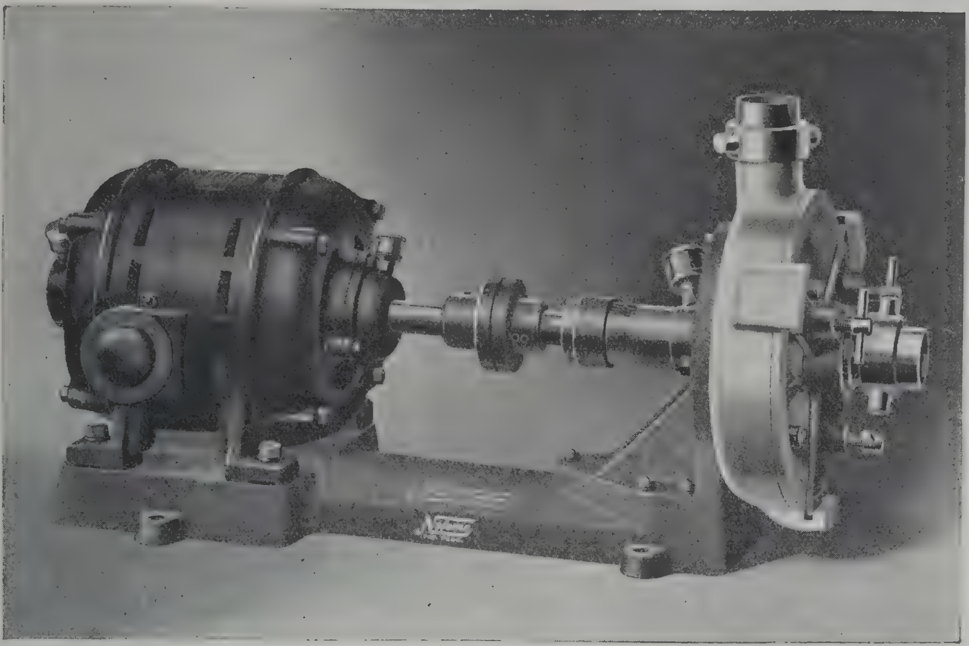
MILK BOTTLE WINS RACE WITH LETTER IN OHIO DELIVERY DERBY.

H. D. Eckert, a director of the Scioto Valley Milk Producers' Co-operative Association, Columbus, O., recently made a comparison of modern milk delivery and mail delivery.

In making this comparison Mr. Eckert used actual experience. He has relatives living on a farm 50 miles from Columbus. He found that if a can of milk were set on the farm platform ready for the milk truck, and a letter dropped into the rural mail box at the same time, that the milk would be transported to Columbus, pasteurized, bottled and delivered to the doorstep of the consumer several hours before the letter would reach a city resident by carrier.

Looking for New Equipment? Read the Advertisements.

Nofome Sanitary Milk Pump



No churning, because the enclosed impeller carries the milk to full periphial speed without the vanes passing through the milk.

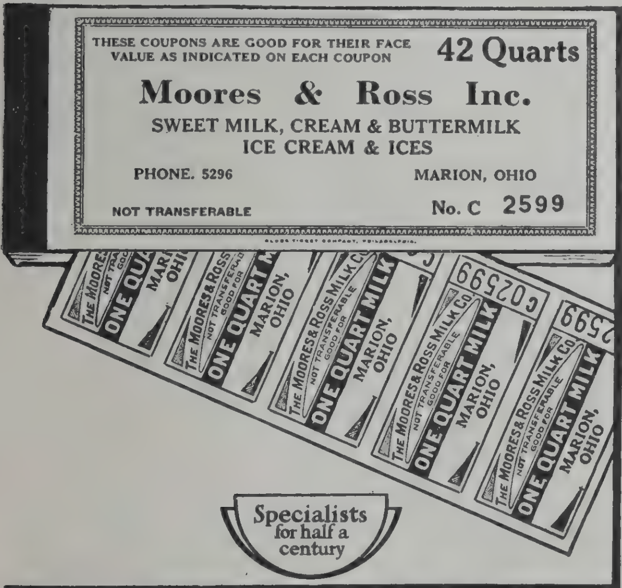
No foam because no air can enter the pump from shaft bearing, nor grease from the same source.

Milk passes through the impeller housing, but the vanes do not pass through the milk, which prevents churning and injury to the cream line.

Let us solve your Pump and Fitting Problems.

Fittings to Fit Your Needs

Manufactured by SPECIALTY BRASS COMPANY, KENOSHA, WISCONSIN
ALBION, NEW YORK



THESE COUPONS ARE GOOD FOR THEIR FACE VALUE AS INDICATED ON EACH COUPON 42 Quarts
Moores & Ross Inc.
SWEET MILK, CREAM & BUTTERMILK
ICE CREAM & ICES
PHONE. 5296 MARION, OHIO
NOT TRANSFERABLE No. C 2599

AMILTON
ILK CO.
T TRANSFERABLE
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Globe Milk Tickets safetyize collections!

SERIALLY numbered milk tickets minimize every danger of loss—through failure to collect from customers on milk delivered or through loss of those collections as made.

More and more progressive distributors are using the ticket method of collection. It places the business to a larger degree on a cash-in-advance basis, regulates credit and is, besides, efficient and economical.

Write for samples and prices on Globe Milk Tickets in standard and special designs.

Globe
TICKET COMPANY
112 North Twelfth Street
PHILADELPHIA
NEW YORK BOSTON BALTIMORE CLEVELAND LOS ANGELES

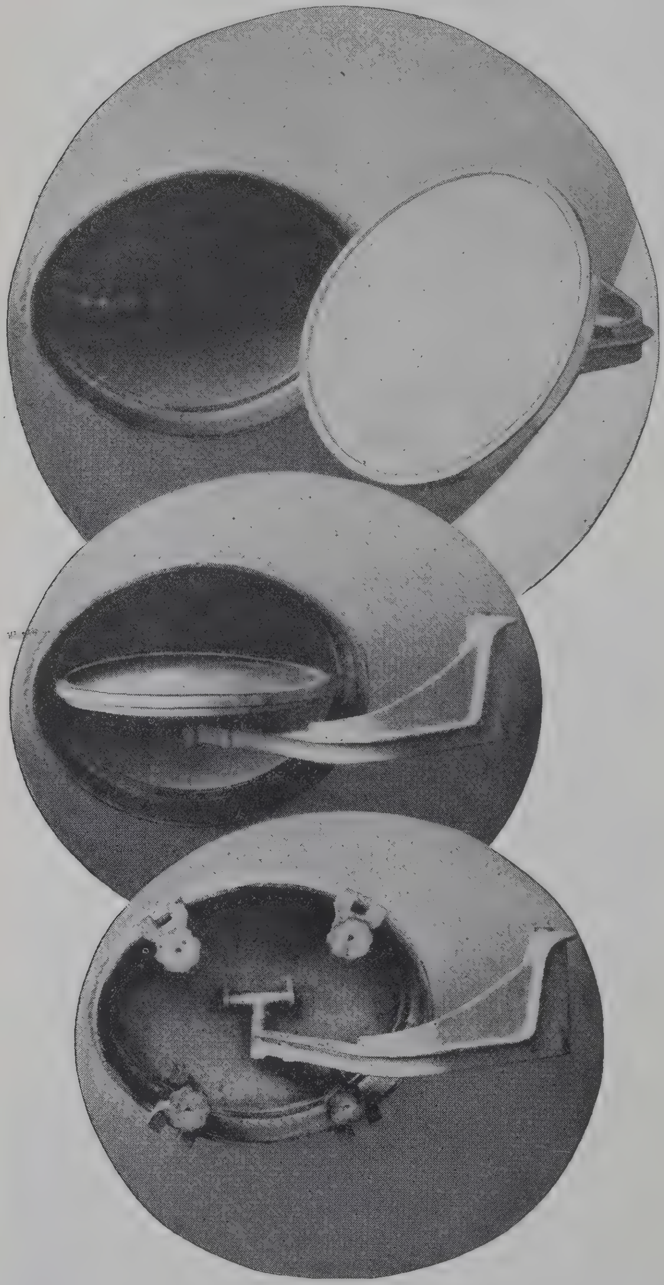
NOTES OF THE TRADE

News of Interest Concerning What Our Readers and Advertisers are Doing to Develop the Industry. We Invite Correspondence Relative to New Products and New Equipment.

NEW INSIDE MANHOLE.

Officials of the Glascote Company, Euclid, O., announce a new inside manhole for all sizes of Glascote horizontal storage tanks.

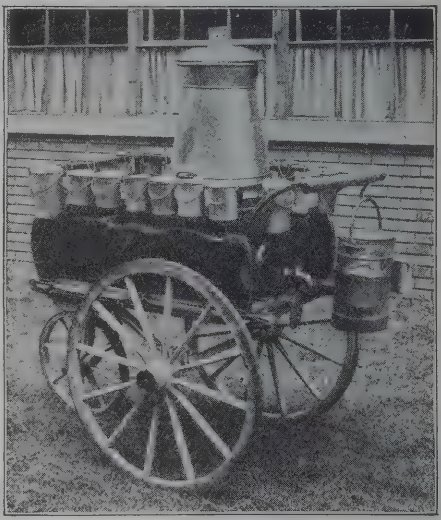
The manhole cover is oval in shape, and is hinged and can be turned so that its smaller diameter passes easily through the larger diameter of the hole, after which it can be turned to the proper position and clamped tight. A pure rubber gasket is permanently fixed to the cover and provides positive protection against leakage. One of the outstanding features of this cover is that it is glass-coated the same as the inside of the tank, thereby providing an interior lining that is completely resistant to corrosion. The new device is now available on all Glascote horizontal storage tanks in capacities from 1,000 to 7,000 gallons. The size of the opening is 15 by 19 inches.



EXPOSITION ATTRACTION IMPORTED.

A curious appearing contrivance for the delivery of milk has been secured from London, England, by the American Dairy Supply Company of Washington, D. C., to be used in conjunction with their exhibit of certified caps at the Dairy Industries Exposition.

Although there are a few dairies in London, including one or two of large size, which employ glass bottles similar to those used in the United States for the bottling of milk, there are still used in the city of London great numbers of small pushcarts, and these obsolete looking affairs contrast so strikingly with the modern methods of milk distribution employed in the United States that the cart to be exhibited is bound to prove of great interest.



The cart is a three - wheeled affair on which is mounted a large brass can, or "churn," holding approximately twenty gallons of milk and topped by a chimney-like cover. Milk is extracted from this container by means of a dipper or through the spigot near the bottom, which extends out from the back of the cart frame. The milk is drawn off into a gallon can, which customarily hangs over a hook on the handle of the cart. From this can milk is taken to the door of each house and measured off with a gill measure into bottles, pans or small metal cans furnished by the housewife. The particular outfit on exhibition at the Dairy Industries Exposition has a supply of twenty-five of these cans, mostly in pint and quart sizes. The cans are made of aluminum or composition metal, with covers fastened by brass hinges. It is a peculiar fact that the milk dealer takes great pride in polishing daily the brass "churn" and the brass work on the small cans, while the other parts of the cans and the cart may be left to accumulate dust, rust—and dents.

Colored post card photographs have been made of the cart, and will gladly be sent to anyone upon request, made at the booth of the American Dairy Supply Company, Spaces 460 and 461, or by mail to the home office in Washington, D. C.

* * *

FOUR NEW BRANCHES.

The Ohmer Fare Register Co., with factory and main office at Dayton, Ohio, announces the opening of sales and service branches at 1428 Bush St., San Francisco; 954 South Flower St., Los Angeles; 135 Elizabeth St., Detroit, and 1631-1633-1635 Pine St., Philadelphia.

* * *

On or about October 1 the Michael Yundt Company's general offices, now located in Milwaukee, will be transferred to its newly enlarged factory at Waukesha, Wis. By this move officials of the company feel that they can render their customers better service and co-operation.

Michael Yundt, president and general manager, will have complete supervision over each department and the manufacture of Yundt air brush bottle washers. Many improve-

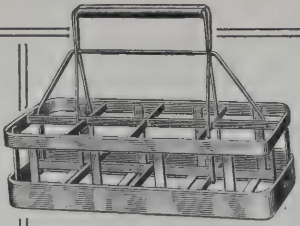
RETINNING

Ice Cream and Milk Cans

HOT GALVANIZING

Sanitary Tinning Co.

3753-63 E. 93rd St. Cleveland, Ohio



"UNITED"

ELECTRICALLY WELDED

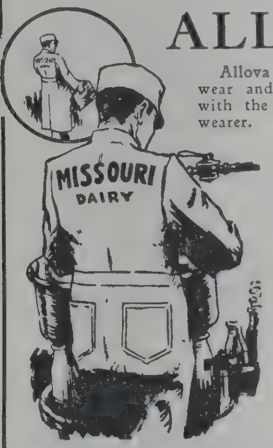
(Round or Flat Wire)

BOTTLE CARRIERS

THE "United" Carrier is stronger and more durable than any other carrier made. Many of them have been in constant use for two, three, four or more years.

If your jobber cannot supply you, write direct.

UNITED STEEL & WIRE CO. Battle Creek, Mich.



ALLOVA Work Suits 3.25 each

Less in Quantities

Allova Work Suits, Coats and Caps are made for long wear and sturdy service, in attractive colors and lettered with the individual name, trademark or monogram of the wearer.

Every seam is stitched to stay. Pockets reinforced with double thickness of material. All buttons covered. Your choice of many colors: solid blue; solid white; solid khaki, blue and white striped; blue and khaki striped. Sizes 34 to 56. We embroider names, trademarks or monograms in fast colors for 25c per garment. Choice of any color embroidery. 24 to 72 hour service.

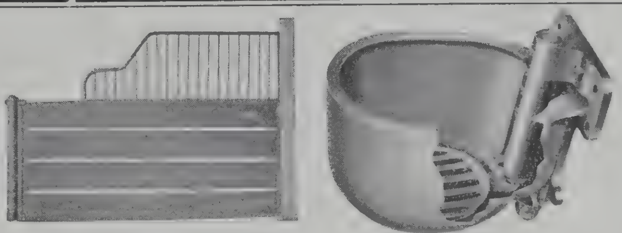
Equip your men at these wholesale prices:

12 Suits or Coats....... **$3.00** each
25 Suits or Coats....... **2.88** each
50 Suits or Coats....... **2.75** each
Sizes 46 to 56 are 10% additional.
Caps .... **.40** each

One Suit or Coat FREE with each dozen lettered all alike.

MOTOR SUIT MANUFACTURING CO., Dept. 294

Plants: Manufacturers Exchange Bldg., Kansas City, Mo.
107 N. Austin, Dallas, Texas. 327 S. Market St.,
Chicago, Ill. 83-85 Walton St., Atlanta, Ga.



HORSE STABLE FIXTURES

Window and Stall Guards—Oat and Hay Mangers, Steel Stall Posts

AUTOMATIC DRINKING CUPS

We manufacture a complete line of horse and dairy barn equipment—Get our prices—Save 20-30 per cent.

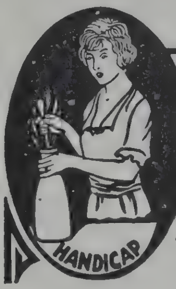
IDEAL BARN EQUIPMENT COMPANY

NO. 5 BARSTOW STREET HORICON, WISCONSIN

See also page 190 in Olsen's Dairy Industries (Condensed) Catalogs.

HANDYCAP

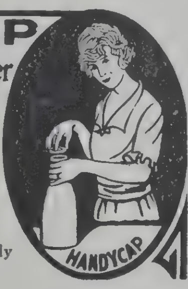
Milk Bottle Opener and Cover



The Old Way

TWO IN ONE
REVERSE SIDE

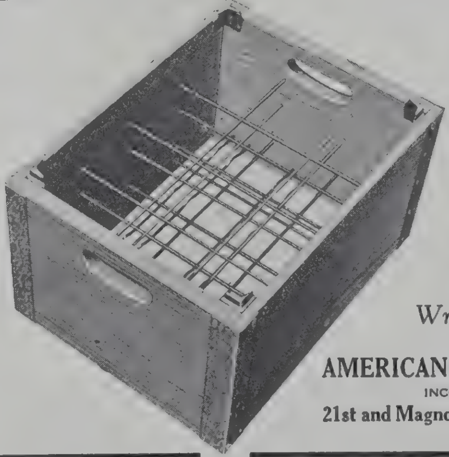
The Handy Cap Way



Good Housekeeping has approved the Handycap. It's a real convenience to the housewife and an excellent means of advertising for the milk dealer.

Ask Your Advertising Specialty Dealer to Show You Samples.

THE HANDYCAP CO. *Sales Office* **Irvington, N. J.**



BOTTLE CRATES

Made of Ash Lumber

Welded Grids
No Loose Wires

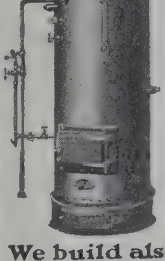
Write for Price

AMERICAN BOX & CRATE CO.
INCORPORATED
21st and Magnolia, LOUISVILLE, KY.

MURRAY IRON WORKS COMPANY

BURLINGTON, IOWA

INCORPORATED FEBY 1,1870



STEAM BOILERS OF ALL STYLES AND SIZES

The cuts show vertical and horizontal boilers requiring no brick work

We build also Water-Tube and Tubular Boilers to be set in Masonry

---

MOND MALLEABLE NICKEL

99%+

FREE-FROM-COBALT

The Ideal Metal for DAIRY Equipment

American Mond Nickel Company, Pittsburgh, Pa.

See also page 136 in Olsen's Dairy Industries (Condensed) Catalogs.

ments are being made in the factory which will facilitate faster and better service. It will be appreciated if after October 1 all correspondence for Michael Yundt Company be addressed to its Waukesha address.

* * *

DIVCO MOTOR CATALOG.

A 20-page booklet entitled "Facts About House to House Delivery" has recently been published by the Divco-Detroit Corporation, 2435 Merrick at Sixteenth, Detroit, Mich. It is "for dairymen only, not for promiscuous distribution," according to the publishers, who offer Divco motor trucks to the milk distributing trade. Milkmen are invited to ask for a copy.

* * *

A NEW HOOD SEAL.

The Sealright Co., Inc., of Fulton, N. Y., offer to the trade a new Hood cap, the "Sealon," which is applied by a special capping machine in which the cap is electrically heated to 280 degrees F. when applied. The cap is made in one piece, of spruce cap board, and is water-proofed by a new process without the use of wax or resin.

* * *

WE ENJOYED OUR VISIT.

It was our pleasure one day recently to thoroughly inspect the mammoth plant of the J. G. Cherry Co., Cedar Rapids, Ia. In company with several other visitors we spent several hours in the different departments where each step in the manufacture of the many items of dairy plant equipment was explained by the plant superintendent. It was a real education in manufacturing efficiency and stock records.

We recalled a visit 28 years previous when the entire investment of the concern was housed in an old red building directly across the tracks from the present wonderful building. A later visit, about ten years ago, also served to remind us of the rapid development that has taken place in building up the firm's business. To see such a business develop in the lifetime of the Cherry brothers—still young men—is an inspiration to any man.

Home of J. G. Cherry Co., Cedar Rapids, Ia.

But what impresses the visitor most is the fact that nothing is left undone to make their products the best that skill and materials can produce. Efficiency is the keynote of plant operation, and a majority of old time employees attests to the harmony and good will that permeates the Cherry organization. Yes, we thoroughly enjoyed our visit.

* * *

TELL US ANOTHER!

Officials of The Pfaudler Company who have apparently just listened to a good story. The snapshot was taken in front of the company's Elyria factory. Reading from left to right: W. D. Pheteplace, vice-president and general manager; W. H. Klee, Ohio and Michigan representative; H. S. Calvert, vice-president in charge of Elyria division; O. W. Greene, chief engineer, Elyria division; R. B. Kilmer, general sales manager.

AN EFFECTIVE CLEANSER AND STERILIZER.

Tests made in dairy products laboratories recently have shown that the combined cleanser and sterilizer manufactured by the Klen-O-Cide Company of Chicago is very efficient in cleaning and sterilizing dairy equipment that is usually covered with a film of milk fat. This is accomplished with little apparent harm to the equipment. The product, "Klen-O-Cide," contains a chlorine germicide, which is practically inert so far as the corrosion of metals is concerned. Metallurgical tests in a New York laboratory proved that this cleanser and sterilizer is apparently harmless to metal dairy products plant equipment.

Applied on pure nickel, after soaking in a cold one per cent solution for one week, the metal lost the minute weight of only .007 gram.

Klen-O-Cide is intended for use in hot solutions. Here the best work is done with the combined effectiveness of the cleanser, the chlorine disinfectant, the heat to clean equipment and utensils thoroughly, and reduce the bacteria count to the minimum. The heat increases the germ killing power of the chlorine a great many times.

The directions for the use of the product, as recommended by the manufacturer, provides for use of one ounce to a gallon of hot water, a simple way of sterilizing of the equipment and utensils while they are being washed. It is claimed that the product is a combination of four different cleaning ingredients, together with a chlorine germicide, which is 50 times more powerful in destroying germs than pure carbolic acid.

One ounce is recommended to a gallon of hot water. It does not contain any lye or caustic—is harmless to hands, clothing or equipment, and is non-poisonous. Users of Klen-O-Cide say that it simplifies the care that must be continuously given to dairy equipment to assure good quality dairy products, and the better prices that they bring. This cleanser and sterilizer is manufactured by the Klen-O-Cide Company, 1044 North Latrobe Ave., Chicago.

* * *

ALLEN AIR-TURBINE VENTILATOR EXPANDS.

The Allen Air-Turbine Ventilator Co., 1040 14th St., Detroit, Mich., have purchased property adjoining their present plant that more than doubles their capacity. New machinery for die cutting, shearing, riveting, etc., is being installed.

This firm manufactures a ventilator for butter, milk and ice cream plants, and other industrials. It consists of a series of blades, or fans, mounted to form almost a sphere. The blades are so shaped that a little breeze causes the whole ball to rotate, and as it revolves the fan blades on the inside of the ball draw the air up from the rooms below. No other motive power is needed. The whole revolving portion rests ing which supports the whole moving part, as well as the upper bearing, are lubricated by means of the Alemite system of lubrication, and need no attention for two or three years after the ventilator is installed.

The spherical shaped propeller consists of a number of strips of sheet metal, either galvanized iron or copper, and are securely riveted, bolted, soldered, and wired in place. Copper is used for ventilators where acid fumes and salt air are to pass through. Armco ingot iron will be used on all other models in the future.

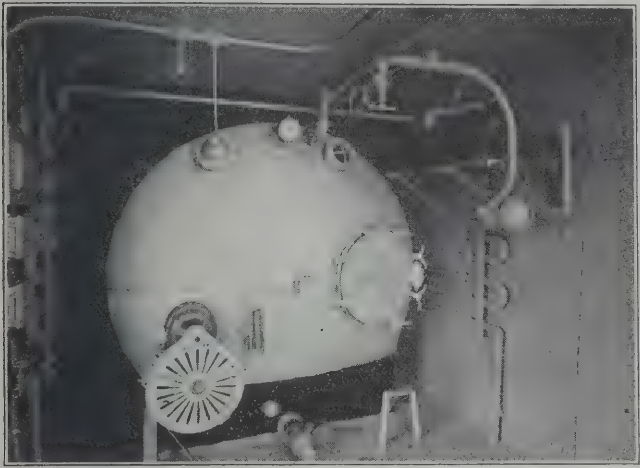
Every ventilator leaving the plant is sprayed with a paint consisting of 50 per cent special acid and salt corrosion resisting paint, and 50 per cent a special paint to resist the elements.

P. F. Kimball is president of the company.

* * *

LINCOLN MOTORS USED ON GLASS-LINED TANK CARS.

The accompanying illustration shows an interior view of one of The General American Tank Car Company's express cars designed for long distance transportation of milk. Two 3,000-gallon tanks are mounted in one car. The illustration shows the end view of one of the tanks.



The tanks are really large milk bottles for, although the tank itself is made of steel, the entire inside surface is coated with glass. On the outside of the steel tank with the glass lining is a layer two inches thick of insulating compound to keep the milk at an even temperature. The tank surface seen in the illustration is a thin sheet metal covering which protects the heat insulation from wear and abrasion. The tank may be illuminated by an electric light which shines through a deadlight and another deadlight is provided, as shown in the illustration, so that the milk may be inspected at any time. The motor shown in the lower left hand section has its shaft connected to an agitator which is used to keep the cream in suspension until the milk reaches its destination. The motor driven blower shown on the shelf in the upper right foreground is used to pump air into the tank after it has been washed to keep it sweet and free from odors. The motors are the product of the Lincoln Electric Co., Cleveland, O.

These modern car tanks transport milk as far as 1,800 miles without deterioration.

* * *

TWO LARGE COLD STORAGE DOOR MANUFACTURERS MERGE.

S. P. Stevenson of the Stevenson Cold Storage Door Company, Chester, Pa., and J. V. Jamison, Jr., president of the Jamison Cold Storage Door Company, Hagerstown, Md., announce the completion of plans for the consolidation of these two companies.

There will be no change in the titles of the two companies, nor in their policies. The full line of products of each company will be made as heretofore, and the manufacturing personnel will remain virtually unchanged. Mr. Jamison will head the merged business concerns. S. P. Stevenson and his brother, Oscar Stevenson, retain a substantial interest and will co-operate in an advisory capacity.

This consolidation brings together the two largest manufacturers of cold storage doors in the world, as well as two of the oldest concerns in the field. The Stevenson Company was started in 1888, being the first known manufacturer specializing in this field. The Jamison Company was started a few years later. From these two organizations have come many products of great value to all type of plants using cold storage, or manufacturing ice, including regular cold storage doors, vertical sliding ice chutes, and the Stevenson door that cannot stand open. With the combined manufacturing facilities, the merged system of distribution and the combined experience of these two cold storage door makers, increased efficiency in serving the trade is a natural sequence.

⁂

Send your news and personal notices to "The Milk Dealer" and see how well they look in print.

Improve your milk

. . . at the farm!

Sell farmers and dairymen these two filtering aids. Our advertising will help

MILK should be filtered *before* it reaches the pail—to catch the bacteria-laden dirt particles before the bacteria have a chance to do harm. That is the verdict of authorities.

Farmers and dairymen everywhere are learning this fact from our advertising—learning to stretch a J & J Filter Cloth over the pail at milking time—and to use J & J Cotton Discs in their strainers.

Sell these aids to *your* supply men. Make sure that your milk is of higher quality before it leaves the farm. Often this precaution will make a real difference in the grading of your milk.

We also make Filter Cloths on order to fit the various machines on the market. All three of these products are chemically pure and aseptic. Write direct to us for prices and free samples.

FILTER CLOTH

COTTON DISCS

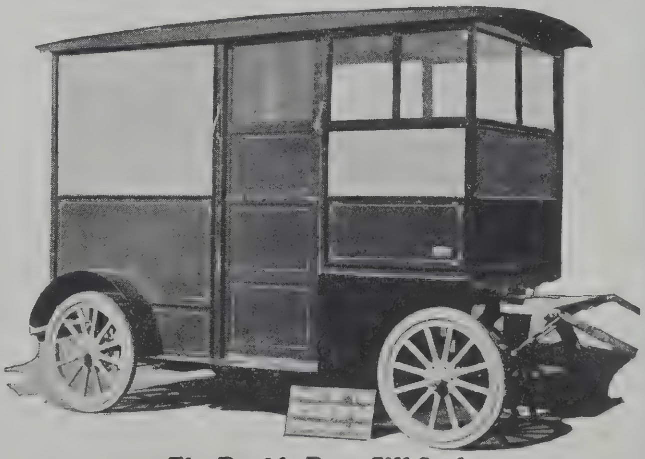
Johnson & Johnson

NEW BRUNSWICK, N. J.

WAGONS

BUILT TO SUIT YOUR

Requirements and Wishes



The Double Drop Sill Style

We are constantly striving to improve our wagons —to make them more practical—more comfortable —better looking lighter weight and draft.

We will gladly talk this over with you.

THE HESSE MFG. COMPANY
LEAVENWORTH, KANSAS

Wagon Builders for 70 Years

THEY DEPENDED ON MILK AND MILK PRODUCTS.

The big Dole Pacific Air Race which started from the Oakland, Calif., airport on August 22, gripped the attention of the civilized world.

The following wire was sent by the pilot and navigator of the winning ship upon their arrival in Honolulu and therein lies a story. But first read the wire:

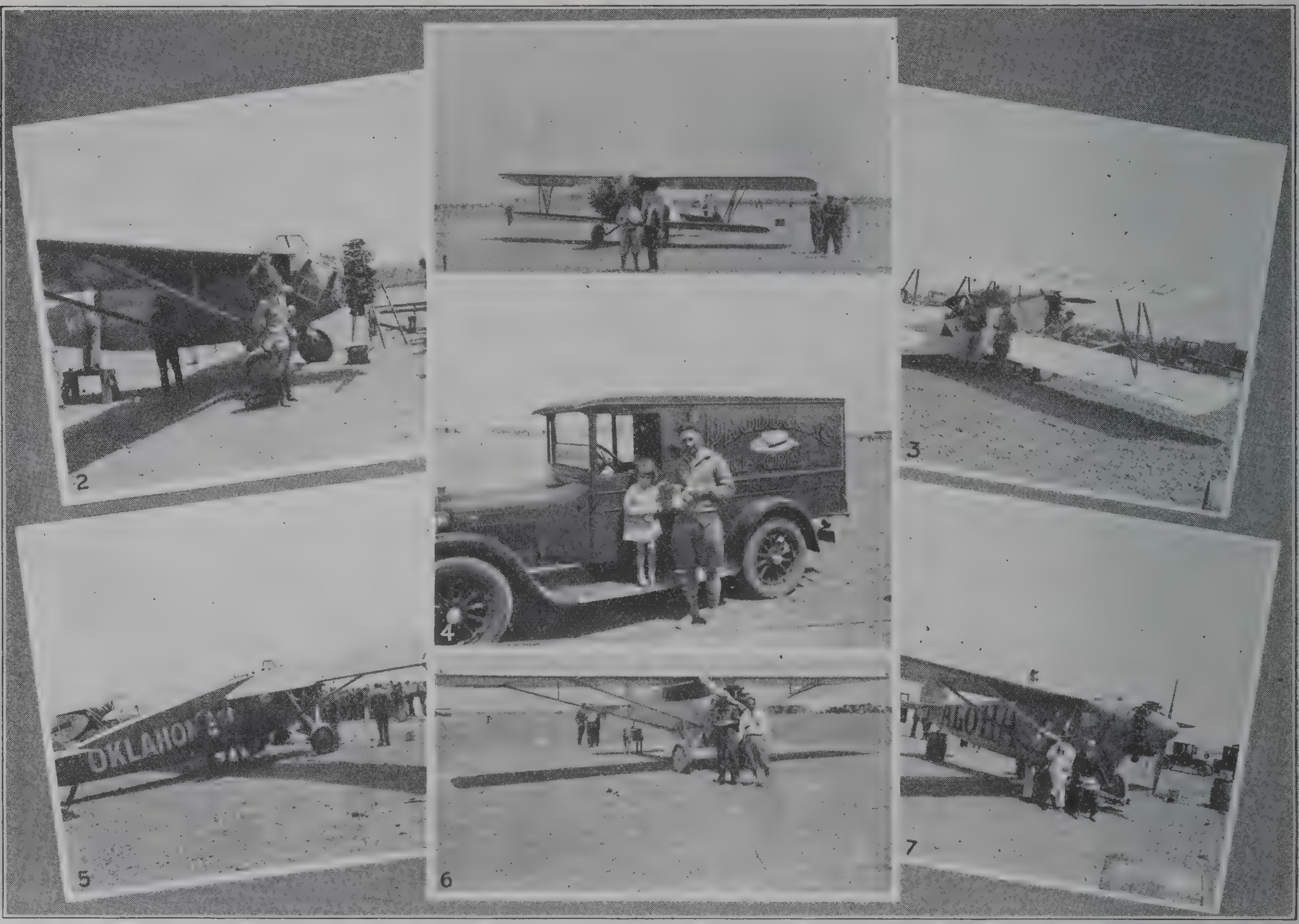
Honolulu, Aug. 27, 1927.

Producers' Milk Co.,
Oakland, Calif.

We wish to express our appreciation of the sustaining and enjoyable qualities of your products that we used in the Dole prize race.

GOEBEL, DAVIS.

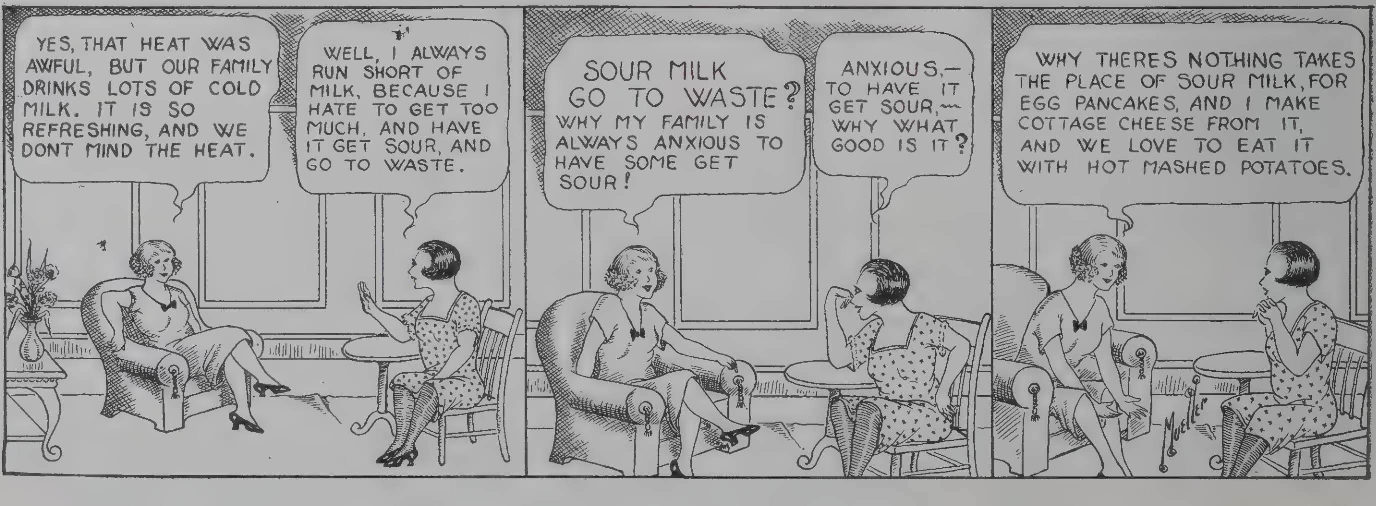
The Producers' Milk Company and the Producers' Ice Cream Company furnished all fliers with milk and ice cream for several days preparatory to their taking off. The "Woolaroc" finished first and the "Aloha" second, while some are still unaccounted for. Thus the cause of aviation is advanced and our friends in the milk and ice cream business in Oakland are to be congratulated on the progressive methods they used to call public attention to their products.


2
3
4
5
OKLAHOMA
6
7
ALOHA

No. 1. The Miss Doran, the ill-fated plane which was lost.
No. 2. The winning plane, Woolaroc.
No. 3. The Air King, disqualified just before the take-off on account of insufficient gasoline storage.
No. 4. The Producers' special delivery truck which supplied the Dole fliers with milk and ice cream.
No. 5. The Oklahoma.
No. 6. The Encanto, which smashed up on the take-off.
No. 7. The Aloha, which finished second.

THE MILK MAN

By E. S. Mueller


YES, THAT HEAT WAS AWFUL, BUT OUR FAMILY DRINKS LOTS OF COLD MILK. IT IS SO REFRESHING, AND WE DONT MIND THE HEAT.
WELL, I ALWAYS RUN SHORT OF MILK, BECAUSE I HATE TO GET TOO MUCH, AND HAVE IT GET SOUR, AND GO TO WASTE.
SOUR MILK GO TO WASTE? WHY MY FAMILY IS ALWAYS ANXIOUS TO HAVE SOME GET SOUR!
ANXIOUS,— TO HAVE IT GET SOUR,— WHY WHAT GOOD IS IT?
WHY THERES NOTHING TAKES THE PLACE OF SOUR MILK, FOR EGG PANCAKES, AND I MAKE COTTAGE CHEESE FROM IT, AND WE LOVE TO EAT IT WITH HOT MASHED POTATOES.
MUELLER

Wedding Bells

"Mr. and Mrs. Pierre Felix Mariette announce the marriage of their daughter, Beatrice Dominique, to Arthur Thompson, on Thursday, the eighth of September, one thousand nine hundred and twenty-seven, Beverly Hills, California."

This is the latest news we get from our good friend, "Art," who is an official of the Thompson-Bremer & Company, 1750 Carroll Ave., Chicago, milk bottle cases, ice cream cans, milk cans, etc.

We join his numerous other friends in extending our heartiest congratulations.

⁂

SURPRISE SCORING CONTEST SHOWS IMPROVEMENT IN LOS ANGELES MILK.

The Los Angeles milk supply now maintains the high rating of 95.5 per cent, which is .2 per cent higher than the previous contest, as a result of a surprise milk scoring contest just completed by the representative of the bureau of dairy control.

This high quality of the milk supply is largely due to the high standard of supervision maintained by the city health department, under the direction of Dr. George Parrish, city health officer, and Dr. William Veit, city veterinarian.

That milk drinking is becoming more and more popular is indicated by an increase in daily consumption of more than ten thousand gallons during the last four months. It is evident that the people of Los Angeles have adopted Colonel Lindbergh's famous request, "Give me a bottle of milk!"

Judges officiating in the contest were Dr. M. E. McDonald, assistant chief, bureau of dairy control; Dr. R. P. Gingerich and H. E. Ball, market milk specialists, bureau of dairy control, state department of agriculture.

⁂

NEW FIRM TO PROMOTE MILK STERILIZATION PROCESS.

Killing bacteria in milk and cream by "crushing" them instead of by prolonged heat applications is the theory back of a process which will soon be offered to dairy plant owners. The Wisconsin Steril Milk Co. of Waukesha, Wis., with George Grindrod, formerly with the Carnation Milk Co., as president, is promoting the process.

A new demonstration plant and laboratory has been erected in the outskirts of Waukesha and the process is now in operation.

The claim is advanced that milk and cream can be made absolutely sterile by exposure to steam for one minute at a temperature of 230 degrees F., using only one or two minutes for advancing the temperature to that point. Of course, special equipment is necessary for the process.

Tests that have been made indicate that there is no cooked taste in the sterilized product and that it will keep sweet for many days under ordinary milk handling methods.

This prominent Southern Textile mill used 300,000 feet of MUNDET JOINTITE CORK BOARD. It was placed on the saw tooth roof shown in the foreground. All names on request. Industries are learning that it pays and PAYS BIG to properly insulate the roof.

This is
NOT A CREAMERY

But every creamery owner and official will doubtless be interested to know that textile mills use tremendous quantities of pure baked cork board.

"For ice making?" some have asked.

No. All authorities agree that there is no insulating material equal to pure baked cork for ice tanks, cold storage houses, refrigerators, cold pipe lines, etc. But textile mills use very little cork for such purposes. What they do is this: They INSULATE THEIR ROOFS with cork. There is no insulation for that purpose that is even a close approach to pure baked cork.

As a reader of Butter, Cheese & Egg Journal you probably are more interested in

Mundet Jointite Cork Board
TRADE MARK

for refrigerating purposes. If so, our Practical Refrigerating Engineers, covering the entire United States and Canada, will gladly go into full detail with you and make recommendations.

Finally, Mundet's contract department will install the cork for you. We are equipped to do it RIGHT.

L. MUNDET & SON, Inc.
461 Eighth Ave. - New York City
Established 1865

Also Manufacturers of Jointite Pure Cork Pipe Covering for ALL Cold Lines.

Dairy Council Plans Striking Exhibit

Initial Year for Services of Newly Organized Educational Display Department Enables National Dairy Council to Create Real Interest at Dairy Products Exposition

WHILE the National Dairy Council will be obliged to have many displays this year owing to the different cities where dairymen will meet for conventions and expositions, the displays will be even more attractive and educational than before. For this is the first year that the National Dairy Council has had available the services of its newly organized educational display department.

At the Dairy Products Exposition in Cleveland, the National Dairy Council will co-operate with the Research Council of the Ice Cream Industry in a display showing the possibilities of increasing consumption of ice cream along similar educational lines to those used for milk and butter. Some of the new exhibit materials and literature of the dairy council especially designed for ice cream manufacturers will be on display.

Many Ideas for Milk Dealers.

The dairy council will have a complete display of its new mechanically operated devices, posters, booklets and outlines of methods used in its educational publicity at the annual meeting of the International Association of Milk Dealers at Columbus. Ample opportunity will be given milk dealers who attend the association's meetings to go over this information from which they can get many ideas for increasing consumption of milk in their own territory, as well as securing a better public appreciation for their products. In line with its established policy the National Dairy Council will emphasize its material of interest to dealers distributing pasteurized milk and cream.

The dairy industry will be represented as never before at the annual meeting of the American Public Health Association in Cincinnati October 17-22, where the National Dairy Council has been requested to plan extensive demonstrations of its methods of health education each day of the meeting for the benefit of public health officers, nurses, doctors and welfare leaders. A more extensive account of this unusual opportunity for the dairy industry to place its story before the public will be printed in a later issue of The Milk Dealer.

"Demand for dairy products will forge ahead of production if the dairy industry's present situation is not recognized by farmers as an opportunity for developing a steady cash market for years to come."

This is the message attractively presented in a long series of booths which will feature the National Dairy Council's education display at the National Dairy Exposition at Memphis, October 15-22. The National Dairy Council is a nation-wide educational organization financed by every branch of the dairy industry, to familiarize the public with the high food value and healthful properties of dairy products.

In the past ten years an increase of twenty-seven per cent has been seen in the per person consumption of dairy products in the United States.

While the number of dairy cattle in the nation have constantly decreased, the only reason that the United States still has a sufficient supply of dairy products is because Americans are consuming more fluid milk and butter, and less is being exported. At the same time the average production of dairy cows has shown a steady increase and dairy farmers have found that herds of high producing cows are more economical of labor and feed than the large number of unproductive cows that once supplied the nation with its most nearly perfect food.

The market for the dairy industry is laid out in the exhibit of the National Dairy Council in a striking man-

(Continued on page 134)

DAIRYWEAVE
Means OBLONG Weave
MILK-FILTERING FABRICS

In Bolts, Bags, Tubes, Flats, Discs, or Special Shapes and Any Yardage.

SUPER-FILTERGAUZE —
(width 36 inches)
SUPER-FILTERFLANNEL
(Two widths—27 and 36 inches)

Ask our Service Department to send you a Dairyweave working sample to fit your filter. It is FREE.

Prickett Manufacturing Co., Hampden, Mass.

WILLIAM H. TIMM
CONSULTING ENGINEER AND ARCHITECT

PERRY BUILDING
Chestnut & 16th Sts.
PHILADELPHIA
PENNSYLVANIA

DAIRY AND ICE CREAM PLANT SPECIALIST
Consulting Service for By-Product Processes

WANT DEPARTMENT

HELP WANTED

(Rate: 2c per word)

WANTED—Salesman to handle a side line article of merit now on the market and selling to the dairies. A good repeater; will help to increase milk sales. Address: D-323, The Milk Dealer. 9-27tf

WANTED—Salesmen calling on dairies to sell our bottle crate on commission. Liberal proposition. American Box and Crate Co., Louisville, Ky. 9-27tf

HELP WANTED—Man to take charge of operating department of up-to-date milk plant, handling 3,000 gallons of milk daily, pasteurized milk, commercial buttermilk and cream; must be expert on starter and commercial buttermilk making. $50.00 a week to start. Address: Barber Bros. Dairy Co., 28th St. and 7th Ave. N., Birmingham, Ala. 9-27

SALESMAN WANTED—Northern Wisconsin and Upper Michigan peninsula for fibre food container, well established, well advertised, commission. References to accompany application. Address: D-506, The Milk Dealer. 9-27

WANTED—One or two men for half or two-thirds interest in growing milk business bottling over 800 gallons daily. Sales cash or tickets. Capital needed for expansion and someone to handle plant or books and drivers. City of 85,000. Real opportunity for full time, willing workers. Write Paulitch's Dairy, 418 East Duffy St., Savannah, Ga. 10-27

NOTICE—Opportunity for sales superintendent with large concern. State essential facts, results in first letter. Confidential. Address: D-507, The Milk Dealer. 9-27

WANTED—To get in touch with dairyman of ability and financial means to operate high class dairy in this community. Big, unfilled demand here for milk at high prices. Wonderful opportunity for right man. Beautiful, pleasant, all year climate. Tomoka Farms, Inc., Room 2, Woolworth Bldg., Daytona Beach, Fla. 9-27

HELP WANTED—Men desiring connection with a future, possibly interest in dairy business. Must be a route builder himself — a convassing salesman and otherwise capable of taking care of all field work. We have the quality, grade A only, and are now ready to grow. Address Marks' Dairy, Farmingdale, Long Island, New York. 9-27

MISCELLANEOUS.

NOTICE—Clients who have an expansion program, surplus problem, better machinery arrangement, man hour study of operations, design suitable dairy or creamery buildings, machinery required and lay-outs, installations and made to operate. Write us for our proposition. Address: D-407, The Milk Dealer. 9-27

POSITION WANTED

(Rate: 2c per word)

POSITION WANTED—As manager or superintendent of milk plant. Lifetime experience, all lines. Can handle men. Dairy school course, New York testers' and managers' license. Pennsylvania testers' license. Good references. Change of ownership is reason for new connection. Expert on commercial buttermilk, sour cream and cottage cheese. Can come on short notice. Address: D-476, The Milk Dealer. 9-27

NOTICE—Solve your sales problem now. Salesmanager with milk sales promotion experience, American, age 33, married, Masonic, have auto. Prefer yearly contract, salary and commission. Willing to act as route foreman. Prefer South-East, but willing to go anywhere. Can invest. Address: D-501, The Milk Dealer. 9-27

RATES

2c per word for ads placed under headings "Help Wanted" or "Position Wanted."

5c per word for ads placed under all other headings — "Wanted to Buy," "For Sale or Exchange," etc.

In computing amount of remittance, add six (6) extra words if wanted published under Blind Address.

Bold Type—Double regular rates.

Minimum Charge—50c.

Blind Address — EXTRA — 25c in U. S. only; 65c Foreign — To cover postage in sending out replies from this office.

REMITTANCE MUST ACCOMPANY ORDER.

IT PAYS TO ADVERTISE

NOTE: Names and addresses of advertisers using blind addresses cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of this paper.

NOTICE

The publisher disclaims any responsibility for the reliability of parties advertising in the Want Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting suspicious dealings.

We reserve the right to refuse to accept advertisements which we believe are detrimental to the dairy industries.

Want Ads are accepted up to 7th of month preceding date of issue. Forms close on that date.

POSITION WANTED—By dairyman as all around man with several years experience in pasteurizing milk and cream, making commercial buttermilk, cottage cheese. Capable of taking charge of small plant. Can furnish best of references and can come on short notice. Address: D-497, The Milk Dealer. 9-27

POSITION WANTED—As milk receiver, tester. Five years experience, dairy school training, married, 32 years of age. Am employed at present. Wish to connect with some good plant with chance for advancement. Address: D-500, The Milk Dealer. 9-27

POSITION WANTED—By young man with ambition, thoroughly experienced in the operation of the small milk plant; would like to hear from one that needs a reliable man. Address: D-491, The Milk Dealer. 9-27

POSITION WANTED—By man with 18 years experience in all branches of the retail business; also sales promotion. Address: D-502, The Milk Dealer. 9-27

POSITION WANTED — Preferably in a Southern or Southwestern state with a progressive dairy. A small dairy that wishes to grow or a large organization in need of a seasoned man. Life experience in wholesale and retail marketing of dairy products. Especially expert in reducing overhead, developing sales and handling men. Thoroughly understands the handling of dairy products, both inside and out of plant. Now employed as sales and advertising manager with one of the largest dairy companies in the country; 130 per cent increase retail business last three years. Address: D-487, The Milk Dealer. 9-27

POSITION WANTED—By young man with general experience in plant operation. Three years foreman of mixing room. Technical training. Can furnish references. Married. Address: D-511, The Milk Dealer. 9-27

FOR SALE or EXCHANGE

(Rate: 5c per word)

BUSINESSES

FOR SALE—A completely equipped milk plant bottling 350 gallons of milk in town of 6,000 in middle states. Only plant in town with pasteurized milk ordinance This plant is clearing $600-$700 per month. Good reason for selling. $10,500, with terms to right party. Address: D-402, The Milk Dealer. 9-27

FOR SALE—Retail milk and ice cream business in thriving city of 50,000. For further information address: D-492, The Milk Dealer. 9-27

FOR SALE—Creamery and milk plant established 15 years ago by present owner. In fast growing dairy section, city of 13,000, excellent railroad connections. Present investment in building and equipment, $50,000; in very fine condition. Have made $100,000 during this period besides family expenses. Wish to retire by January 1, 1928, or will keep creamery one year longer and show party our business methods if desired. If interested state amount of capital you will be able to invest. Address: D-496, The Milk Dealer. 9-27

MACHINERY AND SUPPLIES.

FOR SALE—One new $640 Cresco 200-gal. pasteurizer with motor direct connected. Sacrifice price, $490.

One new $75 Milwaukee bottle drainer. Sacrifice price, $55.

One new $325 Alvey bottle case elevator. Sacrifice price, $275.

One rebuilt C-P 150-gal. coil pasteurizer. Sacrifice price, $225.

One No. 12 $110 De Laval separator; universal drive, used only about 6 months. Sacrifice price, $67.50. Address: D-270, The Milk Dealer. 9-27tf

FOR SALE—One Ladd blue line big six bottle washer, capacity six crates per minute; machine guaranteed good as new; price including motor less than one-half of original cost. Address: The Union Engineering Company, Cuyahoga and West 4th St., Cleveland, O. 9-27

FOR SALE—Two spray vats, capacity 300 gals. These vats have been used four months, will sell for $400 each; 3 starter cans, 75 and 100 gals.; 2,500-lb. cooler. This equipment is in good condition. Union Dairy Company, Freeport, Ill. 11-27

FOR SALE—One 12-h.p. upright boiler; one 18-h.p. upright boiler; one 3-brush R. G. Wright bottle washer and sterilizer; one R. G. Wright bottle filler. Above machinery is as good as new. For prices write Olbrych's Dairy, Amsterdam, N. Y. 11-27

FOR SALE—Completely equipped dairy in Eastern Pennsylvania handling over 3,000 quarts milk daily, yielding yearly profit of not less than $12,000. Address: D-480, The Milk Dealer. 9-27

NOTICE—The entire equipment of the bankrupt estate of The Jefferson Dairy Company, handling 6,000 gallons of milk daily, is offered for sale at bankrupt prices. All equipment is in good condition. One 8,000-lb. per hour Burrell holder with heating and cooling units, milk pumps, steam pumps, receiving vats, cooling vats, Milwaukee bottle fillers, churn and full line of dairy equipment. Also 35 ball-bearing milk wagons at very low prices. If you need this equipment write Barber Bros. Dairy Co., 28th St. and 7th Ave. N., Birmingham, Ala. 9-27

(Want Department continued on next page)

FOR SALE—Three steam driven Sharpless clarifiers, cost new $1,500, at $200.00 each F. O. B. Chicago. Used three months. Acme Oil Corp., 189 No. Clark St., Chicago, Ill. 9-27

FOR SALE — Refrigeration Machines — Used—We have several used and new machines of nationally known make, which we can sell at a big saving to you. Will erect and guarantee the plants fully. Address: Erecting Engineers Company, 4725 West Lake St., Chicago, Ill. 9-27tf

FOR SALE—Here is an opportunity. New Davis rotary filler, Junior size, Model 640, motor driven, cost $700. A reasonable offer takes it. Also nearly new De Laval separator, capacity 2,500 lbs. per hour, direct motor drive, for $125. Cost $185. We also have several tubular milk coolers, large and small sizes. Address Merkle Dairy Company, 2727 N. Halsted St., Chicago, Ill. 9-27tf

FOR SALE—One Yundt air brush bottle washer, capacity 120 bottles per minute. complete with motor driven air compressor, 3 phase, 60 cycle, 220 volt motors and conveyors. Used about 2 years. In good mechanical condition. Original cost installed $15,000. Will sell for $7,000, f. o. b. St. Louis. Write to the Meyer-Blanke Company, St. Louis, Mo. 9-27

FOR SALE—Kunsman Milk Advertising Talks, Series No. 2. A year's campaign—57 ready written ads—only $5.00. Money back if not satisfied. Kunsman Ad. Service, 29 Reed St., Reading, Pa. 10-27

A motor truck, milk wagon—in fact, anything of interest to milk dealers, can be disposed of through "The Milk Dealer" Want Department.

FOR SALE—Rebuilt and guaranteed dairy equipment at worth while savings. Write for price list. Lincoln Equipment Company, 2611 Stevens Ave., Minneapolis, Minn. 9-27tf

FOR SALE—Cherry ripener-pasteurizer, 800 gal. capacity, belt drive, splendid condition. Kendall two-section milk cooler, 1½ in. enclosed tubular type, used two weeks, brand new. These two machines are for sale at a price which will move them at once. Clintonville Milk Co., Clintonville, Wis. 10-27

FOR SALE—Account insufficient capital opportunity now to buy milk plant. Sales about $150,000 per annum. Don't delay. Address: D-508, The Milk Dealer. 9-27

WANTED TO BUY

(Rate: 5c per word)

WANTED—Used pasteurizing vats, coolers, ice breakers, ice cream cans and tubs, churns, etc. Send us list of what you have for sale. B. Riley Hauk & Son Company, 201 S. First St., St. Louis, Mo. 9-27tf

WANTED TO BUY—Several second-handed, heavy, single milk wagons. Address: D-478, The Milk Dealer. 9-27

WANTED—Used 7-ft. condensing pan and vacuum pump. The Polk Sanitary Milk Co., 1100-1112 E. Fifteenth St., Indianapolis, Ind. 9-27

WANTED—To buy or lease with option of buying a good paying retail milk plant. Must be in a good business town. Address: D-439, The Milk Dealer. 9-27

WANTED—Small vacuum condensing pan outfit complete. State full particulars and minimum price in first letter. Address: D-489, The Milk Dealer. 9-27

A motor truck, milk wagon, in fact, anything of interest to milk dealers, can be disposed of through The Milk Dealer "Want Department."

WANTED TO BUY—In eastern Pennsylvania, well established dairy business that is operating on profitable basis. Address: D-479, The Milk Dealer. 9-27

WANTED—50 or 100-gal. cheese vat. Address: Paul Chanter, 321 Griswold St., Jackson, Mich. 9-27

WANTED—A large wholesale wagon in good condition. Address: Paul Chanter, 321 Griswold St., Jackson, Mich. 9-27

ner. As the thousands of people enter the exposition building they will be confronted with a beautiful blue and white polar scene, where fur clad sailors are maneuvering a ship through glaciers and icebergs of the North. The ship is in motion and in the background is a play of northern lights making a setting for the story of how attractive and necessary a food ice cream has come to be in the American diet.

Typifying the nation-wide educational program of the dairy industry is a large exhibit showing a group of school children listening to their teacher outlining the desirable habits which they must assume to be healthy and happy. Here the youngsters learn that dairy products are but one of the necessary adjuncts to a vigorous healthy life. The largest part of the National Dairy Council's educational work is conducted among school children through a series of health education projects, with suitable literature, which school teachers and school nurses are using in nearly every city in the United States.

The necessity of a clean milk supply to assure the dairy industry of a satisfied consuming public is emphasized in another section of the National Dairy Council display. Here the best types of feed, clean milking methods and utensils, proper cooling and pasteurization of the milk before bottling and other methods of maintaining a high quality milk supply are shown.

Uses of dairy products in the home, factory, office, bakery and school are picturesquely displayed in still another part of the extensive National Dairy Council's exhibit. How the housewife gets a uniformly high quality butter is shown in one booth, where a mechanically operated dairy cow is chewing away at her feed while milk is passing through the snow-white creamery where men in white jackets churn the golden product of Mother Nature into a highly nutritious and essential food for the maintenance of the health of the nation.

A large health food show is one of the principal attractions of the National Dairy Council's display, and will in itself be well worth seeing. Here attractive girls, representing the nation-wide 4H Boys' and Girls' Club movement, will demonstrate the proper balancing of meals and other health requirements of the typical American family. Boys and girls, and their mothers, will be given a rare treat each day of the National Dairy Show when these health food demonstrations are opened for their inspection free of charge.

Motion pictures will be a daily free feature of this educational display in co-operation with the United States Department of Agriculture, and thousands will be thus given an unusual and interesting "movie" show. They will, at the same time, learn of the dairy industry's methods of educating the public to an increased appreciation of dairy products and the opportunity for the agricultural sections of the South to develop a new source of steady income.

FREDERICK E. SEILER, FORMER BEST KNOWN NEWARK, N. J., MILKMAN, DIES.

Frederick E. Seiler, 72 years of age, formerly one of the best known milkmen in Newark, N. J., died at his home in that city on July 6.

Fifty-five years ago Mr. Seiler started a milk route in Montclair on which he served 14 customers. A decade ago, Mr. Seiler gave up the presidency of Seiler Brothers, Inc., then one of the largest wholesale milk and cream firms in northern New Jersey, to form the Newark branch of Harrington & Co. of Philadelphia, Pa., whose distribution of dairy products is national in scope.

REPORT ON PROPOSED SUPERVISION OF MILK SUPPLIES IN HAVANA.

A report on the proposed supervision of milk supplies in Havana has been prepared by Trade Commissioner Merwin L. Bohan and submitted to the foodstuffs division, department of commerce. This report covers divisions of the city, methods of gathering and testing samples, regulations for distributing milk, etc. A copy of this report will be furnished upon request by the foodstuffs division.

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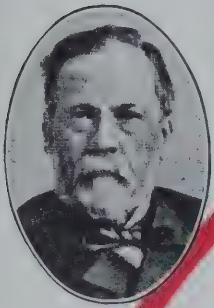
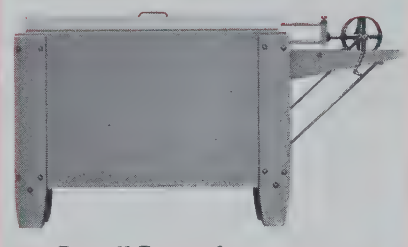


1822 — 1895

Yesterday and Today in Pasteurization

and the part CP has played



Russell Pasteurizer

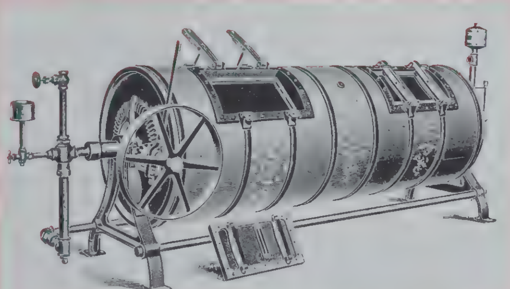
As a pioneer pasteurizer builder, The Creamery Package Mfg. Company believes it opportune to review briefly some historical facts.

Louis Pasteur, for whom the process is named, was born December 27, 1822 and died September 28, 1895. While he did not work with milk, he laid the foundation upon which the whole structure of modern milk pasteurization is built.

Our first pasteurizer was the Russell, so named because it was built according to designs approved by Dr. H. L. Russell, then Bacteriologist, now Dean, of the Wisconsin College of Agriculture. It was built before 1895 by Cornish, Curtis and Greene at Fort Atkinson, Wisconsin in what is now our Fort Atkinson works. The cut herewith is from a photograph of machine used at University Creamery, Madison, Wisconsin, for several years prior to 1898.

Milk was pasteurized in a relatively long, deep and narrow vat surrounded by a water jacket. A flat blade agitator moved back and forth in the milk. Another traveling agitator operated in the water space to facilitate exchange of temperature. Heating, holding and cooling, all were accomplished within the machine. Two features worth mention were, the overlapping cover which prevented entrance of dust and moisture, and, the round bore outlet cock located within the water space and operated by handle from above. The apparatus was crude but bacteriologically sound and would pass muster today.

The next machine made and sponsored by the Company was the Potts. The milk was treated within a cylindrical vessel entirely surrounded by water. Revolving the drum agitated both milk and medium and it heated and cooled quite rapidly. The outlet was through a gate valve outside the machine with a nipple connection to the interior. At each revolution of the drum the nipple was emptied of milk at the top and refilled as it again reached the milk level—not a flush valve, but no cold dead ends, either.



Potts Pasteurizer

The Potts came into general use. It was scientifically right and would meet today's requirements. It gave way to the demand for more speed and capacity to handle larger volumes of milk.

Thus briefly is outlined the beginning of our experience in pasteurization. In the intervening quarter century we have built machines of various types to meet the changing demand for speed, capacity, economy and quality of product. Every demand of the industry, every requirement of the health authorities has found us prepared to meet it.

and now?

At the coming Dairy Industries Exposition, we will exhibit some new equipment which we believe will convince you of our ability to continue to meet the demands.

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CHICAGO ILLINOIS

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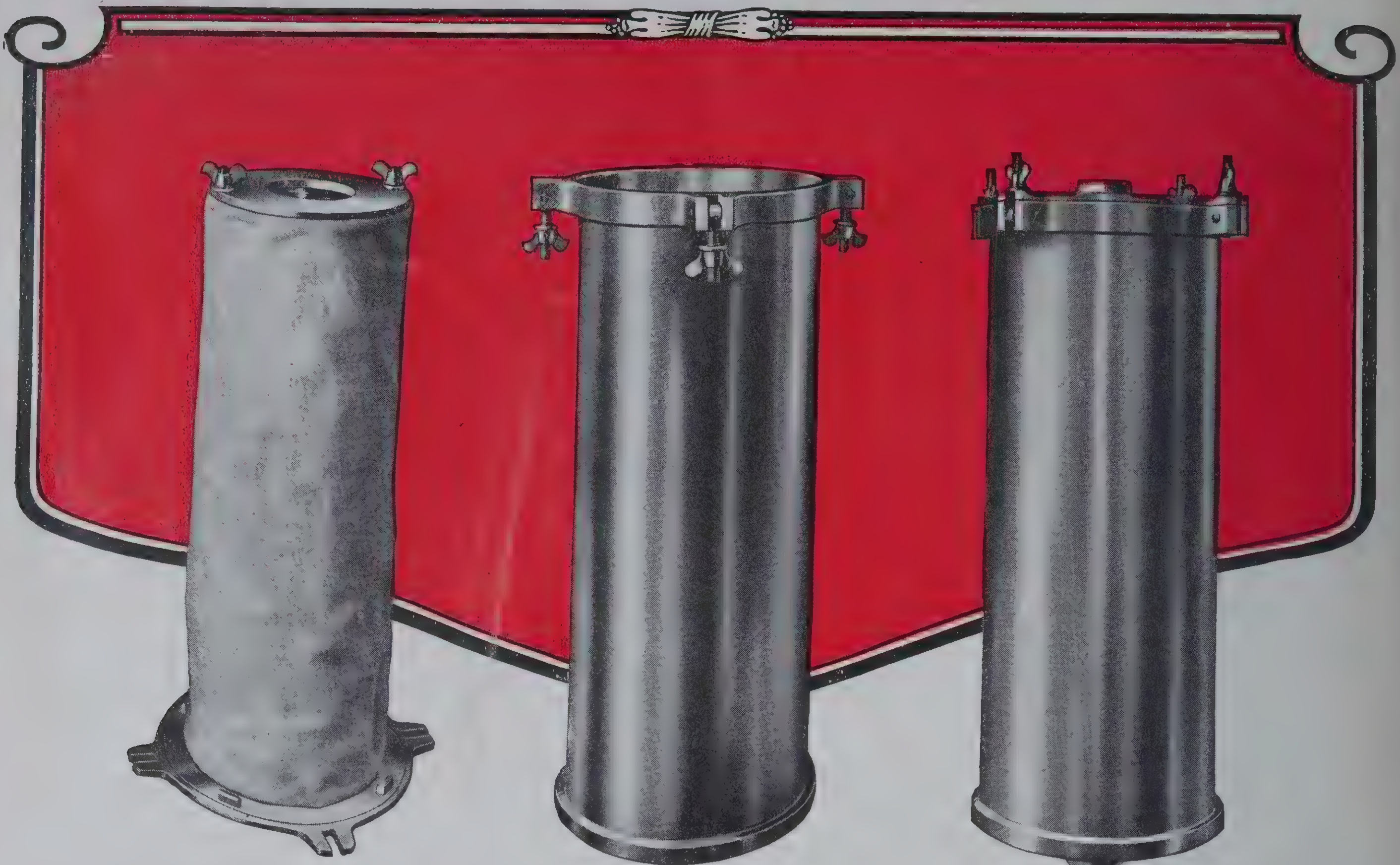

Cloth placed over frame ready to be set into shell

Outside shell—empty

The YORK Filter completely assembled

Illustrations show No. 1 YORK Filter, capacity up to 6,000 lbs. per hr.

A New Milk Filter

in which the cloth is placed in position before being assembled

THE YORK Milk Filter is the very latest type of improved filtering device. Since the cloth is placed in position before being assembled, you are able to see that it fits properly and that no milk is passing through unfiltered.

There are no wires or screens to clog or catch the dirt. Simplicity of design makes it extremely simple to operate. The cloth is the only part which must be replaced. The filter can be taken completely apart and cleaned thoroughly. The ease with which this can be done causes little wear and therefore long life.

The YORK Milk Filter is made of 2-ply tinned heavy copper sheet and brass castings heavily tinned all over. Like all other YORK products, it is produced—

"For Better Milk Handling"

For further information or prices, write

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